# THORA
## elektronik

STROMVERSORGUNGSELEMENTE
THERMAL MANAGEMENT
ELEKTROMECHANISCHE BAUELEMENTE
EMV-PRODUKTE

Q-FLEX
www.q-flex.fi info@q-flex.fi
+358 2 4894 500

THORA elektronik

## WIR BIETEN:

- ☐ Große Lagerverfügbarkeit von Katalogprodukten
- ☐ Technische Beratung vor Ort
- ☐ Kostenlose Muster
- ☐ Kundenspezifische Lösungen bzw. Sonderteil-Fertigung
- ☐ Alles aus einer Hand (Reduzierung der Lieferanten)
- ☐ Kanban-Logistik
- ☐ C-Teile-Management

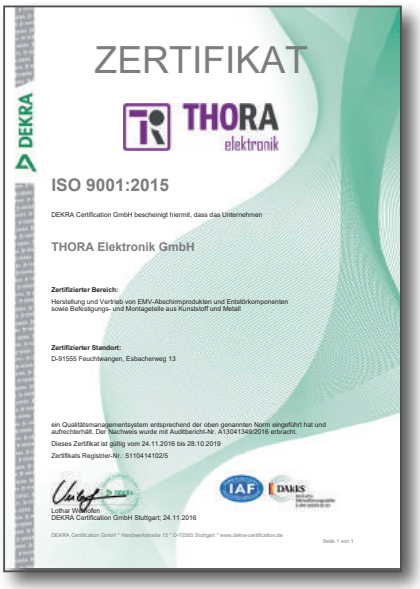
## WIR SIND:

- ☐ Inhabergeführt und kundenorientiert
- ☐ Seit 1991 partnerschaftlicher Lieferant für Industrie und Handel
- ☐ Motiviert und kompetent
- ☐ Innovativ
- ☐ Flexibel
- ☐ Fair

RoHS konform

REACH

Qualitätsmanagement ISO 9001 www.dekra-engel.de DEKRA zertifiziert



ZERTIFIKAT

THORA elektronik

DEKRA

ISO 9001:2015

DEKRA Certification GmbH bescheinigt hiermit, dass das Unternehmen

THORA Elektronik GmbH

**Zertifizierter Bereich:**
Herstellung und Vertrieb von EMV-Abschirmprodukten und Entstörkomponenten sowie Befestigungs- und Montageteile aus Kunststoff und Metall

**Zertifizierter Standort:**
D-91555 Feuchtwangen, Eisbacherweg 13

ein Qualitätsmanagementsystem entsprechend der oben genannten Norm eingeführt hat und aufrechterhält. Der Nachweis wurde mit Auditbericht-Nr. A1304134/2016 erbracht.

Dieses Zertifikat ist gültig vom 24.11.2016 bis 28.10.2019

Zertifikats Registrier-Nr.: 5110414102/5

Lothar Wilmsen
DEKRA Certification GmbH Stuttgart; 24.11.2016

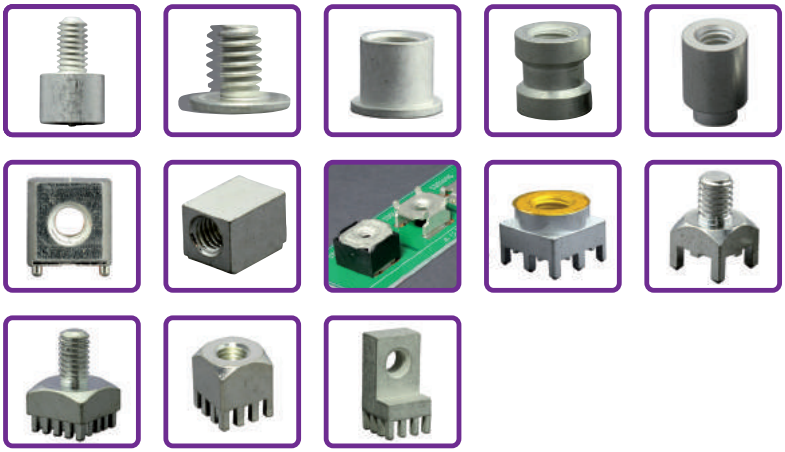
DEKRA Certification GmbH * Handwerkstraße 15 * D-70565 Stuttgart * www.dekra-certification.de

Seite 1 von 1

▪ Wir sind DIN EN ISO 9001 zertifiziert

# inhalt

Seite 5 - 32 POWERELEMENTE



Seite 33 - 94 LEITERPLATTENBEFESTIGUNG / LED-ABSTANDHALTER

Seite 95 - 163 ABSTANDSBOLZEN / ABSTANDSHÜLSEN

# Hauptkatalog

## KONTAKTTEILE FÜR LEITERPLATTEN

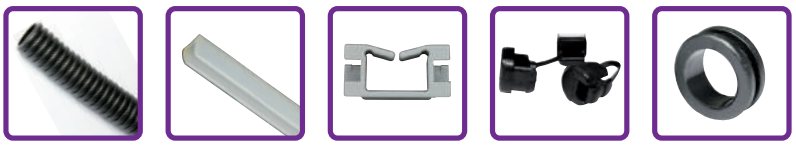
Seite 169 - 175

## KABELBEFESTIGUNG

Seite 177 - 254

## KABELSCHUTZ

Seite 255 - 272



## SCHRUMPFSCHLÄUCHE

Seite 273 - 289

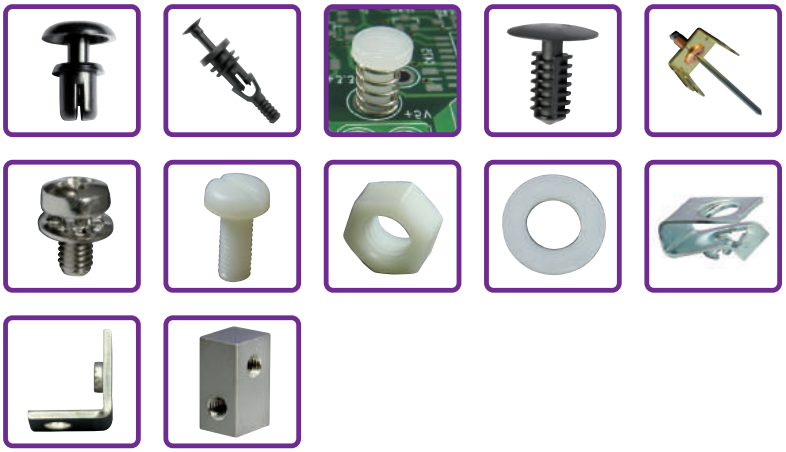
## KABELVERSCHRAUBUNGEN

Seite 291 - 294

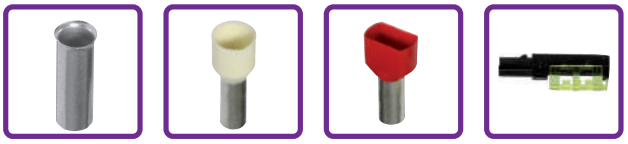
Seite 295 - 313 GEHÄUSEZUBEHÖR

Seite 315 - 332 DÄMPFUNGSTECHNIK

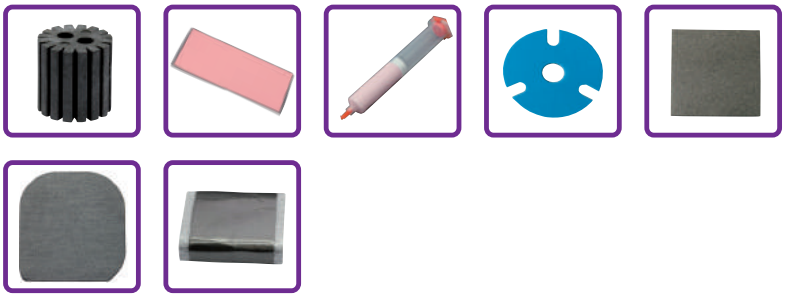
Seite 333 - 366 ALLGEMEINE MONTAGETEILE



Seite 367 - 371 ADERENDHÜLSEN / STECKVERBINDER



Seite 373 - 395 THERMAL MANAGEMENT



## EMV-ABSCHIRMPRODUKTE

Seite 397 - 457

# POWERELEMENTE

| | |
|---|---|
| Powerelemente SMT, Außengewinde | Seite 6 - 8 |
| Powerelemente SMT, Innengewinde | Seite 9 - 16 |
| Powerelemente SMT, weitere | Seite 17 |
| Powerelemente THT, Innengewinde | Seite 18 - 23 |
| Powerelemente THT, Außengewinde | Seite 24 |
| Powerelemente Einpresstechnologie, Außengewinde | Seite 25 |
| Powerelemente Einpresstechnologie, Innengewinde | Seite 26 - 29 |
| Powerelemente Einpresstechnologie, Innengewinde, 90° | Seite 30 - 32 |

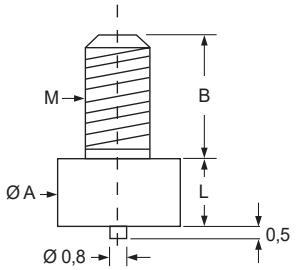
NEU

# AH-SMIA SMD-ABSTANDHALTER

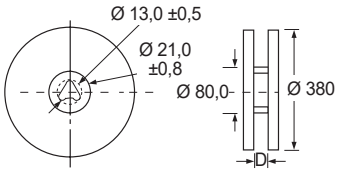
## Merkmale

- Reflow lötbar, Automaten bestückbar
- geeignet als Stromanschlußelement (bis 40A)
- Nennstrom M2: 10A, M3: 30A, M4: 40A
- Anzugsdrehmoment: M2 < 20 Ncm, M3 < 50 Ncm, M4 < 60 Ncm
- kleiner Zapfen an der Unterseite verhindert eine Fehlausrichtung beim Lötvorgang. Hierzu ist ein Ø 1 mm Loch auf der Leiterplatte notwendig.
- Material: Messing
- Oberfläche: verzinnt
- empfohlene Lötmitteldicke: 150 - 200 µ (bitte gleichmäßig auftragen)

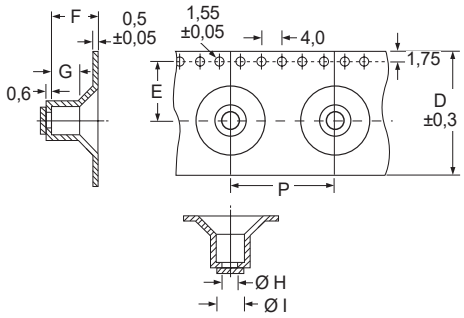
## Abmessungen ► Einheit = mm




Reel




Tape

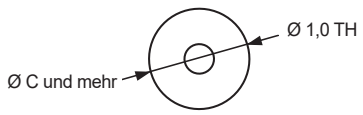



| Typ | L (mm) | Ø A (mm) | B (mm) | M (mm) | Tape (mm) D | E | F | G | H | I | P | Packeinheit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AH-SMIA-M2-1 | 1,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-1-T | 1,0 | 4,0 | 5,0 | M2 | 16,0 | 7,5 | 6,8 | 4,5 | 2,8 | 4,2 | 12,0 | 900 pcs/reel |
| AH-SMIA-M2-2 | 2,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-3 | 3,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-4 | 4,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-5 | 5,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-6 | 6,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-7 | 7,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-8 | 8,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-9 | 9,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M2-10 | 10,0 | 4,0 | 5,0 | M2 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-1 | 1,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-1-T | 1,0 | 6,0 | 6,0 | M3 | 24,0 | 11,5 | 8,2 | 5,5 | 4,0 | 6,2 | 16,0 | 600 pcs/reel |
| AH-SMIA-M3-2 | 2,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-2-T | 2,0 | 6,0 | 6,0 | M3 | 24,0 | 11,5 | 8,2 | 5,5 | 4,0 | 6,2 | 16,0 | 500 pcs/reel |
| AH-SMIA-M3-3 | 3,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-4 | 4,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-5 | 5,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-6 | 6,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-7 | 7,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-8 | 8,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-9 | 9,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M3-10 | 10,0 | 6,0 | 6,0 | M3 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-1 | 1,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-1-T | 1,0 | 8,0 | 7,0 | M4 | 24,0 | 11,5 | 9,1 | 6,1 | 6,0 | 8,2 | 20,0 | 300 pcs/reel |
| AH-SMIA-M4-2 | 2,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-2-T | 2,0 | 8,0 | 7,0 | M4 | 24,0 | 11,5 | 10,1 | 6,7 | 6,0 | 8,2 | 20,0 | 300 pcs/reel |
| AH-SMIA-M4-3 | 3,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-4 | 4,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-5 | 5,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-6 | 6,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-7 | 7,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-8 | 8,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-9 | 9,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |
| AH-SMIA-M4-10 | 10,0 | 8,0 | 7,0 | M4 | | | | | | | | 100 pcs/bulk |

!

Lötpadempfehlung:

| | Ø C |
|---|---|
| AH-SMIA-M2 | 5 |
| AH-SMIA-M3 | 7 |
| AH-SMIA-M4 | 9 |



# PE-SM-B/-BP POWERELEMENTE

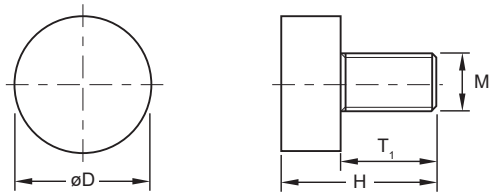
NEU

Merkmale

- als Wire-to-Board und Board-to-Board Verbindung im Hochstrombereich oder als Befestigung von Leiterplatten an Gehäusen bzw. Kabel auf Leiterplatte
- zum Löten in SMT, lose oder geblistert für automatische Montage
- Material: Messing verzinnt
- andere Längen und Ausführungen auf Anfrage

ohne Zentrierpin

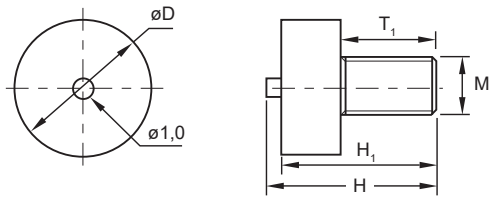
Abmessungen ► Einheit = mm

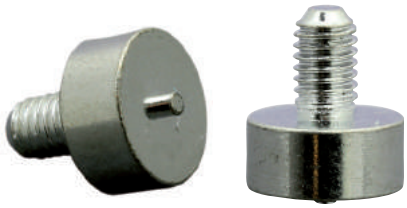



| Art.-Nr. | Typ | Gewindegröße | H (mm) | $T_1$ (mm) | øD (mm) | IR (A) |
|---|---|---|---|---|---|---|
| 304 03 080 SMB | PE-SM-B-M3x8,0 | M3 | 8,0 | 5,0 | 7,0 | 90 |
| 304 04 080 SMB | PE-SM-B-M4x8,0 | M4 | 8,0 | 5,0 | 7,0 | 160 |
| 304 04 950 SMB | PE-SM-B-M4x9,5 | M4 | 9,5 | 6,0 | 9,0 | 160 |
| 304 05 125 SMB | PE-SM-B-M5x12,5 | M5 | 12,5 | 8,0 | 9,0 | 160 |
| 304 06 155 SMB | PE-SM-B-M6x15,5 | M6 | 15,5 | 10,0 | 13,0 | 250 |
| 304 08 205 SMB | PE-SM-B-M8x20,5 | M8 | 20,5 | 13,0 | 13,0 | 250 |
| 304 10 240 SMB | PE-SM-B-M10x24,0 | M10 | 24,0 | 16,0 | 16,0 | 360 |

mit Zentrierpin

Abmessungen ► Einheit = mm



| Art.-Nr. | Typ | Gewindegröße | H (mm) | $H_1$ (mm) | $T_1$ (mm) | øD (mm) | IR (A) |
|---|---|---|---|---|---|---|---|
| 304 03 080 SMBP | PE-SM-BP-M3x8,0 | M3 | 8,8 | 8,0 | 5,0 | 7,0 | 90 |
| 304 04 080 SMBP | PE-SM-BP-M4x8,0 | M4 | 8,8 | 8,0 | 5,0 | 7,0 | 160 |
| 304 04 095 SMBP | PE-SM-BP-M4x9,5 | M4 | 10,3 | 9,5 | 6,0 | 9,0 | 160 |
| 304 05 125 SMBP | PE-SM-BP-M5x12,5 | M5 | 13,3 | 12,5 | 8,0 | 9,0 | 160 |
| 304 06 155 SMBP | PE-SM-BP-M6x15,5 | M6 | 16,3 | 15,5 | 10,0 | 13,0 | 250 |
| 304 08 205 SMBP | PE-SM-BP-M8x20,5 | M8 | 21,3 | 20,5 | 13,0 | 13,0 | 250 |
| 304 10 240 SMBP | PE-SM-BP-M10x24,0 | M10 | 24,8 | 24,0 | 16,0 | 16,0 | 360 |

## Technische Daten

**Beschreibung**

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Stärke Lötpaste | 150 µ mm |
| Hitzebeständigkeit | -55 °C bis +150 °C |
| Verpackung | lose, Tape and Reel |

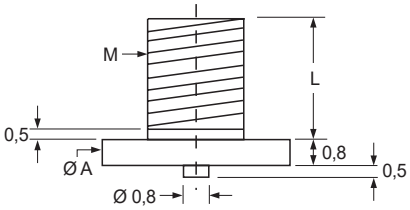
NEU

# SFSM SMD-SCHRAUBE

## Merkmale

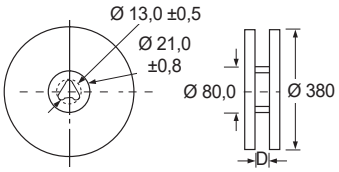
- Reflow lötbar, Automaten bestückbar
- geeignet als Stromanschlußelement
- kleiner Zapfen an der Unterseite verhindert eine Fehlausrichtung beim Lötvorgang. Hierzu ist ein Ø 1 mm Loch auf der Leiterplatte notwendig.
- Material: Messing
- Oberfläche: verzinnt
- empfohlene Lötmitteldicke: 150 - 200 µ (bitte gleichmäßig auftragen)

## Abmessungen ► Einheit = mm

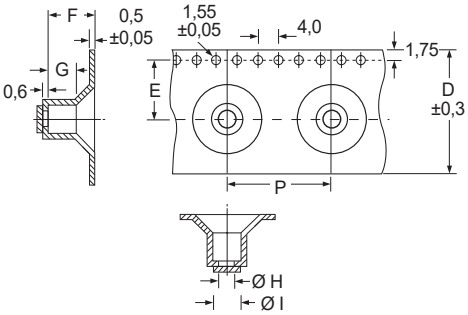



M4: P=0,7
M3: P=0,5
M2: P=0,4

Reel




Tape




**Nennstrom**

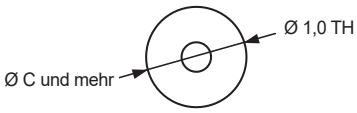
| |
|---|
| SFSM-M2: 10A |
| SFSM-M3: 30A |
| SFSM-M4: 40A |

**Anzugsdrehmoment**

| |
|---|
| SFSM-M2: 2kg • f • cm oder weniger |
| SFSM-M3: 5kg • f • cm oder weniger |
| SFSM-M4: 6kg • f • cm oder weniger |

**Lötpadempfehlung:**

| | Ø C |
|---|---|
| SFSM-M2 | 5 |
| SFSM-M3 | 7 |
| SFMS-M4 | 9 |




| Typ | L (mm) | Ø A (mm) | M (mm) | Tape (mm) D | E | F | G | H | I | P | Packeinheit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SFSM-M2-4 | 4,0 | 4,0 | M2 | 16,0 | 7,5 | 4,8 | 3,2 | 2,8 | 4,2 | 12,0 | 1.200 pcs/reel |
| SFSM-M2-5 | 5,0 | 4,0 | M2 | 16,0 | 7,5 | 5,8 | 3,9 | 2,8 | 4,2 | 12,0 | 1.000 pcs/reel |
| SFSM-M2-6 | 6,0 | 4,0 | M2 | 16,0 | 7,5 | 6,8 | 4,5 | 2,8 | 4,2 | 12,0 | 900 pcs/reel |
| SFSM-M2-7 | 7,0 | 4,0 | M2 | 16,0 | 7,5 | | | 2,8 | 4,2 | 12,0 | |
| SFSM-M2-8 | 8,0 | 4,0 | M2 | 16,0 | 7,5 | | | 2,8 | 4,2 | 12,0 | |
| SFSM-M2-9 | 9,0 | 4,0 | M2 | 16,0 | 7,5 | | | 2,8 | 4,2 | 12,0 | |
| SFSM-M2-10 | 10,0 | 4,0 | M2 | 16,0 | 7,5 | | | 2,8 | 4,2 | 12,0 | |
| SFSM-M3-4 | 4,0 | 6,0 | M3 | 24,0 | 11,5 | 5,1 | 3,4 | 4,0 | 6,2 | 16,0 | 900 pcs/reel |
| SFSM-M3-5 | 5,0 | 6,0 | M3 | 24,0 | 11,5 | 6,1 | 4,1 | 4,0 | 6,2 | 16,0 | 800 pcs/reel |
| SFSM-M3-6 | 6,0 | 6,0 | M3 | 24,0 | 11,5 | 7,0 | 4,7 | 4,0 | 6,2 | 16,0 | 600 pcs/reel |
| SFSM-M3-7 | 7,0 | 6,0 | M3 | 24,0 | 11,5 | 8,2 | 5,5 | 4,0 | 6,2 | 16,0 | 600 pcs/reel |
| SFSM-M3-8 | 8,0 | 6,0 | M3 | 24,0 | 11,5 | 9,1 | 6,1 | 4,0 | 6,2 | 16,0 | 500 pcs/reel |
| SFSM-M3-9 | 9,0 | 6,0 | M3 | 24,0 | 11,5 | | | 4,0 | 6,2 | 16,0 | |
| SFSM-M3-10 | 10,0 | 6,0 | M3 | 24,0 | 11,5 | | | 4,0 | 6,2 | 16,0 | |
| SFSM-M4-4 | 4,0 | 8,0 | M4 | 24,0 | 11,5 | 5,1 | 3,4 | 6,0 | 8,2 | 20,0 | 600 pcs/reel |
| SFSM-M4-5 | 5,0 | 8,0 | M4 | 24,0 | 11,5 | 6,1 | 4,1 | 6,0 | 8,2 | 20,0 | 500 pcs/reel |
| SFSM-M4-6 | 6,0 | 8,0 | M4 | 24,0 | 11,5 | 7,0 | 4,7 | 6,0 | 8,2 | 20,0 | 400 pcs/reel |
| SFSM-M4-7 | 7,0 | 8,0 | M4 | 24,0 | 11,5 | 8,1 | 5,5 | 6,0 | 8,2 | 20,0 | 400 pcs/reel |
| SFSM-M4-8 | 8,0 | 8,0 | M4 | 24,0 | 11,5 | 9,1 | 6,1 | 6,0 | 8,2 | 20,0 | 300 pcs/reel |
| SFSM-M4-9 | 9,0 | 8,0 | M4 | 24,0 | 11,5 | 10,1 | 6,7 | 6,0 | 8,2 | 20,0 | 300 pcs/reel |
| SFSM-M4-10 | 10,0 | 8,0 | M4 | 24,0 | 11,5 | | | 6,0 | 8,2 | 20,0 | |

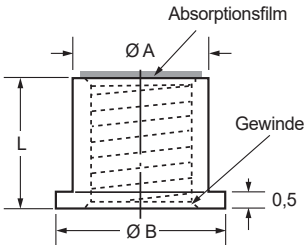
# AH-SMI-M SMD-ABSTANDHALTER

NEU

## Merkmale

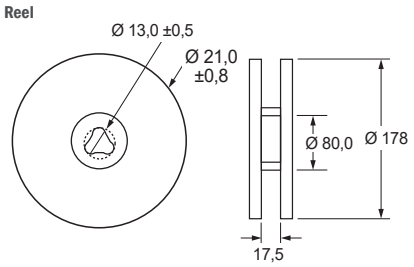
- SMD-Abstandhalter, Reflow lötbar, Automaten bestückbar
- Absorptionsfilm nach Reflow entfernen
- Verpackung: Tape and Reel (Standard) oder Blister (ohne Absorptionsfolie)
- Material: Messing
- Oberfläche: verzinnt
- empfohlene Lötmitteldicke: 150 - 200 µ (bitte gleichmäßig auftragen)

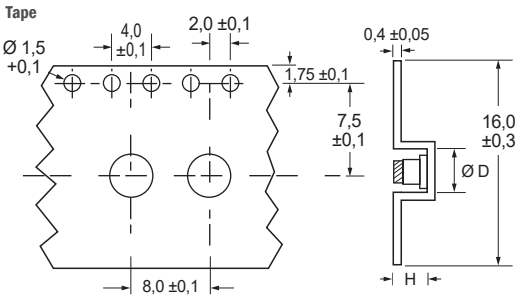
## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Ø A (mm) | Ø B (mm) | L (mm) | M (mm) | Package |
|---|---|---|---|---|---|---|
| 096 002 020 | AH-SMI-M2-2,0 | 3,0 | 4,0 | 2,0 | M2 | 500 pcs/reel |
| 096 002 025 | AH-SMI-M2-2,5 | 3,0 | 4,0 | 2,5 | M2 | 500 pcs/reel |
| 096 002 030 | AH-SMI-M2-3,0 | 3,0 | 4,0 | 3,0 | M2 | 500 pcs/reel |
| 096 002 035 | AH-SMI-M2-3,5 | 3,0 | 4,0 | 3,5 | M2 | 400 pcs/reel |
| 096 002 040 | AH-SMI-M2-4,0 | 3,0 | 4,0 | 4,0 | M2 | 400 pcs/reel |
| 096 002 045 | AH-SMI-M2-4,5 | 3,0 | 4,0 | 4,5 | M2 | 350 pcs/reel |
| 096 002 050 | AH-SMI-M2-5,0 | 3,0 | 4,0 | 5,0 | M2 | 350 pcs/reel |
| 096 002 525 | AH-SMI-M2,5-2,5 | 3,5 | 4,5 | 2,5 | M2,5 | 500 pcs/reel |
| 096 002 530 | AH-SMI-M2,5-3,0 | 3,5 | 4,5 | 3,0 | M2,5 | 500 pcs/reel |
| 096 002 535 | AH-SMI-M2,5-3,5 | 3,5 | 4,5 | 3,5 | M2,5 | 400 pcs/reel |
| 096 002 540 | AH-SMI-M2,5-4,0 | 3,5 | 4,5 | 4,0 | M2,5 | 400 pcs/reel |
| 096 002 545 | AH-SMI-M2,5-4,5 | 3,5 | 4,5 | 4,5 | M2,5 | 350 pcs/reel |
| 096 002 550 | AH-SMI-M2,5-5,0 | 3,5 | 4,5 | 5,0 | M2,5 | 350 pcs/reel |
| 096 003 025 | AH-SMI-M3-2,5 | 4,0 | 5,0 | 2,5 | M3 | 500 pcs/reel |
| 096 003 030 | AH-SMI-M3-3,0 | 4,0 | 5,0 | 3,0 | M3 | 500 pcs/reel |
| 096 003 035 | AH-SMI-M3-3,5 | 4,0 | 5,0 | 3,5 | M3 | 400 pcs/reel |
| 096 003 040 | AH-SMI-M3-4,0 | 4,0 | 5,0 | 4,0 | M3 | 400 pcs/reel |
| 096 003 045 | AH-SMI-M3-4,5 | 4,0 | 5,0 | 4,5 | M3 | 350 pcs/reel |
| 096 003 050 | AH-SMI-M3-5,0 | 4,0 | 5,0 | 5,0 | M3 | 350 pcs/reel |

## Abmessungen ► Einheit = mm



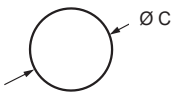




| | Ø D (mm) |
|---|---|
| AH-SMI-M2 | 4,3 |
| AH-SMI-M2,5 | 4,8 |
| AH-SMI-M3 | 5,3 |

!

Lötpadempfehlung:

| | Ø C |
|---|---|
| AH-SMI-M2 | 4,5 |
| AH-SMI-M2,5 | 5,0 |
| AH-SMI-M3 | 5,5 |




Anzugsdrehmoment

| |
|---|
| AH-SMI-M2: 1kg • f • cm und weniger |
| AH-SMI-M2,5: 3kg • f • cm und weniger |
| AH-SMI-M3: 3kg • f • cm und weniger |

| | | H (mm) |
|---|---|---|
| AH-SMI-M3 | 2,5 - 3,0 | 3,4 |
| AH-SMI-M2 | 2,0 - 3,0 | |
| AH-SMI-M3 | 3,5 - 4,0 | 4,4 |
| AH-SMI-M2 | 3,5 - 4,0 | |
| AH-SMI-M3 | 4,5 - 5,0 | 5,4 |
| AH-SMI-M2 | 4,5 - 5,0 | |

NEU

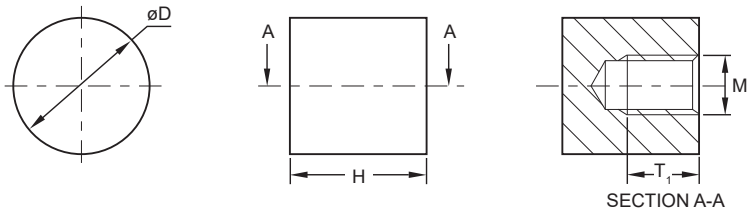
# PE-SM-S/-SP POWERELEMENTE

Merkmale

- wahlweise mit bzw. ohne Zentrierpin
- als Wire-to-Board und Board-to-Board Verbindung im Hochstrombereich oder als Befestigung von Leiterplatten an Gehäusen bzw. Kabel auf Leiterplatte
- zum Löten in SMT, lose oder geblistert für automatische Montage
- Material: Messing verzinnt
- andere Längen und Ausführungen auf Anfrage

## ohne Zentrierpin

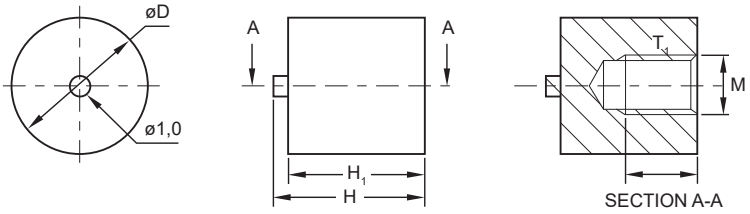
Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Gewindegröße | H (mm) | $T_1$ (mm) | øD (mm) | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|
| 304 03 070 SMS | PE-SM-S-M3x7,0 | M3 | 7,0 | 4,0 | 7,0 | 50 | 0,5Nm |
| 304 04 070 SMS | PE-SM-S-M4x7,0 | M4 | 7,0 | 4,0 | 7,0 | 50 | 1,2Nm |
| 304 05 070 SMS | PE-SM-S-M5x7,0 | M5 | 7,0 | 4,0 | 9,0 | 70 | 2,2Nm |

## mit Zentrierpin

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Gewindegröße | H (mm) | $H_1$ (mm) | $T_1$ (mm) | øD (mm) | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|
| 304 03 070 SMSP | PE-SM-SP-M3x7,0 | M3 | 7,8 | 7,0 | 4,0 | 7,0 | 50 | 0,5Nm |
| 304 03 090 SMSP | PE-SM-SP-M3x9,0 | M3 | 9,8 | 9,0 | 6,0 | 7,0 | 50 | 0,5Nm |
| 304 04 070 SMSP | PE-SM-SP-M4x7,0 | M4 | 7,8 | 7,0 | 4,0 | 7,0 | 50 | 1,2Nm |
| 304 05 070 SMSP | PE-SM-SP-M5x7,0 | M5 | 7,8 | 7,0 | 4,0 | 9,0 | 70 | 2,2Nm |

## Technische Daten

**Beschreibung**

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Stärke Lötpaste | 150 µ mm |
| Hitzebeständigkeit | -55 °C bis +150 °C |
| Verpackung | lose, Tape and Reel |

# PE-SM-G/-GP POWERELEMENTE

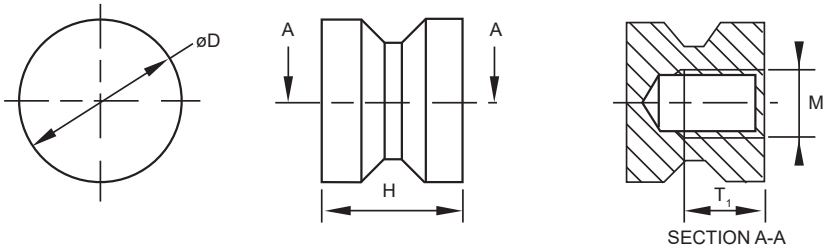
NEU

Merkmale

- als Wire-to-Board und Board-to-Board Verbindung im Hochstrombereich oder als Befestigung von Leiterplatten an Gehäusen bzw. Kabel auf Leiterplatte
- zum Löten in SMT, lose oder geblistert für automatische Montage
- Material: Messing verzinnt
- andere Längen und Ausführungen auf Anfrage

ohne Zentrierpin

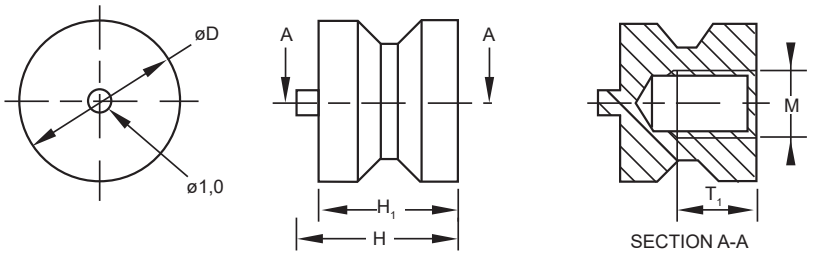
Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Gewindegröße | H (mm) | $T_1$ (mm) | øD (mm) | IR (A) |
|---|---|---|---|---|---|---|
| 304 03 060 SMG | PE-SM-G-M3x6,0 | M3 | 6,0 | 3,5 | 7,0 | 90 |
| 304 04 070 SMG | PE-SM-G-M4x7,0 | M4 | 7,0 | 4,0 | 9,0 | 160 |
| 304 04 100 SMG | PE-SM-G-M4x10,0 | M4 | 10,0 | 8,0 | 9,0 | 160 |
| 304 04 110 SMG | PE-SM-G-M4x11,0 | M4 | 11,0 | 7,0 | 10,0 | 160 |
| 304 05 070 SMG | PE-SM-G-M5x7,0 | M5 | 7,0 | 4,0 | 9,0 | 160 |
| 304 06 105 SMG | PE-SM-G-M6x10,5 | M6 | 10,5 | 6,5 | 10,0 | 250 |
| 304 08 135 SMG | PE-SM-G-M8x13,5 | M8 | 13,5 | 8,0 | 13,0 | 250 |
| 304 10 175 SMG | PE-SM-G-M10x17,5 | M10 | 17,5 | 11,0 | 16,0 | 360 |

mit Zentrierpin

Abmessungen ► Einheit = mm



| Art.-Nr. | Typ | Gewindegröße | H (mm) | $H_1$ (mm) | $T_1$ (mm) | øD (mm) | IR (A) |
|---|---|---|---|---|---|---|---|
| 304 03 060 SMGP | PE-SM-GP-M3x6,0 | M3 | 6,8 | 6,0 | 3,5 | 7,0 | 90 |
| 304 04 070 SMGP | PE-SM-GP-M4x7,0 | M4 | 7,8 | 7,0 | 4,0 | 9,0 | 160 |
| 304 05 070 SMGP | PE-SM-GP-M5x7,0 | M5 | 7,8 | 7,0 | 4,0 | 9,0 | 160 |
| 304 06 105 SMGP | PE-SM-GP-M6x10,5 | M6 | 11,3 | 10,5 | 6,5 | 10,0 | 250 |
| 304 08 135 SMGP | PE-SM-GP-M8x13,5 | M8 | 14,3 | 13,5 | 8,0 | 13,0 | 250 |
| 304 10 175 SMGP | PE-SM-GP-M10x17,5 | M10 | 18,3 | 17,5 | 11,0 | 16,0 | 360 |

## Technische Daten

**Beschreibung**

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Stärke Lötpaste | 150 µ mm |
| Hitzebeständigkeit | -55 °C bis +150 °C |
| Verpackung | lose, Tape and Reel |

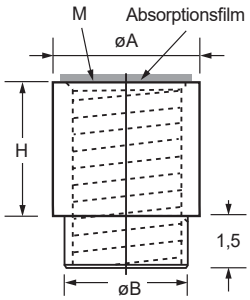
NEU

# AH-SMID-M ABSTANDHALTER

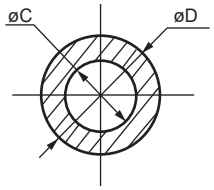
## Merkmale

- zum Löten in SMT, lose oder geblistert für automatische Montage
- als Wire-to-Board und Board-to-Board Verbindung im Hochstrombereich oder als Befestigung von Leiterplatten an Gehäusen bzw. Kabel auf Leiterplatte
- Material: Messing verzinnt

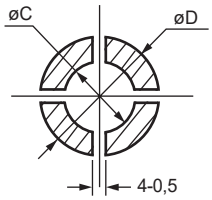
## Abmessungen ► Einheit = mm




**Empfohlene Einbaufläche**




**Empfohlener Lötpastenauftrag**
**Stärke: 150 µ bis 200 µ**



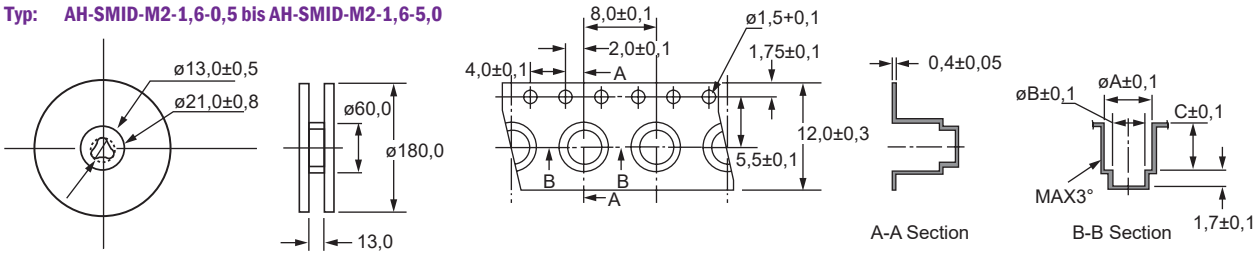

| Typ | øC | øD | Strombelastbarkeit |
|---|---|---|---|
| AH-SMID-M2-1,6-xx | 2,7 mm | 5,0 mm | 20A |
| AH-SMID-M2,5-1,6-xx | 3,3 mm | 5,5 mm | 20A |
| AH-SMID-M3-1,6-xx | 3,7 mm | 6,0mm | 30A |

| Art.-Nr. | Typ | A (mm) | B (mm) | H (mm) | M (mm) | Packeinheit |
|---|---|---|---|---|---|---|
| 096 20 05 | AH-SMID-M2-1,6-0,5 | 4,0 | 2,5 | 0,5 | M2 | 450 Stück/Rolle |
| 096 20 10 | AH-SMID-M2-1,6-1,0 | 4,0 | 2,5 | 1,0 | M2 | 450 Stück/Rolle |
| 096 20 15 | AH-SMID-M2-1,6-1,5 | 4,0 | 2,5 | 1,5 | M2 | 450 Stück/Rolle |
| 096 20 20 | AH-SMID-M2-1,6-2,0 | 4,0 | 2,5 | 2,0 | M2 | 450 Stück/Rolle |
| 096 20 25 | AH-SMID-M2-1,6-2,5 | 4,0 | 2,5 | 2,5 | M2 | 350 Stück/Rolle |
| 096 20 30 | AH-SMID-M2-1,6-3,0 | 4,0 | 2,5 | 3,0 | M2 | 350 Stück/Rolle |
| 096 20 35 | AH-SMID-M2-1,6-3,5 | 4,0 | 2,5 | 3,5 | M2 | 350 Stück/Rolle |
| 096 20 40 | AH-SMID-M2-1,6-4,0 | 4,0 | 2,5 | 4,0 | M2 | 250 Stück/Rolle |
| 096 20 45 | AH-SMID-M2-1,6-4,5 | 4,0 | 2,5 | 4,5 | M2 | 250 Stück/Rolle |
| 096 20 50 | AH-SMID-M2-1,6-5,0 | 4,0 | 2,5 | 5,0 | M2 | 250 Stück/Rolle |
| 096 20 55 | AH-SMID-M2-1,6-5,5 | 4,0 | 2,5 | 5,5 | M2 | 350 Stück/Rolle |
| 096 20 60 | AH-SMID-M2-1,6-6,0 | 4,0 | 2,5 | 6,0 | M2 | 350 Stück/Rolle |
| 096 20 65 | AH-SMID-M2-1,6-6,5 | 4,0 | 2,5 | 6,5 | M2 | 300 Stück/Rolle |
| 096 20 70 | AH-SMID-M2-1,6-7,0 | 4,0 | 2,5 | 7,0 | M2 | 300 Stück/Rolle |
| 096 20 75 | AH-SMID-M2-1,6-7,5 | 4,0 | 2,5 | 7,5 | M2 | 300 Stück/Rolle |
| 096 20 80 | AH-SMID-M2-1,6-8,0 | 4,0 | 2,5 | 8,0 | M2 | 300 Stück/Rolle |
| 096 25 05 | AH-SMID-M2,5-1,6-0,5 | 4,5 | 3,1 | 0,5 | M2,5 | 450 Stück/Rolle |
| 096 25 10 | AH-SMID-M2,5-1,6-1,0 | 4,5 | 3,1 | 1,0 | M2,5 | 450 Stück/Rolle |
| 096 25 15 | AH-SMID-M2,5-1,6-1,5 | 4,5 | 3,1 | 1,5 | M2,5 | 450 Stück/Rolle |
| 096 25 20 | AH-SMID-M2,5-1,6-2,0 | 4,5 | 3,1 | 2,0 | M2,5 | 450 Stück/Rolle |
| 096 25 25 | AH-SMID-M2,5-1,6-2,5 | 4,5 | 3,1 | 2,5 | M2,5 | 350 Stück/Rolle |
| 096 25 30 | AH-SMID-M2,5-1,6-3,0 | 4,5 | 3,1 | 3,0 | M2,5 | 350 Stück/Rolle |
| 096 25 35 | AH-SMID-M2,5-1,6-3,5 | 4,5 | 3,1 | 3,5 | M2,5 | 350 Stück/Rolle |
| 096 25 40 | AH-SMID-M2,5-1,6-4,0 | 4,5 | 3,1 | 4,0 | M2,5 | 250 Stück/Rolle |
| 096 25 45 | AH-SMID-M2,5-1,6-4,5 | 4,5 | 3,1 | 4,5 | M2,5 | 250 Stück/Rolle |
| 096 25 50 | AH-SMID-M2,5-1,6-5,0 | 4,5 | 3,1 | 5,0 | M2,5 | 250 Stück/Rolle |
| 096 25 55 | AH-SMID-M2,5-1,6-5,5 | 4,5 | 3,1 | 5,5 | M2,5 | 350 Stück/Rolle |
| 096 25 60 | AH-SMID-M2,5-1,6-6,0 | 4,5 | 3,1 | 6,0 | M2,5 | 350 Stück/Rolle |
| 096 25 65 | AH-SMID-M2,5-1,6-6,5 | 4,5 | 3,1 | 6,5 | M2,5 | 300 Stück/Rolle |
| 096 25 70 | AH-SMID-M2,5-1,6-7,0 | 4,5 | 3,1 | 7,0 | M2,5 | 300 Stück/Rolle |
| 096 25 75 | AH-SMID-M2,5-1,6-7,5 | 4,5 | 3,1 | 7,5 | M2,5 | 300 Stück/Rolle |
| 096 25 80 | AH-SMID-M2,5-1,6-8,0 | 4,5 | 3,1 | 8,0 | M2,5 | 300 Stück/Rolle |
| 096 25 85 | AH-SMID-M2,5-1,6-8,5 | 4,5 | 3,1 | 8,5 | M2,5 | 250 Stück/Rolle |
| 096 25 90 | AH-SMID-M2,5-1,6-9,0 | 4,5 | 3,1 | 9,0 | M2,5 | 250 Stück/Rolle |
| 096 25 95 | AH-SMID-M2,5-1,6-9,5 | 4,5 | 3,1 | 9,5 | M2,5 | 250 Stück/Rolle |
| 096 30 05 | AH-SMID-M3,0-1,6-0,5 | 5,0 | 3,5 | 0,5 | M3 | 450 Stück/Rolle |

# AH-SMID-M ABSTANDHALTER

| Art.-Nr. | Typ | A (mm) | B (mm) | H (mm) | M (mm) | Packeinheit |
|---|---|---|---|---|---|---|
| 096 30 10 | AH-SMID-M3,0-1,6-1,0 | 5,0 | 3,5 | 1,0 | M3 | 450 Stück/Rolle |
| 096 30 15 | AH-SMID-M3,0-1,6-1,5 | 5,0 | 3,5 | 1,5 | M3 | 450 Stück/Rolle |
| 096 30 20 | AH-SMID-M3,0-1,6-2,0 | 5,0 | 3,5 | 2,0 | M3 | 450 Stück/Rolle |
| 096 30 25 | AH-SMID-M3,0-1,6-2,5 | 5,0 | 3,5 | 2,5 | M3 | 350 Stück/Rolle |
| 096 30 30 | AH-SMID-M3,0-1,6-3,0 | 5,0 | 3,5 | 3,0 | M3 | 350 Stück/Rolle |
| 096 30 35 | AH-SMID-M3,0-1,6-3,5 | 5,0 | 3,5 | 3,5 | M3 | 350 Stück/Rolle |
| 096 30 40 | AH-SMID-M3,0-1,6-4,0 | 5,0 | 3,5 | 4,0 | M3 | 250 Stück/Rolle |
| 096 30 45 | AH-SMID-M3,0-1,6-4,5 | 5,0 | 3,5 | 4,5 | M3 | 250 Stück/Rolle |
| 096 30 50 | AH-SMID-M3,0-1,6-5,0 | 5,0 | 3,5 | 5,0 | M3 | 250 Stück/Rolle |
| 096 30 55 | AH-SMID-M3,0-1,6-5,5 | 5,0 | 3,5 | 5,5 | M3 | 350 Stück/Rolle |
| 096 30 60 | AH-SMID-M3,0-1,6-6,0 | 5,0 | 3,5 | 6,0 | M3 | 350 Stück/Rolle |
| 096 30 65 | AH-SMID-M3,0-1,6-6,5 | 5,0 | 3,5 | 6,5 | M3 | 300 Stück/Rolle |
| 096 30 70 | AH-SMID-M3,0-1,6-7,0 | 5,0 | 3,5 | 7,0 | M3 | 300 Stück/Rolle |
| 096 30 75 | AH-SMID-M3,0-1,6-7,5 | 5,0 | 3,5 | 7,5 | M3 | 300 Stück/Rolle |
| 096 30 80 | AH-SMID-M3,0-1,6-8,0 | 5,0 | 3,5 | 8,0 | M3 | 300 Stück/Rolle |
| 096 30 85 | AH-SMID-M3,0-1,6-8,5 | 5,0 | 3,5 | 8,5 | M3 | 250 Stück/Rolle |
| 096 30 90 | AH-SMID-M3,0-1,6-9,0 | 5,0 | 3,5 | 9,0 | M3 | 250 Stück/Rolle |
| 096 30 95 | AH-SMID-M3,0-1,6-9,5 | 5,0 | 3,5 | 9,5 | M3 | 250 Stück/Rolle |
| 096 30 100 | AH-SMID-M3,0-1,6-10,0 | 5,0 | 3,5 | 10,0 | M3 | 250 Stück/Rolle |

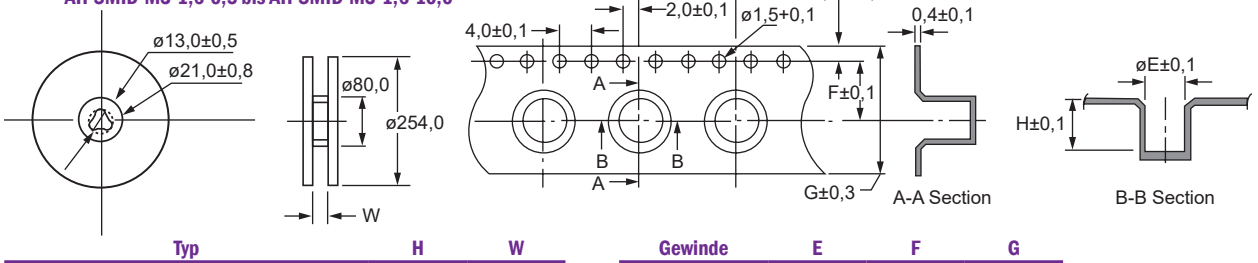
**Typ: AH-SMID-M2-1,6-0,5 bis AH-SMID-M2-1,6-5,0**




| Typ | C |
|---|---|
| AH-SMID-M2-1,6-0,5 – M2-1,6-1,0 | 1,5mm |
| AH-SMID-M2-1,6-1,5 – M2-1,6-2,0 | 2,3 mm |
| AH-SMID-M2-1,6-2,5 – M2-1,6-3,5 | 3,8 mm |
| AH-SMID-M2-1,6-4,0 – M2-1,6-5,0 | 5,3 mm |

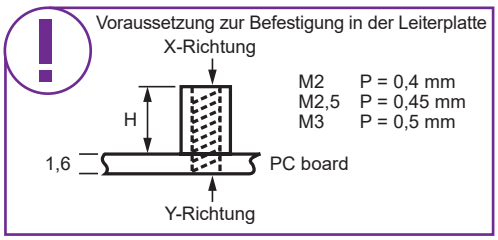
| Gewinde | A | B |
|---|---|---|
| M2 | 4,3mm | 2,8 mm |
| M2,5 | 4,8 mm | 3,4 mm |
| M3 | 5,3 mm | 3,8 mm |

**Typ: AH-SMID-M2-1,6-5,5 bis AH-SMID-M2-1,6-8,0**
**AH-SMID-M2,5-1,6-0,5 bis AH-SMID-M2,5-1,6-9,5**
**AH-SMID-M3-1,6-0,5 bis AH-SMID-M3-1,6-10,0**




| Typ | H | W |
|---|---|---|
| AH-SMID-M2-1,6-5,5 – M2-1,6-6,0 | 7,8 mm | 17,5 mm |
| AH-SMID-M2-1,6-6,5 – M2-1,6-7,0 | 8,8 mm | 17,5 mm |
| AH-SMID-M2-1,6-7,5 – M2-1,6-8,0 | 9,8 mm | 17,5 mm |
| AH-SMID-M2,5-1,6-8,5 – M2,5-1,6-9,0 | 10,8 mm | 17,5 mm |
| AH-SMID-M2,5-1,6-9,5 – M2,5-1,6-10,0 | 11,8 mm | 17,5 mm |
| AH-SMID-M3-1,6-9,5 – M3-1,6-10,0 | 11,8 mm | 25,5 mm |

| Gewinde | E | F | G |
|---|---|---|---|
| M2 | 4,3 mm | 7,5 mm | 16,0 mm |
| M2,5 | 4,8 mm | 7,5 mm | 16,0 mm |
| M3 (5,5-9,0) | 5,3 mm | 7,5 mm | 16,0 mm |
| M3 (9,5-10,0) | 5,3 mm | 11,5 mm | 24,0 mm |



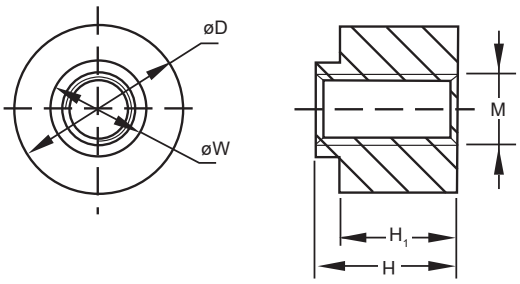
NEU

# AH-SMID-MIS ABSTANDHALTER

## Merkmale

- für SMT-Bestückung
- als Wire-to-Board und Board-to-Board Verbindung im Hochstrombereich oder als Befestigung von Leiterplatten an Gehäusen bzw. Kabel auf Leiterplatte
- Material: Messing verzinnt

## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Gewinde M | H (mm) | $H_1$ (mm) | øD (mm) | øW (mm) | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|
| 096 01 30 04 | AH-SMID-MIS-M3-3 | M3 | 4,0 | 3,0 | 7,0 | 4,0 | 50 | 0,5Nm |
| 096 01 30 044 | AH-SMID-MIS-M3-3-6 | M3 | 4,4 | 3,0 | 6,0 | 4,2 | 50 | 0,5Nm |
| 096 01 30 06 | AH-SMID-MIS-M3-5 | M3 | 6,0 | 5,0 | 7,0 | 4,0 | 50 | 0,5Nm |
| 096 01 40 03 | AH-SMID-MIS-M4-3 | M4 | 4,0 | 3,0 | 7,0 | 5,0 | 50 | 1,2Nm |
| 096 01 40 05 | AH-SMID-MIS-M4-5 | M4 | 6,0 | 5,0 | 7,0 | 5,0 | 50 | 1,2Nm |
| 096 01 50 05 | AH-SMID-MIS-M5-5 | M5 | 6,0 | 5,0 | 9,0 | 6,0 | 70 | 2,2Nm |

## Technische Daten

**Beschreibung**

| | |
|---|---|
| Material | Messing verzinnt |
| Oberfläche | Zinn |
| Stärke Lötpaste | 150 µ mm |
| Hitzebeständigkeit | -55 °C bis +150 °C |
| Verpackungseinheit | lose, Tape und Reel |

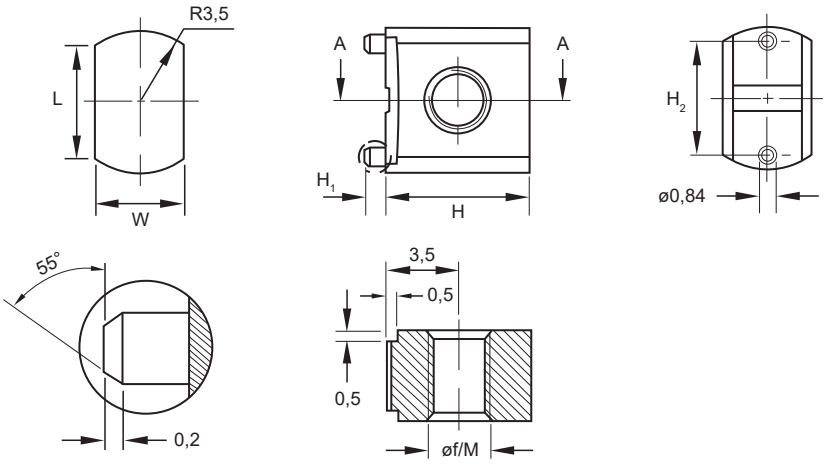
# PE-SM-H POWERELEMENTE

NEU

## Merkmale

- zur 90°-Montage auf Leiterplatten, Gehäusen oder Frontplatten
- zum Löten in SMT, lose oder geblistert für automatische Montage
- hohe mechanische Kräfte und Drehmomente
- geringer Platzbedarf der Lötfläche
- Material: Messing verzinnt

## Abmessungen ► Einheit = mm




DETAIL B

SECTION A-A

| Art.-Nr. | Typ | Gewindegröße | L (mm) | W (mm) | H (mm) | $H_1$ (mm) | $H_2$ (mm) | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|---|
| **304 33 07 SMH** | PE-SM-H-3,3x7 | ø3,3 | 5,5 | 4,33 | 7,0 | 1,0 | 5,54 | 50 | - |
| **304 03 07 SMH** | PE-SM-H-M3x7 | M3 | 5,5 | 4,33 | 7,0 | 1,0 | 5,54 | 50 | 0,4Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Stärke Lötpaste | 120 µm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Verpackung | lose, Tape and Reel |

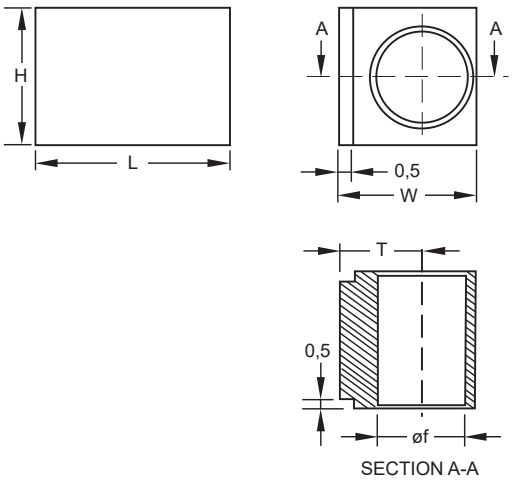
NEU

# PE-SMD-V POWERELEMENTE

## Merkmale

- zur 90°-Montage auf Leiterplatten, Gehäusen oder Frontplatten
- zum Löten in SMT, lose oder geblistert für automatische Montage
- hohe mechanische Kräfte und Drehmomente
- geringer Platzbedarf der Lötfläche
- Material: Messing verzinnt

## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | øf / M (mm) | L (mm) | W (mm) | H (mm) | T (mm) | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|
| 304 33 05 SMDV | PE-SMD-V-3,3 | ø3,3 | 7,0 | 5,0 | 5,0 | 3,0 | 50 | - |
| 304 03 05 SMDV | PE-SMD-V-M3 | M3 | 7,0 | 5,0 | 5,0 | 3,0 | 50 | 0,4Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Stärke Lötpaste | 120 µm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Verpackung | Bulk, Tape and Reel |

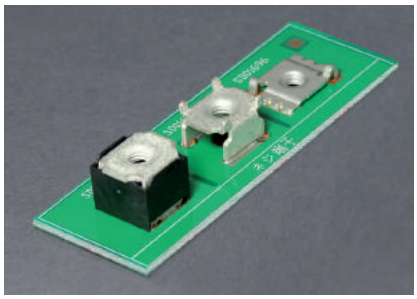
# SD POWERELEMENTE

Merkmale

- mit M2,6, M3- oder M4-Innengewinde
- für SMT-Bestückung
- Materialstärke: 0,8 mm, 1,0 mm oder 1,6 mm
- Material: Messing verzinnt

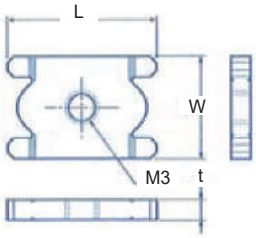
**Strombelastbarkeit**

| | |
|---|---|
| M3 | 15 A |
| M4 | 40 A |

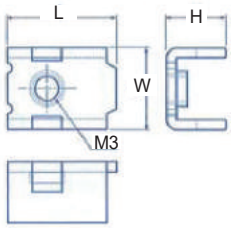


Abmessungen ► Einheit = mm

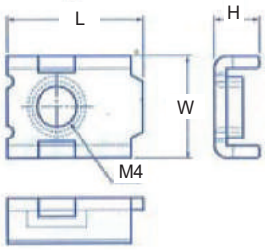
**SD01312-2G**



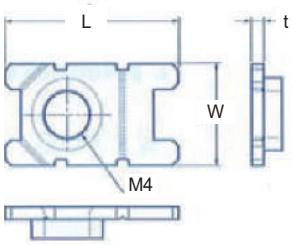

**SD01373-2K**



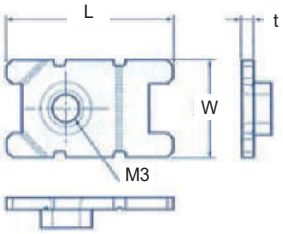

**SD01380-2K**



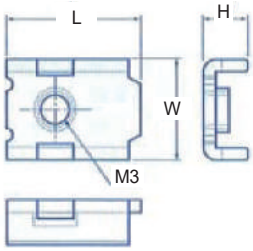

**SD01382-2K**



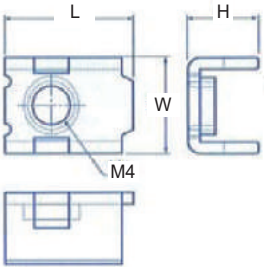

**SD01386-2K**



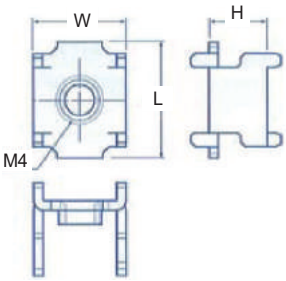

**SD01409-2K**



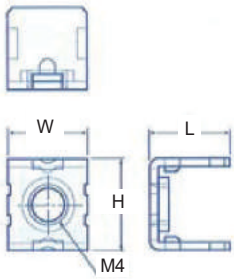

**SD01410-2K**



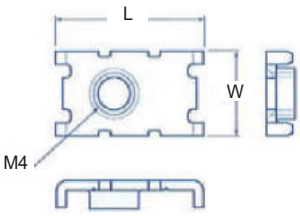

**SD01656-2K**



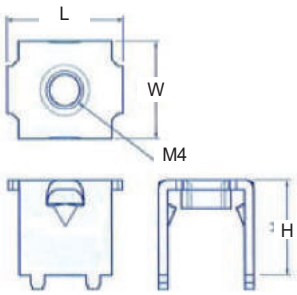

**SD01674-2K**



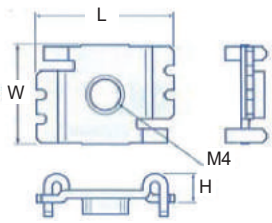

**SD01680-2K**




**SD01689-2K**



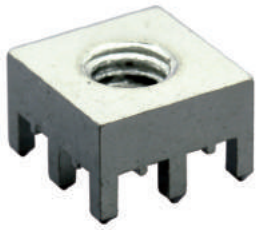

**SD01696-2K**




| Typ | L (mm) | W (mm) | H (mm) | t (mm) | Gewindegröße | VPE |
|---|---|---|---|---|---|---|
| SD01312-2G | 12,0 | 8,0 | - | 1,6 | M3 | 1.000 |
| SD01373-2K | 11,0 | 8,0 | 6,0 | 1,0 | M3 | 1.000 |
| SD01380-2K | 11,0 | 8,0 | 3,6 | 1,0 | M4 | 1.500 |
| SD01382-2K | 14,0 | 8,0 | - | 1,0 | M4 | 1.000 |
| SD01386-2K | 14,0 | 8,0 | - | 1,0 | M3 | 1.000 |
| SD01409-2K | 11,0 | 8,0 | 3,6 | 1,0 | M3 | 1.500 |
| SD01410-2K | 11,0 | 8,0 | 6,0 | 1,0 | M4 | 1.000 |
| SD01656-2K | 12,4 | 10,2 | 8,5 | 1,0 | M4 | 400 |
| SD01674-2K | 8,0 | 8,0 | 9,0 | 0,8 | M4 | 400 |
| SD01680-2K | 14,4 | 8,0 | - | 1,0 | M4 | 1.500 |
| SD01689-2K | 12,4 | 10,2 | 10,0 | 1,0 | M4 | 400 |
| SD01696-2K | 14,5 | 10,2 | 3,0 | 0,8 | M4 | 1.000 |

NEU

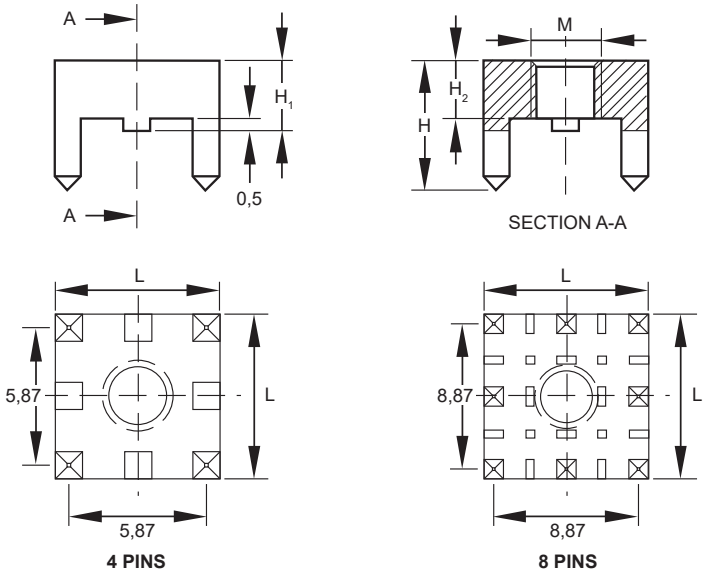
# PE-THR-A POWERELEMENTE



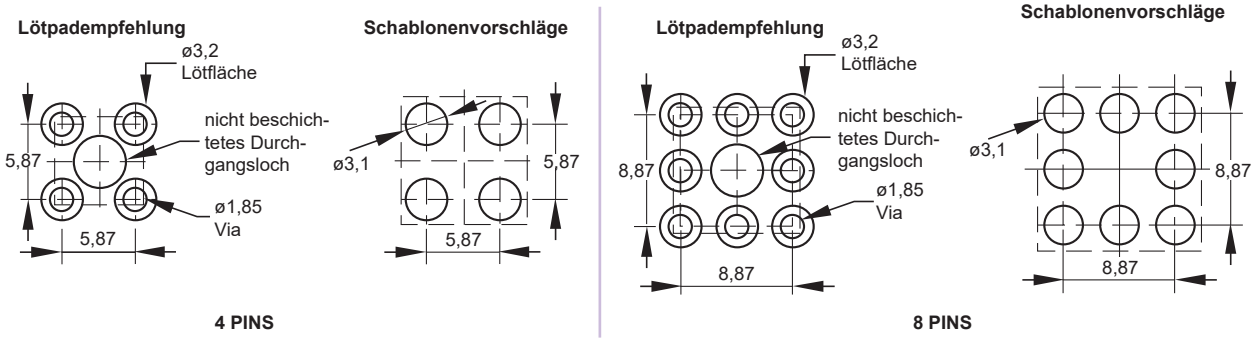
## Merkmale

- THT-Löttechnologie
- als Wire-to-Board und Board-to-Board Verbindung im Hochstrombereich oder als Befestigung von Leiterplatten an Gehäusen bzw. Kabel auf Leiterplatte
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

## Abmessungen ► Einheit = mm




## Pin- und Bohrlochabmessungen




| Art.-Nr. | Typ | Gewinde-größe | H (mm) | $H_1$ (mm) | $H_2$ (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugs-drehmoment |
|---|---|---|---|---|---|---|---|---|---|
| **304 03 030 THRA** | PE-THR-A-M3x3,0 | M3 | 5,5 | 3,0 | 2,5 | 7,0 | 4 | 50 | 0,5Nm |
| **304 04 030 THRA** | PE-THR-A-M4x3,0 | M4 | 5,5 | 3,0 | 2,5 | 7,0 | 4 | 50 | 1,2Nm |
| **304 04 035 THRA** | PE-THR-A-M4x3,5 | M4 | 6,0 | 3,5 | 3,0 | 10,0 | 8 | 85 | 1,2Nm |
| **304 05 040 THRA** | PE-THR-A-M5x4,0 | M5 | 6,5 | 4,0 | 3,5 | 10,0 | 8 | 85 | 2,2Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Stärke Lötpaste | 150 µm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Verpackung | lose, Tape and Reel |

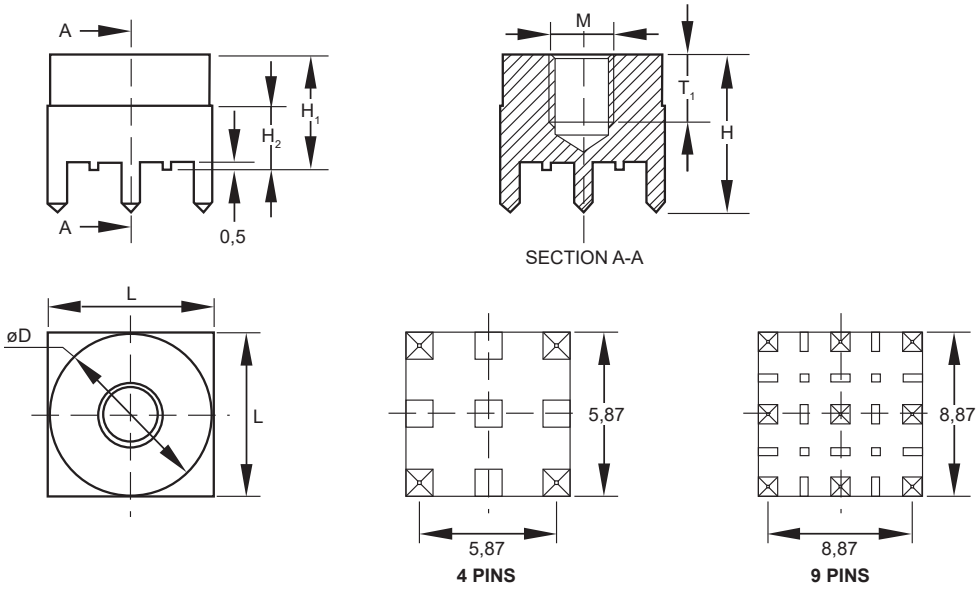
# PE-THR-C POWERELEMENTE

NEU

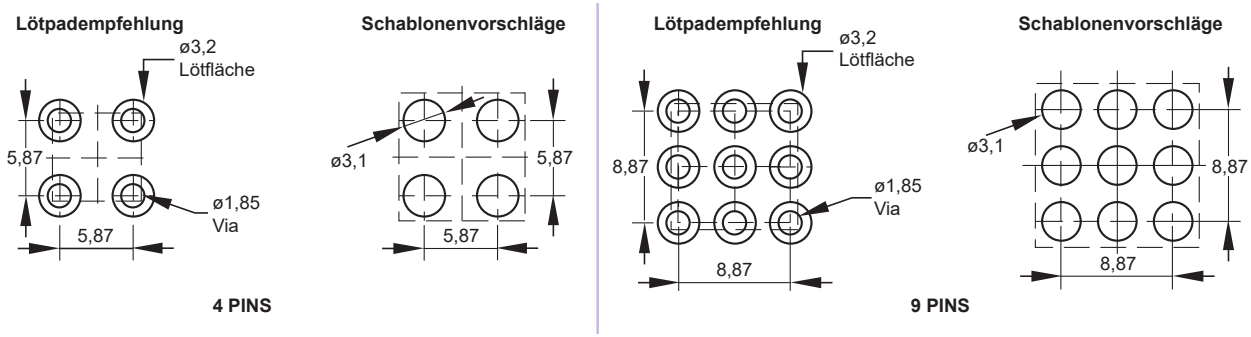
## Merkmale

- THT-Löttechnologie
- als Wire-to-Board und Board-to-Board Verbindung im Hochstrombereich oder als Befestigung von Leiterplatten an Gehäusen bzw. Kabel auf Leiterplatte
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

## Abmessungen ► Einheit = mm




## Pin- und Bohrlochabmessungen




| Art.-Nr. | Typ | Gewinde-größe | $T_1$ (mm) | H (mm) | $H_1$ (mm) | $H_2$ (mm) | øD (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugs-drehmoment |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 304 03 060 THRC | PE-THR-C-M3x6,0 | M3 | 3,5 | 8,5 | 6,0 | 4,0 | 6,6 | 7,0 | 4 | 50 | 0,5Nm |
| 304 04 065 THRC | PE-THR-C-M4x6,5 | M4 | 4,0 | 9,0 | 6,5 | 4,0 | 6,6 | 7,0 | 4 | 50 | 1,2Nm |
| 304 04 070 THRC | PE-THR-C-M4x7,0 | M4 | 4,0 | 9,5 | 7,0 | 4,0 | 9,7 | 10,0 | 9 | 85 | 1,2Nm |
| 304 05 070 THRC | PE-THR-C-M5x7,0 | M5 | 4,0 | 9,5 | 7,0 | 4,0 | 9,7 | 10,0 | 9 | 85 | 2,2Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Stärke Lötpaste | 150 µm |
| Hitzebeständigkeit | -55 °C bis +150 °C |
| Verpackung | lose, Tape and Reel |

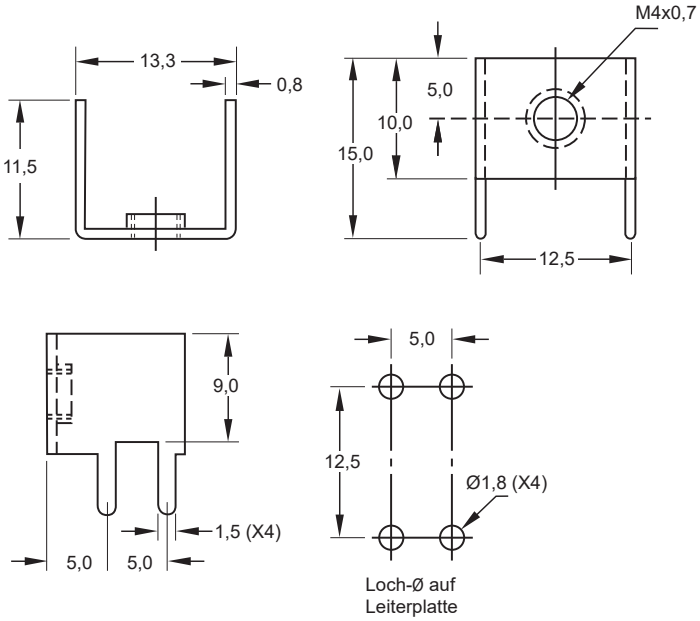
NEU

# PCB-15 ANSCHLUSSELEMENT

## Merkmale

- Material: Messing verzinnt
- Strombelastbarkeit: 15 A

## Abmessungen ► Einheit = mm

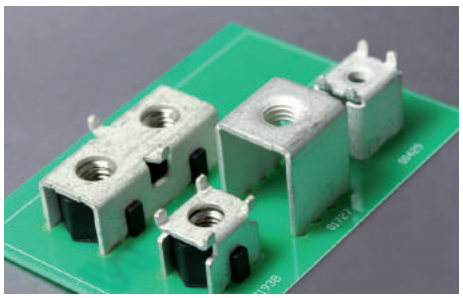



| Art.-Nr. | Typ | Durchgangsloch | Anzahl Pins |
|---|---|---|---|
| **302 03 01** | PCB-15 (M4) | M4 | 4 |

# POWERELEMENTE

Merkmale

- mit M3- , M4- , M5- oder M6 Innengewinde
- für Handbestückung
- Materialstärke: 0,8 mm, 1,0 mm oder 1,2 mm
- Material: Messing verzinnt

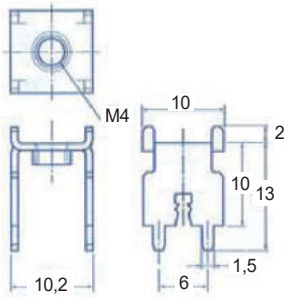


## Strombelastbarkeit

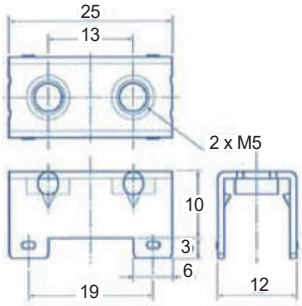
| | | | |
|---|---|---|---|
| M3 | 15 A | M5 | 70 A |
| M4 | 40 A | M6 | 90 A |

Abmessungen ► Einheit = mm
**Materialstärke = 1,0 mm**

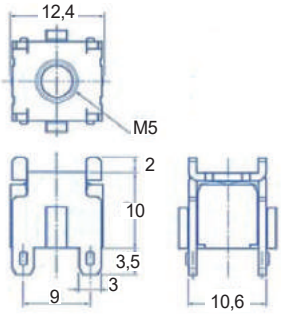
**Typ: 01459**




**Typ: 01749**

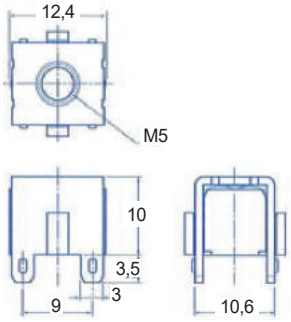



**Typ: CB-71938**



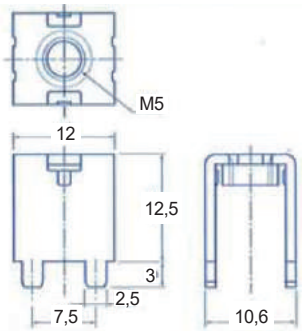

Abmessungen ► Einheit = mm
**Materialstärke = 1,0 mm**

**Typ: CB-71939**

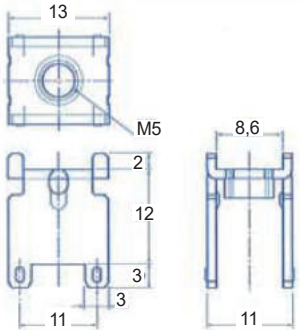



Abmessungen ► Einheit = mm
**Materialstärke = 1,2 mm**

**Typ: 01690**

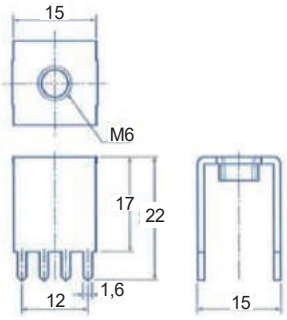



**Typ: 01722**

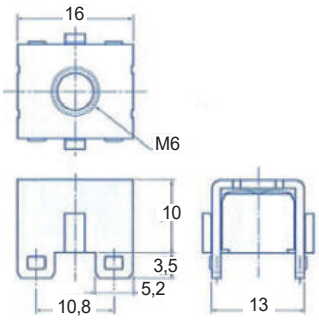



Abmessungen ► Einheit = mm
**Materialstärke = 1,2 mm**

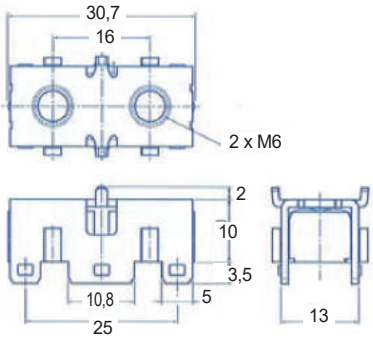
**Typ: 01727**



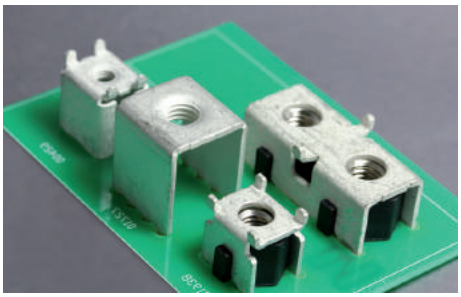

**Typ: CB-71940**




**Typ: CB-71941**



# POWERELEMENTE



Merkmale

- mit M3- , M4- , M5- oder M6-Innengewinde
- für Handbestückung
- Materialstärke: 0,8 mm, 1,0 mm oder 1,2 mm
- Material: Messing verzinnt

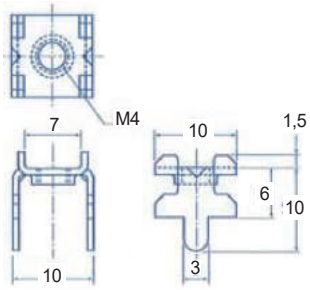
## Strombelastbarkeit

| | | | |
|---|---|---|---|
| M3 | 15 A | M5 | 70 A |
| M4 | 40 A | M6 | 90 A |

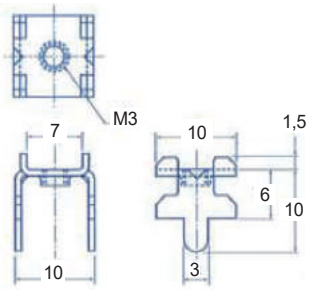
Abmessungen ► Einheit = mm

**Materialstärke = 0,8 mm**

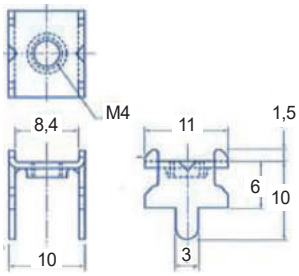
**Typ: 00156**



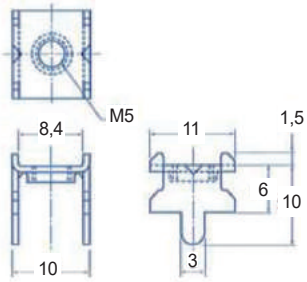

**Typ: 00157**



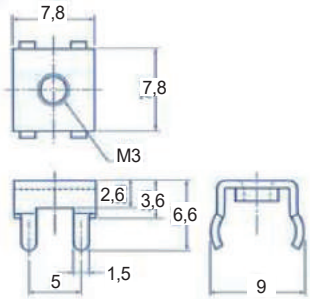

**Typ: 00163**



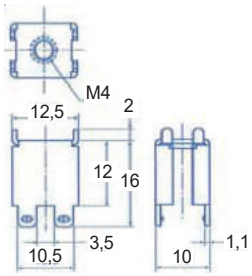

**Typ: 00164**



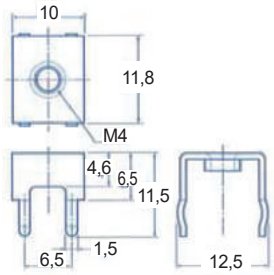

**Typ: 00386**



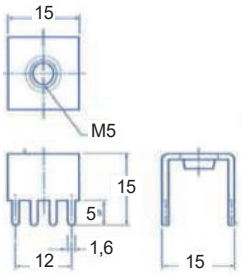

**Typ: 00429**



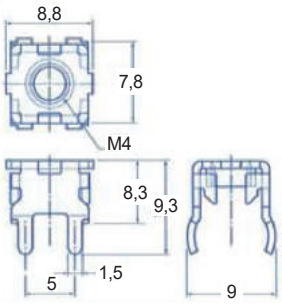

**Typ: 00567**



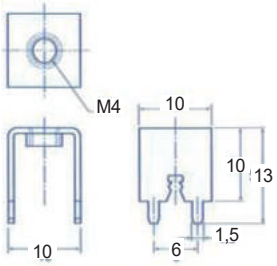

**Typ: 00916**



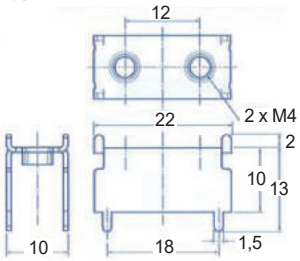

**Typ: 01347**




**Typ: 01352**



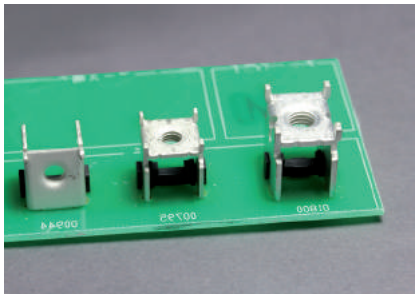

**Typ: 01358**



# TP POWERELEMENTE

Merkmale

- mit M3- oder M4-Innengewinde
- für THT-Bestückung
- Materialstärke: 0,5 mm, 0,8 mm oder 1,0 mm
- Material: Messing verzinnt

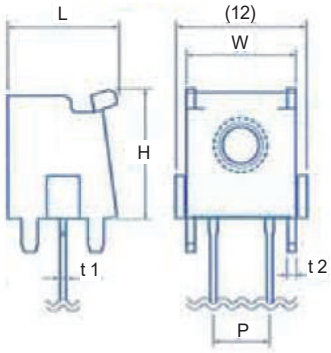


**Strombelastbarkeit**

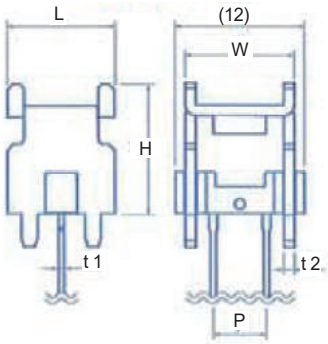
| | |
|---|---|
| M3 | 15 A |
| M4 | 40 A |

Abmessungen ► Einheit = mm

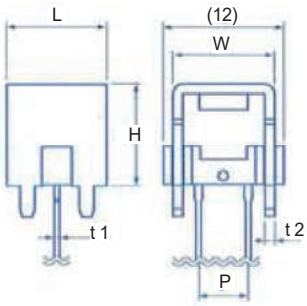
**TP00944-23**



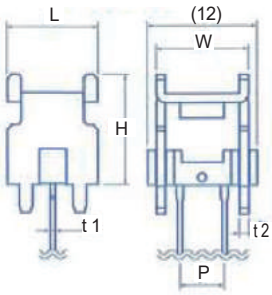

**TP01043-23**



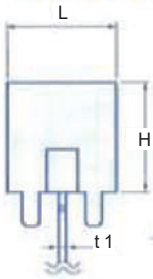

**TP01044-23**



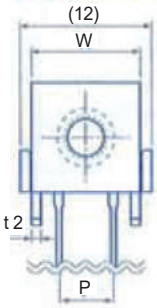

**TP015842-23**



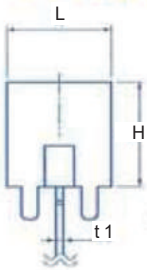

**TP00755-23**



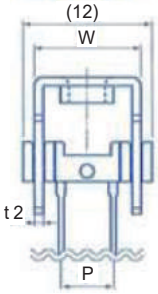

**TP00799-23**



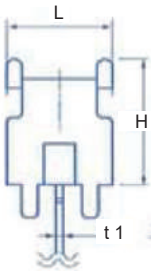

**TP00783-23**



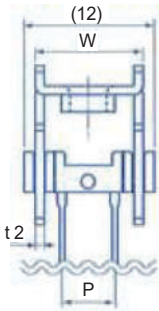

**TP00784-23**




**TP00794-23**




**TP00795-23**




| Typ | L (mm) | W (mm) | H (mm) | t 1 (mm) | t 2 (mm) | P (mm) | Gewinde-größe | Trägerelement | VPE |
|---|---|---|---|---|---|---|---|---|---|
| TP00944-23 | 10,0 | 10,0 | 11,5 | 0,5 | 0,8 | 5,0 | M4 | PBT G30% black UL94V-0 | 700 |
| TP01043-23 | 10,0 | 10,2 | 12,0 | 0,5 | 1,0 | 5,0 | M4 | PBT G30% black UL94V-0 | 700 |
| TP01044-23 | 10,0 | 10,2 | 10,0 | 0,5 | 1,0 | 5,0 | M4 | PBT G30% black UL94V-0 | 700 |
| TP01584-23 | 10,0 | 10,2 | 12,0 | 0,5 | 1,0 | 5,0 | M4 | PBT G15% black UL94V-0 | 700 |
| TP00755-23 | 10,0 | 10,0 | 10,0 | 0,5 | 0,8 | 5,0 | M4 | PBT G30% black UL94V-0 | 700 |
| TP00799-23 | 10,0 | 10,0 | 10,0 | 0,5 | 0,8 | 5,0 | M3 | PBT G30% black UL94V-0 | 700 |
| TP00783-23 | 10,0 | 10,0 | 10,0 | 0,5 | 0,8 | 5,0 | M3 | PBT G30% black UL94V-0 | 700 |
| TP00784-23 | 10,0 | 10,0 | 10,0 | 0,5 | 0,8 | 5,0 | M4 | PBT G30% black UL94V-0 | 700 |
| TP00794-23 | 10,0 | 10,0 | 12,0 | 0,5 | 0,8 | 5,0 | M3 | PBT G30% black UL94V-0 | 700 |
| TP00795-23 | 10,0 | 10,0 | 12,0 | 0,5 | 0,8 | 5,0 | M4 | PBT G30% black UL94V-0 | 700 |

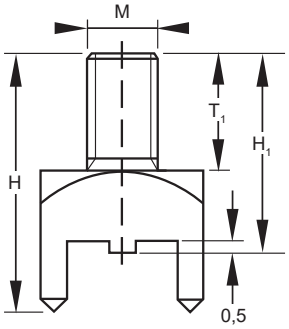
NEU

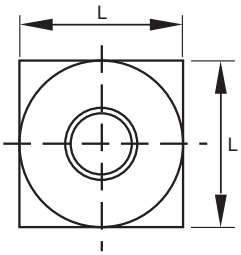
# PE-THR-B POWERELEMENTE

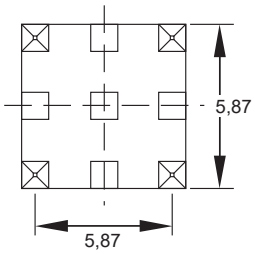
## Merkmale

- THT-Löttechnologie
- als Wire-to-Board und Board-to-Board Verbindung im Hochstrombereich oder als Befestigung von Leiterplatten an Gehäusen bzw. Kabel auf Leiterplatte
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

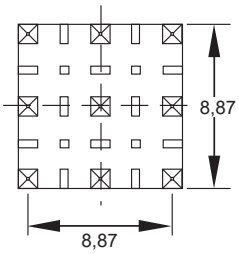
## Abmessungen ► Einheit = mm



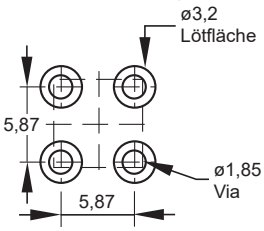

4 PINS



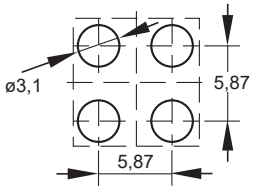

9 PINS

## Pin- und Bohrlochabmessungen

**Lötpadempfehlung**

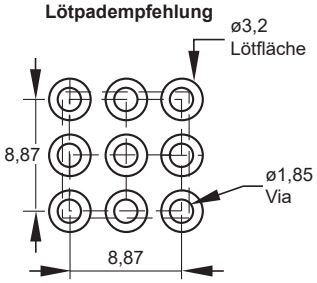



**Schablonenvorschläge**

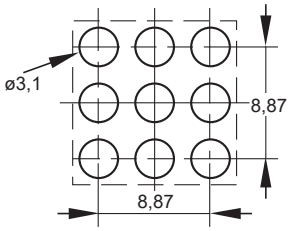



**4 PINS**

**Lötpadempfehlung**




**Schablonenvorschläge**




**9 PINS**

| Art.-Nr. | Typ | Gewinde-größe | H (mm) | $H_1$ (mm) | $T_1$ (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugs-drehmoment |
|---|---|---|---|---|---|---|---|---|---|
| 304 03 085 THRB | PE-THR-B-M3x8,5 | M3 | 11,0 | 8,5 | 5,0 | 7,0 | 4 | 50 | 0,5Nm |
| 304 04 085 THRB | PE-THR-B-M4x8,5 | M4 | 11,0 | 8,5 | 5,0 | 7,0 | 4 | 50 | 1,2Nm |
| 304 04 086 THRB | PE-THR-B-M4x8,5 | M4 | 11,0 | 8,5 | 5,0 | 10,0 | 9 | 85 | 1,2Nm |
| 304 05 105 THRB | PE-THR-B-M5x10,5 | M5 | 13,0 | 10,5 | 7,0 | 7,0 | 4 | 50 | 2,2Nm |
| 304 05 106 THRB | PE-THR-B-M5x10,5 | M5 | 13,0 | 10,5 | 7,0 | 10,0 | 9 | 85 | 2,2Nm |

## Technische Daten

### Eigenschaften

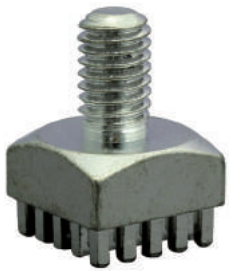
| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Stärke Lötpaste | 150 µm |
| Hitzebeständigkeit | -55 °C bis +150 °C |
| Verpackung | lose, Tape and Reel |

# PE-MP POWERELEMENTE

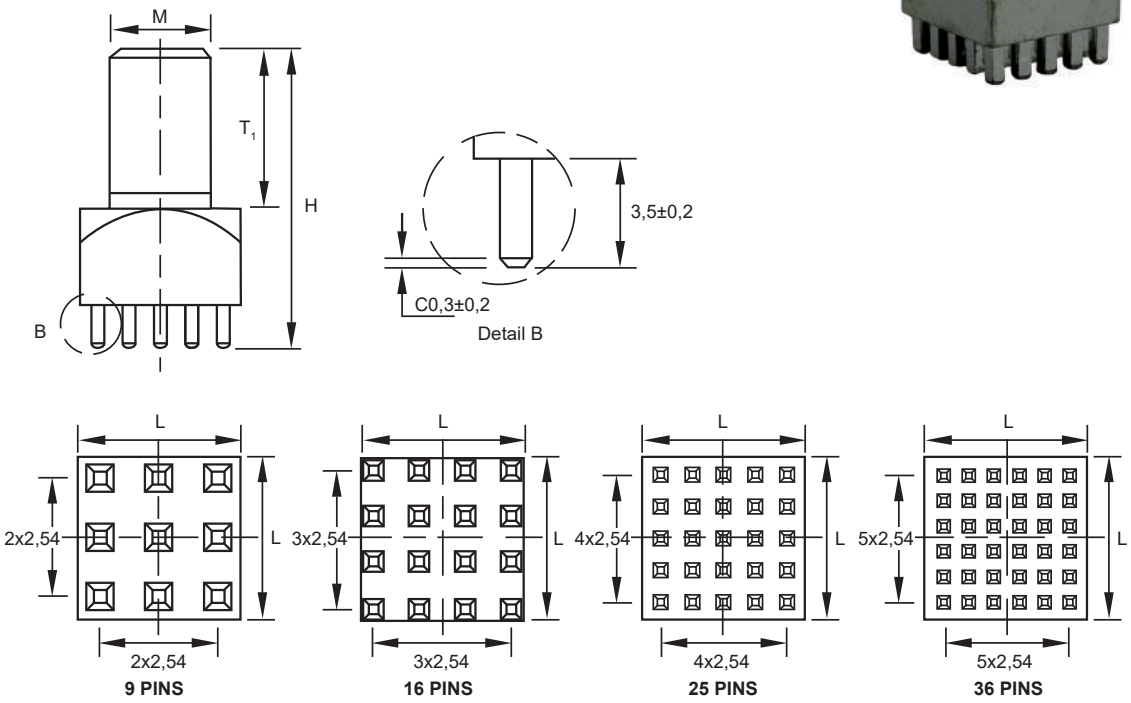
NEU

## Merkmale

- zum Einpressen auf die Leiterplatte. Es können Ströme bis 340A übertragen werden.
- Material: Messing verzinnt



## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Gewindegröße | H (mm) | $T_1$ (mm) | L (mm) | Pins | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|
| **304 03 110 MP** | PE-MP-M3x11,0 | M3 | 11,0 | 5,0 | 7,0 | 9 | 130 | 0,5Nm |
| **304 04 125 MP** | PE-MP-M4x12,5 | M4 | 12,5 | 6,0 | 7,0 | 9 | 130 | 1,2Nm |
| **304 04 130 MP** | PE-MP-M4x13,0 | M4 | 13,0 | 6,0 | 9,0 | 16 | 130 | 1,2Nm |
| **304 05 155 MP** | PE-MP-M5x15,5 | M5 | 15,5 | 8,0 | 7,0 | 9 | 130 | 2,2Nm |
| **304 05 160 MP** | PE-MP-M5x16,0 | M5 | 16,0 | 8,0 | 9,0 | 16 | 180 | 2,2Nm |
| **304 06 190 MP** | PE-MP-M6x19,0 | M6 | 19,0 | 10,0 | 13,0 | 25 | 250 | 3,9Nm |
| **304 08 240 MP** | PE-MP-M8x24,0 | M8 | 24,0 | 13,0 | 13,0 | 25 | 250 | 9,0Nm |
| **304 10 275 MP** | PE-MP-M10x27,5 | M10 | 27,5 | 16,0 | 16,0 | 36 | 340 | 17,0Nm |
| **304 12 415 MP** | PE-MP-M12x41,5 | M12 | 41,5 | 30,0 | 18,0 | 36 | 340 | 17,0Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Bohrlochdurchmesser | 1,6 mm |
| Endlochdurchmesser | 1,475 mm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Auszugskraft | nach IEC 352-5 |

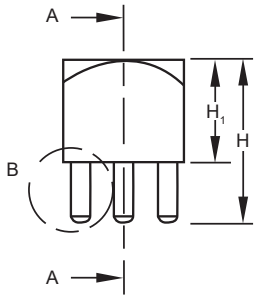
NEU

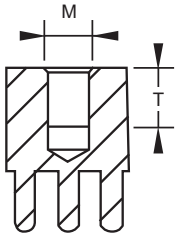
# PE-FPS POWERELEMENTE

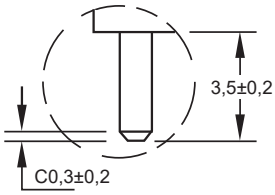
## Merkmale

- zum Einpressen auf die Leiterplatte. Es können Ströme bis 340A übertragen werden.
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

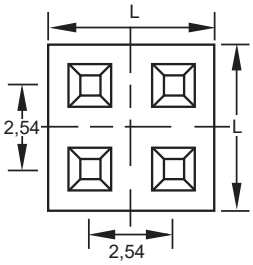
## Abmessungen ► Einheit = mm



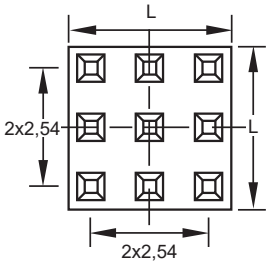



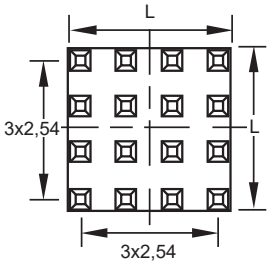

Detail B



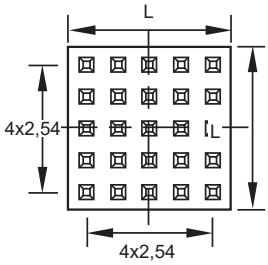

**4 PINS**



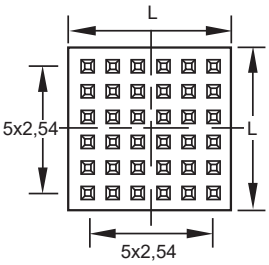

**9 PINS**




**16 PINS**




**25 PINS**




**36 PINS**

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Bohrlochdurchmesser | 1,6 mm |
| Endlochdurchmesser | 1,475 mm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Auszugskraft | nach IEC 352-5 |

| Art.-Nr. | Typ | Gewinde-größe | H (mm) | $H_1$ (mm) | T (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|---|
| 304 03 060 FPS | PE-FPS-M3x9,5 | M3 | 9,5 | 6,0 | 3,5 | 7,0 | 9 | 160 | 0,5Nm |
| 304 03 070 FPS | PE-FPS-M3x10,5 | M3 | 10,5 | 7,0 | 4,0 | 5,0 | 4 | 70 | 0,5Nm |
| 304 04 070 FPS | PE-FPS-M4x10,5 | M4 | 10,5 | 7,0 | 4,0 | 9,0 | 16 | 180 | 1,2Nm |
| 304 05 070 FPS | PE-FPS-M5x10,5 | M5 | 10,5 | 7,0 | 4,0 | 9,0 | 16 | 180 | 2,2Nm |
| 304 05 165 FPS | PE-FPS-M5x16,5 | M5 | 16,5 | 13,0 | 4,0 | 9,0 | 16 | 180 | 2,2Nm |
| 304 06 105 FPS | PE-FPS-M6x14,0 | M6 | 14,0 | 10,5 | 6,5 | 10,0 | 16 | 240 | 3,9Nm |
| 304 08 135 FPS | PE-FPS-M8x17,0 | M8 | 17,0 | 13,5 | 8,0 | 13,0 | 25 | 250 | 9,0Nm |
| 304 10 175 FPS | PE-FPS-M10X21,0 | M10 | 21,0 | 17,5 | 11,0 | 16,0 | 36 | 340 | 17,0Nm |

# PE-FPR POWERELEMENTE

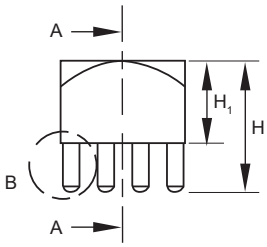
NEU

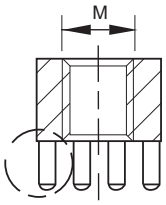
## Merkmale

- zum Einpressen auf die Leiterplatte. Es können Ströme bis 340A übertragen werden.
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

## Abmessungen ► Einheit = mm

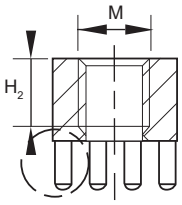
**mit Durchgangsgewinde**



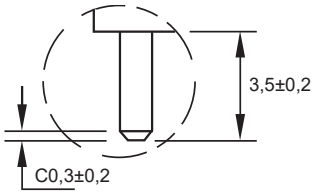




SECTION A-A

**kein Durchgangsgewinde**

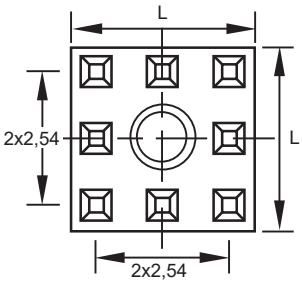



SECTION A-A

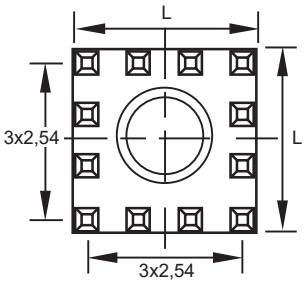



Detail B

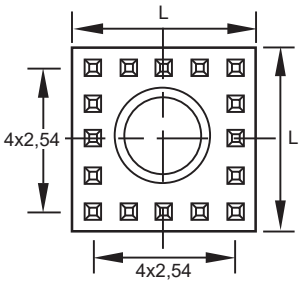
**mit Durchgangsgewinde**



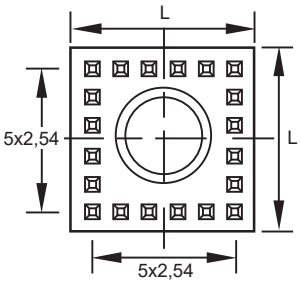

**8 PINS**




**12 PINS**

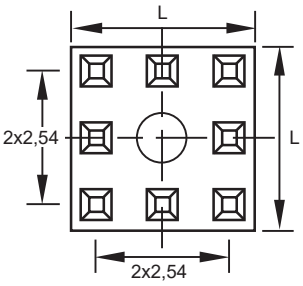



**16 PINS**




**20 PINS**

**kein Durchgangsgewinde**




**8 PINS**

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Bohrlochdurchmesser | 1,6 mm |
| Endlochdurchmesser | 1,475 mm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Auszugskraft | nach IEC 352-5 |

| Art.-Nr. | Typ | Gewinde-größe | H (mm) | $H_1$ (mm) | $H_2$ (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|---|
| **304 25 060 FPR** | PE-FPR-M2,5x6,0 | M2,5 | 9,5 | 6,0 | - | 7,0 | 8 | 130 | 0,29Nm |
| **304 25 065 FPR** | PE-FPR-M2,5x6,0 | M2,5 | 9,5 | 6,0 | 5,0 | 7,0 | 8 | 130 | 0,29Nm |
| **304 04 060 FPR** | PE-FPR-M4x6,0 | M4 | 9,5 | 6,0 | - | 9,0 | 12 | 175 | 1,2Nm |
| **304 05 060 FPR** | PE-FPR-M5x6,0 | M5 | 9,5 | 6,0 | - | 9,0 | 12 | 175 | 2,5Nm |
| **304 06 135 FPR** | PE-FPR-M6x13,5 | M6 | 17,0 | 13,5 | - | 13,0 | 16 | 240 | 3,9Nm |
| **304 08 130 FPR** | PE-FPR-M8x13,0 | M8 | 17,0 | 13,5 | - | 13,0 | 16 | 340 | 9,0Nm |
| **304 08 160 FPR** | PE-FPR-M8x16,0 | M8 | 17,0 | 13,5 | - | 16,0 | 20 | 340 | 9,0Nm |
| **304 10 175 FPR** | PE-FPR-M10X17,5 | M10 | 21,0 | 17,5 | - | 16,0 | 20 | 340 | 17,0Nm |

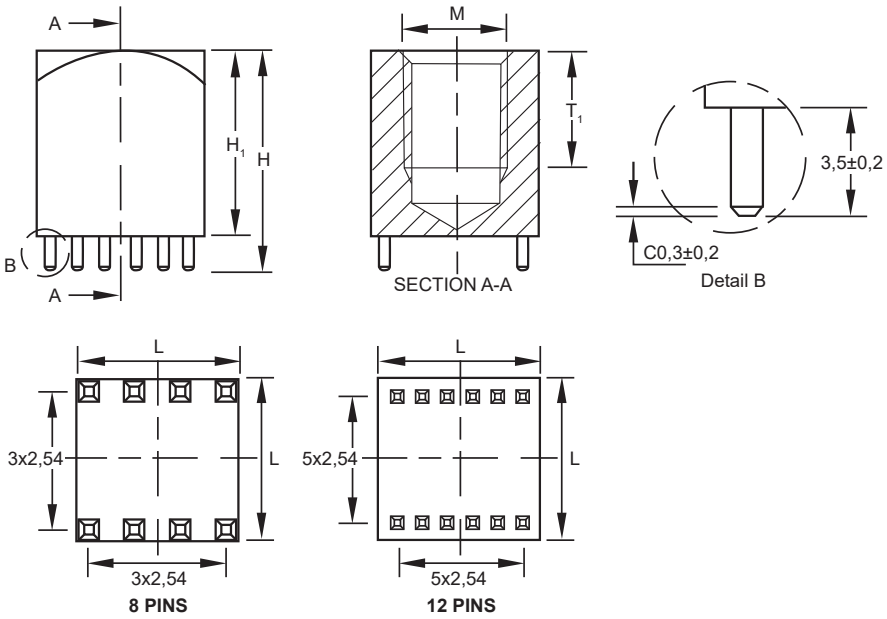
NEU

# PE-FPRS POWERELEMENTE

## Merkmale

- zum Einpressen auf die Leiterplatte. Es können Ströme bis 320A übertragen werden.
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Gewinde-größe | $T_1$ (mm) | H (mm) | $H_1$ (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugs-drehmoment |
|---|---|---|---|---|---|---|---|---|---|
| **304 03 060 FPRS** | PE-FPRS-M3x6,0 | M3 | 5,0 | 9,5 | 6,0 | 7,0 | 6 | 100 | 1,0Nm |
| **304 04 070 FPRS** | PE-FPRS-M4x7,0 | M4 | 6,0 | 10,5 | 7,0 | 9,0 | 8 | 160 | 1,0Nm |
| **304 05 070 FPRS** | PE-FPRS-M5x7,0 | M5 | 6,0 | 10,5 | 7,0 | 9,0 | 8 | 160 | 2,0Nm |
| **304 06 135 FPRS** | PE-FPRS-M6x13,5 | M6 | 9,0 | 17,0 | 13,5 | 10,0 | 8 | 160 | 4,0Nm |
| **304 08 135 FPRS** | PE-FPRS-M8x13,5 | M8 | 10,0 | 17,0 | 13,5 | 13,0 | 10 | 240 | 9,0Nm |
| **304 10 175 FPRS** | PE-FPRS-M10x17,5 | M10 | 11,0 | 21,0 | 17,5 | 16,0 | 12 | 320 | 17,0Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Bohrlochdurchmesser | 1,6 mm |
| Endlochdurchmesser | 1,475 mm |
| Hitzebeständigkeit | -55 °C bis +150 °C |
| Auszugskraft | nach IEC 352-5 |

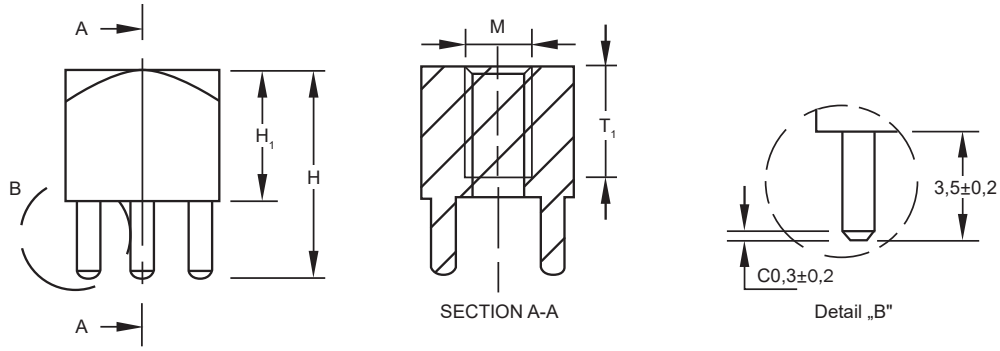
# PE-DG POWERELEMENTE

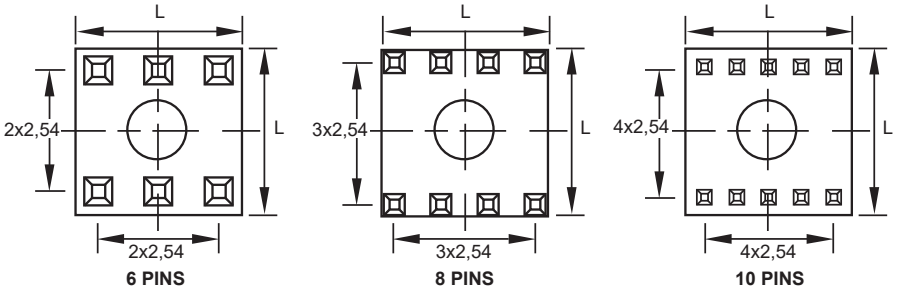
NEU

## Merkmale

- zum Einpressen auf die Leiterplatte. Es können Ströme bis 240A übertragen werden.
- Material: Messing verzinnt

## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Gewinde M/ Durchgangs-loch | H (mm) | $H_1$ (mm) | $T_1$ (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|---|
| **304 03 060 DG** | PE-DG-M3x9,5 | M3 | 9,5 | 6,0 | 5,0 | 7,0 | 6 | 100 | 0,5Nm |
| **304 04 070 DG** | PE-DG-M4x10,5 | M4 | 10,5 | 7,0 | 6,0 | 9,0 | 8 | 160 | 1,2Nm |
| **304 05 070 DG** | PE-DG-M5x10,5 | M5 | 10,5 | 7,0 | 6,0 | 9,0 | 8 | 160 | 2,2Nm |
| **304 08 135 DG** | PE-DG-M8x17,0 | M8 | 17,0 | 13,5 | 10,0 | 13,0 | 10 | 240 | 9,0Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Bohrlochdurchmesser | 1,6 mm |
| Endlochdurchmesser | 1,475 mm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Auszugskraft | nach IEC 352-5 |

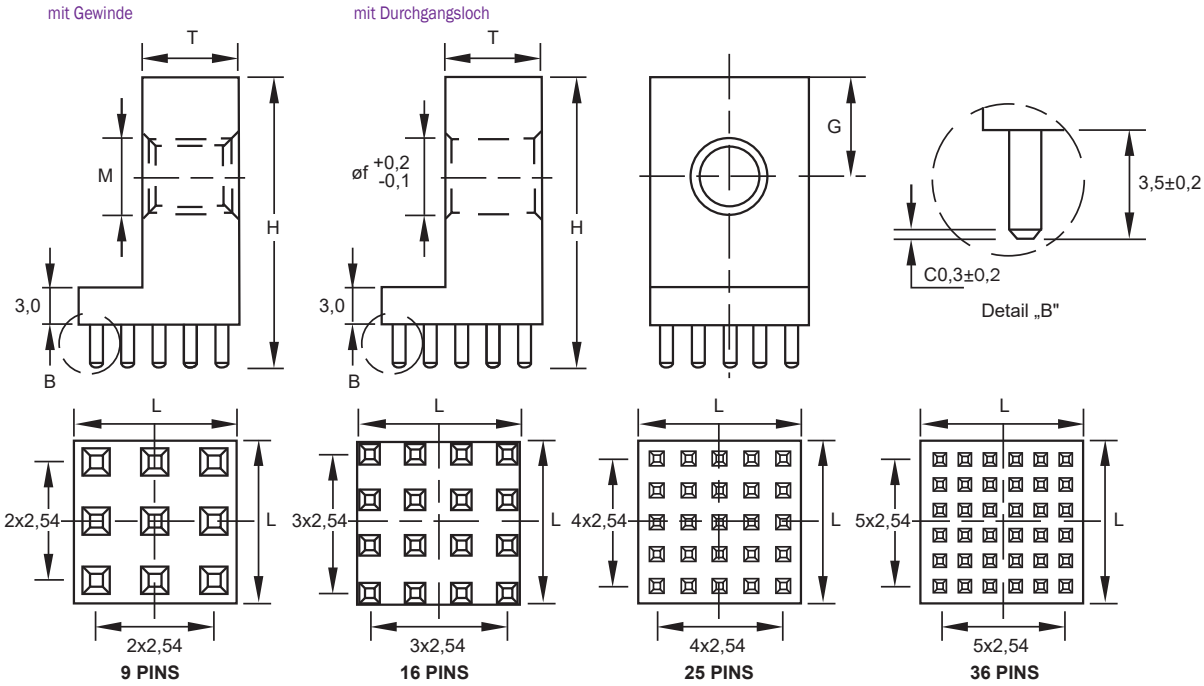
NEU

# PE-LFP POWERELEMENTE

## Merkmale

- zum Einpressen auf die Leiterplatte. Es können Ströme bis 340A übertragen werden.
- als Befestigung von Kabeln auf Leiterplatte
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Gewinde M/ Durchgangs-loch | H (mm) | T (mm) | G (mm) | L (mm) | Pins | IR (A) | Anzugsdrehmoment |
|---|---|---|---|---|---|---|---|---|---|
| 304 03 175L | PE-LFP-M3x17,5 | M3 | 17,5 | 4,0 | 5,0 | 7,0 | 9 | 130 | 0,5Nm |
| 304 04 175L | PE-LFP-M4x17,5 | M4 | 17,5 | 5,0 | 5,0 | 9,0 | 16 | 180 | 1,2Nm |
| 304 05 175L | PE-LFP-M5x17,5 | M5 | 17,5 | 5,0 | 5,0 | 9,0 | 16 | 180 | 2,2Nm |
| 304 06 235L | PE-LFP-M6X23,5 | M6 | 23,5 | 8,0 | 8,0 | 13,0 | 25 | 250 | 3,9Nm |
| 304 08 235L | PE-LFP-M8x23,5 | M8 | 23,5 | 8,0 | 8,0 | 13,0 | 25 | 250 | 9Nm |
| 304 10 285L | PE-LFP-M10X28,5 | M10 | 28,5 | 10,0 | 10,0 | 16,0 | 36 | 340 | 17Nm |
| 304 32 175L | PE-LFP-3,2x17,5 | ø3.2 | 17,5 | 4,0 | 5,0 | 7,0 | 9 | 130 | 0,5Nm |
| 304 42 175L | PE-LFP-4,2x17,5 | ø4.2 | 17,5 | 5,0 | 5,0 | 9,0 | 16 | 180 | 1,2Nm |
| 304 52 175L | PE-LFP-5,2x17,5 | ø5.2 | 17,5 | 5,0 | 5,0 | 9,0 | 16 | 180 | 2,2Nm |
| 304 62 235L | PE-LFP-6,2x23,5 | ø6.2 | 23,5 | 8,0 | 8,0 | 13,0 | 25 | 250 | 3,9Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Bohrlochdurchmesser | 1,6 mm |
| Endlochdurchmesser | 1,475 mm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Auszugskraft | nach IEC 352-5 |

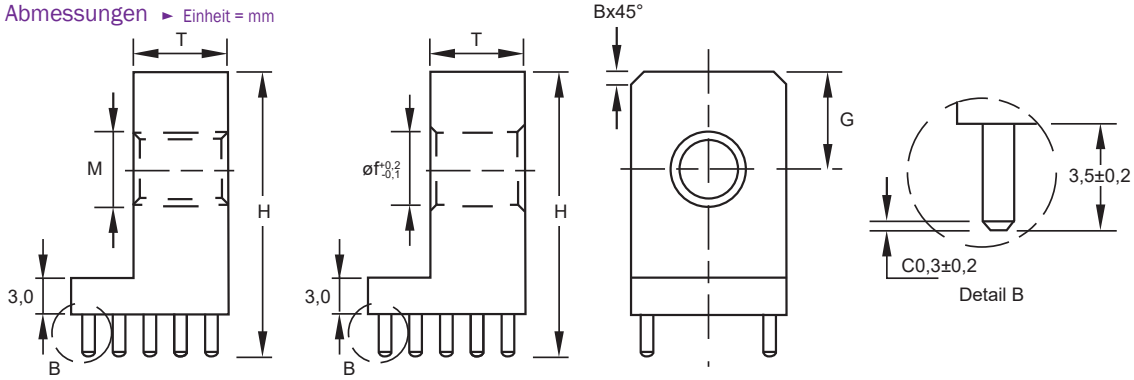
# PE-LR POWERELEMENTE

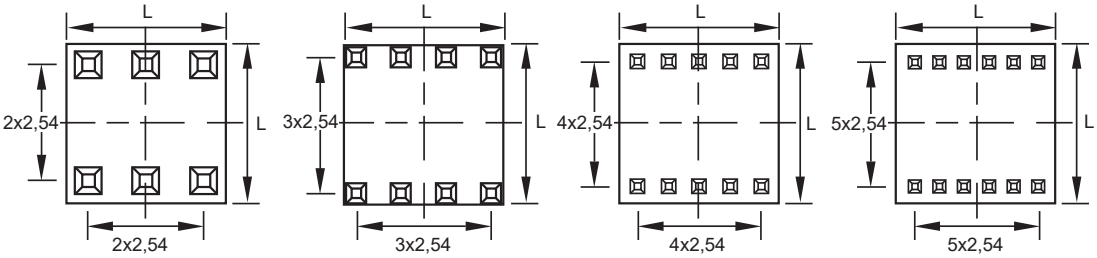
NEU

## Merkmale

- zum Einpressen auf die Leiterplatte. Es können Ströme bis 340A übertragen werden.
- als Befestigung von Kabeln auf Leiterplatte
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

## Abmessungen ► Einheit = mm




**6 PINS** **8 PINS** **10 PINS** **12 PINS**

| Art.-Nr. | Typ | M/øf (mm) | B (mm) | H (mm) | T (mm) | G (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugs-drehmoment |
|---|---|---|---|---|---|---|---|---|---|---|
| 304 03 175 LR | PE-LR-M3x17,5 | M3 | 1,0 | 17,5 | 3,8 | 5,0 | 7,0 | 6 | 100 | 0,5Nm |
| 304 04 175 LR | PE-LR-M4x17,5 | M4 | 1,5 | 17,5 | 5,0 | 5,0 | 9,0 | 8 | 160 | 1,2Nm |
| 304 05 175 LR | PE-LR-M5x17,5 | M5 | 1,5 | 17,5 | 5,0 | 5,0 | 9,0 | 8 | 160 | 2,2Nm |
| 304 06 235 LR | PE-LR-M6x23,5 | M6 | 2,0 | 23,5 | 8,0 | 8,0 | 13,0 | 10 | 240 | 3,9Nm |
| 304 08 235 LR | PE-LR-M8x23,5 | M8 | 2,0 | 23,5 | 8,0 | 8,0 | 13,0 | 10 | 240 | 9,0Nm |
| 304 10 285 LR | PE-LR-M10x28,5 | M10 | 2,5 | 28,5 | 10,0 | 10,0 | 16,0 | 12 | 340 | 17,0Nm |
| 304 32 175 LR | PE-LR-3,2x17,5 | ø3,2 | 1,0 | 17,5 | 3,8 | 5,0 | 7,0 | 6 | 100 | 0,5Nm |
| 304 42 175 LR | PE-LR-4,2x17,5 | ø4,2 | 1,5 | 17,5 | 5,0 | 5,0 | 9,0 | 8 | 160 | 1,2Nm |
| 304 52 175 LR | PE-LR-5,2x17,5 | ø5,2 | 1,5 | 17,5 | 5,0 | 5,0 | 9,0 | 8 | 160 | 2,2Nm |
| 304 62 235 LR | PE-LR-6,2x23,5 | ø6,2 | 2,0 | 23,5 | 8,0 | 8,0 | 13,0 | 10 | 240 | 3,9Nm |
| 304 82 235 LR | PE-LR-8,2x23,5 | ø8,2 | 2,0 | 23,5 | 8,0 | 8,0 | 13,0 | 10 | 240 | 9,0Nm |
| 304 102 285 LR | PE-LR-10,2x28,5 | ø10,2 | 2,5 | 28,5 | 10,0 | 10,0 | 16,0 | 12 | 340 | 17,0Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Bohrlochdurchmesser | 1,6 mm |
| Endlochdurchmesser | 1,475 mm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Auszugskraft | nach IEC 352-5 |

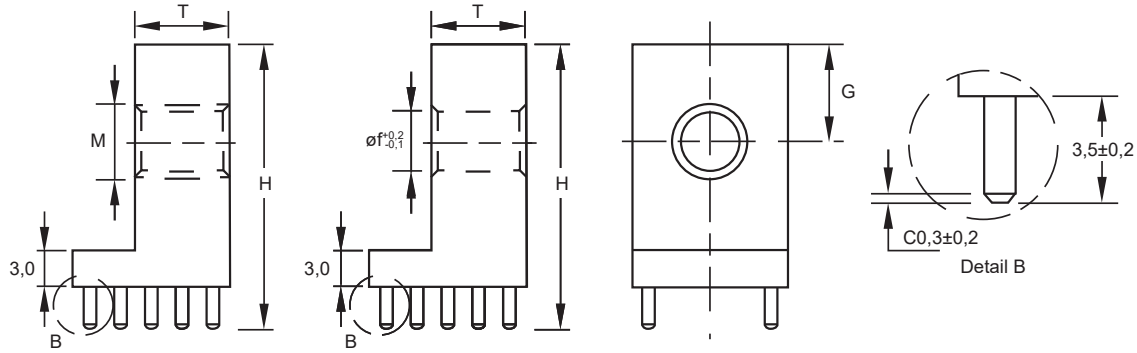
NEU

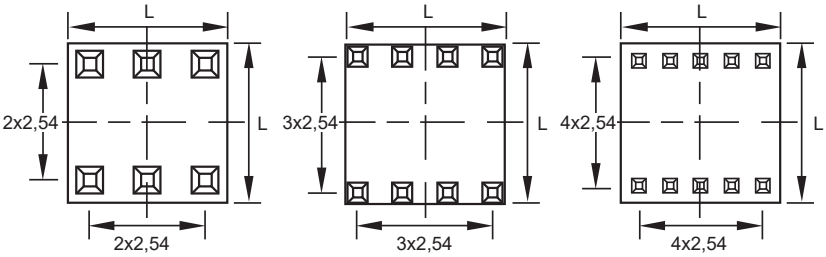
# PE-LRE POWERELEMENTE

Merkmale

- zum Einpressen auf die Leiterplatte. Es können Ströme bis 240A übertragen werden.
- als Befestigung von Kabeln auf Leiterplatte
- Material: Messing verzinnt
- andere Größen und Ausführungen auf Anfrage

Abmessungen ► Einheit = mm




6 PINS 8 PINS 10 PINS

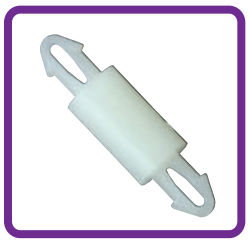
| Art.-Nr. | Typ | M/øf (mm) | H (mm) | T (mm) | G (mm) | L (mm) | Anzahl Pins | IR (A) | Anzugs-drehmoment |
|---|---|---|---|---|---|---|---|---|---|
| 304 03 175 LRE | PE-LRE-M3x17,5 | M3 | 17,5 | 3,8 | 5,0 | 7,0 | 6 | 100 | 0,5Nm |
| 304 04 175 LRE | PE-LRE-M4x17,5 | M4 | 17,5 | 5,0 | 5,0 | 9,0 | 8 | 160 | 1,2Nm |
| 304 05 175 LRE | PE-LRE-M5x17,5 | M5 | 17,5 | 5,0 | 5,0 | 9,0 | 8 | 160 | 2,2Nm |
| 304 06 235 LRE | PE-LRE-M6x23,5 | M6 | 23,5 | 8,0 | 8,0 | 13,0 | 10 | 240 | 3,9Nm |
| 304 08 235 LRE | PE-LRE-M8x23,5 | M8 | 23,5 | 8,0 | 8,0 | 13,0 | 10 | 240 | 9,0Nm |
| 304 32 175 LRE | PE-LRE-3,2x17,5 | ø3,2 | 17,5 | 3,8 | 5,0 | 7,0 | 6 | 100 | 0,5Nm |
| 304 42 175 LRE | PE-LRE-4,2x17,5 | ø4,2 | 17,5 | 5,0 | 5,0 | 9,0 | 8 | 160 | 1,2Nm |
| 304 52 175 LRE | PE-LRE-5,2x17,5 | ø5,2 | 17,5 | 5,0 | 5,0 | 9,0 | 8 | 160 | 2,2Nm |
| 304 62 235 LRE | PE-LRE-6,2x23,5 | ø6,2 | 23,5 | 8,0 | 8,0 | 13,0 | 10 | 240 | 3,9Nm |
| 304 82 235 LRE | PE-LRE-8,2x23,5 | ø8,2 | 23,5 | 8,0 | 8,0 | 13,0 | 10 | 240 | 9,0Nm |

## Technische Daten

### Eigenschaften

| | |
|---|---|
| Material | Messing |
| Oberfläche | verzinnt |
| Bohrlochdurchmesser | 1,6 mm |
| Endlochdurchmesser | 1,475 mm |
| Hitzebeständigkeit | -55°C bis +150°C |
| Auszugskraft | nach IEC 352-5 |

# LEITERPLATTENBEFESTIGUNG/ LED-ABSTANDHALTER



## Abstandhalter


| | |
|---|---|
| mit beidseitiger Rastmontage | Seite 34 - 55 |
| mit einseitiger Rastmontage und einseitiger Durchsteckmontage | Seite 56 - 63 |
| mit einseitiger Rastmontage / Sonderformen | Seite 64 - 66 |
| mit einseitiger Rastmontage und einseitiger Klebemontage | Seite 67 - 70 |
| mit einseitiger Rastmontage und einseitiger Schraubmontage | Seite 71 - 86 |
| mit einseitiger Rastmontage bzw. Durchsteckmontage und einseitig plan | Seite 87 - 90 |
| Leiterplattenführung | Seite 91 |
| für LED | Seite 92 - 94 |

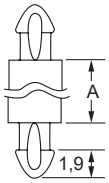
# MAD ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,2 - 1,7 mm
- Loch-Ø = 2,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 45 39 | MAD-2,2 | 2,2 |
| 100 45 40 | MAD-3 | 3,0 |
| 100 45 41 | MAD-4 | 4,0 |
| 100 45 42 | MAD-5 | 5,0 |
| 100 45 43 | MAD-6 | 6,0 |
| 100 45 44 | MAD-6,5 | 6,5 |
| 100 45 45 | MAD-8 | 8,0 |
| 100 45 46 | MAD-10 | 10,5 |
| 100 45 47 | MAD-12,5 | 12,5 |
| 100 45 48 | MAD-14 | 14,0 |

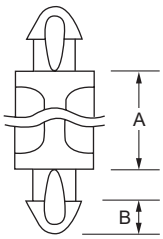
# MADM ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,2 - 1,7 mm
- Loch-Ø = 2,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm



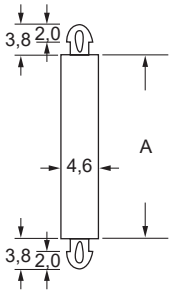

| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 45 52 | MADM-2 | 2,0 | 1,8 |
| 100 45 53 | MADM-3 | 3,0 | 1,8 |
| 100 45 54 | MADM-4 | 4,0 | 2,0 |
| 100 45 55 | MADM-5 | 5,0 | 2,0 |
| 100 45 56 | MADM-6 | 6,0 | 2,0 |
| 100 45 57 | MADM-7,5 | 7,5 | 2,0 |
| 100 45 58 | MADM-8 | 8,0 | 2,0 |
| 100 45 59 | MADM-9,5 | 9,5 | 2,0 |
| 100 45 60 | MADM-10 | 10,0 | 2,0 |
| 100 45 61 | MADM-10,5 | 10,5 | 2,0 |
| 100 45 62 | MADM-12 | 12,7 | 1,8 |
| 100 45 63 | MADM-27 | 27,0 | 1,8 |

# AH-E0 ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,6 mm
- Loch-Ø = 2,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm



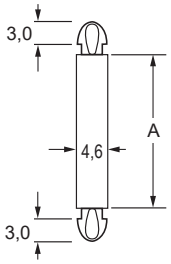
| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 45 02 | AH-E002 | 2,0 |
| 100 45 03 | AH-E003 | 3,0 |
| 100 45 03,5 | AH-E003,5 | 3,5 |
| 100 45 04 | AH-E004 | 4,0 |
| 100 45 05 | AH-E005 | 5,0 |
| 100 45 06 | AH-E006 | 6,0 |
| 100 45 06,7 | AH-E006,7 | 6,7 |
| 100 45 07 | AH-E007 | 7,0 |
| 100 45 08 | AH-E008 | 8,0 |
| 100 45 08,5 | AH-E008,5 | 8,5 |
| 100 45 09 | AH-E009 | 9,0 |
| 100 45 10 | AH-E010 | 10,0 |
| 100 45 11 | AH-E011 | 11,0 |
| 100 45 12 | AH-E012 | 12,0 |
| 100 45 12,7 | AH-E012,7 | 12,7 |
| 100 45 14 | AH-E014 | 14,0 |
| 100 45 16 | AH-E016 | 16,0 |
| 100 45 18 | AH-E018 | 18,0 |
| 100 45 20 | AH-E020 | 20,0 |
| 100 45 22 | AH-E022 | 22,0 |

# AH-E1 ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,6 mm
- Loch-Ø = 3,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm



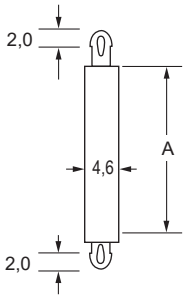
| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 46 02 | AH-E102 | 2,0 |
| 100 46 04 | AH-E104 | 4,0 |
| 100 46 05 | AH-E105 | 5,0 |
| 100 46 06 | AH-E106 | 6,0 |
| 100 46 07 | AH-E107 | 7,0 |
| 100 46 08 | AH-E108 | 8,0 |
| 100 46 09 | AH-E109 | 9,0 |
| 100 46 10 | AH-E110 | 10,0 |
| 100 46 12 | AH-E112 | 12,0 |
| 100 46 14 | AH-E114 | 14,0 |
| 100 46 16 | AH-E116 | 16,0 |
| 100 46 18 | AH-E118 | 18,0 |
| 100 46 20 | AH-E120 | 20,0 |
| 100 46 22 | AH-E122 | 22,0 |

# AH-E2 ABSTANDHALTER

## Merkmale

- beidseitig mit Rastverriegelung
- einseitig für Leiterplattenstärke 1,6 mm
- einseitig für Leiterplattenstärke max. 3,6 mm
- beidseitig Loch-Ø = 2,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 47 02 | AH-E202 | 2,0 |
| 100 47 03 | AH-E203 | 3,0 |
| 100 47 04 | AH-E204 | 4,0 |
| 100 47 05 | AH-E205 | 5,0 |
| 100 47 06 | AH-E206 | 6,0 |
| 100 47 07 | AH-E207 | 7,0 |
| 100 47 08 | AH-E208 | 8,0 |
| 100 47 10 | AH-E210 | 10,0 |
| 100 47 12 | AH-E212 | 12,0 |
| 100 47 14 | AH-E214 | 14,0 |
| 100 47 16 | AH-E216 | 16,0 |
| 100 47 18 | AH-E218 | 18,0 |
| 100 47 20 | AH-E220 | 20,0 |
| 100 47 22 | AH-E222 | 22,0 |

# AH-2R2,5R3 ABSTANDHALTER

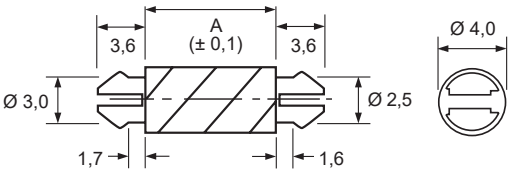
NEU

## Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,5 mm und 1,6 mm
- Loch-Ø = 2,5 mm und 3,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) |
|---|---|
| 100 83 03 | 3,0 |
| 100 83 04 | 4,0 |
| 100 83 05 | 5,0 |
| 100 83 06 | 6,0 |
| 100 83 07 | 7,0 |
| 100 83 08 | 8,0 |
| 100 83 09 | 9,0 |
| 100 83 10 | 10,0 |
| 100 83 11 | 11,0 |
| 100 83 12 | 12,0 |
| 100 83 13 | 13,0 |
| 100 83 14 | 14,0 |
| 100 83 15 | 15,0 |
| 100 83 16 | 16,0 |
| 100 83 17 | 17,0 |
| 100 83 18 | 18,0 |
| 100 83 19 | 19,0 |
| 100 83 20 | 20,0 |
| 100 83 21 | 21,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 83 22 | 22,0 |
| 100 83 23 | 23,0 |
| 100 83 24 | 24,0 |
| 100 83 25 | 25,0 |
| 100 83 26 | 26,0 |
| 100 83 27 | 27,0 |
| 100 83 28 | 28,0 |
| 100 83 29 | 29,0 |
| 100 83 30 | 30,0 |
| 100 83 31 | 31,0 |
| 100 83 32 | 32,0 |
| 100 83 33 | 33,0 |
| 100 83 34 | 34,0 |
| 100 83 35 | 35,0 |
| 100 83 36 | 36,0 |
| 100 83 37 | 37,0 |
| 100 83 38 | 38,0 |
| 100 83 39 | 39,0 |
| 100 83 40 | 40,0 |

NEU

# TLCV ABSTANDHALTER

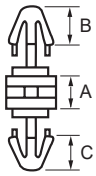
## Merkmale

- beidseitige Rastverriegelung
- für Leiterplattenstärke siehe Tabelle E + F
- Loch-Ø = 3,0 mm
- Material: Nylon 66, UL94V-2 = Standard, UL94V-0 auf Anfrage
- Farbe: natur = Standard, schwarz auf Anfrage

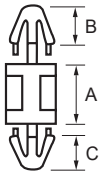
## Abmessungen

► Einheit = mm

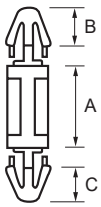
Figur 1




Figur 2




Figur 3




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | E (mm) | F (mm) | VPE | Figur |
|---|---|---|---|---|---|---|---|---|
| 100 08 64 | 3,55 | TLCV | 3,55 | 3,55 | 1,6 | 1,6 | 1.000 | Figur 1 |
| 100 08 65 | 3,4 | TLCV | 3,4 | 3,4 | 1,8 | 1,8 | | |
| 100 08 66 | 3,6 | TLCV | 3,6 | 3,6 | 1,2-1,7 | 0,8-1,0 | | |
| 100 08 67 | 3,1 | TLCVA | 3,1 | 2,4 | 1,6 | 0,8-1,0 | 2.000 | Figur 2 |
| 100 08 68 | 3,0 | TLCVA | 3,0 | 2,4 | 0,8-1,0 | 1,6 | | |
| 100 08 69 | 3,1 | TLCVA | 3,1 | 2,4 | 1,6 | 0,8-1,0 | | |
| 100 08 70 | 3,1 | TLCVA | 3,1 | 2,4 | 1,6 | 0,8-1,0 | | |
| 100 08 71 | 3,7 | TLCVU | 3,7 | 3,7 | 1,2-1,8 | 1,2-1,8 | 1.000 | Figur 3 |
| 100 08 72 | 3,55 | TLCVU | 3,55 | 3,55 | 2,0 | 2,0 | | |
| 100 08 73 | 3,7 | TLCVU | 3,7 | 3,7 | 1,2-1,8 | 1,2-1,8 | | |

NEU

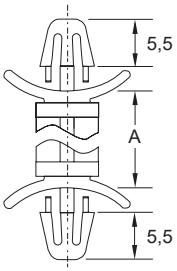
# TLCEO ABSTANDHALTER

## Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke siehe Tabelle E und F
- Loch-Ø = 3,0 mm
- Material: Nylon 66 (UL94V-2 = Standard, UL94V-0 auf Anfrage)
- Farbe: natur = Standard, schwarz auf Anfrage

## Abmessungen

► Einheit = mm



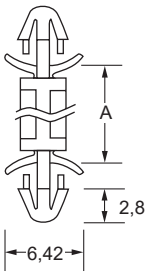

| Art.-Nr. | Typ | A (mm) | E (mm) | F (mm) |
|---|---|---|---|---|
| 100 28 50 | TLCEO-5 | 4,8 | 0,8 - 2,0 | 0,8 - 2,0 |
| 100 28 51 | TLCEO-6 | 6,4 | | |
| 100 28 52 | TLCEO-8 | 7,9 | | |
| 100 28 53 | TLCEO-9 | 9,5 | | |
| 100 28 54 | TLCEO-12 | 12,7 | | |
| 100 28 55 | TLCEO-12L | 11,9 | 1,2 - 2,3 | 1,2 - 2,3 |
| 100 28 56 | TLCEO-15 | 15,9 | 0,8 - 2,0 | 0,8 - 2,0 |
| 100 28 57 | TLCEO-19 | 19,0 | | |
| 100 28 58 | TLCEO-22 | 22,2 | | |

# LCF ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,2 - 2,0 mm
- Loch-Ø = 3,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 08 21 | LCF-3 | 3,5 |
| 100 08 22 | LCF-5 | 5,0 |
| 100 08 23 | LCF-6 | 6,4 |
| 100 08 24 | LCF-7 | 7,0 |
| 100 08 25 | LCF-8 | 8,0 |
| 100 08 26 | LCF-9 | 9,5 |
| 100 08 27 | LCF-11 | 11,2 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 08 28 | LCF-12 | 12,0 |
| 100 08 29 | LCF-15 | 15,0 |
| 100 08 30 | LCF-16 | 16,0 |
| 100 08 31 | LCF-17 | 17,0 |
| 100 08 32 | LCF-20 | 20,0 |
| 100 08 33 | LCF-22 | 22,0 |
| 100 08 34 | LCF-25 | 25,4 |

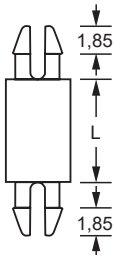
# MSPS3 ABSTANDHALTER

NEU

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,6 mm
- Loch-Ø = 3,2 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur = Standard, schwarz auf Anfrage

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | L (mm) |
|---|---|---|
| 100 28 40 | MSPS3-3,2 | 3,2 |
| 100 28 41 | MSPS3-4,8 | 4,8 |
| 100 28 42 | MSPS3-6,4 | 6,4 |
| 100 28 43 | MSPS3-8,0 | 7,9 |
| 100 28 44 | MSPS3-9,5 | 9,5 |
| 100 28 45 | MSPS3-11,1 | 11,1 |
| 100 28 46 | MSPS3-12,7 | 12,7 |
| 100 28 47 | MSPS3-14,3 | 14,3 |
| 100 28 48 | MSPS3-15,9 | 15,9 |
| 100 28 49 | MSPS3-19,1 | 19,1 |
| 100 28 59 | MSPS3-20,6 | 20,6 |
| 100 28 60 | MSPS3-22,2 | 22,2 |
| 100 28 61 | MSPS3-25,4 | 25,4 |
| 100 28 62 | MSPS3-31,8 | 31,8 |
| 100 28 63 | MSPS3-34,9 | 34,9 |

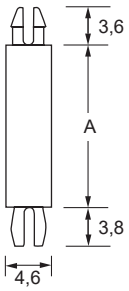
# AH-D ABSTANDHALTER

## Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,6 mm
- Loch-Ø = 3,2 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 19 03 | AH-D03 | 3,2 |
| 100 19 04 | AH-D04 | 4,8 |
| 100 19 06 | AH-D06 | 6,4 |
| 100 19 07 | AH-D07 | 7,9 |
| 100 19 09 | AH-D09 | 9,5 |
| 100 19 11 | AH-D11 | 11,1 |
| 100 19 12 | AH-D12 | 12,7 |
| 100 19 14 | AH-D14 | 14,3 |
| 100 19 15 | AH-D15 | 15,9 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 19 19 | AH-D19 | 19,1 |
| 100 19 20 | AH-D20 | 20,6 |
| 100 19 22 | AH-D22 | 22,2 |
| 100 19 25 | AH-D25 | 25,4 |
| 100 19 28 | AH-D28 | 28,6 |
| 100 19 31 | AH-D31 | 31,8 |
| 100 19 34 | AH-D34 | 34,9 |
| 100 19 38 | AH-D38 | 38,1 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

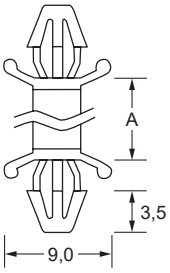
# CBSS ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,0 - 2,2 mm
- Loch-Ø = 3,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 08 41 | CBSS-1 | 2,1 |
| 100 08 42 | CBSS-4,8 | 4,8 |
| 100 08 43 | CBSS-7 | 7,0 |
| 100 08 44 | CBSS-10 | 10,0 |
| 100 08 45 | CBSS-12,7 | 12,7 |
| 100 08 46 | CBSS-14 | 14,0 |
| 100 08 47 | CBSS-17 | 17,0 |

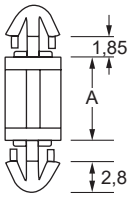
# LCI ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,0 - 1,7 mm
- Loch-Ø = 3,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 78 02,5 | LCI-2,5 | 2,5 |
| 100 78 03 | LCI-3 | 3,0 |
| 100 78 03,5 | LCI-3,5 | 3,5 |
| 100 78 04 | LCI-4 | 4,0 |
| 100 78 04,5 | LCI-4,5 | 4,5 |
| 100 78 05 | LCI-5 | 5,0 |
| 100 78 05,5 | LCI-5,5 | 5,5 |
| 100 78 06 | LCI-6 | 6,0 |
| 100 78 06,5 | LCI-6,5 | 6,35 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 78 07 | LCI-7 | 7,0 |
| 100 78 08 | LCI-8 | 8,0 |
| 100 78 09 | LCI-9 | 9,0 |
| 100 78 10 | LCI-10 | 10,0 |
| 100 78 11 | LCI-11 | 11,0 |
| 100 78 12 | LCI-12 | 12,0 |
| 100 78 15 | LCI-15 | 15,0 |

Weitere Abmessungen und Größen auf Anfrage:
Telefon: 09852 61079-0

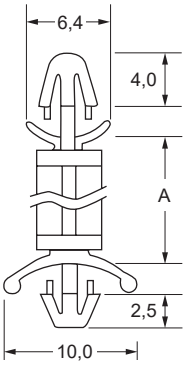
NEU

# LCD ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 0,8 - 2,0 mm
- Loch-Ø = 3,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 08 50 | LCD-3 | 3,2 |
| 100 08 51 | LCD-4 | 4,0 |
| 100 08 52 | LCD-5 | 4,8 |
| 100 08 53 | LCD-6 | 6,4 |
| 100 08 54 | LCD-7 | 7,0 |
| 100 08 55 | LCD-8 | 8,0 |
| 100 08 56 | LCD-9 | 9,6 |

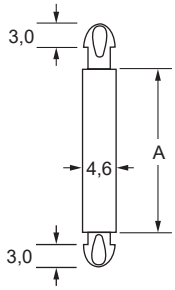
| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 08 57 | LCD-11 | 11,2 |
| 100 08 58 | LCD-12 | 12,7 |
| 100 08 59 | LCD-14 | 14,0 |
| 100 08 60 | LCD-16 | 16,0 |
| 100 08 61 | LCD-18 | 18,0 |
| 100 08 62 | LCD-19 | 19,1 |
| 100 08 63 | LCD-27 | 27,5 |

# AH-E3 ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- einseitig für Leiterplattenstärke 1,6 mm
- einseitig für Leiterplattenstärke max. 3,6 mm
- beidseitig Loch-Ø = 3,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 48 02 | AH-E302 | 2,0 |
| 100 48 03 | AH-E303 | 3,0 |
| 100 48 04 | AH-E304 | 4,0 |
| 100 48 05 | AH-E305 | 5,0 |
| 100 48 06 | AH-E306 | 6,0 |
| 100 48 07 | AH-E307 | 7,0 |
| 100 48 08 | AH-E308 | 8,0 |
| 100 48 10 | AH-E310 | 10,0 |
| 100 48 12 | AH-E312 | 12,0 |
| 100 48 14 | AH-E314 | 14,0 |
| 100 48 16 | AH-E316 | 16,0 |
| 100 48 18 | AH-E318 | 18,0 |
| 100 48 20 | AH-E320 | 20,0 |
| 100 48 22 | AH-E322 | 22,0 |

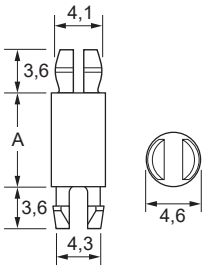
# HSP ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,6 mm
- Loch-Ø = 3,9 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 28 02 | HSP-2 | 3,2 |
| 100 28 05 | HSP-3 | 4,8 |
| 100 28 06 | HSP-4 | 6,3 |
| 100 28 08 | HSP-5 | 7,9 |
| 100 28 09 | HSP-6 | 9,5 |
| 100 28 11 | HSP-7 | 11,3 |
| 100 28 13 | HSP-8 | 12,7 |
| 100 28 14 | HSP-9 | 14,3 |
| 100 28 16 | HSP-10 | 15,9 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 28 18 | HSP-11 | 17,5 |
| 100 28 19 | HSP-12 | 19,1 |
| 100 28 20 | HSP-13 | 20,6 |
| 100 28 22 | HSP-14 | 22,2 |
| 100 28 25 | HSP-16 | 25,4 |
| 100 28 29 | HSP-18 | 28,6 |
| 100 28 32 | HSP-20 | 31,7 |
| 100 28 35 | HSP-22 | 34,9 |
| 100 28 38 | HSP-24 | 38,1 |

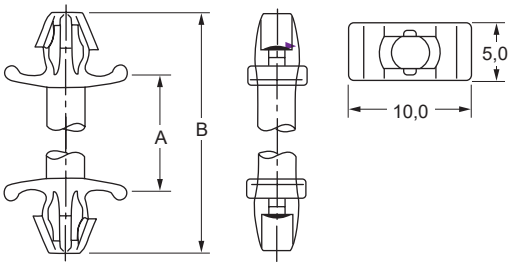
# WLS ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 1,2 - 1,7 mm
- Loch-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | Loch-Ø (mm) |
|---|---|---|---|---|
| 100 08 04 | WLS-04-0 | 4,0 | 13,5 | 3,5 |
| 100 08 06 | WLS-06-0 | 6,0 | 15,2 | 4,0 |
| 100 08 08 | WLS-08-0 | 8,0 | 17,2 | 4,0 |
| 100 08 10 | WLS-10-0 | 10,0 | 19,2 | 4,0 |
| 100 08 12 | WLS-12-0 | 12,0 | 21,2 | 4,0 |
| 100 08 14 | WLS-14-0 | 14,0 | 23,2 | 4,0 |
| 100 08 16 | WLS-16,8-0 | 16,8 | 26,0 | 4,0 |
| 100 08 20 | WLS-20-0 | 20,0 | 29,2 | 4,0 |

NEU

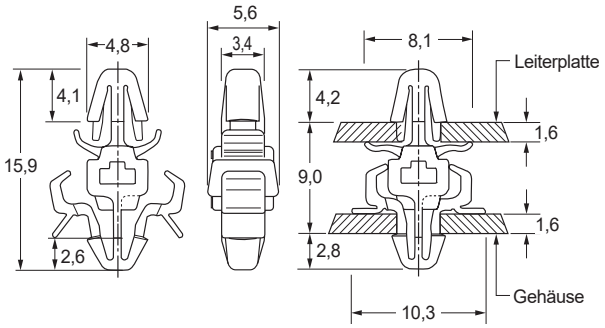
# RMPCS-3SVO ABSTANDHALTER

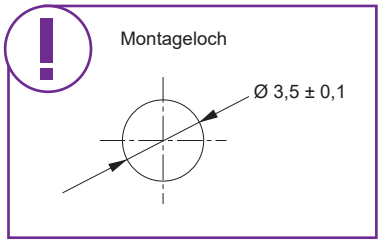
Merkmale:

- DRUCK-Montage
- einseitig mit Rastverriegelung
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 0,8 - 1,6 mm
- Material: Nylon 66, UL94V-0 • Farbe: weiss

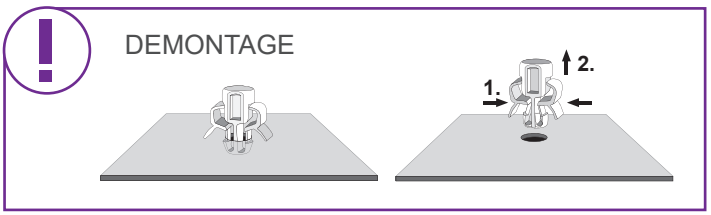
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 100 80 07 | RMPCS-3SVO |



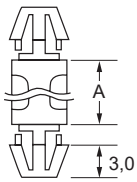

# LCC ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,2 - 1,7 mm
- Loch-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2 • Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 78 40 | LCC-3S | 3,0 |
| 100 78 41 | LCC-3 | 3,5 |
| 100 78 42 | LCC-4 | 4,0 |
| 100 78 43 | LCC-5 | 5,0 |
| 100 78 44 | LCC-6S | 6,0 |
| 100 78 45 | LCC-6 | 6,4 |
| 100 78 46 | LCC-8 | 8,0 |
| 100 78 47 | LCC-10S | 10,0 |
| 100 78 48 | LCC-10 | 10,5 |
| 100 78 49 | LCC-11,5 | 11,5 |
| 100 78 50 | LCC-12S | 12,0 |
| 100 78 51 | LCC-12 | 12,7 |
| 100 78 52 | LCC-14 | 14,0 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 78 53 | LCC-15 | 15,9 |
| 100 78 54 | LCC-18 | 18,0 |
| 100 78 55 | LCC-19 | 19,0 |
| 100 78 56 | LCC-20 | 20,0 |
| 100 78 57 | LCC-25 | 25,0 |
| 100 78 58 | LCC-27 | 27,0 |
| 100 78 59 | LCC-30 | 30,0 |
| 100 78 60 | LCC-34 | 34,0 |
| 100 78 61 | LCC-69 | 69,0 |
| 100 78 62 | LCC-71 | 71,2 |
| 100 78 63 | LCC-72 | 72,0 |
| 100 78 64 | LCC-74 | 74,2 |
| 100 78 65 | LCC-80 | 80,0 |

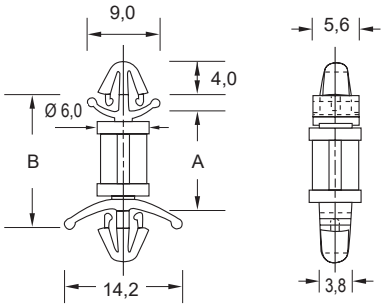
# SPD ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 1,6 mm
- Loch-Ø = 4,0 mm
- für Gehäusestärke 0,5 - 2,0 mm, Bohrung-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2 • Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 78 30 | SPD-3 | 4,6 | 8,9 |
| 100 78 31 | SPD-4 | 5,9 | 10,2 |
| 100 78 32 | SPD-6 | 9,1 | 13,4 |
| 100 78 33 | SPD-7 | 10,7 | 15,0 |
| 100 78 34 | SPD-8 | 12,2 | 16,5 |
| 100 78 35 | SPD-10 | 15,4 | 19,7 |
| 100 78 36 | SPD-12 | 18,6 | 22,9 |
| 100 78 37 | SPD-14 | 21,7 | 26,0 |

# RWPS-8VO ABSTANDHALTER

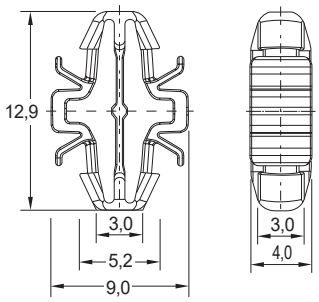
NEU

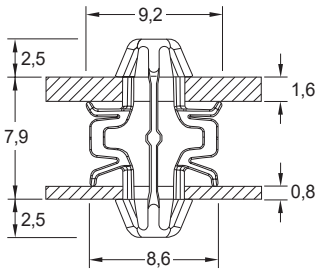
Merkmale:

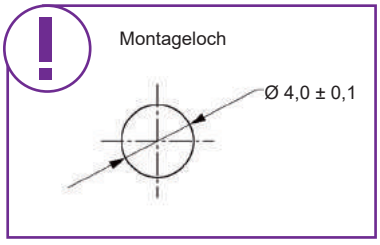
- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 1,6 mm
- Material: Nylon 66, UL94V-0 • Farbe: weiss

Abmessungen

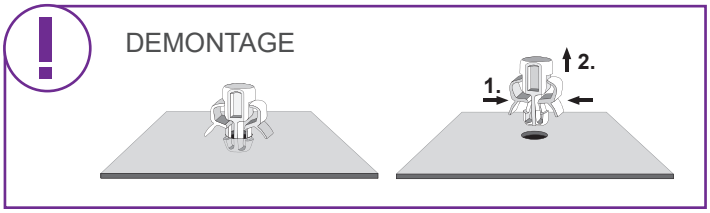
► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 100 80 08 | RWPS-8VO |



# AH-1,6R4 ABSTANDHALTER

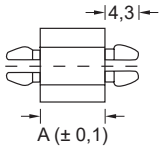
## Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 1,6 mm
- Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

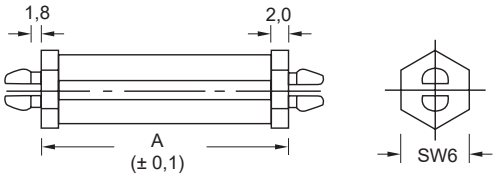
## Abmessungen

► Einheit = mm

Länge 3-5 mm - SW massiv




Länge 6-65 mm




| Art.-Nr. | Typ |
|---|---|
| 100 61 03 | 3,0 |
| 100 61 04 | 4,0 |
| 100 61 05 | 5,0 |
| 100 61 06 | 6,0 |
| 100 61 07 | 7,0 |
| 100 61 08 | 8,0 |
| 100 61 09 | 9,0 |
| 100 61 10 | 10,0 |
| 100 61 11 | 11,0 |
| 100 61 12 | 12,0 |
| 100 61 13 | 13,0 |
| 100 61 14 | 14,0 |
| 100 61 15 | 15,0 |
| 100 61 16 | 16,0 |
| 100 61 17 | 17,0 |
| 100 61 18 | 18,0 |
| 100 61 19 | 19,0 |
| 100 61 20 | 20,0 |
| 100 61 21 | 21,0 |
| 100 61 22 | 22,0 |
| 100 61 23 | 23,0 |
| 100 61 24 | 24,0 |
| 100 61 25 | 25,0 |
| 100 61 26 | 26,0 |
| 100 61 27 | 27,0 |
| 100 61 28 | 28,0 |
| 100 61 29 | 29,0 |
| 100 61 30 | 30,0 |
| 100 61 31 | 31,0 |
| 100 61 32 | 32,0 |
| 100 61 33 | 33,0 |
| 100 61 34 | 34,0 |
| 100 61 35 | 35,0 |
| 100 61 36 | 36,0 |
| 100 61 37 | 37,0 |

| Art.-Nr. | Typ |
|---|---|
| 100 61 38 | 38,0 |
| 100 61 39 | 39,0 |
| 100 61 40 | 40,0 |
| 100 61 41 | 41,0 |
| 100 61 42 | 42,0 |
| 100 61 43 | 43,0 |
| 100 61 44 | 44,0 |
| 100 61 45 | 45,0 |
| 100 61 46 | 46,0 |
| 100 61 47 | 47,0 |
| 100 61 48 | 48,0 |
| 100 61 49 | 49,0 |
| 100 61 50 | 50,0 |
| 100 61 51 | 51,0 |
| 100 61 52 | 52,0 |
| 100 61 53 | 53,0 |
| 100 61 54 | 54,0 |
| 100 61 55 | 55,0 |
| 100 61 56 | 56,0 |
| 100 61 57 | 57,0 |
| 100 61 58 | 58,0 |
| 100 61 59 | 59,0 |
| 100 61 60 | 60,0 |
| 100 61 61 | 61,0 |
| 100 61 62 | 62,0 |
| 100 61 63 | 63,0 |
| 100 61 64 | 64,0 |
| 100 61 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# AH-2R4 ABSTANDHALTER

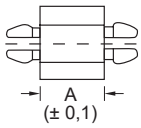
## Merkmale

- beidseitig mit Rastverriegelung
- beidseitig für Leiterplattenstärke 2,0 mm
- Loch-Ø = 4,0 mm
- Material: Polyamid, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

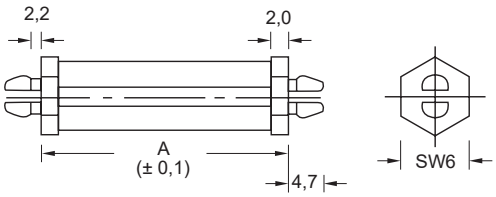
## Abmessungen

► Einheit = mm

Länge 3-5 mm - SW massiv




Länge 6-65 mm




| Art.-Nr. | Typ |
|---|---|
| 100 79 03 | 3,0 |
| 100 79 04 | 4,0 |
| 100 79 05 | 5,0 |
| 100 79 06 | 6,0 |
| 100 79 07 | 7,0 |
| 100 79 08 | 8,0 |
| 100 79 09 | 9,0 |
| 100 79 10 | 10,0 |
| 100 79 11 | 11,0 |
| 100 79 12 | 12,0 |
| 100 79 13 | 13,0 |
| 100 79 14 | 14,0 |
| 100 79 15 | 15,0 |
| 100 79 16 | 16,0 |
| 100 79 17 | 17,0 |
| 100 79 18 | 18,0 |
| 100 79 19 | 19,0 |
| 100 79 20 | 20,0 |
| 100 79 21 | 21,0 |
| 100 79 22 | 22,0 |
| 100 79 23 | 23,0 |
| 100 79 24 | 24,0 |
| 100 79 25 | 25,0 |
| 100 79 26 | 26,0 |
| 100 79 27 | 27,0 |
| 100 79 28 | 28,0 |
| 100 79 29 | 29,0 |
| 100 79 30 | 30,0 |
| 100 79 31 | 31,0 |
| 100 79 32 | 32,0 |
| 100 79 33 | 33,0 |
| 100 79 34 | 34,0 |
| 100 79 35 | 35,0 |

| Art.-Nr. | Typ |
|---|---|
| 100 79 36 | 36,0 |
| 100 79 37 | 37,0 |
| 100 79 38 | 38,0 |
| 100 79 39 | 39,0 |
| 100 79 40 | 40,0 |
| 100 79 41 | 41,0 |
| 100 79 42 | 42,0 |
| 100 79 43 | 43,0 |
| 100 79 44 | 44,0 |
| 100 79 45 | 45,0 |
| 100 79 46 | 46,0 |
| 100 79 47 | 47,0 |
| 100 79 48 | 48,0 |
| 100 79 49 | 49,0 |
| 100 79 50 | 50,0 |
| 100 79 51 | 51,0 |
| 100 79 52 | 52,0 |
| 100 79 53 | 53,0 |
| 100 79 54 | 54,0 |
| 100 79 55 | 55,0 |
| 100 79 56 | 56,0 |
| 100 79 57 | 57,0 |
| 100 79 58 | 58,0 |
| 100 79 59 | 59,0 |
| 100 79 60 | 60,0 |
| 100 79 61 | 61,0 |
| 100 79 62 | 62,0 |
| 100 79 63 | 63,0 |
| 100 79 64 | 64,0 |
| 100 79 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

NEU

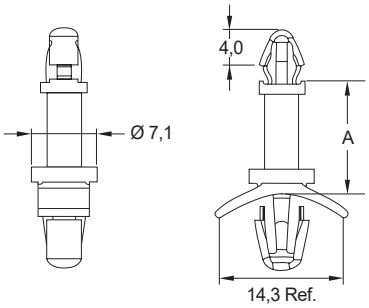
# LCBS-7 ABSTANDHALTER

Merkmale:

- für Leiterplattenstärke: 1,6 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 0,8 - 2,0 mm, Loch-Ø = 4,75 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 72 74 | LCBS-7-3-01 | 4,8 |
| 100 72 75 | LCBS-7-4-01 | 6,4 |
| 100 72 76 | LCBS-7-5-01 | 7,9 |
| 100 72 77 | LCBS-7-6-01 | 9,5 |
| 100 72 78 | LCBS-7-7-01 | 11,1 |
| 100 72 79 | LCBS-7-8-01 | 12,7 |
| 100 72 80 | LCBS-7-10-01 | 15,9 |
| 100 72 81 | LCBS-7-12-01 | 19,1 |
| 100 72 82 | LCBS-7-14-01 | 22,2 |
| 100 72 83 | LCBS-7-16-01 | 25,4 |
| 100 72 84 | LCBS-7-18-01 | 28,6 |
| 100 72 85 | LCBS-7-20-01 | 31,7 |
| 100 72 86 | LCBS-7-22-01 | 34,9 |

NEU

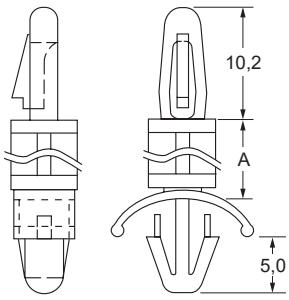
# LCSD ABSTANDHALTER

Merkmale

- für Leiterplattenstärke: siehe Tabelle, Loch-Ø = 4,0 mm
- für Gehäusestärke 2,0 - 3,2 mm, Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | für Leiterplattenstärke (mm) |
|---|---|---|---|
| 100 72 70 | LCSD-4,8 | 4,8 | 1,6 |
| 100 72 71 | LCSD-4,8-L | 4,8 | 2,0 - 3,2 |
| 100 72 72 | LCSD-9,5 | 9,5 | 1,6 |
| 100 72 73 | LCSD-12,7 | 12,7 | 1,6 |

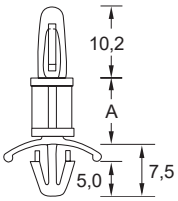
# LCS ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 1,2 - 1,7 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 0,8 - 2,0 mm, Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2 • Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 72 03 | LCS-3 | 3,5 |
| 100 72 05 | LCS-5 | 4,8 |
| 100 72 06 | LCS-6 | 6,0 |
| 100 72 07 | LCS-6A | 6,4 |
| 100 72 08 | LCS-8 | 7,9 |
| 100 72 09 | LCS-9 | 9,5 |
| 100 72 11 | LCS-11 | 11,1 |
| 100 72 12 | LCS-12 | 12,7 |
| 100 72 16 | LCS-16 | 15,9 |
| 100 72 19 | LCS-19 | 19,1 |
| 100 72 22 | LCS-22 | 22,2 |
| 100 72 25 | LCS-25 | 25,4 |
| 100 72 28 | LCS-28 | 28,6 |
| 100 72 31 | LCS-31 | 31,7 |
| 100 72 35 | LCS-35 | 34,9 |

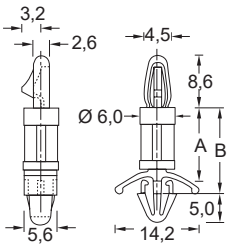
# SPLSN ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 0,8 - 1,6 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 0,5 - 2,0 mm, Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2 (auch in UL94V-0 erhältlich) • Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 29 03 | SPLSN-3 | 4,9 | 7,1 |
| 100 29 04 | SPLSN-4 | 6,2 | 8,4 |
| 100 29 06 | SPLSN-6 | 9,4 | 11,6 |
| 100 29 07 | SPLSN-7 | 11,0 | 13,2 |
| 100 29 08 | SPLSN-8 | 12,5 | 14,7 |
| 100 29 10 | SPLSN-10 | 15,7 | 17,9 |
| 100 29 12 | SPLSN-12 | 18,9 | 21,1 |
| 100 29 14 | SPLSN-14 | 22,0 | 24,2 |
| 100 29 16 | SPLSN-16 | 25,1 | 27,3 |
| 100 29 18 | SPLSN-18 | 28,3 | 30,5 |
| 100 29 20 | SPLSN-20 | 31,5 | 33,7 |
| 100 29 22 | SPLSN-22 | 34,6 | 36,8 |

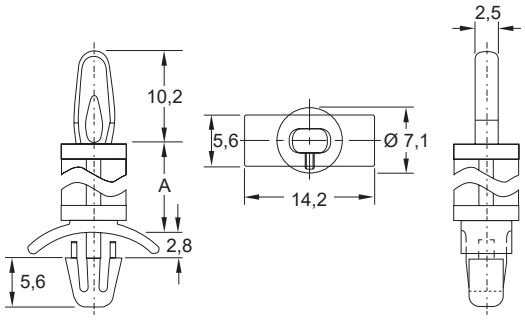
# LCBS ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 0,8 - 2,0 mm, Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 72 41 | LCBS-4-3-01 | 4,8 |
| 100 72 42 | LCBS-4-4-01 | 6,4 |
| 100 72 43 | LCBS-4-5-01 | 7,9 |
| 100 72 44 | LCBS-4-6-01 | 9,5 |
| 100 72 45 | LCBS-4-7-01 | 11,1 |
| 100 72 46 | LCBS-4-8-01 | 12,7 |
| 100 72 47 | LCBS-4-10-01 | 15,9 |
| 100 72 48 | LCBS-4-12-01 | 19,1 |
| 100 72 49 | LCBS-4-14-01 | 22,2 |
| 100 72 50 | LCBS-4-16-01 | 25,4 |
| 100 72 51 | LCBS-4-18-01 | 28,6 |
| 100 72 52 | LCBS-4-20-01 | 31,7 |
| 100 72 53 | LCBS-4-22-01 | 34,9 |

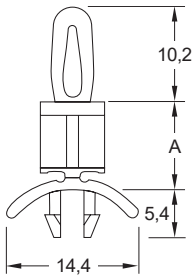
# CBS ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 1,2 - 1,7 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 0,8 - 2,5 mm, Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 72 60 | CBS-3-01 | 4,8 |
| 100 72 61 | CBS-4-01 | 6,4 |
| 100 72 62 | CBS-6-01 | 9,5 |
| 100 72 63 | CBS-8-01 | 12,7 |
| 100 72 64 | CBS-10-01 | 15,9 |
| 100 72 65 | CBS-12-01 | 19,1 |
| 100 72 66 | CBS-24-01 | 22,2 |

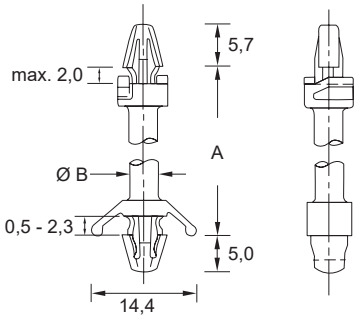
# KGLS-S ABSTANDHALTER

## Merkmale

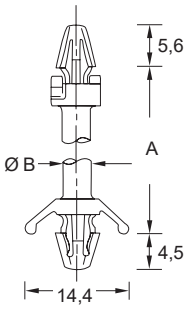
- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 0,5 - 1,8 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 0,5 - 2,3 mm, Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2 (auch in UL94V-0 erhältlich)
- Farbe: natur

## Abmessungen

► Einheit = mm




KGLS-7S




| Art.-Nr. | Typ | A (mm) | Ø B (mm) |
|---|---|---|---|
| 100 01 03 | KGLS-3S | 9,8 | - |
| 100 01 04 | KGLS-4S | 11,4 | 4,0 |
| 100 01 06 | KGLS-6S | 14,4 | 4,0 |
| 100 01 06V | KGLS-6S-V0 | 14,4 | 4,0 |
| 100 01 07 | KGLS-7S | 16,6 | 4,0 |
| 100 01 08 | KGLS-8S | 17,7 | 4,0 |
| 100 01 10 | KGLS-10S | 20,9 | 4,0 |
| 100 01 12 | KGLS-12S | 24,1 | 4,0 |
| 100 01 14 | KGLS-14S | 27,2 | 4,0 |
| 100 01 16 | KGLS-16S | 30,4 | 4,0 |
| 100 01 16V | KGLS-16S-V0 | 30,4 | 4,0 |
| 100 01 18 | KGLS-18S | 33,6 | 4,0 |
| 100 01 18V | KGLS-18S-V0 | 33,6 | 4,0 |
| 100 01 22 | KGLS-22S | 39,9 | 4,0 |
| 100 01 22V | KGLS-22S-V0 | 39,9 | 4,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

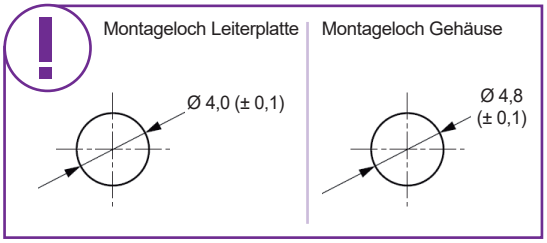
NEU

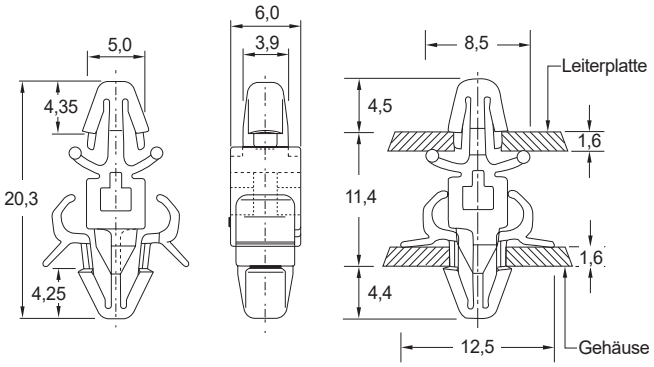
# RPCS-11.4S ABSTANDHALTER

Merkmale:

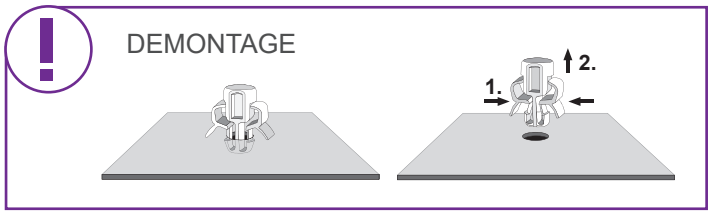
- DRUCK-Montage
- beidseitig mit Rastverriegelung
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 1,6 mm
- für Gehäusestärke 0,8 - 1,6 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 100 80 06 | RPCS-11,4S |



# RBS ABSTANDHALTER

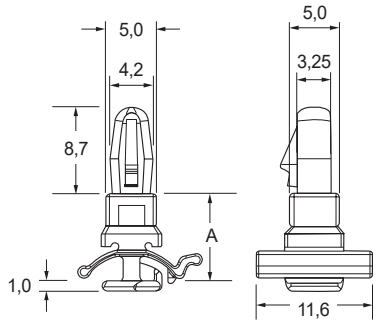
NEU

Merkmale:

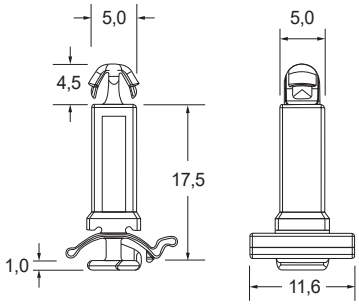
- SCHIEBE-Montage
- Abstandhalter mit extrem flachem Rastfuss
- von einer Seiter montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 1,6 mm
- für Gehäusestärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: schwarz

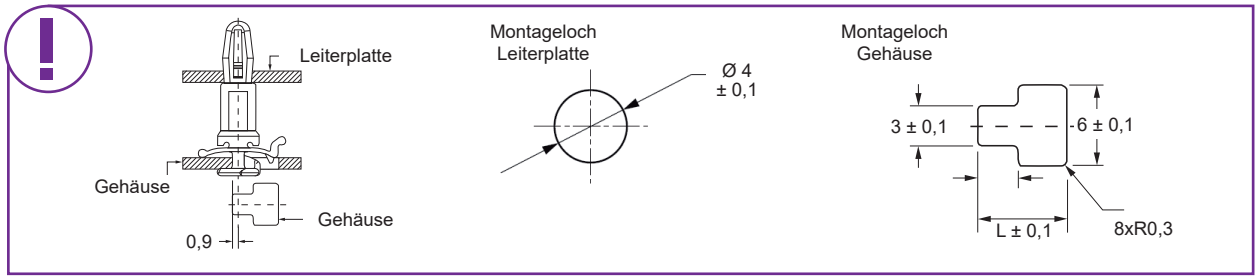
Art.-Nr. 100 82 04

Abmessungen ► Einheit = mm




Art.-Nr. 100 82 04



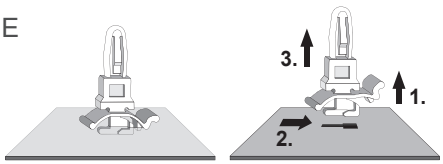




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 82 00 | RBS-5NV0B | 4,8 |
| 100 82 01 | RBS-9NV0B | 8,8 |
| 100 82 02 | RBS-13NV0B | 12,5 |
| 100 82 03 | RBS-18NV0B | 17,5 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 82 04 | RBS-18RV0B | 17,5 |

| Gehäusestärke t | L (mm) |
|---|---|
| 0,5 - 0,8 | 6,2 |
| 0,8 - 1,0 | 6,3 |
| 1,0 - 1,2 | 6,4 |
| 1,2 - 1,6 | 6,5 |
| 1,6 - 1,8 | 6,6 |
| 1,8 - 2,0 | 6,7 |

DEMONTAGE



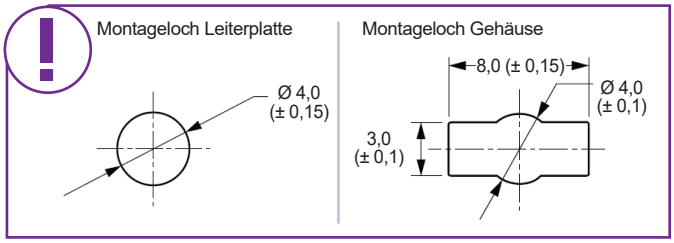
NEU

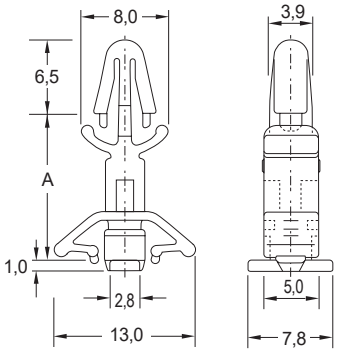
# RCBT ABSTANDHALTER

Merkmale:

- ROTATIONS-Montage
- Abstandhalter mit extrem flachen Rastfuss
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 1,5 - 2,0 mm
- für Gehäusestärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

Abmessungen ► Einheit = mm

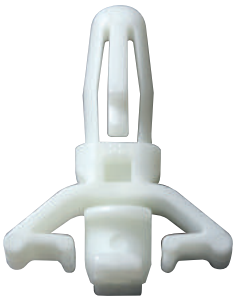



| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 81 00 | RCBT-9S | 8,9 |
| 100 81 01 | RCBT-11S | 10,9 |
| 100 81 02 | RCBT-13S | 13,0 |
| 100 81 03 | RCBT-17S | 17,4 |

NEU

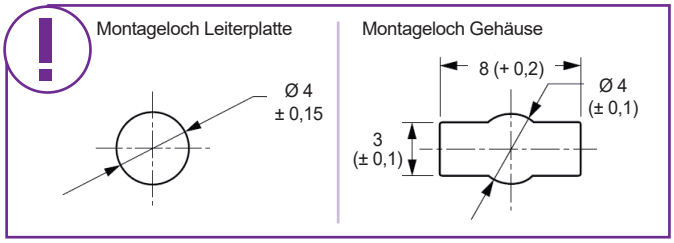
# RCBS ABSTANDHALTER

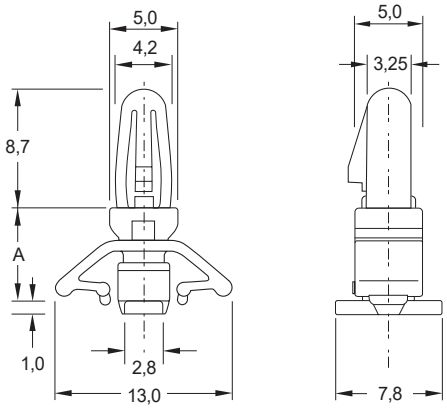


Merkmale:

- ROTATIONS-Montage
- Abstandhalter mit extrem flachen Rastfuss
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 1,6 mm
- für Gehäusestärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 81 04 | RCBS-9S | 6,8 |
| 100 81 05 | RCBS-16S | 13,8 |

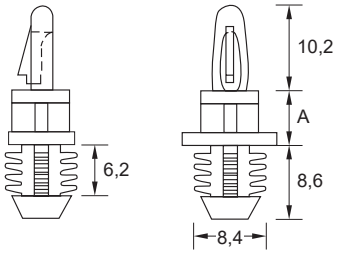
# WBH ABSTANDHALTER

Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 1,2 - 1,7 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke min. 6,4 mm, Loch-Ø = 7,9 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 07 15 | WBH-5 | 4,8 |
| 100 07 16 | WBH-6 | 6,4 |
| 100 07 19 | WBH-9 | 9,5 |
| 100 07 20 | WBH-12 | 12,7 |
| 100 07 22 | WBH-19 | 19,1 |
| 100 07 25 | WBH-25 | 25,4 |

# BHDL ABSTANDHALTER

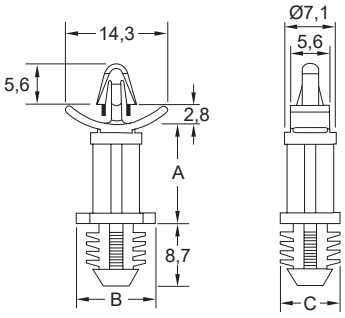
NEU

Merkmale

- beidseitig mit Rastverriegelung
- für Leiterplattenstärke 0,8 - 2,0 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke min. 6,4 mm, Loch-Ø = 7,9 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | Ø Loch (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|---|
| 100 07 26 | BHDL-4-01 | 6,4 | 11,1 | 8,4 | 7,92 | 6,4 MIN |
| 100 07 27 | BHDL-6-01 | 9,5 | | | | |
| 100 07 28 | BHDL-8-01 | 12,7 | | | | |
| 100 07 29 | BHDL-10-01 | 15,9 | | | | |
| 100 07 30 | BHDL-12-01 | 19,1 | | | | |
| 100 07 31 | BHDL-14-01 | 22,2 | | | | |

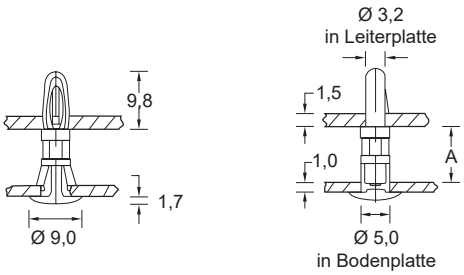
# AHL-1 ABSTANDHALTER

## Merkmale

- einseitig Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,5 mm, Loch-Ø = 3,2 mm
- für Gehäusestärke 1,0 mm, Loch-Ø = 5,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. + 110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) |
|---|---|
| 100 71 03,2 | 3,2 |
| 100 71 04 | 4,0 |
| 100 71 05 | 5,0 |
| 100 71 06 | 6,0 |
| 100 71 07 | 7,0 |
| 100 71 08 | 8,0 |
| 100 71 09 | 9,0 |
| 100 71 10 | 10,0 |
| 100 71 11 | 11,0 |
| 100 71 12 | 12,0 |
| 100 71 13 | 13,0 |
| 100 71 14 | 14,0 |
| 100 71 15 | 15,0 |
| 100 71 16 | 16,0 |
| 100 71 17 | 17,0 |
| 100 71 18 | 18,0 |
| 100 71 19 | 19,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 71 20 | 20,0 |
| 100 71 21 | 21,0 |
| 100 71 22 | 22,0 |
| 100 71 23 | 23,0 |
| 100 71 24 | 24,0 |
| 100 71 25 | 25,0 |
| 100 71 26 | 26,0 |
| 100 71 27 | 27,0 |
| 100 71 28 | 28,0 |
| 100 71 29 | 29,0 |
| 100 71 30 | 30,0 |
| 100 71 31 | 31,0 |
| 100 71 32 | 32,0 |
| 100 71 33 | 33,0 |
| 100 71 34 | 34,0 |
| 100 71 35 | 35,0 |
| 100 71 36 | 36,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

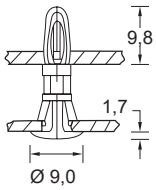
# AHL-1,5 ABSTANDHALTER

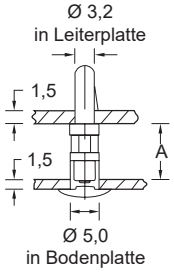
## Merkmale

- einseitig Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,5 mm, Loch-Ø = 3,2 mm
- für Gehäusestärke 1,5 mm, Loch-Ø = 5,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. + 110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) |
|---|---|
| 100 18 03,2 | 3,2 |
| 100 18 04 | 4,0 |
| 100 18 05 | 5,0 |
| 100 18 06 | 6,0 |
| 100 18 07 | 7,0 |
| 100 18 08 | 8,0 |
| 100 18 09 | 9,0 |
| 100 18 10 | 10,0 |
| 100 18 11 | 11,0 |
| 100 18 12 | 12,0 |
| 100 18 13 | 13,0 |
| 100 18 14 | 14,0 |
| 100 18 15 | 15,0 |
| 100 18 16 | 16,0 |
| 100 18 17 | 17,0 |
| 100 18 18 | 18,0 |
| 100 18 19 | 19,0 |
| 100 18 20 | 20,0 |
| 100 18 21 | 21,0 |
| 100 18 22 | 22,0 |
| 100 18 23 | 23,0 |
| 100 18 24 | 24,0 |
| 100 18 25 | 25,0 |
| 100 18 26 | 26,0 |
| 100 18 27 | 27,0 |
| 100 18 28 | 28,0 |
| 100 18 29 | 29,0 |
| 100 18 30 | 30,0 |
| 100 18 31 | 31,0 |
| 100 18 32 | 32,0 |
| 100 18 33 | 33,0 |
| 100 18 34 | 34,0 |
| 100 18 35 | 35,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 18 36 | 36,0 |
| 100 18 37 | 37,0 |
| 100 18 38 | 38,0 |
| 100 18 39 | 39,0 |
| 100 18 40 | 40,0 |
| 100 18 41 | 41,0 |
| 100 18 42 | 42,0 |
| 100 18 43 | 43,0 |
| 100 18 44 | 44,0 |
| 100 18 45 | 45,0 |
| 100 18 46 | 46,0 |
| 100 18 47 | 47,0 |
| 100 18 48 | 48,0 |
| 100 18 49 | 49,0 |
| 100 18 50 | 50,0 |
| 100 18 51 | 51,0 |
| 100 18 52 | 52,0 |
| 100 18 53 | 53,0 |
| 100 18 54 | 54,0 |
| 100 18 55 | 55,0 |
| 100 18 56 | 56,0 |
| 100 18 57 | 57,0 |
| 100 18 58 | 58,0 |
| 100 18 59 | 59,0 |
| 100 18 60 | 60,0 |
| 100 18 61 | 61,0 |
| 100 18 62 | 62,0 |
| 100 18 63 | 63,0 |
| 100 18 64 | 64,0 |
| 100 18 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

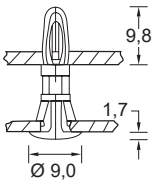
# AHL-2 ABSTANDHALTER

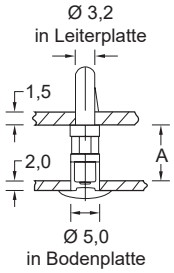
## Merkmale

- einseitig Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,5 mm, Loch-Ø = 3,2 mm
- für Gehäusestärke 2,0 mm, Loch-Ø = 5,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. + 110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) |
|---|---|
| 100 68 03,2 | 3,2 |
| 100 68 04 | 4,0 |
| 100 68 05 | 5,0 |
| 100 68 06 | 6,0 |
| 100 68 07 | 7,0 |
| 100 68 08 | 8,0 |
| 100 68 09 | 9,0 |
| 100 68 10 | 10,0 |
| 100 68 11 | 11,0 |
| 100 68 12 | 12,0 |
| 100 68 13 | 13,0 |
| 100 68 14 | 14,0 |
| 100 68 15 | 15,0 |
| 100 68 16 | 16,0 |
| 100 68 17 | 17,0 |
| 100 68 18 | 18,0 |
| 100 68 19 | 19,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 68 20 | 20,0 |
| 100 68 21 | 21,0 |
| 100 68 22 | 22,0 |
| 100 68 23 | 23,0 |
| 100 68 24 | 24,0 |
| 100 68 25 | 25,0 |
| 100 68 26 | 26,0 |
| 100 68 27 | 27,0 |
| 100 68 28 | 28,0 |
| 100 68 29 | 29,0 |
| 100 68 30 | 30,0 |
| 100 68 31 | 31,0 |
| 100 68 32 | 32,0 |
| 100 68 33 | 33,0 |
| 100 68 34 | 34,0 |
| 100 68 35 | 35,0 |
| 100 68 36 | 36,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

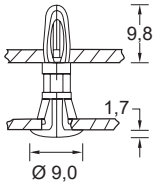
# AHL-2,5 ABSTANDHALTER

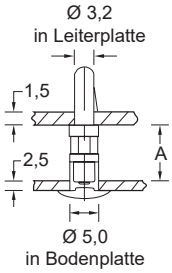
## Merkmale

- einseitig Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,5 mm, Loch-Ø = 3,2 mm
- für Gehäusestärke 2,5 mm, Loch-Ø = 5,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. + 110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) |
|---|---|
| 100 69 03 | 3,2 |
| 100 69 04 | 4,0 |
| 100 69 05 | 5,0 |
| 100 69 06 | 6,0 |
| 100 69 07 | 7,0 |
| 100 69 08 | 8,0 |
| 100 69 09 | 9,0 |
| 100 69 10 | 10,0 |
| 100 69 11 | 11,0 |
| 100 69 12 | 12,0 |
| 100 69 13 | 13,0 |
| 100 69 14 | 14,0 |
| 100 69 15 | 15,0 |
| 100 69 16 | 16,0 |
| 100 69 17 | 17,0 |
| 100 69 18 | 18,0 |
| 100 69 19 | 19,0 |
| 100 69 20 | 20,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 69 21 | 21,0 |
| 100 69 22 | 22,0 |
| 100 69 23 | 23,0 |
| 100 69 24 | 24,0 |
| 100 69 25 | 25,0 |
| 100 69 26 | 26,0 |
| 100 69 27 | 27,0 |
| 100 69 28 | 28,0 |
| 100 69 29 | 29,0 |
| 100 69 30 | 30,0 |
| 100 69 31 | 31,0 |
| 100 69 32 | 32,0 |
| 100 69 33 | 33,0 |
| 100 69 34 | 34,0 |
| 100 69 35 | 35,0 |
| 100 69 36 | 36,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

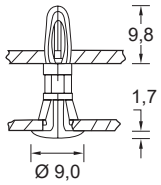
# AHL-3 ABSTANDHALTER

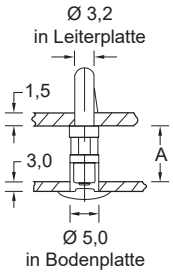
## Merkmale

- einseitig Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,5 mm, Loch-Ø = 3,2 mm
- für Gehäusestärke 3,0 mm, Loch-Ø = 5,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. + 110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) |
|---|---|
| 100 70 03 | 3,2 |
| 100 70 04 | 4,0 |
| 100 70 05 | 5,0 |
| 100 70 06 | 6,0 |
| 100 70 07 | 7,0 |
| 100 70 08 | 8,0 |
| 100 70 09 | 9,0 |
| 100 70 10 | 10,0 |
| 100 70 11 | 11,0 |
| 100 70 12 | 12,0 |
| 100 70 13 | 13,0 |
| 100 70 14 | 14,0 |
| 100 70 15 | 15,0 |
| 100 70 16 | 16,0 |
| 100 70 17 | 17,0 |
| 100 70 18 | 18,0 |
| 100 70 19 | 19,0 |
| 100 70 20 | 20,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 70 21 | 21,0 |
| 100 70 22 | 22,0 |
| 100 70 23 | 23,0 |
| 100 70 24 | 24,0 |
| 100 70 25 | 25,0 |
| 100 70 26 | 26,0 |
| 100 70 27 | 27,0 |
| 100 70 28 | 28,0 |
| 100 70 29 | 29,0 |
| 100 70 30 | 30,0 |
| 100 70 31 | 31,0 |
| 100 70 32 | 32,0 |
| 100 70 33 | 33,0 |
| 100 70 34 | 34,0 |
| 100 70 35 | 35,0 |
| 100 70 36 | 36,0 |

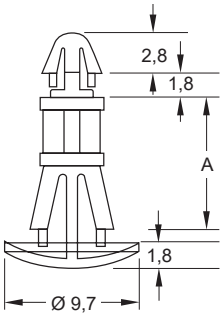
Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# RCC ABSTANDHALTER

Merkmale

- einseitig mit Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,2 - 1,7 mm, Loch-Ø = 3,0 mm
- für Gehäusestärke 0,8 - 2,0 mm, Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur = Standard, schwarz auf Anfrage

Abmessungen
► Einheit = mm



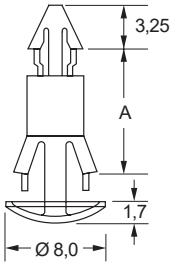

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 04 31 | RCC-5 | 5,0 |
| 100 04 32 | RCC-6 | 6,3 |
| 100 04 33 | RCC-8 | 8,0 |
| 100 04 34 | RCC-10 | 10,0 |
| 100 04 35 | RCC-12 | 12,7 |

# RCT ABSTANDHALTER

Merkmale

- einseitig mit Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,2 - 1,7 mm, Loch-Ø = 3,5 mm
- für Gehäusestärke 1,2 - 2,0 mm, Loch-Ø = 4,8 - 5,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur = Standard, schwarz auf Anfrage

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 04 36 | RCT-4,5 | 4,5 |
| 100 04 37 | RCT-8 | 7,9 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

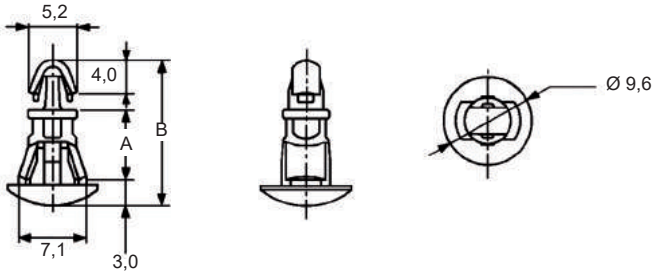
# KGLS-RT ABSTANDHALTER

Merkmale

- einseitig mit Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 1,0 - 1,8 mm, Loch-Ø = 5,4 mm
- Material: Nylon 66, UL94V-2 (auch in UL94V-0 erhältlich)
- Farbe: natur oder schwarz (B)

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 04 05 | KGLS-5RT | 5,0 | 13,7 |
| 100 04 05V | KGLS-5RT-V0 | 5,0 | 13,7 |
| 100 04 06 | KGLS-6RT | 6,0 | 14,7 |
| 100 04 06B | KGLS-6RT-B | 6,0 | 14,7 |
| 100 04 07 | KGLS-7RT | 7,0 | 14,7 |
| 100 04 08 | KGLS-8RT | 8,0 | 16,7 |
| 100 04 10 | KGLS-10RT | 10,0 | 18,7 |
| 100 04 12 | KGLS-12RT | 12,0 | 20,3 |
| 100 04 12B | KGLS-12RT-B | 12,0 | 20,3 |
| 100 04 14 | KGLS-14RT | 14,0 | 22,3 |
| 100 04 16 | KGLS-16RT | 16,0 | 24,3 |
| 100 04 18 | KGLS-18RT | 18,0 | 26,3 |
| 100 04 20 | KGLS-20RT | 20,0 | 28,3 |
| 100 04 22 | KGLS-22RT | 22,0 | 30,3 |
| 100 04 24 | KGLS-24RT | 24,0 | 32,3 |

NEU

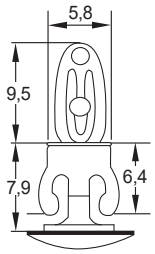
# 337 ABSTANDHALTER

Merkmale:

- für Leiterplattenstärke: 1,6 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 1,6 mm, Loch-□ = 6,3 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 100 04 30 | 337-7065-000 |

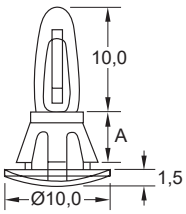
# TRCFL ABSTANDHALTER

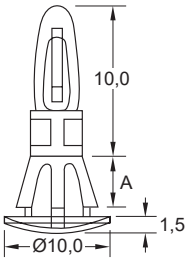
## Merkmale

- einseitig mit Rastverriegelung
- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 0,8 - 1,2 mm, Loch-Ø = 6,0 mm
- Material: Nylon 66, UL94V-2 = Standard, UL94V-0 auf Anfrage
- Farbe: natur = Standard, schwarz auf Anfrage

## Abmessungen

► Einheit = mm




(TRCFL-4,8, TRCFL-6,4)

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 04 38 | TRCFL-4,8 | 4,8 |
| 100 04 39 | TRCFL-6,4 | 6,4 |
| 100 04 40 | TRCFL-8 | 8,0 |
| 100 04 41 | TRCFL-9,5 | 9,5 |
| 100 04 42 | TRCFL-12,7 | 12,7 |
| 100 04 43 | TRCFL-19 | 19,0 |

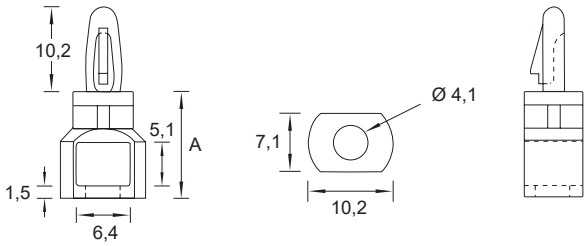
# SRLCB ABSTANDHALTER

Merkmale

- einseitig Rastverriegelung
- einseitig zur Befestigung mit Spreizniet
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 77 40 | SRLCB-09 | 9,5 |
| 100 77 41 | SRLCB-11 | 11,1 |
| 100 77 42 | SRLCB-12 | 12,7 |
| 100 77 43 | SRLCB-15 | 15,9 |
| 100 77 44 | SRLCB-19 | 19,1 |

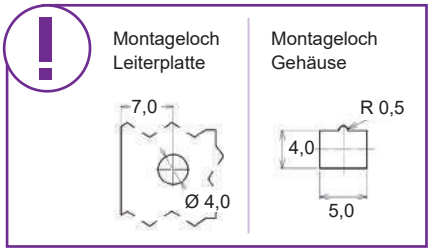
NEU

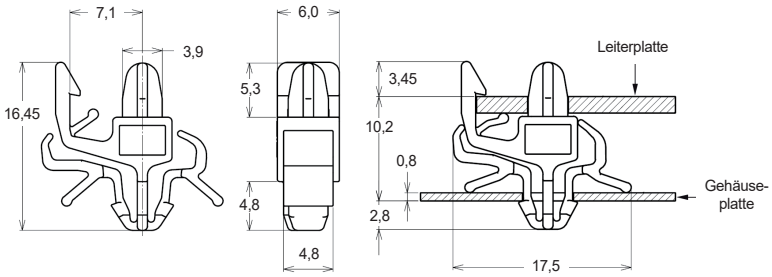
# RESP-10SVO ABSTANDHALTER

Merkmale:

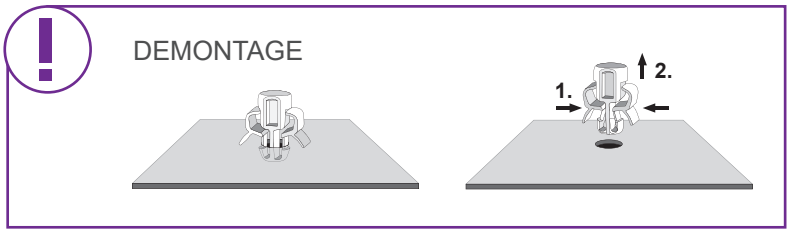
- DRUCK-Montage
- einseitig mit Rastverriegelung
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 1,6 mm
- für Gehäusestärke 0,5 - 1,6 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 100 80 09 | RESP-10SVO |

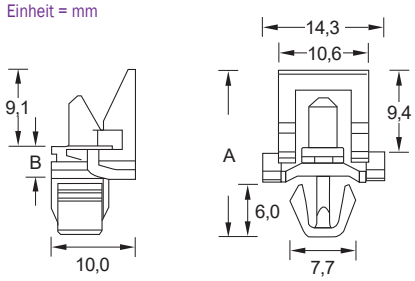


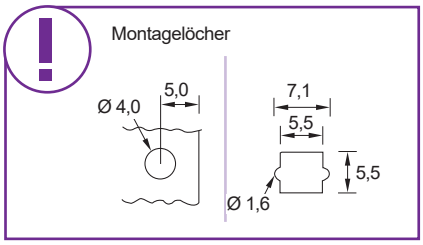
# KGES ABSTANDHALTER

Merkmale

- Abstandhalter mit Auswurffunktion
- zum schnellen Befestigen und Wiederlösen von Leiterplatten
- optimal in Kombination mit Typ PHD
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 1,0 - 1,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 105 03 04 | KGES-4 | 19,6 | 4,0 |
| 105 03 06 | KGES-6 | 21,6 | 6,0 |
| 105 03 08 | KGES-8 | 23,6 | 8,0 |
| 105 03 10 | KGES-10 | 25,6 | 10,0 |
| 105 03 12 | KGES-12 | 27,6 | 12,0 |

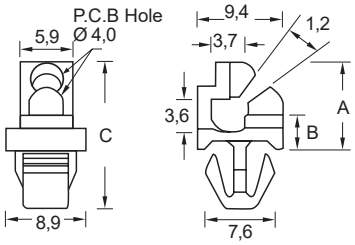
| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 105 03 14 | KGES-14 | 29,6 | 14,0 |
| 105 03 18 | KGES-18 | 33,6 | 18,0 |
| 105 03 25 | KGES-25 | 40,6 | 25,0 |
| 105 03 30 | KGES-30 | 45,6 | 30,0 |

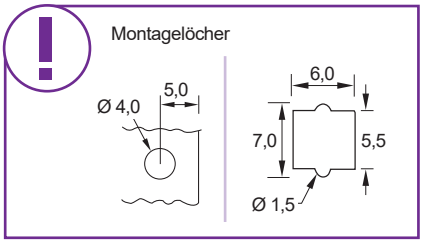
# PHD ABSTANDHALTER

Merkmale

- Abstandhalter mit Scharnierfunktion
- dadurch können Leiterplatten im 90° Winkel aufgestellt werden
- optimal in Kombination mit Typ KGES
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- für Gehäusestärke 1,0 - 1,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|
| 105 04 04 | PHD-04 | 10,0 | 4,0 | 16,3 |
| 105 04 06 | PHD-06 | 12,0 | 6,0 | 18,3 |
| 105 04 08 | PHD-08 | 14,0 | 8,0 | 20,3 |
| 105 04 10 | PHD-10 | 16,0 | 10,0 | 22,3 |
| 105 04 12 | PHD-12 | 18,0 | 12,0 | 24,3 |
| 105 04 14 | PHD-14 | 20,0 | 14,0 | 26,3 |
| 105 04 18 | PHD-18 | 24,0 | 18,0 | 30,3 |
| 105 04 25 | PHD-25 | 31,0 | 25,0 | 37,3 |
| 105 04 30 | PHD-30 | 36,0 | 30,0 | 42,3 |

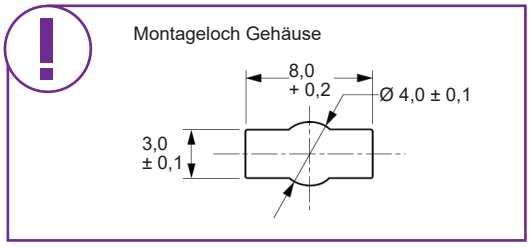
NEU

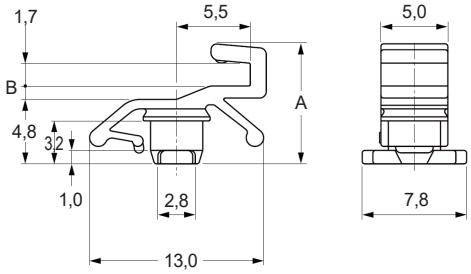
# RCBG LEITERPLATTENHALTER

Merkmale:

- ROTATIONS-Montage
- extrem flacher Rastfuss
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: siehe Tabelle

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | Farbe |
|---|---|---|---|---|
| 100 81 06 | RCBG-6S | 9,0 | 1,0 | weiss |
| 100 81 07 | RCBG-7SG | 10,5 | 2,5 | grau |

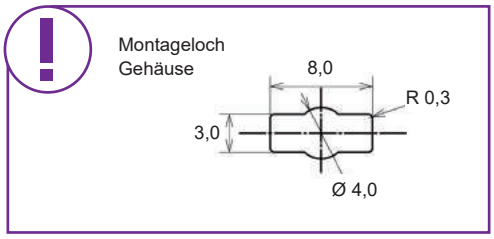
NEU

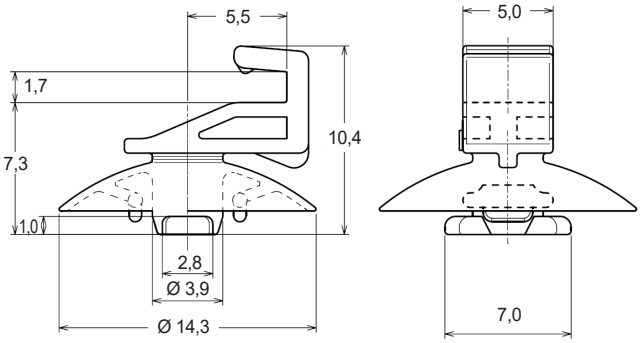
# RCAG-7SV0B LEITERPLATTENHALTER

Merkmale:

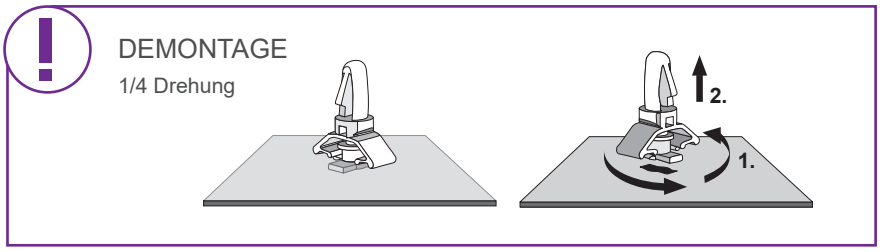
- ROTATIONS-Montage
- extrem flacher Rastfuss • von einer Seite montierbar und demontierbar
- wiederverwendbar • für Leiterplattenstärke 0,5 - 1,6 mm
- Material: Nylon 66, UL94V-0 • Farbe: schwarz

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 100 81 08 | RCAG-7SV0B |



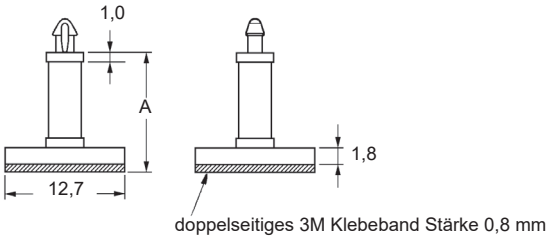
# LCBSA ABSTANDHALTER

Merkmale

- einseitig Rastverriegelung
- einseitig Klebemontage
- für Leiterplattenstärke 1,6 mm
- Bohrung-Ø = 2,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 06 21 | LCBSA-4,8 | 4,8 |
| 100 06 22 | LCBSA-6,4 | 6,4 |
| 100 06 23 | LCBSA-8 | 8,0 |
| 100 06 24 | LCBSA-9,5 | 9,5 |
| 100 06 25 | LCBSA-11,1 | 11,1 |
| 100 06 26 | LCBSA-12,7 | 12,7 |
| 100 06 27 | LCBSA-15,9 | 15,9 |
| 100 06 28 | LCBSA-19,1 | 19,1 |

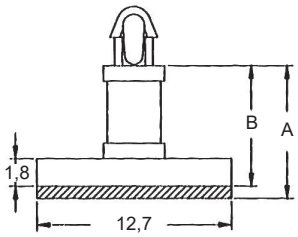
# AS2,5K ABSTANDHALTER

Merkmale

- einseitig Rastverriegelung
- einseitig Klebemontage
- für Leiterplattenstärke 1,6 mm, Bohrung-Ø = 2,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 06 51 | AS2,5K-4,8 | 4,8 | 4,0 |
| 100 06 52 | AS2,5K-6,4 | 6,4 | 5,6 |
| 100 06 53 | AS2,5K-8,0 | 8,0 | 7,2 |
| 100 06 54 | AS2,5K-9,5 | 9,5 | 8,7 |
| 100 06 55 | AS2,5K-11,1 | 11,1 | 10,3 |
| 100 06 56 | AS2,5K-12,7 | 12,7 | 11,9 |
| 100 06 57 | AS2,5K-15,9 | 15,9 | 15,1 |
| 100 06 58 | AS2,5K-19,1 | 19,1 | 18,3 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

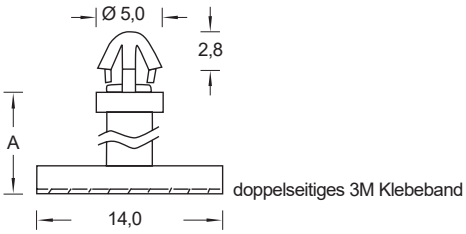
# AS3K ABSTANDHALTER

Merkmale

- einseitig Rastverriegelung
- einseitig Klebemontage
- für Leiterplattenstärke 1,2 - 1,6 mm
- Loch-Ø = 3,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 06 61 | AS3K-3,5 | 3,5 |
| 100 06 62 | AS3K-4,8 | 4,8 |
| 100 06 63 | AS3K-6,4 | 6,4 |
| 100 06 64 | AS3K-8 | 8,0 |
| 100 06 65 | AS3K-10 | 10,0 |
| 100 06 66 | AS3K-12,7 | 12,7 |

NEU

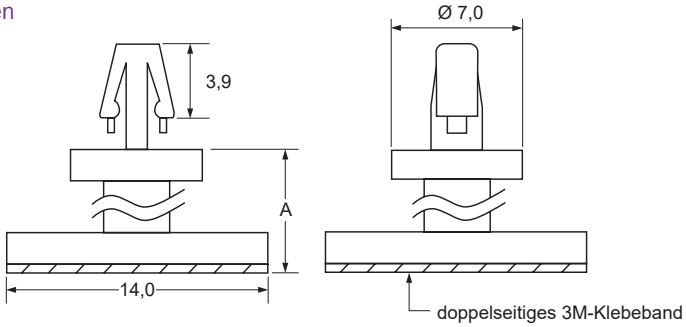
# BSS ABSTANDHALTER

Merkmale

- Klebemontage
- für Leiterplattenstärke 6,5 mm
- Loch-Ø = 3,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 06 16 | BSS-6 | 6,4 |
| 100 06 17 | BSS-9 | 8,8 |
| 100 06 18 | BSS-12 | 12,7 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

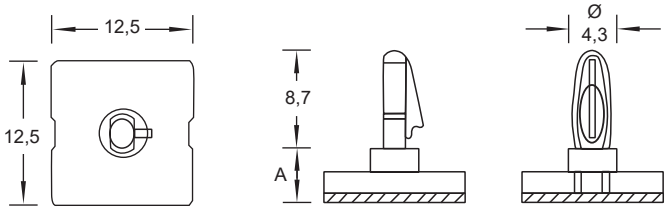
# ASKJ ABSTANDHALTER

Merkmale

- einseitig Rastverriegelung
- einseitig Klebemontage
- für Leiterplattenstärke 1,6 mm
- Loch-Ø = 3,2 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm



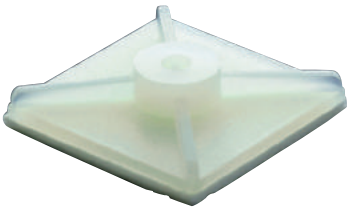

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 06 71 | AS3K-4,8 | 4,8 |
| 100 06 78 | AS3K-6,4 | 6,4 |
| 100 06 76 | AS3K-8,4 | 8,4 |
| 100 06 77 | AS3K-7,9 | 7,9 |
| 100 06 73 | AS3K-9,5 | 9,5 |
| 100 06 74 | AS3K-12,7 | 12,7 |
| 100 06 72 | AS3K-15,9 | 15,9 |

# AKS ABSTANDHALTER

NEU

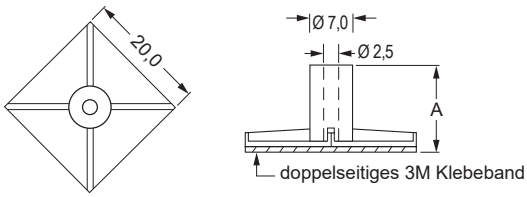
Merkmale

- Klebemontage
- Loch-Ø = 3,2 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur



Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 06 90 | AKS-5 | 5,0 |
| 100 06 91 | AKS-6 | 6,4 |
| 100 06 92 | AKS-7 | 7,0 |
| 100 06 93 | AKS-8 | 8,0 |
| 100 06 94 | AKS-9 | 9,0 |
| 100 06 95 | AKS-11 | 10,8 |
| 100 06 96 | AKS-12,7 | 12,7 |
| 100 06 97 | AKS-14,5 | 14,5 |
| 100 06 98 | AKS15,9 | 15,9 |
| 100 06 99 | AKS-19,1 | 19,1 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

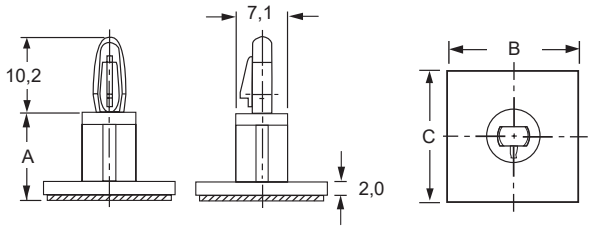
# LCBSB ABSTANDHALTER

Merkmale

- einseitig Rastverriegelung
- einseitig Klebemontage
- für Leiterplattenstärke 1,6 mm
- Loch-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|
| 100 06 31 | LCBSB-03 | 4,8 | 18,0 | 18,0 |
| 100 06 32 | LCBSB-04 | 6,4 | 18,0 | 18,0 |
| 100 06 04 | LCBSB-04-20 | 6,4 | 20,0 | 20,0 |
| 100 06 33 | LCBSB-05 | 8,0 | 20,0 | 20,0 |
| 100 06 34 | LCBSB-06 | 9,5 | 20,0 | 20,0 |
| 100 06 35 | LCBSB-07 | 11,6 | 18,0 | 18,0 |
| 100 06 36 | LCBSB-08 | 12,7 | 18,0 | 18,0 |
| 100 06 37 | LCBSB-10 | 15,9 | 18,0 | 18,0 |
| 100 06 38 | LCBSB-12 | 19,1 | 18,0 | 18,0 |
| 100 06 39 | LCBSB-14 | 22,2 | 18,0 | 18,0 |
| 100 06 40 | LCBSB-16 | 25,4 | 18,0 | 18,0 |
| 100 06 41 | LCBSB-18 | 28,6 | 18,0 | 18,0 |

NEU

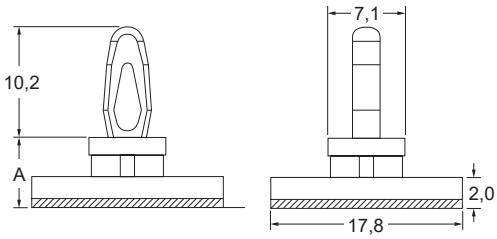
# CBSB ABSTANDHALTER

Merkmale

- einsteitig Rastverriegelung
- einseitig Klebemontage
- für Leiterplattenstärke 1,6 mm
- Loch-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 06 80 | CBSB-3-01A2-RT | 4,8 |
| 100 06 81 | CBSB-4-01A2-RT | 6,4 |
| 100 06 82 | CBSB-6-01A2-RT | 9,5 |
| 100 06 83 | CBSB-8-01A2-RT | 12,7 |
| 100 06 84 | CBSB-9-01A2-RT | 14,3 |
| 100 06 85 | CBSB-10-01A2-RT | 15,9 |
| 100 06 86 | CBSB-12-01A2-RT | 19,1 |
| 100 06 87 | CBSB-14-01A2-RT | 22,2 |
| 100 06 88 | CBSB-16-01A2-RT | 25,4 |
| 100 06 89 | CBSB-18-01A2-RT | 28,6 |

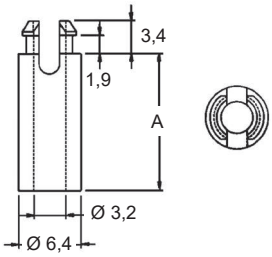
# SS ABSTANDHALTER

Merkmale

- einseitig Rastmontage
- Montage erfolgt durch Anschrauben mit Schraube M3
- für Leiterplattenstärke 1,2 - 1,7 mm, Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 76 02 | SS-3 | 3,2 |
| 100 76 03 | SS-3,5 | 3,5 |
| 100 76 04 | SS-4 | 4,0 |
| 100 76 05 | SS-5 | 4,8 |
| 100 76 06 | SS-6 | 6,4 |
| 100 76 08 | SS-8 | 7,9 |
| 100 76 09 | SS-10 | 9,5 |
| 100 76 11 | SS-11 | 11,1 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 76 12 | SS-12A | 12,0 |
| 100 76 13 | SS-12 | 12,7 |
| 100 76 14 | SS-14 | 14,2 |
| 100 76 15 | SS-15 | 15,0 |
| 100 76 16 | SS-16 | 15,9 |
| 100 76 19 | SS-19 | 19,1 |
| 100 76 22 | SS-22 | 22,2 |
| 100 76 25 | SS-25 | 25,4 |

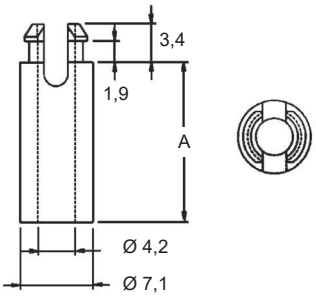
# SS4 ABSTANDHALTER

Merkmale

- einseitig Rastmontage
- Montage erfolgt durch Anschrauben mit Schraube M4
- für Leiterplattenstärke 1,2 - 1,7 mm, Loch-Ø = 5,9 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 77 06 | SS4-6 | 6,4 |
| 100 77 08 | SS4-8 | 7,9 |
| 100 77 09 | SS4-9 | 9,5 |
| 100 77 11 | SS4-11 | 11,1 |
| 100 77 12 | SS4-12 | 12,7 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 77 16 | SS4-16 | 15,9 |
| 100 77 17 | SS4-17 | 17,0 |
| 100 77 19 | SS4-19 | 19,1 |
| 100 77 22 | SS4-22 | 22,2 |
| 100 77 25 | SS4-25 | 25,4 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

NEU

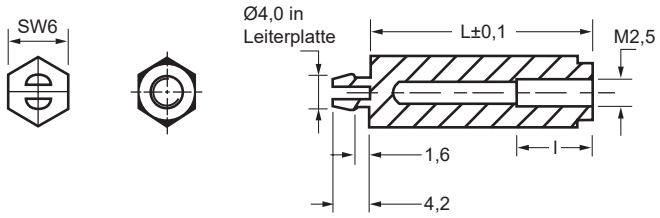
# ABI-S-M2,5-1,6 SW6 ABSTANDSBOLZEN

## Merkmale

- einseitig mit M2,5-Innengewinde
- einseitig mit Rastverriegelung
- für Leiterplattenstärke 1,5mm, Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 65 04 | 4,0 |
| 100 65 05 | 5,0 |
| 100 65 06 | 6,0 |
| 100 65 07 | 7,0 |
| 100 65 08 | 8,0 |
| 100 65 09 | 9,0 |
| 100 65 10 | 10,0 |
| 100 65 11 | 11,0 |
| 100 65 12 | 12,0 |
| 100 65 13 | 13,0 |
| 100 65 14 | 14,0 |
| 100 65 15 | 15,0 |
| 100 65 16 | 16,0 |
| 100 65 17 | 17,0 |
| 100 65 18 | 18,0 |
| 100 65 19 | 19,0 |
| 100 65 20 | 20,0 |
| 100 65 21 | 21,0 |
| 100 65 22 | 22,0 |
| 100 65 23 | 23,0 |
| 100 65 24 | 24,0 |
| 100 65 25 | 25,0 |
| 100 65 26 | 26,0 |
| 100 65 27 | 27,0 |
| 100 65 28 | 28,0 |
| 100 65 29 | 29,0 |
| 100 65 30 | 30,0 |
| 100 65 31 | 31,0 |
| 100 65 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 65 33 | 33,0 |
| 100 65 34 | 34,0 |
| 100 65 35 | 35,0 |
| 100 65 36 | 36,0 |
| 100 65 37 | 37,0 |
| 100 65 38 | 38,0 |
| 100 65 39 | 39,0 |
| 100 65 40 | 40,0 |
| 100 65 41 | 41,0 |
| 100 65 42 | 42,0 |
| 100 65 43 | 43,0 |
| 100 65 44 | 44,0 |
| 100 65 45 | 45,0 |
| 100 65 46 | 46,0 |
| 100 65 47 | 47,0 |
| 100 65 48 | 48,0 |
| 100 65 49 | 49,0 |
| 100 65 50 | 50,0 |
| 100 65 51 | 51,0 |
| 100 65 52 | 52,0 |
| 100 65 53 | 53,0 |
| 100 65 54 | 54,0 |
| 100 65 55 | 55,0 |
| 100 65 56 | 56,0 |
| 100 65 57 | 57,0 |
| 100 65 58 | 58,0 |
| 100 65 59 | 59,0 |
| 100 65 60 | 60,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 4,0 mm | 2,5 mm | 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm |
| 5,0 mm | 3,5 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |

Weitere Abmessungen und Ausführungen auf Anfrage: Telefon: 09852 61079-0

# ABI-S-M3-1,6 SW6 ABSTANDSBOLZEN

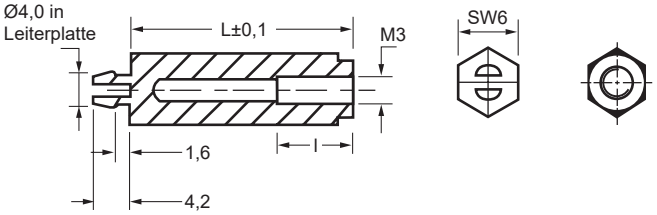
NEU

## Merkmale

- einseitig mit Rastverriegelung
- einseitig mit Gewinde M3
- für Leiterplattenstärke 1,5 mm, Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 59 05 | 5,0 |
| 100 59 06 | 6,0 |
| 100 59 07 | 7,0 |
| 100 59 08 | 8,0 |
| 100 59 09 | 9,0 |
| 100 59 10 | 10,0 |
| 100 59 11 | 11,0 |
| 100 59 12 | 12,0 |
| 100 59 13 | 13,0 |
| 100 59 14 | 14,0 |
| 100 59 15 | 15,0 |
| 100 59 16 | 16,0 |
| 100 59 17 | 17,0 |
| 100 59 18 | 18,0 |
| 100 59 19 | 19,0 |
| 100 59 20 | 20,0 |
| 100 59 21 | 21,0 |
| 100 59 22 | 22,0 |
| 100 59 23 | 23,0 |
| 100 59 24 | 24,0 |
| 100 59 25 | 25,0 |
| 100 59 26 | 26,0 |
| 100 59 27 | 27,0 |
| 100 59 28 | 28,0 |
| 100 59 29 | 29,0 |
| 100 59 30 | 30,0 |
| 100 59 31 | 31,0 |
| 100 59 32 | 32,0 |
| 100 59 33 | 33,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 59 34 | 34,0 |
| 100 59 35 | 35,0 |
| 100 59 36 | 36,0 |
| 100 59 37 | 37,0 |
| 100 59 38 | 38,0 |
| 100 59 39 | 39,0 |
| 100 59 40 | 40,0 |
| 100 59 41 | 41,0 |
| 100 59 42 | 42,0 |
| 100 59 43 | 43,0 |
| 100 59 44 | 44,0 |
| 100 59 45 | 45,0 |
| 100 59 46 | 46,0 |
| 100 59 47 | 47,0 |
| 100 59 48 | 48,0 |
| 100 59 49 | 49,0 |
| 100 59 50 | 50,0 |
| 100 59 51 | 51,0 |
| 100 59 52 | 52,0 |
| 100 59 53 | 53,0 |
| 100 59 54 | 54,0 |
| 100 59 55 | 55,0 |
| 100 59 56 | 56,0 |
| 100 59 57 | 57,0 |
| 100 59 58 | 58,0 |
| 100 59 59 | 59,0 |
| 100 59 60 | 60,0 |
| 100 59 61 | 61,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Ausführungen auf Anfrage: Telefon: 09852 61079-0

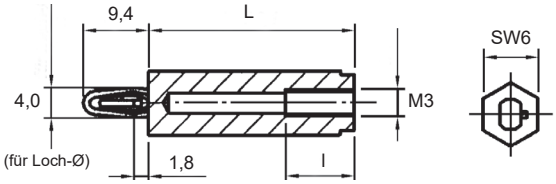
# AB-IR-M3-1,8 - SW6 ABSTANDSBOLZEN

## Merkmale

- einseitig mit Innengewinde M3
- einseitig mit Rastverriegelung für Leiterplattenstärke 1,6 mm
- Loch-Ø = 4,0 mm
- temperaturbeständig bis ca. +110 °C
- Material: Polyamid 6.6, UL94V-2
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 36 05 | 5,0 |
| 100 36 06 | 6,0 |
| 100 36 07 | 7,0 |
| 100 36 08 | 8,0 |
| 100 36 09 | 9,0 |
| 100 36 10 | 10,0 |
| 100 36 11 | 11,0 |
| 100 36 12 | 12,0 |
| 100 36 13 | 13,0 |
| 100 36 14 | 14,0 |
| 100 36 15 | 15,0 |
| 100 36 16 | 16,0 |
| 100 36 17 | 17,0 |
| 100 36 18 | 18,0 |
| 100 36 19 | 19,0 |
| 100 36 20 | 20,0 |
| 100 36 21 | 21,0 |
| 100 36 22 | 22,0 |
| 100 36 23 | 23,0 |
| 100 36 24 | 24,0 |
| 100 36 25 | 25,0 |
| 100 36 26 | 26,0 |
| 100 36 27 | 27,0 |
| 100 36 28 | 28,0 |
| 100 36 29 | 29,0 |
| 100 36 30 | 30,0 |
| 100 36 31 | 31,0 |
| 100 36 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 36 33 | 33,0 |
| 100 36 34 | 34,0 |
| 100 36 35 | 35,0 |
| 100 36 36 | 36,0 |
| 100 36 37 | 37,0 |
| 100 36 38 | 38,0 |
| 100 36 39 | 39,0 |
| 100 36 40 | 40,0 |
| 100 36 41 | 41,0 |
| 100 36 42 | 42,0 |
| 100 36 43 | 43,0 |
| 100 36 44 | 44,0 |
| 100 36 45 | 45,0 |
| 100 36 46 | 46,0 |
| 100 36 47 | 47,0 |
| 100 36 48 | 48,0 |
| 100 36 49 | 49,0 |
| 100 36 50 | 50,0 |
| 100 36 51 | 51,0 |
| 100 36 52 | 52,0 |
| 100 36 53 | 53,0 |
| 100 36 54 | 54,0 |
| 100 36 55 | 55,0 |
| 100 36 56 | 56,0 |
| 100 36 57 | 57,0 |
| 100 36 58 | 58,0 |
| 100 36 59 | 59,0 |
| 100 36 60 | 60,0 |
| 100 36 61 | 61,0 |

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| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

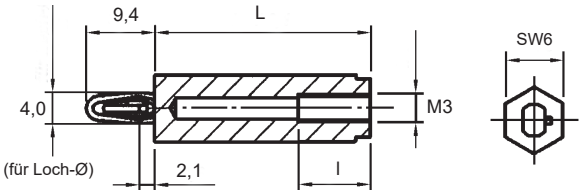
# AB-IR-M3-2,1 - SW6 ABSTANDSBOLZEN

## Merkmale

- einseitig mit Innengewinde M3
- einseitig mit Rastnase für Leiterplattenstärke 2,0 mm
- Loch-Ø = 4,0 mm
- temperaturbeständig bis ca. +110 °C
- Material: Polyamid 6.6, UL94V-2
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 41 05 | 5,0 |
| 100 41 06 | 6,0 |
| 100 41 07 | 7,0 |
| 100 41 08 | 8,0 |
| 100 41 09 | 9,0 |
| 100 41 10 | 10,0 |
| 100 41 11 | 11,0 |
| 100 41 12 | 12,0 |
| 100 41 13 | 13,0 |
| 100 41 14 | 14,0 |
| 100 41 15 | 15,0 |
| 100 41 16 | 16,0 |
| 100 41 17 | 17,0 |
| 100 41 18 | 18,0 |
| 100 41 19 | 19,0 |
| 100 41 20 | 20,0 |
| 100 41 21 | 21,0 |
| 100 41 22 | 22,0 |
| 100 41 23 | 23,0 |
| 100 41 24 | 24,0 |
| 100 41 25 | 25,0 |
| 100 41 26 | 26,0 |
| 100 41 27 | 27,0 |
| 100 41 28 | 28,0 |
| 100 41 29 | 29,0 |
| 100 41 30 | 30,0 |
| 100 41 31 | 31,0 |
| 100 41 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 41 33 | 33,0 |
| 100 41 34 | 34,0 |
| 100 41 35 | 35,0 |
| 100 41 36 | 36,0 |
| 100 41 37 | 37,0 |
| 100 41 38 | 38,0 |
| 100 41 39 | 39,0 |
| 100 41 40 | 40,0 |
| 100 41 41 | 41,0 |
| 100 41 42 | 42,0 |
| 100 41 43 | 43,0 |
| 100 41 44 | 44,0 |
| 100 41 45 | 45,0 |
| 100 41 46 | 46,0 |
| 100 41 47 | 47,0 |
| 100 41 48 | 48,0 |
| 100 41 49 | 49,0 |
| 100 41 50 | 50,0 |
| 100 41 51 | 51,0 |
| 100 41 52 | 52,0 |
| 100 41 53 | 53,0 |
| 100 41 54 | 54,0 |
| 100 41 55 | 55,0 |
| 100 41 56 | 56,0 |
| 100 41 57 | 57,0 |
| 100 41 58 | 58,0 |
| 100 41 59 | 59,0 |
| 100 41 60 | 60,0 |
| 100 41 61 | 61,0 |

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| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

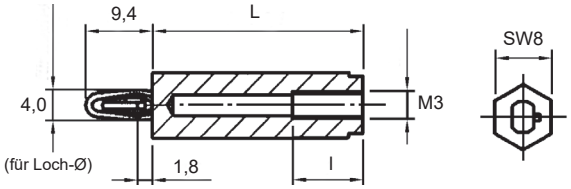
# AB-IR-M3-1,8 - SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit Innengewinde M3
- einseitig mit Rastverriegelung für Leiterplattenstärke 1,6 mm
- Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 42 04 | 4,0 |
| 100 42 05 | 5,0 |
| 100 42 06 | 6,0 |
| 100 42 07 | 7,0 |
| 100 42 08 | 8,0 |
| 100 42 09 | 9,0 |
| 100 42 10 | 10,0 |
| 100 42 11 | 11,0 |
| 100 42 12 | 12,0 |
| 100 42 13 | 13,0 |
| 100 42 14 | 14,0 |
| 100 42 15 | 15,0 |
| 100 42 16 | 16,0 |
| 100 42 17 | 17,0 |
| 100 42 18 | 18,0 |
| 100 42 19 | 19,0 |
| 100 42 20 | 20,0 |
| 100 42 21 | 21,0 |
| 100 42 22 | 22,0 |
| 100 42 23 | 23,0 |
| 100 42 24 | 24,0 |
| 100 42 25 | 25,0 |
| 100 42 26 | 26,0 |
| 100 42 27 | 27,0 |
| 100 42 28 | 28,0 |
| 100 42 29 | 29,0 |
| 100 42 30 | 30,0 |
| 100 42 31 | 31,0 |
| 100 42 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 42 33 | 33,0 |
| 100 42 34 | 34,0 |
| 100 42 35 | 35,0 |
| 100 42 36 | 36,0 |
| 100 42 37 | 37,0 |
| 100 42 38 | 38,0 |
| 100 42 39 | 39,0 |
| 100 42 40 | 40,0 |
| 100 42 41 | 41,0 |
| 100 42 42 | 42,0 |
| 100 42 43 | 43,0 |
| 100 42 44 | 44,0 |
| 100 42 45 | 45,0 |
| 100 42 46 | 46,0 |
| 100 42 47 | 47,0 |
| 100 42 48 | 48,0 |
| 100 42 49 | 49,0 |
| 100 42 50 | 50,0 |
| 100 42 51 | 51,0 |
| 100 42 52 | 52,0 |
| 100 42 53 | 53,0 |
| 100 42 54 | 54,0 |
| 100 42 55 | 55,0 |
| 100 42 56 | 56,0 |
| 100 42 57 | 57,0 |
| 100 42 58 | 58,0 |
| 100 42 59 | 59,0 |
| 100 42 60 | 60,0 |
| 100 42 61 | 61,0 |

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| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 4,0 / 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

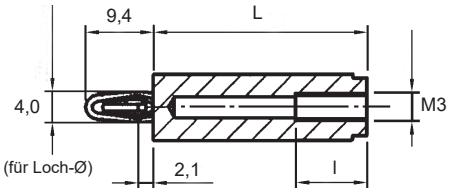
# AB-IR-M3-2,1 - SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit Innengewinde M3
- einseitig mit Rastverriegelung für Leiterplattenstärke 2,0 mm
- Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm



| Art.-Nr. | L (mm) |
|---|---|
| 100 37 05 | 5,0 |
| 100 37 06 | 6,0 |
| 100 37 07 | 7,0 |
| 100 37 08 | 8,0 |
| 100 37 09 | 9,0 |
| 100 37 10 | 10,0 |
| 100 37 11 | 11,0 |
| 100 37 12 | 12,0 |
| 100 37 13 | 13,0 |
| 100 37 14 | 14,0 |
| 100 37 15 | 15,0 |
| 100 37 16 | 16,0 |
| 100 37 17 | 17,0 |
| 100 37 18 | 18,0 |
| 100 37 19 | 19,0 |
| 100 37 20 | 20,0 |
| 100 37 21 | 21,0 |
| 100 37 22 | 22,0 |
| 100 37 23 | 23,0 |
| 100 37 24 | 24,0 |
| 100 37 25 | 25,0 |
| 100 37 26 | 26,0 |
| 100 37 27 | 27,0 |
| 100 37 28 | 28,0 |
| 100 37 29 | 29,0 |
| 100 37 30 | 30,0 |
| 100 37 31 | 31,0 |
| 100 37 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 37 33 | 33,0 |
| 100 37 34 | 34,0 |
| 100 37 35 | 35,0 |
| 100 37 36 | 36,0 |
| 100 37 37 | 37,0 |
| 100 37 38 | 38,0 |
| 100 37 39 | 39,0 |
| 100 37 40 | 40,0 |
| 100 37 41 | 41,0 |
| 100 37 42 | 42,0 |
| 100 37 43 | 43,0 |
| 100 37 44 | 44,0 |
| 100 37 45 | 45,0 |
| 100 37 46 | 46,0 |
| 100 37 47 | 47,0 |
| 100 37 48 | 48,0 |
| 100 37 49 | 49,0 |
| 100 37 50 | 50,0 |
| 100 37 51 | 51,0 |
| 100 37 52 | 52,0 |
| 100 37 53 | 53,0 |
| 100 37 54 | 54,0 |
| 100 37 55 | 55,0 |
| 100 37 56 | 56,0 |
| 100 37 57 | 57,0 |
| 100 37 58 | 58,0 |
| 100 37 59 | 59,0 |
| 100 37 60 | 60,0 |
| 100 37 61 | 61,0 |

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| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

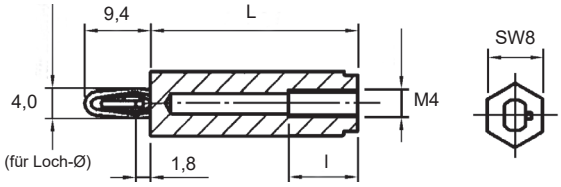
# AB-IR-M4-1,8 - SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit Innengewinde M4
- einseitig mit Rastverriegelung für Leiterplattenstärke 1,6 mm
- Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 40 05 | 5,0 |
| 100 40 06 | 6,0 |
| 100 40 07 | 7,0 |
| 100 40 08 | 8,0 |
| 100 40 09 | 9,0 |
| 100 40 10 | 10,0 |
| 100 40 11 | 11,0 |
| 100 40 12 | 12,0 |
| 100 40 13 | 13,0 |
| 100 40 14 | 14,0 |
| 100 40 15 | 15,0 |
| 100 40 16 | 16,0 |
| 100 40 17 | 17,0 |
| 100 40 18 | 18,0 |
| 100 40 19 | 19,0 |
| 100 40 20 | 20,0 |
| 100 40 21 | 21,0 |
| 100 40 22 | 22,0 |
| 100 40 23 | 23,0 |
| 100 40 24 | 24,0 |
| 100 40 25 | 25,0 |
| 100 40 26 | 26,0 |
| 100 40 27 | 27,0 |
| 100 40 28 | 28,0 |
| 100 40 29 | 29,0 |
| 100 40 30 | 30,0 |
| 100 40 31 | 31,0 |
| 100 40 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 40 33 | 33,0 |
| 100 40 34 | 34,0 |
| 100 40 35 | 35,0 |
| 100 40 36 | 36,0 |
| 100 40 37 | 37,0 |
| 100 40 38 | 38,0 |
| 100 40 39 | 39,0 |
| 100 40 40 | 40,0 |
| 100 40 41 | 41,0 |
| 100 40 42 | 42,0 |
| 100 40 43 | 43,0 |
| 100 40 44 | 44,0 |
| 100 40 45 | 45,0 |
| 100 40 46 | 46,0 |
| 100 40 47 | 47,0 |
| 100 40 48 | 48,0 |
| 100 40 49 | 49,0 |
| 100 40 50 | 50,0 |
| 100 40 51 | 51,0 |
| 100 40 52 | 52,0 |
| 100 40 53 | 53,0 |
| 100 40 54 | 54,0 |
| 100 40 55 | 55,0 |
| 100 40 56 | 56,0 |
| 100 40 57 | 57,0 |
| 100 40 58 | 58,0 |
| 100 40 59 | 59,0 |
| 100 40 60 | 60,0 |
| 100 40 61 | 61,0 |

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| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

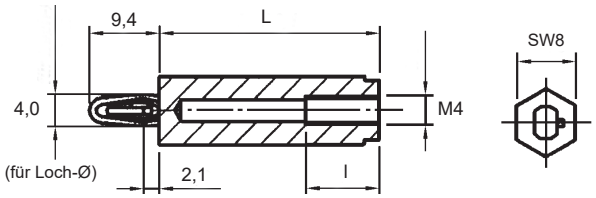
# AB-IR-M4-2,1 - SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit Innengewinde M4
- einseitig mit Rastverriegelung für Leiterplattenstärke 2,0 mm
- Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 38 05 | 5,0 |
| 100 38 06 | 6,0 |
| 100 38 07 | 7,0 |
| 100 38 08 | 8,0 |
| 100 38 09 | 9,0 |
| 100 38 10 | 10,0 |
| 100 38 11 | 11,0 |
| 100 38 12 | 12,0 |
| 100 38 13 | 13,0 |
| 100 38 14 | 14,0 |
| 100 38 15 | 15,0 |
| 100 38 16 | 16,0 |
| 100 38 17 | 17,0 |
| 100 38 18 | 18,0 |
| 100 38 19 | 19,0 |
| 100 38 20 | 20,0 |
| 100 38 21 | 21,0 |
| 100 38 22 | 22,0 |
| 100 38 23 | 23,0 |
| 100 38 24 | 24,0 |
| 100 38 25 | 25,0 |
| 100 38 26 | 26,0 |
| 100 38 27 | 27,0 |
| 100 38 28 | 28,0 |
| 100 38 29 | 29,0 |
| 100 38 30 | 30,0 |
| 100 38 31 | 31,0 |
| 100 38 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 38 33 | 33,0 |
| 100 38 34 | 34,0 |
| 100 38 35 | 35,0 |
| 100 38 36 | 36,0 |
| 100 38 37 | 37,0 |
| 100 38 39 | 39,0 |
| 100 38 40 | 40,0 |
| 100 38 41 | 41,0 |
| 100 38 42 | 42,0 |
| 100 38 43 | 43,0 |
| 100 38 44 | 44,0 |
| 100 38 45 | 45,0 |
| 100 38 46 | 46,0 |
| 100 38 47 | 47,0 |
| 100 38 48 | 48,0 |
| 100 38 49 | 49,0 |
| 100 38 50 | 50,0 |
| 100 38 51 | 51,0 |
| 100 38 52 | 52,0 |
| 100 38 53 | 53,0 |
| 100 38 54 | 54,0 |
| 100 38 55 | 55,0 |
| 100 38 56 | 56,0 |
| 100 38 57 | 57,0 |
| 100 38 58 | 58,0 |
| 100 38 59 | 59,0 |
| 100 38 60 | 60,0 |
| 100 38 61 | 61,0 |

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| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

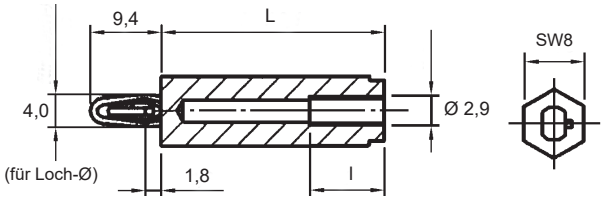
# AB-SR-1,8 - SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit Sackloch Ø 2,9 mm
- einseitig mit Rastnase für Leiterplattenstärke 1,6 mm
- Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | Art.-Nr. | L (mm) |
|---|---|---|---|
| 100 43 05 | 5,0 | 100 43 33 | 33,0 |
| 100 43 06 | 6,0 | 100 43 34 | 34,0 |
| 100 43 07 | 7,0 | 100 43 35 | 35,0 |
| 100 43 08 | 8,0 | 100 43 36 | 36,0 |
| 100 43 09 | 9,0 | 100 43 37 | 37,0 |
| 100 43 10 | 10,0 | 100 43 39 | 39,0 |
| 100 43 11 | 11,0 | 100 43 40 | 40,0 |
| 100 43 12 | 12,0 | 100 43 41 | 41,0 |
| 100 43 13 | 13,0 | 100 43 42 | 42,0 |
| 100 43 14 | 14,0 | 100 43 43 | 43,0 |
| 100 43 15 | 15,0 | 100 43 44 | 44,0 |
| 100 43 16 | 16,0 | 100 43 45 | 45,0 |
| 100 43 17 | 17,0 | 100 43 46 | 46,0 |
| 100 43 18 | 18,0 | 100 43 47 | 47,0 |
| 100 43 19 | 19,0 | 100 43 48 | 48,0 |
| 100 43 20 | 20,0 | 100 43 49 | 49,0 |
| 100 43 21 | 21,0 | 100 43 50 | 50,0 |
| 100 43 22 | 22,0 | 100 43 51 | 51,0 |
| 100 43 23 | 23,0 | 100 43 52 | 52,0 |
| 100 43 24 | 24,0 | 100 43 53 | 53,0 |
| 100 43 25 | 25,0 | 100 43 54 | 54,0 |
| 100 43 26 | 26,0 | 100 43 55 | 55,0 |
| 100 43 27 | 27,0 | 100 43 56 | 56,0 |
| 100 43 28 | 28,0 | 100 43 57 | 57,0 |
| 100 43 29 | 29,0 | 100 43 58 | 58,0 |
| 100 43 30 | 30,0 | 100 43 59 | 59,0 |
| 100 43 31 | 31,0 | 100 43 60 | 60,0 |
| 100 43 32 | 32,0 | 100 43 61 | 61,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

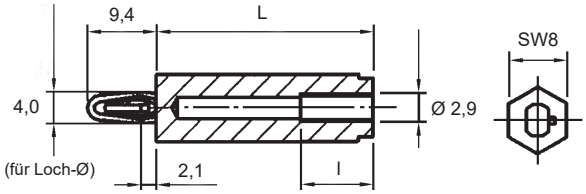
# AB-SR-2,1- SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit Sackloch Ø 2,9 mm
- einseitig mit Rastverriegelung für Leiterplattenstärke 2,0 mm
- Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 39 05 | 5,0 |
| 100 39 06 | 6,0 |
| 100 39 07 | 7,0 |
| 100 39 08 | 8,0 |
| 100 39 09 | 9,0 |
| 100 39 10 | 10,0 |
| 100 39 11 | 11,0 |
| 100 39 12 | 12,0 |
| 100 39 13 | 13,0 |
| 100 39 14 | 14,0 |
| 100 39 15 | 15,0 |
| 100 39 16 | 16,0 |
| 100 39 17 | 17,0 |
| 100 39 18 | 18,0 |
| 100 39 19 | 19,0 |
| 100 39 20 | 20,0 |
| 100 39 21 | 21,0 |
| 100 39 22 | 22,0 |
| 100 39 23 | 23,0 |
| 100 39 24 | 24,0 |
| 100 39 25 | 25,0 |
| 100 39 26 | 26,0 |
| 100 39 27 | 27,0 |
| 100 39 28 | 28,0 |
| 100 39 29 | 29,0 |
| 100 39 30 | 30,0 |
| 100 39 31 | 31,0 |
| 100 39 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 39 33 | 33,0 |
| 100 39 34 | 34,0 |
| 100 39 35 | 35,0 |
| 100 39 36 | 36,0 |
| 100 39 37 | 37,0 |
| 100 39 38 | 38,0 |
| 100 39 39 | 39,0 |
| 100 39 40 | 40,0 |
| 100 39 41 | 41,0 |
| 100 39 42 | 42,0 |
| 100 39 43 | 43,0 |
| 100 39 44 | 44,0 |
| 100 39 45 | 45,0 |
| 100 39 46 | 46,0 |
| 100 39 47 | 47,0 |
| 100 39 48 | 48,0 |
| 100 39 49 | 49,0 |
| 100 39 50 | 50,0 |
| 100 39 51 | 51,0 |
| 100 39 52 | 52,0 |
| 100 39 53 | 53,0 |
| 100 39 54 | 54,0 |
| 100 39 55 | 55,0 |
| 100 39 56 | 56,0 |
| 100 39 57 | 57,0 |
| 100 39 58 | 58,0 |
| 100 39 59 | 59,0 |
| 100 39 60 | 60,0 |
| 100 39 61 | 61,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

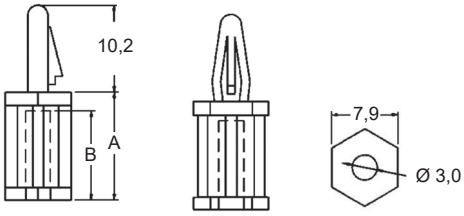
# AH-C ABSTANDHALTER

Merkmale

- einseitig Rastverriegelung
- einseitig mit Sackloch für Schraube Ø = 3,5 mm
- für Leiterplattenstärke 1,2 - 1,6 mm, Loch-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 16 06 | AH-C06 | 6,4 | 4,8 |
| 100 16 09 | AH-C09 | 9,5 | 8,0 |
| 100 16 12 | AH-C12 | 12,7 | 11,0 |
| 100 16 14 | AH-C14 | 14,0 | 12,7 |
| 100 16 16 | AH-C16 | 15,9 | 13,0 |
| 100 16 19 | AH-C19 | 19,1 | 16,2 |
| 100 16 22 | AH-C22 | 22,2 | 19,4 |
| 100 16 25 | AH-C25 | 25,4 | 24,0 |
| 100 16 29 | AH-C29 | 28,6 | 25,9 |

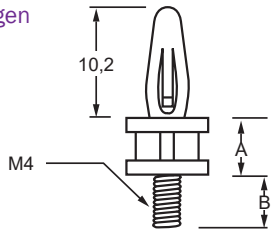
# AH-M4 ABSTANDHALTER

Merkmale

- einseitig Rastverriegelung
- einseitig mit Gewinde M4
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 17 06 | AH-M-06 | 6,4 | 5,0 |
| 100 17 09 | AH-M-09 | 9,5 | 6,4 |
| 100 17 12 | AH-M-12 | 12,7 | 6,4 |
| 100 17 15 | AH-M-15 | 15,9 | 7,4 |
| 100 17 19 | AH-M-19 | 19,1 | 6,4 |
| 100 17 22 | AH-M-22 | 22,2 | 6,4 |
| 100 17 25 | AH-M-25 | 25,4 | 6,4 |
| 100 17 28 | AH-M-28 | 28,6 | 6,4 |
| 100 17 35 | AH-M-35 | 35,7 | 6,4 |

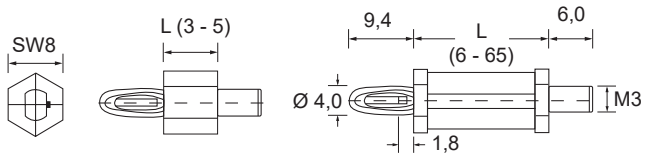
# AB-AR-M3-1,8-SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit M3 - Aussengewinde
- einseitig mit Rastverriegelung
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- Aussengewindelänge = 6,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 51 03 | 3,0 |
| 100 51 04 | 4,0 |
| 100 51 05 | 5,0 |
| 100 51 06 | 6,0 |
| 100 51 07 | 7,0 |
| 100 51 08 | 8,0 |
| 100 51 09 | 9,0 |
| 100 51 10 | 10,0 |
| 100 51 11 | 11,0 |
| 100 51 12 | 12,0 |
| 100 51 13 | 13,0 |
| 100 51 14 | 14,0 |
| 100 51 15 | 15,0 |
| 100 51 16 | 16,0 |
| 100 51 17 | 17,0 |
| 100 51 18 | 18,0 |
| 100 51 19 | 19,0 |
| 100 51 20 | 20,0 |
| 100 51 21 | 21,0 |
| 100 51 22 | 22,0 |
| 100 51 23 | 23,0 |
| 100 51 24 | 24,0 |
| 100 51 25 | 25,0 |
| 100 51 26 | 26,0 |
| 100 51 27 | 27,0 |
| 100 51 28 | 28,0 |
| 100 51 29 | 29,0 |
| 100 51 30 | 30,0 |
| 100 51 31 | 31,0 |
| 100 51 32 | 32,0 |
| 100 51 33 | 33,0 |
| 100 51 34 | 34,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 51 35 | 35,0 |
| 100 51 36 | 36,0 |
| 100 51 37 | 37,0 |
| 100 51 38 | 38,0 |
| 100 51 39 | 39,0 |
| 100 51 40 | 40,0 |
| 100 51 41 | 41,0 |
| 100 51 42 | 42,0 |
| 100 51 43 | 43,0 |
| 100 51 44 | 44,0 |
| 100 51 45 | 45,0 |
| 100 51 46 | 46,0 |
| 100 51 47 | 47,0 |
| 100 51 48 | 48,0 |
| 100 51 49 | 49,0 |
| 100 51 50 | 50,0 |
| 100 51 51 | 51,0 |
| 100 51 52 | 52,0 |
| 100 51 53 | 53,0 |
| 100 51 54 | 54,0 |
| 100 51 55 | 55,0 |
| 100 51 56 | 56,0 |
| 100 51 57 | 57,0 |
| 100 51 58 | 58,0 |
| 100 51 59 | 59,0 |
| 100 51 60 | 60,0 |
| 100 51 61 | 61,0 |
| 100 51 62 | 62,0 |
| 100 51 63 | 63,0 |
| 100 51 64 | 64,0 |
| 100 51 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

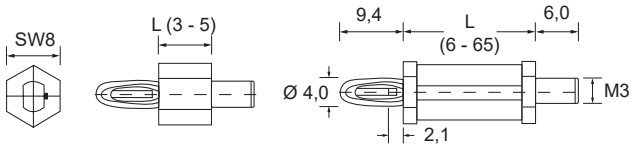
# AB-AR-M3-2,1-SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit M3 - Aussengewinde
- einseitig mit Rastverriegelung
- für Leiterplattenstärke 2,0 mm, Loch-Ø = 4,0 mm
- Aussengewindelänge = 6,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 52 03 | 3,0 |
| 100 52 04 | 4,0 |
| 100 52 05 | 5,0 |
| 100 52 06 | 6,0 |
| 100 52 07 | 7,0 |
| 100 52 08 | 8,0 |
| 100 52 09 | 9,0 |
| 100 52 10 | 10,0 |
| 100 52 11 | 11,0 |
| 100 52 12 | 12,0 |
| 100 52 13 | 13,0 |
| 100 52 14 | 14,0 |
| 100 52 15 | 15,0 |
| 100 52 16 | 16,0 |
| 100 52 17 | 17,0 |
| 100 52 18 | 18,0 |
| 100 52 19 | 19,0 |
| 100 52 20 | 20,0 |
| 100 52 21 | 21,0 |
| 100 52 22 | 22,0 |
| 100 52 23 | 23,0 |
| 100 52 24 | 24,0 |
| 100 52 25 | 25,0 |
| 100 52 26 | 26,0 |
| 100 52 27 | 27,0 |
| 100 52 28 | 28,0 |
| 100 52 29 | 29,0 |
| 100 52 30 | 30,0 |
| 100 52 31 | 31,0 |
| 100 52 32 | 32,0 |
| 100 52 33 | 33,0 |
| 100 52 34 | 34,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 52 35 | 35,0 |
| 100 52 36 | 36,0 |
| 100 52 37 | 37,0 |
| 100 52 38 | 38,0 |
| 100 52 39 | 39,0 |
| 100 52 40 | 40,0 |
| 100 52 41 | 41,0 |
| 100 52 42 | 42,0 |
| 100 52 43 | 43,0 |
| 100 52 44 | 44,0 |
| 100 52 45 | 45,0 |
| 100 52 46 | 46,0 |
| 100 52 47 | 47,0 |
| 100 52 48 | 48,0 |
| 100 52 49 | 49,0 |
| 100 52 50 | 50,0 |
| 100 52 51 | 51,0 |
| 100 52 52 | 52,0 |
| 100 52 53 | 53,0 |
| 100 52 54 | 54,0 |
| 100 52 55 | 55,0 |
| 100 52 56 | 56,0 |
| 100 52 57 | 57,0 |
| 100 52 58 | 58,0 |
| 100 52 59 | 59,0 |
| 100 52 60 | 60,0 |
| 100 52 61 | 61,0 |
| 100 52 62 | 62,0 |
| 100 52 63 | 63,0 |
| 100 52 64 | 64,0 |
| 100 52 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

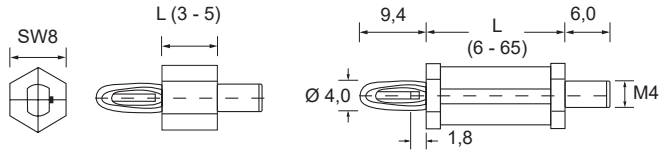
# AB-AR-M4-1,8 -SW8 ABSTANDSBOLZEN

## Merkmale

- einseitig mit M4 - Aussengewinde
- einseitig mit Rastverriegelung
- Aussengewindelänge = 6,0 mm
- für Leiterplattenstärke 1,6 mm, Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 44 03 | 3,0 |
| 100 44 04 | 4,0 |
| 100 44 05 | 5,0 |
| 100 44 06 | 6,0 |
| 100 44 07 | 7,0 |
| 100 44 08 | 8,0 |
| 100 44 09 | 9,0 |
| 100 44 10 | 10,0 |
| 100 44 11 | 11,0 |
| 100 44 12 | 12,0 |
| 100 44 13 | 13,0 |
| 100 44 14 | 14,0 |
| 100 44 15 | 15,0 |
| 100 44 16 | 16,0 |
| 100 44 17 | 17,0 |
| 100 44 18 | 18,0 |
| 100 44 19 | 19,0 |
| 100 44 20 | 20,0 |
| 100 44 21 | 21,0 |
| 100 44 22 | 22,0 |
| 100 44 23 | 23,0 |
| 100 44 24 | 24,0 |
| 100 44 25 | 25,0 |
| 100 44 26 | 26,0 |
| 100 44 27 | 27,0 |
| 100 44 28 | 28,0 |
| 100 44 29 | 29,0 |
| 100 44 30 | 30,0 |
| 100 44 31 | 31,0 |
| 100 44 32 | 32,0 |
| 100 44 33 | 33,0 |
| 100 44 34 | 34,0 |
| 100 44 35 | 35,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 44 36 | 36,0 |
| 100 44 37 | 37,0 |
| 100 44 38 | 38,0 |
| 100 44 39 | 39,0 |
| 100 44 40 | 40,0 |
| 100 44 41 | 41,0 |
| 100 44 42 | 42,0 |
| 100 44 43 | 43,0 |
| 100 44 44 | 44,0 |
| 100 44 45 | 45,0 |
| 100 44 46 | 46,0 |
| 100 44 47 | 47,0 |
| 100 44 48 | 48,0 |
| 100 44 49 | 49,0 |
| 100 44 50 | 50,0 |
| 100 44 51 | 51,0 |
| 100 44 52 | 52,0 |
| 100 44 53 | 53,0 |
| 100 44 54 | 54,0 |
| 100 44 55 | 55,0 |
| 100 44 56 | 56,0 |
| 100 44 57 | 57,0 |
| 100 44 58 | 58,0 |
| 100 44 59 | 59,0 |
| 100 44 60 | 60,0 |
| 100 44 61 | 61,0 |
| 100 44 62 | 62,0 |
| 100 44 63 | 63,0 |
| 100 44 64 | 64,0 |
| 100 44 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

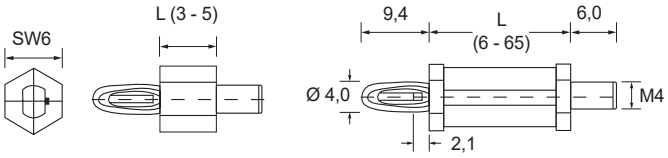
# AB-AR-M4-2,1-SW6 ABSTANDSBOLZEN

## Merkmale

- einseitig mit M4 - Aussengewinde
- einseitig mit Rastverriegelung
- Aussengewindelänge = 6,0 mm
- für Leiterplattenstärke 2,0 mm, Loch-Ø = 4,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 54 03 | 3,0 |
| 100 54 04 | 4,0 |
| 100 54 05 | 5,0 |
| 100 54 06 | 6,0 |
| 100 54 07 | 7,0 |
| 100 54 08 | 8,0 |
| 100 54 09 | 9,0 |
| 100 54 10 | 10,0 |
| 100 54 11 | 11,0 |
| 100 54 12 | 12,0 |
| 100 54 13 | 13,0 |
| 100 54 14 | 14,0 |
| 100 54 15 | 15,0 |
| 100 54 16 | 16,0 |
| 100 54 17 | 17,0 |
| 100 54 18 | 18,0 |
| 100 54 19 | 19,0 |
| 100 54 20 | 20,0 |
| 100 54 21 | 21,0 |
| 100 54 22 | 22,0 |
| 100 54 23 | 23,0 |
| 100 54 24 | 24,0 |
| 100 54 25 | 25,0 |
| 100 54 26 | 26,0 |
| 100 54 27 | 27,0 |
| 100 54 28 | 28,0 |
| 100 54 29 | 29,0 |
| 100 54 30 | 30,0 |
| 100 54 31 | 31,0 |
| 100 54 32 | 32,0 |
| 100 54 33 | 33,0 |
| 100 54 34 | 34,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 54 35 | 35,0 |
| 100 54 36 | 36,0 |
| 100 54 37 | 37,0 |
| 100 54 38 | 38,0 |
| 100 54 39 | 39,0 |
| 100 54 40 | 40,0 |
| 100 54 41 | 41,0 |
| 100 54 42 | 42,0 |
| 100 54 43 | 43,0 |
| 100 54 44 | 44,0 |
| 100 54 45 | 45,0 |
| 100 54 46 | 46,0 |
| 100 54 47 | 47,0 |
| 100 54 48 | 48,0 |
| 100 54 49 | 49,0 |
| 100 54 50 | 50,0 |
| 100 54 51 | 51,0 |
| 100 54 52 | 52,0 |
| 100 54 53 | 53,0 |
| 100 54 54 | 54,0 |
| 100 54 55 | 55,0 |
| 100 54 56 | 56,0 |
| 100 54 57 | 57,0 |
| 100 54 58 | 58,0 |
| 100 54 59 | 59,0 |
| 100 54 60 | 60,0 |
| 100 54 61 | 61,0 |
| 100 54 62 | 62,0 |
| 100 54 63 | 63,0 |
| 100 54 64 | 64,0 |
| 100 54 65 | 65,0 |

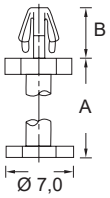
Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

# MPS ABSTANDHALTER

Merkmale

- einseitig mit Rastverriegelung
- einseitig plane Auflagefläche
- für Leiterplattenstärke bis 1,6 mm
- Loch-Ø = 3,0 mm, 3,1 mm bzw. 3,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | Loch-Ø (mm) |
|---|---|---|---|---|
| 100 09 03 | MPS-2,5 | 2,5 | 5,35 | 3,0 |
| 100 09 04 | MPS-04 | 4,0 | 5,35 | 3,0 |
| 100 09 06 | MPS-06 | 6,0 | 5,35 | 3,0 |
| 100 09 08 | MPS-08 | 8,0 | 5,35 | 3,0 |
| 100 09 10 | MPS-10 | 10,0 | 5,35 | 3,0 |
| 100 09 11 | MPS-11 | 11,4 | 5,35 | 3,1 |
| 100 09 12 | MPS-12 | 12,0 | 5,35 | 3,0 |
| 100 09 14 | MPS-14 | 14,0 | 5,35 | 3,0 |
| 100 09 20 | MPS-20 | 20,0 | 5,10 | 3,5 |

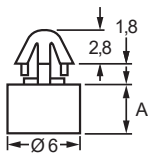
# PDC ABSTANDHALTER

Merkmale

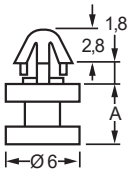
- einseitig mit Rastverriegelung
- einseitig plane Auflagefläche
- für Leiterplattenstärke max. 1,2 - 1,7 mm
- Loch-Ø = 3,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm

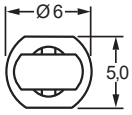
- nur für PDC-3 bis PDC-4




- nur für PDC-5 und PDC-10




- nur für PDC-4,5D bis PDC-26D




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 09 30 | PDC-3 | 3,0 |
| 100 09 31 | PDC-3,5 | 3,5 |
| 100 09 32 | PDC-4 | 4,0 |
| 100 09 33 | PDC-4,5D | 4,5 |
| 100 09 34 | PDC-5 | 5,0 |
| 100 09 35 | PDC-5,5D | 5,5 |
| 100 09 36 | PDC-6D | 6,0 |
| 100 09 37 | PDC-6,5D | 6,5 |
| 100 09 38 | PDC-7D | 7,0 |
| 100 09 39 | PDC-9 | 9,0 |
| 100 09 40 | PDC-10 | 10,0 |
| 100 09 41 | PDC-13,5D | 13,5 |
| 100 09 42 | PDC-26D | 26,0 |

NEU

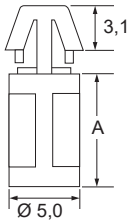
# MC ABSTANDHALTER

Merkmale

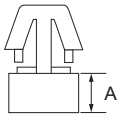
- einseitig mit Rastverriegelung
- einseitig plane Auflagefläche
- für Leiterplattenstärke 1,2 bis 1,7 mm
- Loch-Ø = 4,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm

- MC-6 bis MC-16,4




- MC-3 bis MC-5




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 09 21 | MC-3 | 3,0 |
| 100 09 22 | MC-3,2 | 3,2 |
| 100 09 23 | MC-3,5 | 3,5 |
| 100 09 24 | MC-4 | 4,0 |
| 100 09 25 | MC-5 | 5,0 |
| 100 09 26 | MC-6 | 6,3 |
| 100 09 27 | MC-7 | 7,0 |
| 100 09 28 | MC-7,5 | 7,5 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 09 29 | MC-8 | 8,0 |
| 100 09 45 | MC-8,5 | 8,5 |
| 100 09 46 | MC-9 | 9,0 |
| 100 09 47 | MC-10 | 10,0 |
| 100 09 48 | MC-11,5 | 11,5 |
| 100 09 49 | MC-12 | 12,7 |
| 100 09 50 | MC-16,4 | 16,4 |

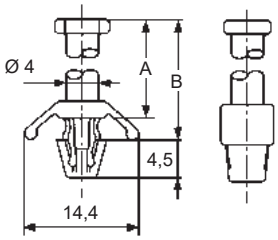
# KGPS-S ABSTANDHALTER

Merkmale

- einseitig mit Rastverriegelung
- einseitig plane Auflagefläche
- für Leiterplattenstärke 0,5 - 2,3 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2 (auch in UL94V-0 erhältlich)
- Farbe: natur

Abmessungen

► Einheit = mm



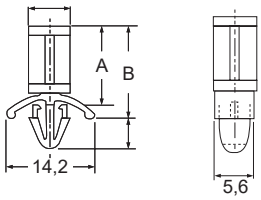

| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 03 03 | KGPS-3S | 4,8 | 7,5 |
| 100 03 05 | KGPS-3,5S | 5,5 | 8,2 |
| 100 03 04 | KGPS-4S | 6,4 | 9,1 |
| 100 03 06 | KGPS-6S | 9,4 | 12,1 |
| 100 03 08 | KGPS-8S | 12,7 | 15,4 |
| 100 03 10 | KGPS-10S | 15,9 | 18,6 |
| 100 03 12 | KGPS-12S | 19,1 | 21,8 |
| 100 03 14 | KGPS-14S | 22,2 | 24,9 |
| 100 03 16 | KGPS-16S | 25,4 | 28,1 |
| 100 03 18 | KGPS-18S | 28,6 | 31,3 |

# SPSN ABSTANDHALTER

Merkmale

- einseitig mit Rastverriegelung
- einseitig plane Auflagefläche
- für Leiterplattenstärke 0,5 -2,0 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2 (auch in UL94V-0 erhältlich)
- Farbe: natur

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 29 33 | SPSN-3 | 4,9 | 7,1 |
| 100 29 34 | SPSN-4 | 6,2 | 8,4 |
| 100 29 36 | SPSN-6 | 9,4 | 11,6 |
| 100 29 37 | SPSN-7 | 11,0 | 13,2 |
| 100 29 38 | SPSN-8 | 12,5 | 14,7 |
| 100 29 40 | SPSN-10 | 15,7 | 17,9 |

| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 29 42 | SPSN-12 | 18,9 | 21,1 |
| 100 29 44 | SPSN-14 | 22,0 | 24,2 |
| 100 29 46 | SPSN-16 | 25,1 | 27,3 |
| 100 29 48 | SPSN-18 | 28,3 | 30,5 |
| 100 29 50 | SPSN-20 | 31,5 | 33,7 |
| 100 29 52 | SPSN-22 | 34,6 | 36,8 |

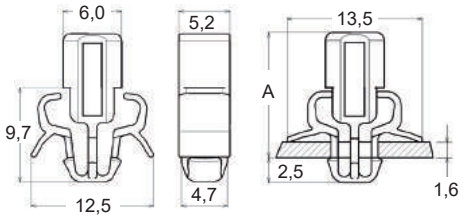
# RPCT-SVO ABSTANDHALTER

NEU

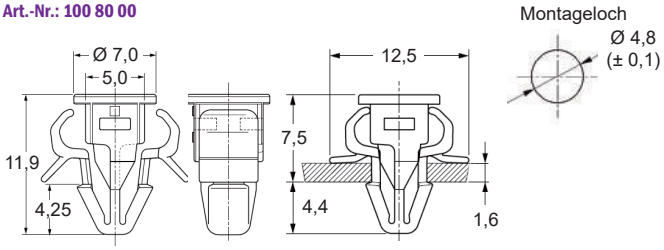
Merkmale:

- DRUCK-Montage
- einseitig mit Rastverriegelung
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Gehäusestärke 0,8 - 1,6 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

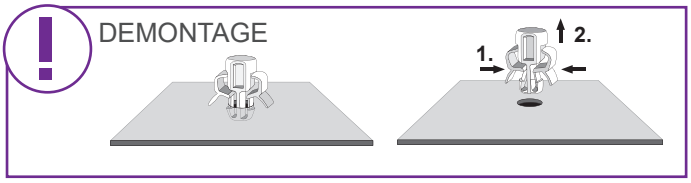
Abmessungen Einheit = mm




Art.-Nr.: 100 80 00




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 80 01 | RPCT-8,2SVO | 8,2 |
| 100 80 02 | RPCT-9,8SVO | 9,8 |
| 100 80 03 | RPCT-12,8SVO | 12,8 |
| 100 80 04 | RPCT-16,1SVO | 16,1 |
| 100 80 05 | RPCT-19,3SVO | 19,3 |



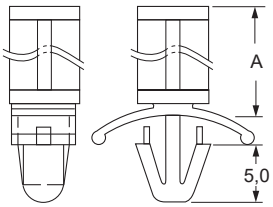
NEU

# LAS ABSTANDHALTER

Merkmale

- einseitiger Rastmontage
- für Leiterplattenstärke 0,8 - 2,0 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 29 60 | LAS-3 | 3,5 |
| 100 29 61 | LAS-5 | 4,8 |
| 100 29 62 | LAS-6 | 6,0 |
| 100 29 63 | LAS-6A | 6,4 |
| 100 29 64 | LAS-8 | 7,9 |
| 100 29 65 | LAS-9 | 9,5 |
| 100 29 66 | LAS-11 | 11,1 |
| 100 29 67 | LAS-12 | 12,7 |
| 100 29 68 | LAS-16 | 15,9 |

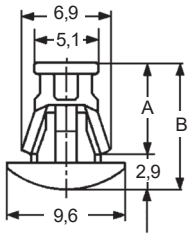
| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 100 29 69 | LAS-19 | 19,1 |
| 100 29 70 | LAS-22 | 22,2 |
| 100 29 71 | LAS-24 | 24,0 |
| 100 29 72 | LAS-25 | 25,4 |
| 100 29 73 | LAS-27,5 | 27,5 |
| 100 29 74 | LAS-28 | 28,6 |
| 100 29 75 | LAS-31,1 | 31,1 |
| 100 29 76 | LAS-31,7 | 31,7 |
| 100 29 77 | LAS-35 | 34,9 |

# KGPS-RF ABSTANDHALTER

Merkmale

- einseitig zur Durchsteckmontage (fast bündiger Abschluss)
- einseitig plane Auflagefläche
- für Leiterplattenstärke 1,0 - 1,75 mm
- Loch-Ø = 5,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 100 05 05 | KGPS-5RF | 5,0 | 8,0 |
| 100 05 06 | KGPS-6RF | 6,0 | 8,7 |
| 100 05 08 | KGPS-8RF | 8,0 | 10,7 |
| 100 05 10 | KGPS-10RF | 10,0 | 12,7 |
| 100 05 12 | KGPS-12RF | 12,0 | 14,7 |
| 100 05 14 | KGPS-14RF | 14,0 | 16,7 |
| 100 05 16 | KGPS-16RF | 16,0 | 18,7 |
| 100 05 18 | KGPS-18RF | 18,0 | 20,7 |

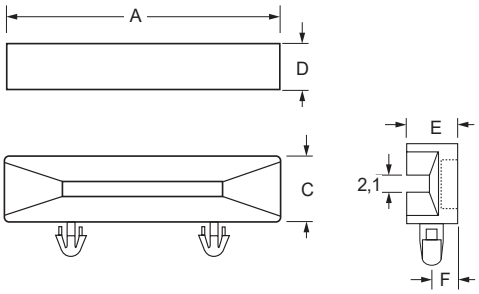
# CGLA LEITERPLATTENFÜHRUNG

NEU

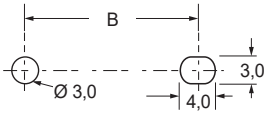
## Merkmale

- Farbe: natur
- Material: Nylon 66, UL94V-2

## Abmessungen ► Einheit = mm




## Montagelöcher




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | für Plattenstärke (mm) |
|---|---|---|---|---|---|---|---|---|
| 110 03 00 | CGLA-4 | 38,4 | 20,0 | 9,2 | 6,4 | 3,4 | 3,2 | 16 - 1,7 |
| 110 03 01 | CGLA-4(1) | 38,4 | 20,0 | 9,2 | 6,4 | 3,4 | 3,2 | 1,0 |
| 110 03 02 | CGLA-4(2) | 38,4 | 20,0 | 9,2 | 6,4 | 3,4 | 3,2 | 2,0 |
| 110 03 03 | CGLA-4S | 40,0 | 20,0 | 8,0 | 6,0 | 3,0 | 3,0 | 1,6 |
| 110 03 04 | CGLA-6 | 51,0 | 38,2 | 9,2 | 6,4 | 3,4 | 3,2 | 1,6 - 1,7 |
| 110 03 05 | CGLA-8 | 81,0 | 60,0 | 8,0 | 6,0 | 3,0 | 3,0 | 1,6 - 1,8 |
| 110 03 06 | CGLA-8(2) | 81,0 | 60,0 | 8,0 | 6,0 | 3,0 | 3,0 | 1,8 - 2,1 |
| 110 03 07 | CGLA-8(8) | 81,0 | 60,0 | 8,0 | 6,0 | 3,0 | 3,0 | 1,8 |
| 110 03 08 | CGLA-8(25) | 81,0 | 60,0 | 8,0 | 6,0 | 3,0 | 3,0 | 2,5 |
| 110 03 09 | CGLA-9(1) | 91,5 | 71,0 | 8,0 | 6,0 | 3,0 | 3,0 | 1,6 - 1,8 |
| 110 03 10 | CGLA-9(2) | 91,5 | 71,0 | 8,0 | 6,0 | 3,0 | 3,0 | 1,8 - 2,1 |

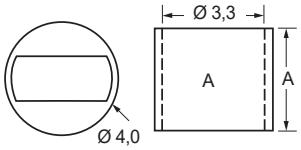
# LEDS ABSTANDHALTER

## Merkmale

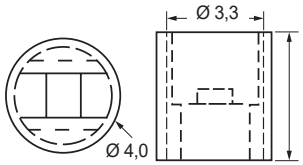
- Abstandhalter für 3 mm LED's
- Material: Nylon 66, UL94V-2
- Standardfarbe: natur

## Abmessungen ► Einheit = mm

für Typ LEDS-0,8 bis LEDS-3,5




für Typ LEDS-4 bis LEDS-24




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 111 01 01 | LEDS-0,8 | 0,8 |
| 111 01 02 | LEDS-1 | 1,0 |
| 111 01 03 | LEDS-1,5 | 1,5 |
| 111 01 04 | LEDS-2 | 2,0 |
| 111 01 05 | LEDS-2,5 | 2,5 |
| 111 01 06 | LEDS-3 | 3,0 |
| 111 01 07 | LEDS-3,5 | 3,5 |
| 111 01 08 | LEDS-4 | 4,0 |
| 111 01 09 | LEDS-4,5 | 4,5 |
| 111 01 10 | LEDS-5 | 5,0 |
| 111 01 11 | LEDS-5,5 | 5,5 |
| 111 01 12 | LEDS-6 | 6,0 |
| 111 01 13 | LEDS-6,5 | 6,5 |
| 111 01 14 | LEDS-7 | 7,0 |
| 111 01 15 | LEDS-7,5 | 7,5 |
| 111 01 16 | LEDS-8 | 8,0 |
| 111 01 17 | LEDS-8,5 | 8,5 |
| 111 01 18 | LEDS-9 | 9,0 |
| 111 01 19 | LEDS-9,5 | 9,5 |
| 111 01 20 | LEDS-9,8 | 9,8 |
| 111 01 21 | LEDS-10 | 10,0 |
| 111 01 22 | LEDS-10,5 | 10,5 |
| 111 01 23 | LEDS-11 | 11,0 |
| 111 01 24 | LEDS-11,5 | 11,5 |
| 111 01 25 | LEDS-12 | 12,0 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 111 01 26 | LEDS-12,5 | 12,5 |
| 111 01 27 | LEDS-13 | 13,0 |
| 111 01 28 | LEDS-13,5 | 13,5 |
| 111 01 29 | LEDS-14 | 14,0 |
| 111 01 30 | LEDS-14,5 | 14,5 |
| 111 01 31 | LEDS-15 | 15,0 |
| 111 01 32 | LEDS-15,5 | 15,5 |
| 111 01 33 | LEDS-16 | 16,0 |
| 111 01 34 | LEDS-16,5 | 16,5 |
| 111 01 35 | LEDS-17 | 17,0 |
| 111 01 36 | LEDS-17,5 | 17,5 |
| 111 01 37 | LEDS-18 | 18,0 |
| 111 01 38 | LEDS-18,5 | 18,5 |
| 111 01 39 | LEDS-19 | 19,0 |
| 111 01 40 | LEDS-19,5 | 19,5 |
| 111 01 41 | LEDS-20 | 20,0 |
| 111 01 42 | LEDS-20,5 | 20,5 |
| 111 01 43 | LEDS-21 | 21,0 |
| 111 01 44 | LEDS-21,5 | 21,5 |
| 111 01 45 | LEDS-22 | 22,0 |
| 111 01 46 | LEDS-22,5 | 22,5 |
| 111 01 47 | LEDS-23 | 23,0 |
| 111 01 48 | LEDS-23,5 | 23,5 |
| 111 01 49 | LEDS-24 | 24,0 |

Wir bieten diese Abstandhalter auch in der Farbe schwarz an:
Dazu einfach dann den Zusatz „S“ an der Artikelnummer ergänzen.

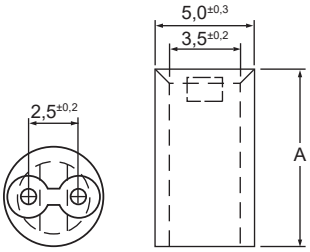
# TLED ABSTANDHALTER

NEU

Merkmale

- Abstandhalter für 5 mm LED's
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 111 03 01 | TLED-1 | 1,0 |
| 111 03 02 | TLED-1,5 | 1,5 |
| 111 03 03 | TLED-2 | 2,0 |
| 111 03 04 | TLED-2,5 | 2,5 |
| 111 03 05 | TLED-3 | 3,0 |
| 111 03 06 | TLED-3,5 | 3,5 |
| 111 03 07 | TLED-4 | 4,0 |
| 111 03 08 | TLED-4,5 | 4,5 |
| 111 03 09 | TLED-5 | 5,0 |
| 111 03 10 | TLED-5,5 | 5,5 |
| 111 03 11 | TLED-6 | 6,0 |
| 111 03 12 | TLED-6,5 | 6,5 |
| 111 03 13 | TLED-7 | 7,0 |
| 111 03 14 | TLED-7,5 | 7,5 |
| 111 03 15 | TLED-8 | 8,0 |
| 111 03 16 | TLED-8,5 | 8,5 |
| 111 03 17 | TLED-9 | 9,0 |
| 111 03 18 | TLED-9,5 | 9,5 |
| 111 03 19 | TLED-10 | 10,0 |
| 111 03 20 | TLED-11 | 11,0 |
| 111 03 21 | TLED-11,5 | 11,5 |
| 111 03 22 | TLED-12 | 12,0 |
| 111 03 23 | TLED-12,5 | 12,5 |

| Art.-Nr. | Typ | A (mm) |
|---|---|---|
| 111 03 24 | TLED-13 | 13,0 |
| 111 03 25 | TLED-13,5 | 13,5 |
| 111 03 26 | TLED-14 | 14,0 |
| 111 03 27 | TLED-15 | 15,0 |
| 111 03 28 | TLED-15,5 | 15,5 |
| 111 03 29 | TLED-16 | 16,0 |
| 111 03 30 | TLED-16,5 | 16,5 |
| 111 03 31 | TLED-17 | 17,0 |
| 111 03 32 | TLED-17,5 | 17,5 |
| 111 03 33 | TLED-18 | 18,0 |
| 111 03 34 | TLED-18,5 | 18,5 |
| 111 03 35 | TLED-19 | 19,0 |
| 111 03 36 | TLED-19,5 | 19,5 |
| 111 03 37 | TLED-20 | 20,0 |
| 111 03 38 | TLED-20,5 | 20,5 |
| 111 03 39 | TLED-21 | 21,0 |
| 111 03 40 | TLED-21,5 | 21,5 |
| 111 03 41 | TLED-22 | 22,0 |
| 111 03 42 | TLED-22,5 | 22,5 |
| 111 03 43 | TLED-23 | 23,0 |
| 111 03 44 | TLED-23,5 | 23,5 |
| 111 03 45 | TLED-24 | 24,0 |

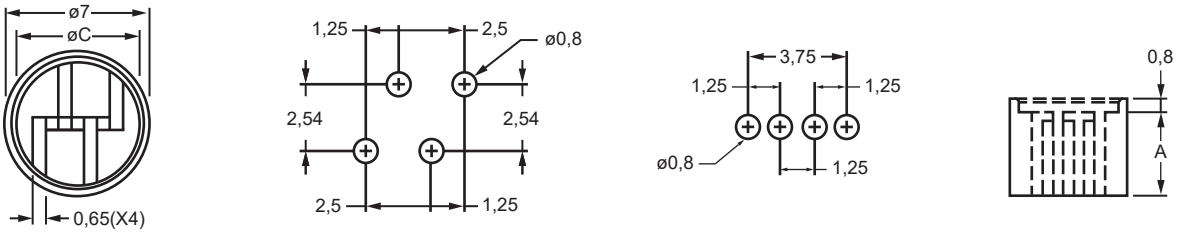
# LED54 ABSTANDHALTER

Merkmale

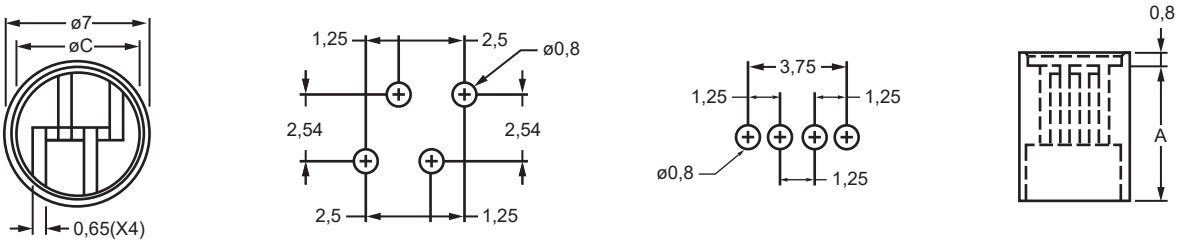
- für 4-Pin-LED
- Abstandhalter für 3 mm LED's
- Material: Nylon 66, UL94V-2 (UL94V-0)
- Standardfarbe: natur (schwarz)

Abmessungen ► Einheit = mm

für Typ LED54-2,5 bis LED54-5



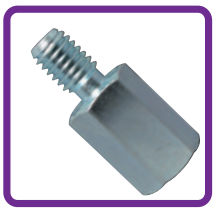

für Typ LED54-5,5 bis LED54-10




| Art.-Nr. | Typ | A (mm) | C (mm) |
|---|---|---|---|
| 111 02 01 | LED54-2,5 | 2,5 | 6,0 |
| 111 02 02 | LED54-3 | 3,0 | |
| 111 02 03 | LED54-3,5 | 3,5 | |
| 111 02 04 | LED54-4 | 4,0 | |
| 111 02 05 | LED54-4,5 | 4,5 | |
| 111 02 06 | LED54-5 | 5,0 | |
| 111 02 07 | LED54-5,5 | 5,5 | |
| 111 02 08 | LED54-6 | 6,0 | |
| 111 02 09 | LED54-6,5 | 6,5 | |
| 111 02 10 | LED54-7 | 7,0 | |
| 111 02 11 | LED54-7,5 | 7,5 | |
| 111 02 12 | LED54-8 | 8,0 | |
| 111 02 13 | LED54-8,5 | 8,5 | |
| 111 02 14 | LED54-9 | 9,0 | |
| 111 02 15 | LED54-9,5 | 9,5 | |
| 111 02 16 | LED54-10 | 10,0 | |

Wir bieten diese Abstandhalter auch in der Farbe schwarz an:
Dazu einfach dann den Zusatz „S“ an der Artikelnummer ergänzen.

# ABSTANDSBOLZEN / ABSTANDSHÜLSEN




## Abstandsbolzen Kunststoff

| | |
|---|---|
| mit beidseitigem Innengewinde | Seite 96 - 104 |
| mit Innen- und Aussengewinde | Seite 105 - 112 |
| mit beidseitigem Aussengewinde | Seite 113 - 117 |

## Abstandsbolzen Kunststoff mit Metallgewinde

| | |
|---|---|
| mit beidseitigem Innengewinde | Seite 118 - 121 |
| mit Innen- und Aussengewinde | Seite 122 - 125 |
| mit beidseitigem Aussengewinde | Seite 126 -129 |

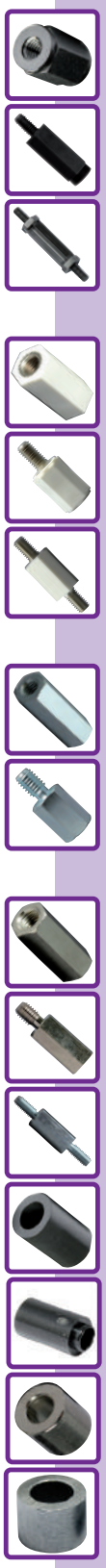
## Abstandsbolzen Stahl verzinkt

| | |
|---|---|
| mit beidseitigem Innengewinde | Seite 130 - 135 |
| mit Innen- und Aussengewinde | Seite 136 - 143 |

## Abstandsbolzen Messing vernickelt

| | |
|---|---|
| mit beidseitigem Innengewinde | Seite 144 - 147 |
| mit Innen- und Aussengewinde | Seite 148 - 153 |

| | | |
|---|---|---|
| **Abstandsbolzen** | mit beidseitigem Aussengewinde | Seite 154 |
| **Abstandshülsen Kunststoff** | | Seite 155 - 160 |
| **Abstandhülsen mit Selbsthaltelippe und Steck-Distanzhülsen** | | Seite 161 |
| **Abstandshülsen Messing vernickelt** | | Seite 162 |
| **Abstandshülsen Aluminium** | | Seite 163 |

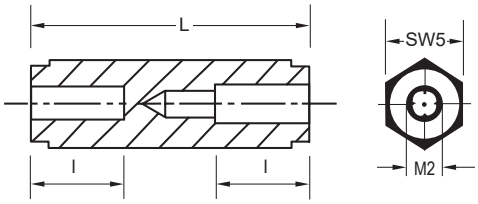
# AB-I-M2 - SW5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M2
- Material: Polyamid 6.6, UL94HB
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 20 05 | 5,0 |
| 100 20 06 | 6,0 |
| 100 20 07 | 7,0 |
| 100 20 08 | 8,0 |
| 100 20 09 | 9,0 |
| 100 20 10 | 10,0 |
| 100 20 11 | 11,0 |
| 100 20 12 | 12,0 |
| 100 20 13 | 13,0 |
| 100 20 14 | 14,0 |
| 100 20 15 | 15,0 |
| 100 20 16 | 16,0 |
| 100 20 17 | 17,0 |
| 100 20 18 | 18,0 |
| 100 20 19 | 19,0 |
| 100 20 20 | 20,0 |
| 100 20 21 | 21,0 |
| 100 20 22 | 22,0 |
| 100 20 23 | 23,0 |
| 100 20 24 | 24,0 |
| 100 20 25 | 25,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 20 26 | 26,0 |
| 100 20 27 | 27,0 |
| 100 20 28 | 28,0 |
| 100 20 29 | 29,0 |
| 100 20 30 | 30,0 |
| 100 20 31 | 31,0 |
| 100 20 32 | 32,0 |
| 100 20 33 | 33,0 |
| 100 20 34 | 34,0 |
| 100 20 35 | 35,0 |
| 100 20 36 | 36,0 |
| 100 20 37 | 37,0 |
| 100 20 38 | 38,0 |
| 100 20 39 | 39,0 |
| 100 20 40 | 40,0 |
| 100 20 41 | 41,0 |
| 100 20 42 | 42,0 |
| 100 20 43 | 43,0 |
| 100 20 44 | 44,0 |
| 100 20 45 | 45,0 |

!

| L 6-kt-Länge | I Innengewindetiefe | L 6-kt-Länge | I Innengewindetiefe | L 6-kt-Länge | I Innengewindetiefe |
|---|---|---|---|---|---|
| bis 14,0 mm | durchgehend | 17,0 mm | 8,0 mm | 20,0 mm | 9,5 mm |
| 15,0 mm | 7,0 mm | 18,0 mm | 8,5 mm | ab 21,0 mm | 10,0 mm |
| 16,0 mm | 7,5 mm | 19,0 mm | 9,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

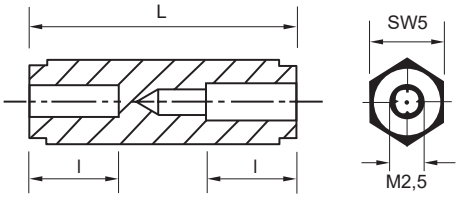
# AB-I-M2,5 - SW5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M2,5
- Material: Polyamid 6.0 GV25, UL94HB
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 21 04 | 4,0 |
| 100 21 05 | 5,0 |
| 100 21 06 | 6,0 |
| 100 21 07 | 7,0 |
| 100 21 08 | 8,0 |
| 100 21 09 | 9,0 |
| 100 21 10 | 10,0 |
| 100 21 11 | 11,0 |
| 100 21 12 | 12,0 |
| 100 21 13 | 13,0 |
| 100 21 14 | 14,0 |
| 100 21 15 | 15,0 |
| 100 21 16 | 16,0 |
| 100 21 17 | 17,0 |
| 100 21 18 | 18,0 |
| 100 21 19 | 19,0 |
| 100 21 20 | 20,0 |
| 100 21 21 | 21,0 |
| 100 21 22 | 22,0 |
| 100 21 23 | 23,0 |
| 100 21 24 | 24,0 |
| 100 21 25 | 25,0 |
| 100 21 26 | 26,0 |
| 100 21 27 | 27,0 |
| 100 21 28 | 28,0 |
| 100 21 29 | 29,0 |
| 100 21 30 | 30,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 21 31 | 31,0 |
| 100 21 32 | 32,0 |
| 100 21 33 | 33,0 |
| 100 21 34 | 34,0 |
| 100 21 35 | 35,0 |
| 100 21 36 | 36,0 |
| 100 21 37 | 37,0 |
| 100 21 38 | 38,0 |
| 100 21 39 | 39,0 |
| 100 21 40 | 40,0 |
| 100 21 41 | 41,0 |
| 100 21 42 | 42,0 |
| 100 21 43 | 43,0 |
| 100 21 44 | 44,0 |
| 100 21 45 | 45,0 |
| 100 21 46 | 46,0 |
| 100 21 47 | 47,0 |
| 100 21 48 | 48,0 |
| 100 21 49 | 49,0 |
| 100 21 50 | 50,0 |
| 100 21 51 | 51,0 |
| 100 21 52 | 52,0 |
| 100 21 53 | 53,0 |
| 100 21 54 | 54,0 |
| 100 21 55 | 55,0 |

!

| L 6-kt-Länge | I Innengewindetiefe | L 6-kt-Länge | I Innengewindetiefe | L 6-kt-Länge | I Innengewindetiefe |
|---|---|---|---|---|---|
| bis 14,0 mm | durchgehend | 17,0 mm | 8,0 mm | 20,0 mm | 9,5 mm |
| 15,0 mm | 7,0 mm | 18,0 mm | 8,5 mm | ab 21,0 mm | 10,0 mm |
| 16,0 mm | 7,5 mm | 19,0 mm | 9,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

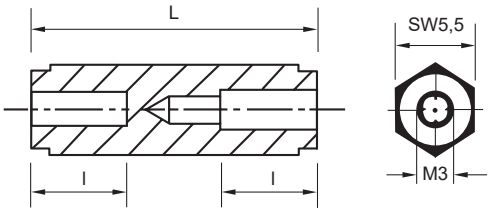
# AB-I-M3 - SW5,5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M3
- Material: Polyamid 6.0 GV25, UL94HB
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 73 05 | 5,0 |
| 100 73 06 | 6,0 |
| 100 73 07 | 7,0 |
| 100 73 08 | 8,0 |
| 100 73 09 | 9,0 |
| 100 73 10 | 10,0 |
| 100 73 11 | 11,0 |
| 100 73 12 | 12,0 |
| 100 73 13 | 13,0 |
| 100 73 14 | 14,0 |
| 100 73 15 | 15,0 |
| 100 73 16 | 16,0 |
| 100 73 17 | 17,0 |
| 100 73 18 | 18,0 |
| 100 73 19 | 19,0 |
| 100 73 20 | 20,0 |
| 100 73 21 | 21,0 |
| 100 73 22 | 22,0 |
| 100 73 23 | 23,0 |
| 100 73 24 | 24,0 |
| 100 73 25 | 25,0 |
| 100 73 26 | 26,0 |
| 100 73 27 | 27,0 |
| 100 73 28 | 28,0 |
| 100 73 29 | 29,0 |
| 100 73 30 | 30,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 73 31 | 31,0 |
| 100 73 32 | 32,0 |
| 100 73 33 | 33,0 |
| 100 73 34 | 34,0 |
| 100 73 35 | 35,0 |
| 100 73 36 | 36,0 |
| 100 73 37 | 37,0 |
| 100 73 38 | 38,0 |
| 100 73 39 | 39,0 |
| 100 73 40 | 40,0 |
| 100 73 41 | 41,0 |
| 100 73 42 | 42,0 |
| 100 73 43 | 43,0 |
| 100 73 44 | 44,0 |
| 100 73 45 | 45,0 |
| 100 73 46 | 46,0 |
| 100 73 47 | 47,0 |
| 100 73 48 | 48,0 |
| 100 73 49 | 49,0 |
| 100 73 50 | 50,0 |
| 100 73 51 | 51,0 |
| 100 73 52 | 52,0 |
| 100 73 53 | 53,0 |
| 100 73 54 | 54,0 |
| 100 73 55 | 55,0 |

!

| L 6-kt-Länge | I Innengewindetiefe | L 6-kt-Länge | I Innengewindetiefe | L 6-kt-Länge | I Innengewindetiefe |
|---|---|---|---|---|---|
| 15,0 mm | durchgehend | 17,0 mm | 8,0 mm | 20,0 mm | 9,5 mm |
| 16,0 mm | 7,5 mm | 18,0 mm | 8,5 mm | ab 21,0 mm | 10,0 mm |
| | | 19,0 mm | 9,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

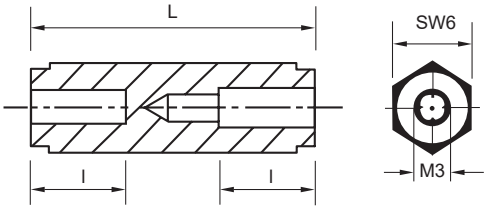
# AB-I-M3 - SW6 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M3
- Material: Polyamid 6.0 GV25, UL94HB
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 22 03 | 3,0 |
| 100 22 04 | 4,0 |
| 100 22 05 | 5,0 |
| 100 22 06 | 6,0 |
| 100 22 07 | 7,0 |
| 100 22 08 | 8,0 |
| 100 22 09 | 9,0 |
| 100 22 10 | 10,0 |
| 100 22 11 | 11,0 |
| 100 22 12 | 12,0 |
| 100 22 13 | 13,0 |
| 100 22 14 | 14,0 |
| 100 22 15 | 15,0 |
| 100 22 16 | 16,0 |
| 100 22 17 | 17,0 |
| 100 22 18 | 18,0 |
| 100 22 19 | 19,0 |
| 100 22 20 | 20,0 |
| 100 22 21 | 21,0 |
| 100 22 22 | 22,0 |
| 100 22 23 | 23,0 |
| 100 22 24 | 24,0 |
| 100 22 25 | 25,0 |
| 100 22 26 | 26,0 |
| 100 22 27 | 27,0 |
| 100 22 28 | 28,0 |
| 100 22 29 | 29,0 |
| 100 22 30 | 30,0 |
| 100 22 31 | 31,0 |
| 100 22 32 | 32,0 |
| 100 22 33 | 33,0 |
| 100 22 34 | 34,0 |
| 100 22 35 | 35,0 |
| 100 22 36 | 36,0 |
| 100 22 37 | 37,0 |
| 100 22 38 | 38,0 |
| 100 22 39 | 39,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 22 40 | 40,0 |
| 100 22 41 | 41,0 |
| 100 22 42 | 42,0 |
| 100 22 43 | 43,0 |
| 100 22 44 | 44,0 |
| 100 22 45 | 45,0 |
| 100 22 46 | 46,0 |
| 100 22 47 | 47,0 |
| 100 22 48 | 48,0 |
| 100 22 49 | 49,0 |
| 100 22 50 | 50,0 |
| 100 22 51 | 51,0 |
| 100 22 52 | 52,0 |
| 100 22 53 | 53,0 |
| 100 22 54 | 54,0 |
| 100 22 55 | 55,0 |
| 100 22 56 | 56,0 |
| 100 22 57 | 57,0 |
| 100 22 58 | 58,0 |
| 100 22 59 | 59,0 |
| 100 22 60 | 60,0 |
| 100 22 61 | 61,0 |
| 100 22 62 | 62,0 |
| 100 22 63 | 63,0 |
| 100 22 64 | 64,0 |
| 100 22 65 | 65,0 |
| 100 22 66 | 66,0 |
| 100 22 67 | 67,0 |
| 100 22 68 | 68,0 |
| 100 22 69 | 69,0 |
| 100 22 70 | 70,0 |
| 100 22 71 | 71,0 |
| 100 22 72 | 72,0 |
| 100 22 73 | 73,0 |
| 100 22 74 | 74,0 |
| 100 22 75 | 75,0 |

!

| L 6-kt-Länge | I Innengewindetiefe |
|---|---|
| 15,0 mm | durchgehend |
| 16,0 mm | 7,5 mm |

| L 6-kt-Länge | I Innengewindetiefe |
|---|---|
| 17,0 mm | 8,0 mm |
| 18,0 mm | 8,5 mm |
| 19,0 mm | 9,0 mm |

| L 6-kt-Länge | I Innengewindetiefe |
|---|---|
| 20,0 mm | 9,5 mm |
| ab 21,0 mm | 10,0 mm |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

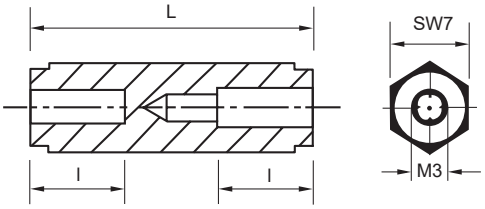
# AB-I-M3 - SW7 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M3
- Material: Polyamid 6.0 GV25, UL94HB
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (0,1 mm) |
|---|---|
| 100 23 04 | 4,0 |
| 100 23 05 | 5,0 |
| 100 23 06 | 6,0 |
| 100 23 07 | 7,0 |
| 100 23 08 | 8,0 |
| 100 23 09 | 9,0 |
| 100 23 10 | 10,0 |
| 100 23 11 | 11,0 |
| 100 23 12 | 12,0 |
| 100 23 13 | 13,0 |
| 100 23 14 | 14,0 |
| 100 23 15 | 15,0 |
| 100 23 16 | 16,0 |
| 100 23 17 | 17,0 |
| 100 23 18 | 18,0 |
| 100 23 19 | 19,0 |
| 100 23 20 | 20,0 |
| 100 23 21 | 21,0 |
| 100 23 22 | 22,0 |
| 100 23 23 | 23,0 |
| 100 23 24 | 24,0 |
| 100 23 25 | 25,0 |
| 100 23 26 | 26,0 |
| 100 23 27 | 27,0 |
| 100 23 28 | 28,0 |
| 100 23 29 | 29,0 |
| 100 23 30 | 30,0 |
| 100 23 31 | 31,0 |
| 100 23 32 | 32,0 |
| 100 23 33 | 33,0 |
| 100 23 34 | 34,0 |

| Art.-Nr. | L (0,1 mm) |
|---|---|
| 100 23 35 | 35,0 |
| 100 23 36 | 36,0 |
| 100 23 37 | 37,0 |
| 100 23 38 | 38,0 |
| 100 23 39 | 39,0 |
| 100 23 40 | 40,0 |
| 100 23 41 | 41,0 |
| 100 23 42 | 42,0 |
| 100 23 43 | 43,0 |
| 100 23 44 | 44,0 |
| 100 23 45 | 45,0 |
| 100 23 46 | 46,0 |
| 100 23 47 | 47,0 |
| 100 23 48 | 48,0 |
| 100 23 49 | 49,0 |
| 100 23 50 | 50,0 |
| 100 23 51 | 51,0 |
| 100 23 52 | 52,0 |
| 100 23 53 | 53,0 |
| 100 23 54 | 54,0 |
| 100 23 55 | 55,0 |
| 100 23 56 | 56,0 |
| 100 23 57 | 57,0 |
| 100 23 58 | 58,0 |
| 100 23 59 | 59,0 |
| 100 23 60 | 60,0 |
| 100 23 61 | 61,0 |
| 100 23 62 | 62,0 |
| 100 23 63 | 63,0 |
| 100 23 64 | 64,0 |
| 100 23 65 | 65,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 15,0 mm | durchgehend | 17,0 mm | 8,0 mm | 20,0 mm | 9,5 mm |
| 16,0 mm | 7,5 mm | 18,0 mm | 8,5 mm | ab 21,0 mm | 10,0 mm |
| | | 19,0 mm | 9,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# AB-I-M4 - SW7 ABSTANDSBOLZEN

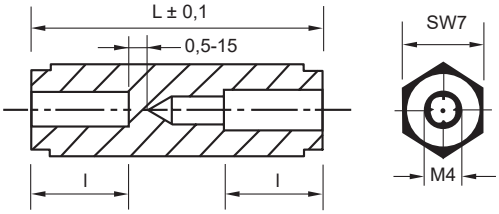
NEU

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M4
- Material: Polyamid 6.0 GV25, UL94HB
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 25 05 | 5,0 |
| 100 25 06 | 6,0 |
| 100 25 07 | 7,0 |
| 100 25 08 | 8,0 |
| 100 25 09 | 9,0 |
| 100 25 10 | 10,0 |
| 100 25 11 | 11,0 |
| 100 25 12 | 12,0 |
| 100 25 13 | 13,0 |
| 100 25 14 | 14,0 |
| 100 25 15 | 15,0 |
| 100 25 16 | 16,0 |
| 100 25 17 | 17,0 |
| 100 25 18 | 18,0 |
| 100 25 19 | 19,0 |
| 100 25 20 | 20,0 |
| 100 25 21 | 21,0 |
| 100 25 22 | 22,0 |
| 100 25 23 | 23,0 |
| 100 25 24 | 24,0 |
| 100 25 25 | 25,0 |
| 100 25 26 | 26,0 |
| 100 25 27 | 27,0 |
| 100 25 28 | 28,0 |
| 100 25 29 | 29,0 |
| 100 25 30 | 30,0 |
| 100 25 31 | 31,0 |
| 100 25 32 | 32,0 |
| 100 25 33 | 33,0 |
| 100 25 34 | 34,0 |
| 100 25 35 | 35,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 25 36 | 36,0 |
| 100 25 37 | 37,0 |
| 100 25 38 | 38,0 |
| 100 25 39 | 39,0 |
| 100 25 40 | 40,0 |
| 100 25 41 | 41,0 |
| 100 25 42 | 42,0 |
| 100 25 43 | 43,0 |
| 100 25 44 | 44,0 |
| 100 25 45 | 45,0 |
| 100 25 46 | 46,0 |
| 100 25 47 | 47,0 |
| 100 25 48 | 48,0 |
| 100 25 49 | 49,0 |
| 100 25 50 | 50,0 |
| 100 25 51 | 51,0 |
| 100 25 52 | 52,0 |
| 100 25 53 | 53,0 |
| 100 25 54 | 54,0 |
| 100 25 55 | 55,0 |
| 100 25 56 | 56,0 |
| 100 25 57 | 57,0 |
| 100 25 58 | 58,0 |
| 100 25 59 | 59,0 |
| 100 25 60 | 60,0 |
| 100 25 61 | 61,0 |
| 100 25 62 | 62,0 |
| 100 25 63 | 63,0 |
| 100 25 64 | 64,0 |
| 100 25 65 | 65,0 |
| 100 25 66 | 66,0 |
| 100 25 67 | 67,0 |
| 100 25 68 | 68,0 |
| 100 25 68,5 | 68,5 |

!

| L<br>6-kt-Länge | I<br>Innengewindetiefe |
|---|---|
| bis 20,0 mm | durchgehend |
| ab 21,0 mm | 10,0 mm |

Weitere Abmessungen und Größen auf Anfrage:
Telefon: 09852 61079-0

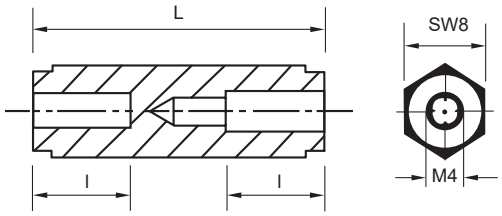
# AB-I-M4 - SW8 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M4
- Material: Polyamid 6.0 GV25, UL94HB
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 24 05 | 5,0 |
| 100 24 06 | 6,0 |
| 100 24 07 | 7,0 |
| 100 24 08 | 8,0 |
| 100 24 09 | 9,0 |
| 100 24 10 | 10,0 |
| 100 24 11 | 11,0 |
| 100 24 12 | 12,0 |
| 100 24 13 | 13,0 |
| 100 24 14 | 14,0 |
| 100 24 15 | 15,0 |
| 100 24 16 | 16,0 |
| 100 24 17 | 17,0 |
| 100 24 18 | 18,0 |
| 100 24 19 | 19,0 |
| 100 24 20 | 20,0 |
| 100 24 21 | 21,0 |
| 100 24 22 | 22,0 |
| 100 24 23 | 23,0 |
| 100 24 24 | 24,0 |
| 100 24 25 | 25,0 |
| 100 24 26 | 26,0 |
| 100 24 27 | 27,0 |
| 100 24 28 | 28,0 |
| 100 24 29 | 29,0 |
| 100 24 30 | 30,0 |
| 100 24 31 | 31,0 |
| 100 24 32 | 32,0 |
| 100 24 33 | 33,0 |
| 100 24 34 | 34,0 |
| 100 24 35 | 35,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 24 36 | 36,0 |
| 100 24 37 | 37,0 |
| 100 24 38 | 38,0 |
| 100 24 39 | 39,0 |
| 100 24 40 | 40,0 |
| 100 24 41 | 41,0 |
| 100 24 42 | 42,0 |
| 100 24 43 | 43,0 |
| 100 24 44 | 44,0 |
| 100 24 45 | 45,0 |
| 100 24 46 | 46,0 |
| 100 24 47 | 47,0 |
| 100 24 48 | 48,0 |
| 100 24 49 | 49,0 |
| 100 24 50 | 50,0 |
| 100 24 51 | 51,0 |
| 100 24 52 | 52,0 |
| 100 24 53 | 53,0 |
| 100 24 54 | 54,0 |
| 100 24 55 | 55,0 |
| 100 24 56 | 56,0 |
| 100 24 57 | 57,0 |
| 100 24 58 | 58,0 |
| 100 24 59 | 59,0 |
| 100 24 60 | 60,0 |
| 100 24 61 | 61,0 |
| 100 24 62 | 62,0 |
| 100 24 63 | 63,0 |
| 100 24 64 | 64,0 |
| 100 24 65 | 65,0 |
| 100 24 66 | 66,0 |
| 100 24 67 | 67,0 |
| 100 24 68 | 68,0 |
| 100 24 68,5 | 68,5 |

!

| L<br>6-kt-Länge | I<br>Innengewindetiefe |
|---|---|
| bis 20,0 mm | durchgehend |
| ab 21,0 mm | 10,0 mm |

Weitere Abmessungen und Größen auf Anfrage:
Telefon: 09852 61079-0

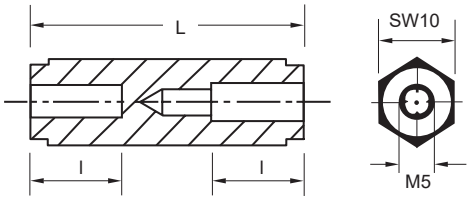
# AB-I-M5 - SW10 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M5
- Material: Polyamid 6.0 GV25, UL94HB
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 26 04 | 4,0 |
| 100 26 05 | 5,0 |
| 100 26 06 | 6,0 |
| 100 26 07 | 7,0 |
| 100 26 08 | 8,0 |
| 100 26 09 | 9,0 |
| 100 26 10 | 10,0 |
| 100 26 11 | 11,0 |
| 100 26 12 | 12,0 |
| 100 26 13 | 13,0 |
| 100 26 14 | 14,0 |
| 100 26 15 | 15,0 |
| 100 26 16 | 16,0 |
| 100 26 17 | 17,0 |
| 100 26 18 | 18,0 |
| 100 26 19 | 19,0 |
| 100 26 20 | 20,0 |
| 100 26 21 | 21,0 |
| 100 26 22 | 22,0 |
| 100 26 23 | 23,0 |
| 100 26 24 | 24,0 |
| 100 26 25 | 25,0 |
| 100 26 26 | 26,0 |
| 100 26 27 | 27,0 |
| 100 26 28 | 28,0 |
| 100 26 29 | 29,0 |
| 100 26 30 | 30,0 |
| 100 26 31 | 31,0 |
| 100 26 32 | 32,0 |
| 100 26 33 | 33,0 |
| 100 26 34 | 34,0 |
| 100 26 35 | 35,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 26 36 | 36,0 |
| 100 26 37 | 37,0 |
| 100 26 38 | 38,0 |
| 100 26 39 | 39,0 |
| 100 26 40 | 40,0 |
| 100 26 41 | 41,0 |
| 100 26 42 | 42,0 |
| 100 26 43 | 43,0 |
| 100 26 44 | 44,0 |
| 100 26 45 | 45,0 |
| 100 26 46 | 46,0 |
| 100 26 47 | 47,0 |
| 100 26 48 | 48,0 |
| 100 26 49 | 49,0 |
| 100 26 50 | 50,0 |
| 100 26 51 | 51,0 |
| 100 26 52 | 52,0 |
| 100 26 53 | 53,0 |
| 100 26 54 | 54,0 |
| 100 26 55 | 55,0 |
| 100 26 56 | 56,0 |
| 100 26 57 | 57,0 |
| 100 26 58 | 58,0 |
| 100 26 59 | 59,0 |
| 100 26 60 | 60,0 |
| 100 26 61 | 61,0 |
| 100 26 62 | 62,0 |
| 100 26 63 | 63,0 |
| 100 26 64 | 64,0 |
| 100 26 65 | 65,0 |

!

| L<br>6-kt-Länge | I<br>Innengewindetiefe |
|---|---|
| bis 20,0 mm | durchgehend |
| ab 21,0 mm | 10,0 mm |

Weitere Abmessungen und Größen auf Anfrage:
Telefon: 09852 61079-0

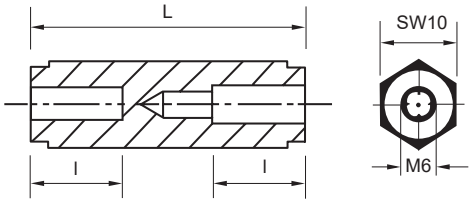
# AB-I-M6 - SW10 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M6
- Material: Polyamid 6.0 GV25, UL94HB
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 27 04 | 4,0 |
| 100 27 05 | 5,0 |
| 100 27 06 | 6,0 |
| 100 27 07 | 7,0 |
| 100 27 08 | 8,0 |
| 100 27 09 | 9,0 |
| 100 27 10 | 10,0 |
| 100 27 11 | 11,0 |
| 100 27 12 | 12,0 |
| 100 27 13 | 13,0 |
| 100 27 14 | 14,0 |
| 100 27 15 | 15,0 |
| 100 27 16 | 16,0 |
| 100 27 17 | 17,0 |
| 100 27 18 | 18,0 |
| 100 27 19 | 19,0 |
| 100 27 20 | 20,0 |
| 100 27 21 | 21,0 |
| 100 27 22 | 22,0 |
| 100 27 23 | 23,0 |
| 100 27 24 | 24,0 |
| 100 27 25 | 25,0 |
| 100 27 26 | 26,0 |
| 100 27 27 | 27,0 |
| 100 27 28 | 28,0 |
| 100 27 29 | 29,0 |
| 100 27 30 | 30,0 |
| 100 27 31 | 31,0 |
| 100 27 32 | 32,0 |
| 100 27 33 | 33,0 |
| 100 27 34 | 34,0 |
| 100 27 35 | 35,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 27 36 | 36,0 |
| 100 27 37 | 37,0 |
| 100 27 38 | 38,0 |
| 100 27 39 | 39,0 |
| 100 27 40 | 40,0 |
| 100 27 41 | 41,0 |
| 100 27 42 | 42,0 |
| 100 27 43 | 43,0 |
| 100 27 44 | 44,0 |
| 100 27 45 | 45,0 |
| 100 27 46 | 46,0 |
| 100 27 47 | 47,0 |
| 100 27 48 | 48,0 |
| 100 27 49 | 49,0 |
| 100 27 50 | 50,0 |
| 100 27 51 | 51,0 |
| 100 27 52 | 52,0 |
| 100 27 53 | 53,0 |
| 100 27 54 | 54,0 |
| 100 27 55 | 55,0 |
| 100 27 56 | 56,0 |
| 100 27 57 | 57,0 |
| 100 27 58 | 58,0 |
| 100 27 59 | 59,0 |
| 100 27 60 | 60,0 |
| 100 27 61 | 61,0 |
| 100 27 62 | 62,0 |
| 100 27 63 | 63,0 |
| 100 27 64 | 64,0 |
| 100 27 65 | 65,0 |

!

| L<br>6-kt-Länge | I<br>Innengewindetiefe |
|---|---|
| bis 20,0 mm | durchgehend |
| ab 21,0 mm | 10,0 mm |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

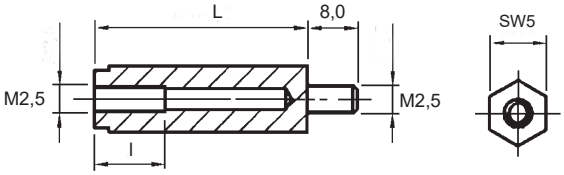
# AB-IA-M2,5 - SW5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit Innen- und Aussengewinde M2,5
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 35 05 | 5,0 |
| 100 35 06 | 6,0 |
| 100 35 07 | 7,0 |
| 100 35 08 | 8,0 |
| 100 35 09 | 9,0 |
| 100 35 10 | 10,0 |
| 100 35 11 | 11,0 |
| 100 35 12 | 12,0 |
| 100 35 13 | 13,0 |
| 100 35 14 | 14,0 |
| 100 35 15 | 15,0 |
| 100 35 16 | 16,0 |
| 100 35 17 | 17,0 |
| 100 35 18 | 18,0 |
| 100 35 19 | 19,0 |
| 100 35 20 | 20,0 |
| 100 35 21 | 21,0 |
| 100 35 22 | 22,0 |
| 100 35 23 | 23,0 |
| 100 35 24 | 24,0 |
| 100 35 25 | 25,0 |
| 100 35 26 | 26,0 |
| 100 35 27 | 27,0 |
| 100 35 28 | 28,0 |
| 100 35 29 | 29,0 |
| 100 35 30 | 30,0 |
| 100 35 31 | 31,0 |
| 100 35 32 | 32,0 |
| 100 35 33 | 33,0 |
| 100 35 34 | 34,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 35 35 | 35,0 |
| 100 35 36 | 36,0 |
| 100 35 37 | 37,0 |
| 100 35 38 | 38,0 |
| 100 35 39 | 39,0 |
| 100 35 40 | 40,0 |
| 100 35 41 | 41,0 |
| 100 35 42 | 42,0 |
| 100 35 43 | 43,0 |
| 100 35 44 | 44,0 |
| 100 35 45 | 45,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

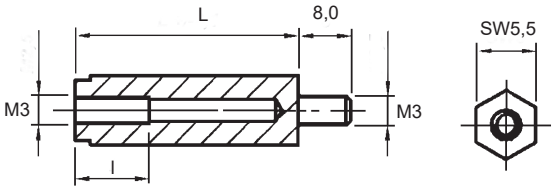
# AB-IA-M3 - SW5,5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit Innen- und Aussengewinde M3
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 75 05 | 5,0 |
| 100 75 06 | 6,0 |
| 100 75 07 | 7,0 |
| 100 75 08 | 8,0 |
| 100 75 09 | 9,0 |
| 100 75 10 | 10,0 |
| 100 75 11 | 11,0 |
| 100 75 12 | 12,0 |
| 100 75 13 | 13,0 |
| 100 75 14 | 14,0 |
| 100 75 15 | 15,0 |
| 100 75 16 | 16,0 |
| 100 75 17 | 17,0 |
| 100 75 18 | 18,0 |
| 100 75 19 | 19,0 |
| 100 75 20 | 20,0 |
| 100 75 21 | 21,0 |
| 100 75 22 | 22,0 |
| 100 75 23 | 23,0 |
| 100 75 24 | 24,0 |
| 100 75 25 | 25,0 |
| 100 75 26 | 26,0 |
| 100 75 27 | 27,0 |
| 100 75 28 | 28,0 |
| 100 75 29 | 29,0 |
| 100 75 30 | 30,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 75 31 | 31,0 |
| 100 75 32 | 32,0 |
| 100 75 33 | 33,0 |
| 100 75 34 | 34,0 |
| 100 75 35 | 35,0 |
| 100 75 36 | 36,0 |
| 100 75 37 | 37,0 |
| 100 75 38 | 38,0 |
| 100 75 39 | 39,0 |
| 100 75 40 | 40,0 |
| 100 75 41 | 41,0 |
| 100 75 42 | 42,0 |
| 100 75 43 | 43,0 |
| 100 75 44 | 44,0 |
| 100 75 45 | 45,0 |
| 100 75 46 | 46,0 |
| 100 75 47 | 47,0 |
| 100 75 48 | 48,0 |
| 100 75 49 | 49,0 |
| 100 75 50 | 50,0 |
| 100 75 51 | 51,0 |
| 100 75 52 | 52,0 |
| 100 75 53 | 53,0 |
| 100 75 54 | 54,0 |
| 100 75 55 | 55,0 |
| 100 75 56 | 56,0 |
| 100 75 57 | 57,0 |
| 100 75 58 | 58,0 |
| 100 75 59 | 59,0 |
| 100 75 60 | 60,0 |
| 100 75 61 | 61,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

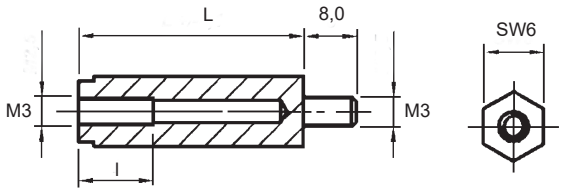
# AB-IA-M3 - SW6 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit Innen- und Aussengewinde M3
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 30 05 | 5,0 |
| 100 30 06 | 6,0 |
| 100 30 07 | 7,0 |
| 100 30 08 | 8,0 |
| 100 30 09 | 9,0 |
| 100 30 10 | 10,0 |
| 100 30 11 | 11,0 |
| 100 30 12 | 12,0 |
| 100 30 13 | 13,0 |
| 100 30 14 | 14,0 |
| 100 30 15 | 15,0 |
| 100 30 16 | 16,0 |
| 100 30 17 | 17,0 |
| 100 30 18 | 18,0 |
| 100 30 19 | 19,0 |
| 100 30 20 | 20,0 |
| 100 30 21 | 21,0 |
| 100 30 22 | 22,0 |
| 100 30 23 | 23,0 |
| 100 30 24 | 24,0 |
| 100 30 25 | 25,0 |
| 100 30 26 | 26,0 |
| 100 30 27 | 27,0 |
| 100 30 28 | 28,0 |
| 100 30 29 | 29,0 |
| 100 30 30 | 30,0 |
| 100 30 31 | 31,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 30 32 | 32,0 |
| 100 30 33 | 33,0 |
| 100 30 34 | 34,0 |
| 100 30 35 | 35,0 |
| 100 30 36 | 36,0 |
| 100 30 37 | 37,0 |
| 100 30 38 | 38,0 |
| 100 30 39 | 39,0 |
| 100 30 40 | 40,0 |
| 100 30 41 | 41,0 |
| 100 30 42 | 42,0 |
| 100 30 43 | 43,0 |
| 100 30 44 | 44,0 |
| 100 30 45 | 45,0 |
| 100 30 46 | 46,0 |
| 100 30 47 | 47,0 |
| 100 30 48 | 48,0 |
| 100 30 49 | 49,0 |
| 100 30 50 | 50,0 |
| 100 30 51 | 51,0 |
| 100 30 52 | 52,0 |
| 100 30 53 | 53,0 |
| 100 30 54 | 54,0 |
| 100 30 55 | 55,0 |
| 100 30 56 | 56,0 |
| 100 30 57 | 57,0 |
| 100 30 58 | 58,0 |
| 100 30 59 | 59,0 |
| 100 30 60 | 60,0 |
| 100 30 61 | 61,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

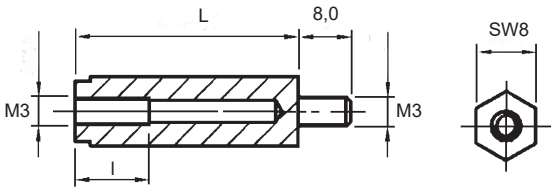
# AB-IA-M3 - SW8 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit Innen- und Aussengewinde M3
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 33 05 | 5,0 |
| 100 33 06 | 6,0 |
| 100 33 07 | 7,0 |
| 100 33 08 | 8,0 |
| 100 33 09 | 9,0 |
| 100 33 10 | 10,0 |
| 100 33 11 | 11,0 |
| 100 33 12 | 12,0 |
| 100 33 13 | 13,0 |
| 100 33 14 | 14,0 |
| 100 33 15 | 15,0 |
| 100 33 16 | 16,0 |
| 100 33 17 | 17,0 |
| 100 33 18 | 18,0 |
| 100 33 19 | 19,0 |
| 100 33 20 | 20,0 |
| 100 33 21 | 21,0 |
| 100 33 22 | 22,0 |
| 100 33 23 | 23,0 |
| 100 33 24 | 24,0 |
| 100 33 25 | 25,0 |
| 100 33 26 | 26,0 |
| 100 33 27 | 27,0 |
| 100 33 28 | 28,0 |
| 100 33 29 | 29,0 |
| 100 33 30 | 30,0 |
| 100 33 31 | 31,0 |
| 100 33 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 33 33 | 33,0 |
| 100 33 34 | 34,0 |
| 100 33 35 | 35,0 |
| 100 33 36 | 36,0 |
| 100 33 37 | 37,0 |
| 100 33 38 | 38,0 |
| 100 33 39 | 39,0 |
| 100 33 40 | 40,0 |
| 100 33 41 | 41,0 |
| 100 33 42 | 42,0 |
| 100 33 43 | 43,0 |
| 100 33 44 | 44,0 |
| 100 33 45 | 45,0 |
| 100 33 46 | 46,0 |
| 100 33 47 | 47,0 |
| 100 33 48 | 48,0 |
| 100 33 49 | 49,0 |
| 100 33 50 | 50,0 |
| 100 33 51 | 51,0 |
| 100 33 52 | 52,0 |
| 100 33 53 | 53,0 |
| 100 33 54 | 54,0 |
| 100 33 55 | 55,0 |
| 100 33 56 | 56,0 |
| 100 33 57 | 57,0 |
| 100 33 58 | 58,0 |
| 100 33 59 | 59,0 |
| 100 33 60 | 60,0 |
| 100 33 61 | 61,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

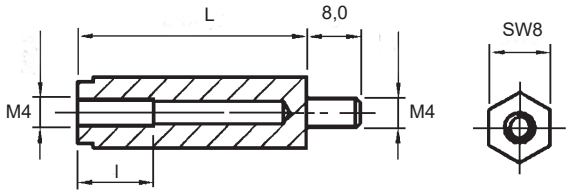
# AB-IA-M4 - SW8 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit Innen- und Aussengewinde M4
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 31 05 | 5,0 |
| 100 31 06 | 6,0 |
| 100 31 07 | 7,0 |
| 100 31 08 | 8,0 |
| 100 31 09 | 9,0 |
| 100 31 10 | 10,0 |
| 100 31 11 | 11,0 |
| 100 31 12 | 12,0 |
| 100 31 13 | 13,0 |
| 100 31 14 | 14,0 |
| 100 31 15 | 15,0 |
| 100 31 16 | 16,0 |
| 100 31 17 | 17,0 |
| 100 31 18 | 18,0 |
| 100 31 19 | 19,0 |
| 100 31 20 | 20,0 |
| 100 31 21 | 21,0 |
| 100 31 22 | 22,0 |
| 100 31 23 | 23,0 |
| 100 31 24 | 24,0 |
| 100 31 25 | 25,0 |
| 100 31 26 | 26,0 |
| 100 31 27 | 27,0 |
| 100 31 28 | 28,0 |
| 100 31 29 | 29,0 |
| 100 31 30 | 30,0 |
| 100 31 31 | 31,0 |
| 100 31 32 | 32,0 |
| 100 31 33 | 33,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 31 34 | 34,0 |
| 100 31 35 | 35,0 |
| 100 31 36 | 36,0 |
| 100 31 37 | 37,0 |
| 100 31 38 | 38,0 |
| 100 31 39 | 39,0 |
| 100 31 40 | 40,0 |
| 100 31 41 | 41,0 |
| 100 31 42 | 42,0 |
| 100 31 43 | 43,0 |
| 100 31 44 | 44,0 |
| 100 31 45 | 45,0 |
| 100 31 46 | 46,0 |
| 100 31 47 | 47,0 |
| 100 31 48 | 48,0 |
| 100 31 49 | 49,0 |
| 100 31 50 | 50,0 |
| 100 31 51 | 51,0 |
| 100 31 52 | 52,0 |
| 100 31 53 | 53,0 |
| 100 31 54 | 54,0 |
| 100 31 55 | 55,0 |
| 100 31 56 | 56,0 |
| 100 31 57 | 57,0 |
| 100 31 58 | 58,0 |
| 100 31 59 | 59,0 |
| 100 31 60 | 60,0 |
| 100 31 61 | 61,0 |

!

| L 6-kt-Länge | I Innengewindetiefe | L 6-kt-Länge | I Innengewindetiefe | L 6-kt-Länge | I Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

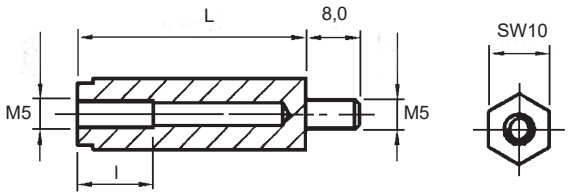
# AB-IA-M5 - SW10 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit Innen- und Aussengewinde M5
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 32 08 | 8,0 |
| 100 32 09 | 9,0 |
| 100 32 10 | 10,0 |
| 100 32 11 | 11,0 |
| 100 32 12 | 12,0 |
| 100 32 13 | 13,0 |
| 100 32 14 | 14,0 |
| 100 32 15 | 15,0 |
| 100 32 16 | 16,0 |
| 100 32 17 | 17,0 |
| 100 32 18 | 18,0 |
| 100 32 19 | 19,0 |
| 100 32 20 | 20,0 |
| 100 32 21 | 21,0 |
| 100 32 22 | 22,0 |
| 100 32 23 | 23,0 |
| 100 32 24 | 24,0 |
| 100 32 25 | 25,0 |
| 100 32 26 | 26,0 |
| 100 32 27 | 27,0 |
| 100 32 28 | 28,0 |
| 100 32 29 | 29,0 |
| 100 32 30 | 30,0 |
| 100 32 31 | 31,0 |
| 100 32 32 | 32,0 |
| 100 32 33 | 33,0 |
| 100 32 34 | 34,0 |
| 100 32 35 | 35,0 |
| 100 32 36 | 36,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 32 37 | 37,0 |
| 100 32 38 | 38,0 |
| 100 32 39 | 39,0 |
| 100 32 40 | 40,0 |
| 100 32 41 | 41,0 |
| 100 32 42 | 42,0 |
| 100 32 43 | 43,0 |
| 100 32 44 | 44,0 |
| 100 32 45 | 45,0 |
| 100 32 46 | 46,0 |
| 100 32 47 | 47,0 |
| 100 32 48 | 48,0 |
| 100 32 49 | 49,0 |
| 100 32 50 | 50,0 |
| 100 32 51 | 51,0 |
| 100 32 52 | 52,0 |
| 100 32 53 | 53,0 |
| 100 32 54 | 54,0 |
| 100 32 55 | 55,0 |
| 100 32 56 | 56,0 |
| 100 32 57 | 57,0 |
| 100 32 58 | 58,0 |
| 100 32 59 | 59,0 |
| 100 32 60 | 60,0 |
| 100 32 61 | 61,0 |
| 100 32 62 | 62,0 |
| 100 32 63 | 63,0 |
| 100 32 64 | 64,0 |
| 100 32 65 | 65,0 |

!

| L 6-kt-Länge | l Innengewindetiefe |
|---|---|
| 8,0 mm | 6,0 mm |
| 9,0 mm | 7,0 mm |
| 10,0 mm | 8,0 mm |

| L 6-kt-Länge | l Innengewindetiefe |
|---|---|
| 11,0 mm | 9,0 mm |
| ab 12,0 mm | 10,0 mm |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

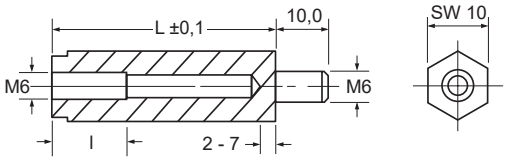
# AB-IA-M6 - SW10 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit Innen- und Aussengewinde M6
- Schlüsselweite 10
- Aussengewindelänge = 10,0 mm
- Material: Polyamid 6,6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 64 08 | 8,0 |
| 100 64 09 | 9,0 |
| 100 64 10 | 10,0 |
| 100 64 11 | 11,0 |
| 100 64 12 | 12,0 |
| 100 64 13 | 13,0 |
| 100 64 14 | 14,0 |
| 100 64 15 | 15,0 |
| 100 64 16 | 16,0 |
| 100 64 17 | 17,0 |
| 100 64 18 | 18,0 |
| 100 64 19 | 19,0 |
| 100 64 20 | 20,0 |
| 100 64 21 | 21,0 |
| 100 64 22 | 22,0 |
| 100 64 23 | 23,0 |
| 100 64 24 | 24,0 |
| 100 64 25 | 25,0 |
| 100 64 26 | 26,0 |
| 100 64 27 | 27,0 |
| 100 64 28 | 28,0 |
| 100 64 29 | 29,0 |
| 100 64 30 | 30,0 |
| 100 64 31 | 31,0 |
| 100 64 32 | 32,0 |
| 100 64 33 | 33,0 |
| 100 64 34 | 34,0 |
| 100 64 35 | 35,0 |
| 100 64 36 | 36,0 |
| 100 64 37 | 37,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 64 38 | 38,0 |
| 100 64 39 | 39,0 |
| 100 64 40 | 40,0 |
| 100 64 41 | 41,0 |
| 100 64 42 | 42,0 |
| 100 64 43 | 43,0 |
| 100 64 44 | 44,0 |
| 100 64 45 | 45,0 |
| 100 64 46 | 46,0 |
| 100 64 47 | 47,0 |
| 100 64 48 | 48,0 |
| 100 64 49 | 49,0 |
| 100 64 50 | 50,0 |
| 100 64 51 | 51,0 |
| 100 64 52 | 52,0 |
| 100 64 53 | 53,0 |
| 100 64 54 | 54,0 |
| 100 64 55 | 55,0 |
| 100 64 56 | 56,0 |
| 100 64 57 | 57,0 |
| 100 64 58 | 58,0 |
| 100 64 59 | 59,0 |
| 100 64 60 | 60,0 |
| 100 64 61 | 61,0 |
| 100 64 62 | 62,0 |
| 100 64 63 | 63,0 |
| 100 64 64 | 64,0 |
| 100 64 65 | 65,0 |

!

| L 6-kt-Länge | l Innengewindetiefe |
|---|---|
| 8,0 mm | 6,0 mm |
| 9,0 mm | 7,0 mm |
| 10,0 mm | 8,0 mm |

| L 6-kt-Länge | l Innengewindetiefe |
|---|---|
| 11,0 mm | 9,0 mm |
| ab 12,0 mm | 10,0 mm |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

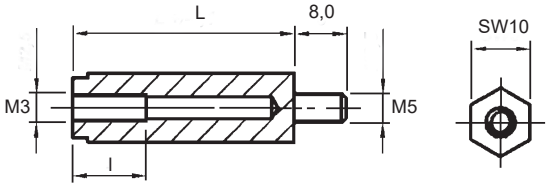
# AB-IA-M3+M5 - SW10 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit Innengewinde M3 und Aussengewinde M5
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 100 34 05 | 5,0 |
| 100 34 06 | 6,0 |
| 100 34 07 | 7,0 |
| 100 34 08 | 8,0 |
| 100 34 09 | 9,0 |
| 100 34 10 | 10,0 |
| 100 34 11 | 11,0 |
| 100 34 12 | 12,0 |
| 100 34 13 | 13,0 |
| 100 34 14 | 14,0 |
| 100 34 15 | 15,0 |
| 100 34 16 | 16,0 |
| 100 34 17 | 17,0 |
| 100 34 18 | 18,0 |
| 100 34 19 | 19,0 |
| 100 34 20 | 20,0 |
| 100 34 21 | 21,0 |
| 100 34 22 | 22,0 |
| 100 34 23 | 23,0 |
| 100 34 24 | 24,0 |
| 100 34 25 | 25,0 |
| 100 34 26 | 26,0 |
| 100 34 27 | 27,0 |
| 100 34 28 | 28,0 |
| 100 34 29 | 29,0 |
| 100 34 30 | 30,0 |
| 100 34 31 | 31,0 |
| 100 34 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 100 34 33 | 33,0 |
| 100 34 34 | 34,0 |
| 100 34 35 | 35,0 |
| 100 34 36 | 36,0 |
| 100 34 37 | 37,0 |
| 100 34 38 | 38,0 |
| 100 34 39 | 39,0 |
| 100 34 40 | 40,0 |
| 100 34 41 | 41,0 |
| 100 34 42 | 42,0 |
| 100 34 43 | 43,0 |
| 100 34 44 | 44,0 |
| 100 34 45 | 45,0 |
| 100 34 46 | 46,0 |
| 100 34 47 | 47,0 |
| 100 34 48 | 48,0 |
| 100 34 49 | 49,0 |
| 100 34 50 | 50,0 |
| 100 34 51 | 51,0 |
| 100 34 52 | 52,0 |
| 100 34 53 | 53,0 |
| 100 34 54 | 54,0 |
| 100 34 55 | 55,0 |
| 100 34 56 | 56,0 |
| 100 34 57 | 57,0 |
| 100 34 58 | 58,0 |
| 100 34 59 | 59,0 |
| 100 34 60 | 60,0 |
| 100 34 61 | 61,0 |

!

| L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe | L 6-kt-Länge | l Innengewindetiefe |
|---|---|---|---|---|---|
| 5,0 mm | 3,0 mm | 8,0 mm | 6,0 mm | 11,0 mm | 9,0 mm |
| 6,0 mm | 4,0 mm | 9,0 mm | 7,0 mm | ab 12,0 mm | 10,0 mm |
| 7,0 mm | 5,0 mm | 10,0 mm | 8,0 mm | | |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

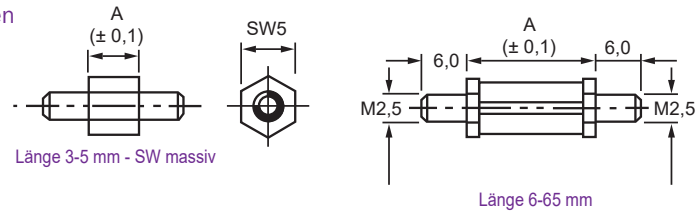
# AB-AA-M2,5 - SW5 ABSTANDSBOLZEN

## Merkmale

- Abstandsbolzen mit 2 x M2,5 - Aussengewinde
- Aussengewindelänge = 6,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) |
|---|---|
| 100 62 03 | 3,0 |
| 100 62 04 | 4,0 |
| 100 62 05 | 5,0 |
| 100 62 06 | 6,0 |
| 100 62 07 | 7,0 |
| 100 62 08 | 8,0 |
| 100 62 09 | 9,0 |
| 100 62 10 | 10,0 |
| 100 62 11 | 11,0 |
| 100 62 12 | 12,0 |
| 100 62 13 | 13,0 |
| 100 62 14 | 14,0 |
| 100 62 15 | 15,0 |
| 100 62 16 | 16,0 |
| 100 62 17 | 17,0 |
| 100 62 18 | 18,0 |
| 100 62 19 | 19,0 |
| 100 62 20 | 20,0 |
| 100 62 21 | 21,0 |
| 100 62 22 | 22,0 |
| 100 62 23 | 23,0 |
| 100 62 24 | 24,0 |
| 100 62 25 | 25,0 |
| 100 62 26 | 26,0 |
| 100 62 27 | 27,0 |
| 100 62 28 | 28,0 |
| 100 62 29 | 29,0 |
| 100 62 30 | 30,0 |
| 100 62 31 | 31,0 |
| 100 62 32 | 32,0 |
| 100 62 33 | 33,0 |
| 100 62 34 | 34,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 62 35 | 35,0 |
| 100 62 36 | 36,0 |
| 100 62 37 | 37,0 |
| 100 62 38 | 38,0 |
| 100 62 39 | 39,0 |
| 100 62 40 | 40,0 |
| 100 62 41 | 41,0 |
| 100 62 42 | 42,0 |
| 100 62 43 | 43,0 |
| 100 62 44 | 44,0 |
| 100 62 45 | 45,0 |
| 100 62 46 | 46,0 |
| 100 62 47 | 47,0 |
| 100 62 48 | 48,0 |
| 100 62 49 | 49,0 |
| 100 62 50 | 50,0 |
| 100 62 51 | 51,0 |
| 100 62 52 | 52,0 |
| 100 62 53 | 53,0 |
| 100 62 54 | 54,0 |
| 100 62 55 | 55,0 |
| 100 62 56 | 56,0 |
| 100 62 57 | 57,0 |
| 100 62 58 | 58,0 |
| 100 62 59 | 59,0 |
| 100 62 60 | 60,0 |
| 100 62 62 | 62,0 |
| 100 62 63 | 63,0 |
| 100 62 64 | 64,0 |
| 100 62 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

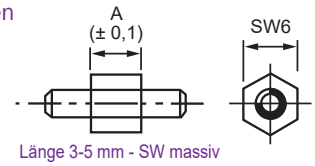
# AB-AA-M3 - SW6 ABSTANDSBOLZEN

## Merkmale

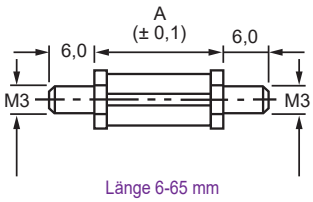
- Abstandsbolzen mit 2 x M3 - Aussengewinde
- Aussengewindelänge = 6,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




Länge 3-5 mm - SW massiv




Länge 6-65 mm

| Art.-Nr. | A (mm) |
|---|---|
| 100 63 03 | 3,0 |
| 100 63 04 | 4,0 |
| 100 63 05 | 5,0 |
| 100 63 06 | 6,0 |
| 100 63 07 | 7,0 |
| 100 63 08 | 8,0 |
| 100 63 09 | 9,0 |
| 100 63 10 | 10,0 |
| 100 63 11 | 11,0 |
| 100 63 12 | 12,0 |
| 100 63 13 | 13,0 |
| 100 63 14 | 14,0 |
| 100 63 15 | 15,0 |
| 100 63 16 | 16,0 |
| 100 63 17 | 17,0 |
| 100 63 18 | 18,0 |
| 100 63 19 | 19,0 |
| 100 63 20 | 20,0 |
| 100 63 21 | 21,0 |
| 100 63 22 | 22,0 |
| 100 63 23 | 23,0 |
| 100 63 24 | 24,0 |
| 100 63 25 | 25,0 |
| 100 63 26 | 26,0 |
| 100 63 27 | 27,0 |
| 100 63 28 | 28,0 |
| 100 63 29 | 29,0 |
| 100 63 30 | 30,0 |
| 100 63 31 | 31,0 |
| 100 63 32 | 32,0 |
| 100 63 33 | 33,0 |
| 100 63 34 | 34,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 63 35 | 35,0 |
| 100 63 36 | 36,0 |
| 100 63 37 | 37,0 |
| 100 63 38 | 38,0 |
| 100 63 39 | 39,0 |
| 100 63 40 | 40,0 |
| 100 63 41 | 41,0 |
| 100 63 42 | 42,0 |
| 100 63 43 | 43,0 |
| 100 63 44 | 44,0 |
| 100 63 45 | 45,0 |
| 100 63 46 | 46,0 |
| 100 63 47 | 47,0 |
| 100 63 48 | 48,0 |
| 100 63 49 | 49,0 |
| 100 63 50 | 50,0 |
| 100 63 51 | 51,0 |
| 100 63 52 | 52,0 |
| 100 63 53 | 53,0 |
| 100 63 54 | 54,0 |
| 100 63 55 | 55,0 |
| 100 63 56 | 56,0 |
| 100 63 57 | 57,0 |
| 100 63 58 | 58,0 |
| 100 63 59 | 59,0 |
| 100 63 60 | 60,0 |
| 100 63 62 | 62,0 |
| 100 63 63 | 63,0 |
| 100 63 64 | 64,0 |
| 100 63 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

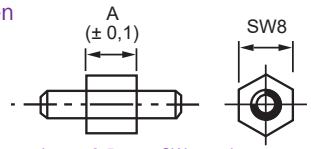
# AB-AA-M3 - SW8 ABSTANDSBOLZEN

## Merkmale

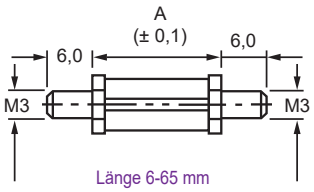
- Abstandsbolzen mit 2 x M3 - Aussengewinde
- Aussengewindelänge = 6,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




Länge 3-5 mm - SW massiv




Länge 6-65 mm

| Art.-Nr. | A (mm) |
|---|---|
| 100 55 03 | 3,0 |
| 100 55 04 | 4,0 |
| 100 55 05 | 5,0 |
| 100 55 06 | 6,0 |
| 100 55 07 | 7,0 |
| 100 55 08 | 8,0 |
| 100 55 09 | 9,0 |
| 100 55 10 | 10,0 |
| 100 55 11 | 11,0 |
| 100 55 12 | 12,0 |
| 100 55 13 | 13,0 |
| 100 55 14 | 14,0 |
| 100 55 15 | 15,0 |
| 100 55 16 | 16,0 |
| 100 55 17 | 17,0 |
| 100 55 18 | 18,0 |
| 100 55 19 | 19,0 |
| 100 55 20 | 20,0 |
| 100 55 21 | 21,0 |
| 100 55 22 | 22,0 |
| 100 55 23 | 23,0 |
| 100 55 24 | 24,0 |
| 100 55 25 | 25,0 |
| 100 55 26 | 26,0 |
| 100 55 27 | 27,0 |
| 100 55 28 | 28,0 |
| 100 55 29 | 29,0 |
| 100 55 30 | 30,0 |
| 100 55 31 | 31,0 |
| 100 55 32 | 32,0 |
| 100 55 33 | 33,0 |
| 100 55 34 | 34,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 55 35 | 35,0 |
| 100 55 36 | 36,0 |
| 100 55 37 | 37,0 |
| 100 55 38 | 38,0 |
| 100 55 39 | 39,0 |
| 100 55 40 | 40,0 |
| 100 55 41 | 41,0 |
| 100 55 42 | 42,0 |
| 100 55 43 | 43,0 |
| 100 55 44 | 44,0 |
| 100 55 45 | 45,0 |
| 100 55 46 | 46,0 |
| 100 55 47 | 47,0 |
| 100 55 48 | 48,0 |
| 100 55 49 | 49,0 |
| 100 55 50 | 50,0 |
| 100 55 51 | 51,0 |
| 100 55 52 | 52,0 |
| 100 55 53 | 53,0 |
| 100 55 54 | 54,0 |
| 100 55 55 | 55,0 |
| 100 55 56 | 56,0 |
| 100 55 57 | 57,0 |
| 100 55 58 | 58,0 |
| 100 55 59 | 59,0 |
| 100 55 60 | 60,0 |
| 100 55 62 | 62,0 |
| 100 55 63 | 63,0 |
| 100 55 64 | 64,0 |
| 100 55 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

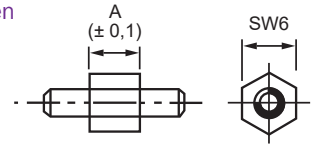
# AB-AA-M3/M4 - SW6 ABSTANDSBOLZEN

## Merkmale

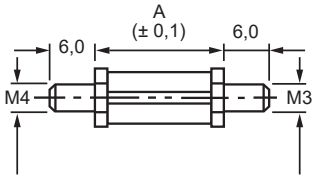
- Abstandsbolzen mit M3 - und M4 - Aussengewinde
- Aussengewindelänge = 6,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110 °C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




Länge 3-5 mm - SW massiv




Länge 6-65 mm

| Art.-Nr. | A (mm) |
|---|---|
| 100 82 03 | 3,0 |
| 100 82 04 | 4,0 |
| 100 82 05 | 5,0 |
| 100 82 06 | 6,0 |
| 100 82 07 | 7,0 |
| 100 82 08 | 8,0 |
| 100 82 09 | 9,0 |
| 100 82 10 | 10,0 |
| 100 82 11 | 11,0 |
| 100 82 12 | 12,0 |
| 100 82 13 | 13,0 |
| 100 82 14 | 14,0 |
| 100 82 15 | 15,0 |
| 100 82 16 | 16,0 |
| 100 82 17 | 17,0 |
| 100 82 18 | 18,0 |
| 100 82 19 | 19,0 |
| 100 82 20 | 20,0 |
| 100 82 21 | 21,0 |
| 100 82 22 | 22,0 |
| 100 82 23 | 23,0 |
| 100 82 24 | 24,0 |
| 100 82 25 | 25,0 |
| 100 82 26 | 26,0 |
| 100 82 27 | 27,0 |
| 100 82 28 | 28,0 |
| 100 82 29 | 29,0 |
| 100 82 30 | 30,0 |
| 100 82 31 | 31,0 |
| 100 82 32 | 32,0 |
| 100 82 33 | 33,0 |
| 100 82 34 | 34,0 |
| 100 82 35 | 35,0 |
| 100 82 36 | 36,0 |
| 100 82 37 | 37,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 82 38 | 38,0 |
| 100 82 39 | 39,0 |
| 100 82 40 | 40,0 |
| 100 82 41 | 41,0 |
| 100 82 42 | 42,0 |
| 100 82 43 | 43,0 |
| 100 82 44 | 44,0 |
| 100 82 45 | 45,0 |
| 100 82 46 | 46,0 |
| 100 82 47 | 47,0 |
| 100 82 48 | 48,0 |
| 100 82 49 | 49,0 |
| 100 82 50 | 50,0 |
| 100 82 51 | 51,0 |
| 100 82 52 | 52,0 |
| 100 82 53 | 53,0 |
| 100 82 54 | 54,0 |
| 100 82 55 | 55,0 |
| 100 82 56 | 56,0 |
| 100 82 57 | 57,0 |
| 100 82 58 | 58,0 |
| 100 82 59 | 59,0 |
| 100 82 60 | 60,0 |
| 100 82 62 | 62,0 |
| 100 82 63 | 63,0 |
| 100 82 64 | 64,0 |
| 100 82 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

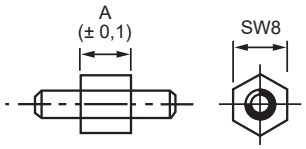
# AB-AA-M4 - SW8 ABSTANDSBOLZEN

## Merkmale

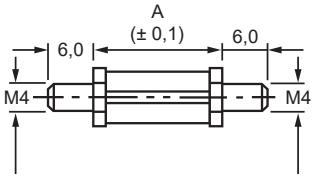
- Abstandsbolzen mit 2 x M4 - Aussengewinde
- Aussengewindelänge = 6,0 mm
- Material: Polyamid 6.6, UL94V-2
- temperaturbeständig bis ca. +110°C
- Farbe: schwarz

## Abmessungen

► Einheit = mm




Länge 3-5 mm - SW massiv




Länge 6-65 mm

| Art.-Nr. | A (mm) |
|---|---|
| 100 56 03 | 3,0 |
| 100 56 04 | 4,0 |
| 100 56 05 | 5,0 |
| 100 56 06 | 6,0 |
| 100 56 07 | 7,0 |
| 100 56 08 | 8,0 |
| 100 56 09 | 9,0 |
| 100 56 10 | 10,0 |
| 100 56 11 | 11,0 |
| 100 56 12 | 12,0 |
| 100 56 13 | 13,0 |
| 100 56 14 | 14,0 |
| 100 56 15 | 15,0 |
| 100 56 16 | 16,0 |
| 100 56 17 | 17,0 |
| 100 56 18 | 18,0 |
| 100 56 19 | 19,0 |
| 100 56 20 | 20,0 |
| 100 56 21 | 21,0 |
| 100 56 22 | 22,0 |
| 100 56 23 | 23,0 |
| 100 56 24 | 24,0 |
| 100 56 25 | 25,0 |
| 100 56 26 | 26,0 |
| 100 56 27 | 27,0 |
| 100 56 28 | 28,0 |
| 100 56 29 | 29,0 |
| 100 56 30 | 30,0 |
| 100 56 31 | 31,0 |
| 100 56 32 | 32,0 |
| 100 56 33 | 33,0 |
| 100 56 34 | 34,0 |
| 100 56 36 | 36,0 |
| 100 56 37 | 37,0 |

| Art.-Nr. | A (mm) |
|---|---|
| 100 56 38 | 38,0 |
| 100 56 39 | 39,0 |
| 100 56 40 | 40,0 |
| 100 56 41 | 41,0 |
| 100 56 42 | 42,0 |
| 100 56 43 | 43,0 |
| 100 56 44 | 44,0 |
| 100 56 45 | 45,0 |
| 100 56 46 | 46,0 |
| 100 56 47 | 47,0 |
| 100 56 48 | 48,0 |
| 100 56 49 | 49,0 |
| 100 56 50 | 50,0 |
| 100 56 51 | 51,0 |
| 100 56 52 | 52,0 |
| 100 56 53 | 53,0 |
| 100 56 54 | 54,0 |
| 100 56 55 | 55,0 |
| 100 56 56 | 56,0 |
| 100 56 57 | 57,0 |
| 100 56 58 | 58,0 |
| 100 56 59 | 59,0 |
| 100 56 60 | 60,0 |
| 100 56 62 | 62,0 |
| 100 56 63 | 63,0 |
| 100 56 64 | 64,0 |
| 100 56 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

NEU

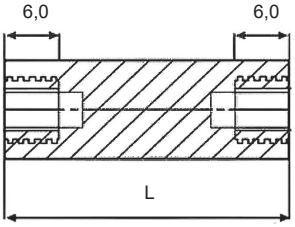
# ABKM-2I-M2,5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen
- Schlüsselweite (SW) 6
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 1,3Nm
- Auszugsmoment: 300 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110°C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 114 02 15 | 15,0 |
| 114 02 16 | 16,0 |
| 114 02 17 | 17,0 |
| 114 02 18 | 18,0 |
| 114 02 19 | 19,0 |
| 114 02 20 | 20,0 |
| 114 02 21 | 21,0 |
| 114 02 22 | 22,0 |
| 114 02 23 | 23,0 |
| 114 02 24 | 24,0 |
| 114 02 25 | 25,0 |
| 114 02 26 | 26,0 |
| 114 02 27 | 27,0 |
| 114 02 28 | 28,0 |
| 114 02 29 | 29,0 |
| 114 02 30 | 30,0 |
| 114 02 31 | 31,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 02 32 | 32,0 |
| 114 02 33 | 33,0 |
| 114 02 34 | 34,0 |
| 114 02 35 | 35,0 |
| 114 02 36 | 36,0 |
| 114 02 37 | 37,0 |
| 114 02 38 | 38,0 |
| 114 02 39 | 39,0 |
| 114 02 40 | 40,0 |
| 114 02 41 | 41,0 |
| 114 02 42 | 42,0 |
| 114 02 43 | 43,0 |
| 114 02 44 | 44,0 |
| 114 02 45 | 45,0 |
| 114 02 46 | 46,0 |
| 114 02 47 | 47,0 |
| 114 02 48 | 48,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 02 49 | 49,0 |
| 114 02 50 | 50,0 |
| 114 02 51 | 51,0 |
| 114 02 52 | 52,0 |
| 114 02 53 | 53,0 |
| 114 02 54 | 54,0 |
| 114 02 55 | 55,0 |
| 114 02 56 | 56,0 |
| 114 02 57 | 57,0 |
| 114 02 58 | 58,0 |
| 114 02 59 | 59,0 |
| 114 02 60 | 60,0 |
| 114 02 61 | 61,0 |
| 114 02 62 | 62,0 |
| 114 02 63 | 63,0 |
| 114 02 64 | 64,0 |
| 114 02 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABKM-2I-M3 ABSTANDSBOLZEN

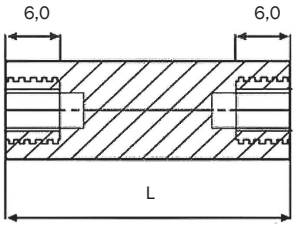
NEU

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M3
- Schlüsselweite (SW) 6
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 1,3Nm
- Auszugsmoment: 300 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | Art.-Nr. | L (mm) | Art.-Nr. | L (mm) |
|---|---|---|---|---|---|
| 114 03 15 | 15,0 | 114 03 32 | 32,0 | 114 03 49 | 49,0 |
| 114 03 16 | 16,0 | 114 03 33 | 33,0 | 114 03 50 | 50,0 |
| 114 03 17 | 17,0 | 114 03 34 | 34,0 | 114 03 51 | 51,0 |
| 114 03 18 | 18,0 | 114 03 35 | 35,0 | 114 03 52 | 52,0 |
| 114 03 19 | 19,0 | 114 03 36 | 36,0 | 114 03 53 | 53,0 |
| 114 03 20 | 20,0 | 114 03 37 | 37,0 | 114 03 54 | 54,0 |
| 114 03 21 | 21,0 | 114 03 38 | 38,0 | 114 03 55 | 55,0 |
| 114 03 22 | 22,0 | 114 03 39 | 39,0 | 114 03 56 | 56,0 |
| 114 03 23 | 23,0 | 114 03 40 | 40,0 | 114 03 57 | 57,0 |
| 114 03 24 | 24,0 | 114 03 41 | 41,0 | 114 03 58 | 58,0 |
| 114 03 25 | 25,0 | 114 03 42 | 42,0 | 114 03 59 | 59,0 |
| 114 03 26 | 26,0 | 114 03 43 | 43,0 | 114 03 60 | 60,0 |
| 114 03 27 | 27,0 | 114 03 44 | 44,0 | 114 03 61 | 61,0 |
| 114 03 28 | 28,0 | 114 03 45 | 45,0 | 114 03 62 | 62,0 |
| 114 03 29 | 29,0 | 114 03 46 | 46,0 | 114 03 63 | 63,0 |
| 114 03 30 | 30,0 | 114 03 47 | 47,0 | 114 03 64 | 64,0 |
| 114 03 31 | 31,0 | 114 03 48 | 48,0 | 114 03 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

NEU

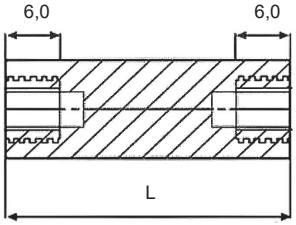
# ABKM-2I-M4 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M4
- Schlüsselweite (SW) 8
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 3,0 Nm
- Auszugsmoment: 600 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 114 04 15 | 15,0 |
| 114 04 16 | 16,0 |
| 114 04 17 | 17,0 |
| 114 04 18 | 18,0 |
| 114 04 19 | 19,0 |
| 114 04 20 | 20,0 |
| 114 04 21 | 21,0 |
| 114 04 22 | 22,0 |
| 114 04 23 | 23,0 |
| 114 04 24 | 24,0 |
| 114 04 25 | 25,0 |
| 114 04 26 | 26,0 |
| 114 04 27 | 27,0 |
| 114 04 28 | 28,0 |
| 114 04 29 | 29,0 |
| 114 04 30 | 30,0 |
| 114 04 31 | 31,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 04 32 | 32,0 |
| 114 04 33 | 33,0 |
| 114 04 34 | 34,0 |
| 114 04 35 | 35,0 |
| 114 04 36 | 36,0 |
| 114 04 37 | 37,0 |
| 114 04 38 | 38,0 |
| 114 04 39 | 39,0 |
| 114 04 40 | 40,0 |
| 114 04 41 | 41,0 |
| 114 04 42 | 42,0 |
| 114 04 43 | 43,0 |
| 114 04 44 | 44,0 |
| 114 04 45 | 45,0 |
| 114 04 46 | 46,0 |
| 114 04 47 | 47,0 |
| 114 04 48 | 48,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 04 49 | 49,0 |
| 114 04 50 | 50,0 |
| 114 04 51 | 51,0 |
| 114 04 52 | 52,0 |
| 114 04 53 | 53,0 |
| 114 04 54 | 54,0 |
| 114 04 55 | 55,0 |
| 114 04 56 | 56,0 |
| 114 04 57 | 57,0 |
| 114 04 58 | 58,0 |
| 114 04 59 | 59,0 |
| 114 04 60 | 60,0 |
| 114 04 61 | 61,0 |
| 114 04 62 | 62,0 |
| 114 04 63 | 63,0 |
| 114 04 64 | 64,0 |
| 114 04 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABKM-2I-M5 ABSTANDSBOLZEN

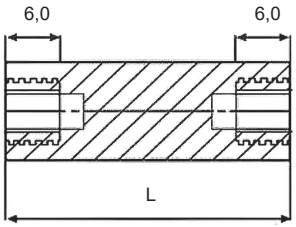
NEU

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M5
- Schlüsselweite (SW) 10
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 4,5 Nm
- Auszugsmoment: 800 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 114 05 15 | 15,0 |
| 114 05 16 | 16,0 |
| 114 05 17 | 17,0 |
| 114 05 18 | 18,0 |
| 114 05 19 | 19,0 |
| 114 05 20 | 20,0 |
| 114 05 21 | 21,0 |
| 114 05 22 | 22,0 |
| 114 05 23 | 23,0 |
| 114 05 24 | 24,0 |
| 114 05 25 | 25,0 |
| 114 05 26 | 26,0 |
| 114 05 27 | 27,0 |
| 114 05 28 | 28,0 |
| 114 05 29 | 29,0 |
| 114 05 30 | 30,0 |
| 114 05 31 | 31,0 |
| 114 05 32 | 32,0 |
| 114 05 33 | 33,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 05 34 | 34,0 |
| 114 05 35 | 35,0 |
| 114 05 36 | 36,0 |
| 114 05 37 | 37,0 |
| 114 05 38 | 38,0 |
| 114 05 39 | 39,0 |
| 114 05 40 | 40,0 |
| 114 05 41 | 41,0 |
| 114 05 42 | 42,0 |
| 114 05 43 | 43,0 |
| 114 05 44 | 44,0 |
| 114 05 45 | 45,0 |
| 114 05 46 | 46,0 |
| 114 05 47 | 47,0 |
| 114 05 48 | 48,0 |
| 114 05 49 | 49,0 |
| 114 05 50 | 50,0 |
| 114 05 51 | 51,0 |
| 114 05 52 | 52,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 05 53 | 53,0 |
| 114 05 54 | 54,0 |
| 114 05 55 | 55,0 |
| 114 05 56 | 56,0 |
| 114 05 57 | 57,0 |
| 114 05 58 | 58,0 |
| 114 05 59 | 59,0 |
| 114 05 60 | 60,0 |
| 114 05 61 | 61,0 |
| 114 05 62 | 62,0 |
| 114 05 63 | 63,0 |
| 114 05 64 | 64,0 |
| 114 05 65 | 65,0 |
| 114 05 66 | 66,0 |
| 114 05 67 | 67,0 |
| 114 05 68 | 68,0 |
| 114 05 69 | 69,0 |
| 114 05 70 | 70,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

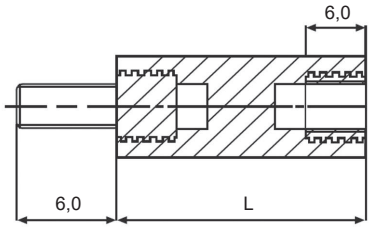
# ABKM-IA-M2,5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit M2,5 Innen- und Aussengewinde
- Schlüsselweite (SW) 6
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 1,3 Nm
- Auszugsmoment: 300 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 114 12 15 | 15,0 |
| 114 12 16 | 16,0 |
| 114 12 17 | 17,0 |
| 114 12 18 | 18,0 |
| 114 12 19 | 19,0 |
| 114 12 20 | 20,0 |
| 114 12 21 | 21,0 |
| 114 12 22 | 22,0 |
| 114 12 23 | 23,0 |
| 114 12 24 | 24,0 |
| 114 12 25 | 25,0 |
| 114 12 26 | 26,0 |
| 114 12 27 | 27,0 |
| 114 12 28 | 28,0 |
| 114 12 29 | 29,0 |
| 114 12 30 | 30,0 |
| 114 12 31 | 31,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 12 32 | 32,0 |
| 114 12 33 | 33,0 |
| 114 12 34 | 34,0 |
| 114 12 35 | 35,0 |
| 114 12 36 | 36,0 |
| 114 12 37 | 37,0 |
| 114 12 38 | 38,0 |
| 114 12 39 | 39,0 |
| 114 12 40 | 40,0 |
| 114 12 41 | 41,0 |
| 114 12 42 | 42,0 |
| 114 12 43 | 43,0 |
| 114 12 44 | 44,0 |
| 114 12 45 | 45,0 |
| 114 12 46 | 46,0 |
| 114 12 47 | 47,0 |
| 114 12 48 | 48,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 12 49 | 49,0 |
| 114 12 50 | 50,0 |
| 114 12 51 | 51,0 |
| 114 12 52 | 52,0 |
| 114 12 53 | 53,0 |
| 114 12 54 | 54,0 |
| 114 12 55 | 55,0 |
| 114 12 56 | 56,0 |
| 114 12 57 | 57,0 |
| 114 12 58 | 58,0 |
| 114 12 59 | 59,0 |
| 114 12 60 | 60,0 |
| 114 12 61 | 61,0 |
| 114 12 62 | 62,0 |
| 114 12 63 | 63,0 |
| 114 12 64 | 64,0 |
| 114 12 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

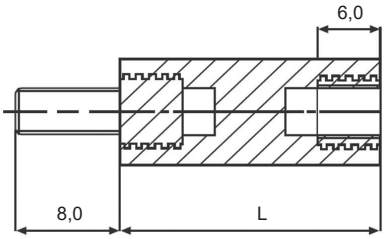
# ABKM-IA-M3 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit beidseitigem M3 Innen- und Aussengewinde
- Schlüsselweite (SW) 6
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 1,3 Nm
- Auszugsmoment: 300 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | Art.-Nr. | L (mm) | Art.-Nr. | L (mm) |
|---|---|---|---|---|---|
| 114 13 15 | 15,0 | 114 13 32 | 32,0 | 114 13 49 | 49,0 |
| 114 13 16 | 16,0 | 114 13 33 | 33,0 | 114 13 50 | 50,0 |
| 114 13 17 | 17,0 | 114 13 34 | 34,0 | 114 13 51 | 51,0 |
| 114 13 18 | 18,0 | 114 13 35 | 35,0 | 114 13 52 | 52,0 |
| 114 13 19 | 19,0 | 114 13 36 | 36,0 | 114 13 53 | 53,0 |
| 114 13 20 | 20,0 | 114 13 37 | 37,0 | 114 13 54 | 54,0 |
| 114 13 21 | 21,0 | 114 13 38 | 38,0 | 114 13 55 | 55,0 |
| 114 13 22 | 22,0 | 114 13 39 | 39,0 | 114 13 56 | 56,0 |
| 114 13 23 | 23,0 | 114 13 40 | 40,0 | 114 13 57 | 57,0 |
| 114 13 24 | 24,0 | 114 13 41 | 41,0 | 114 13 58 | 58,0 |
| 114 13 25 | 25,0 | 114 13 42 | 42,0 | 114 13 59 | 59,0 |
| 114 13 26 | 26,0 | 114 13 43 | 43,0 | 114 13 60 | 60,0 |
| 114 13 27 | 27,0 | 114 13 44 | 44,0 | 114 13 61 | 61,0 |
| 114 13 28 | 28,0 | 114 13 45 | 45,0 | 114 13 62 | 62,0 |
| 114 13 29 | 29,0 | 114 13 46 | 46,0 | 114 13 63 | 63,0 |
| 114 13 30 | 30,0 | 114 13 47 | 47,0 | 114 13 64 | 64,0 |
| 114 13 31 | 31,0 | 114 13 48 | 48,0 | 114 13 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

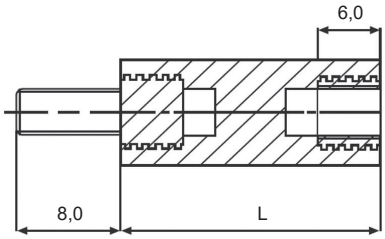
# ABKM-IA-M4 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit beidseitigem M4 Innen- und Aussengewinde
- Schlüsselweite (SW) 8
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 3,0 Nm
- Auszugsmoment: 600 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 114 14 15 | 15,0 |
| 114 14 16 | 16,0 |
| 114 14 17 | 17,0 |
| 114 14 18 | 18,0 |
| 114 14 19 | 19,0 |
| 114 14 20 | 20,0 |
| 114 14 21 | 21,0 |
| 114 14 22 | 22,0 |
| 114 14 23 | 23,0 |
| 114 14 24 | 24,0 |
| 114 14 25 | 25,0 |
| 114 14 26 | 26,0 |
| 114 14 27 | 27,0 |
| 114 14 28 | 28,0 |
| 114 14 29 | 29,0 |
| 114 14 30 | 30,0 |
| 114 14 31 | 31,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 14 32 | 32,0 |
| 114 14 33 | 33,0 |
| 114 14 34 | 34,0 |
| 114 14 35 | 35,0 |
| 114 14 36 | 36,0 |
| 114 14 37 | 37,0 |
| 114 14 38 | 38,0 |
| 114 14 39 | 39,0 |
| 114 14 40 | 40,0 |
| 114 14 41 | 41,0 |
| 114 14 42 | 42,0 |
| 114 14 43 | 43,0 |
| 114 14 44 | 44,0 |
| 114 14 45 | 45,0 |
| 114 14 46 | 46,0 |
| 114 14 47 | 47,0 |
| 114 14 48 | 48,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 14 49 | 49,0 |
| 114 14 50 | 50,0 |
| 114 14 51 | 51,0 |
| 114 14 52 | 52,0 |
| 114 14 53 | 53,0 |
| 114 14 54 | 54,0 |
| 114 14 55 | 55,0 |
| 114 14 56 | 56,0 |
| 114 14 57 | 57,0 |
| 114 14 58 | 58,0 |
| 114 14 59 | 59,0 |
| 114 14 60 | 60,0 |
| 114 14 61 | 61,0 |
| 114 14 62 | 62,0 |
| 114 14 63 | 63,0 |
| 114 14 64 | 64,0 |
| 114 14 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

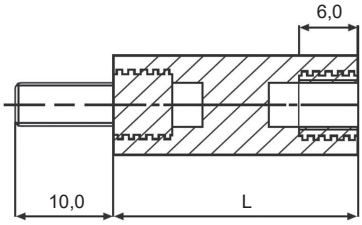
# ABKM-IA-M5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit beidseitigem M5 Innen- und Aussengewinde
- Schlüsselweite (SW) 10
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 4,5 Nm
- Auszugsmoment: 800 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 114 15 15 | 15,0 |
| 114 15 16 | 16,0 |
| 114 15 17 | 17,0 |
| 114 15 18 | 18,0 |
| 114 15 19 | 19,0 |
| 114 15 20 | 20,0 |
| 114 15 21 | 21,0 |
| 114 15 22 | 22,0 |
| 114 15 23 | 23,0 |
| 114 15 24 | 24,0 |
| 114 15 25 | 25,0 |
| 114 15 26 | 26,0 |
| 114 15 27 | 27,0 |
| 114 15 28 | 28,0 |
| 114 15 29 | 29,0 |
| 114 15 30 | 30,0 |
| 114 15 31 | 31,0 |
| 114 15 32 | 32,0 |
| 114 15 33 | 33,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 15 34 | 34,0 |
| 114 15 35 | 35,0 |
| 114 15 36 | 36,0 |
| 114 15 37 | 37,0 |
| 114 15 38 | 38,0 |
| 114 15 39 | 39,0 |
| 114 15 40 | 40,0 |
| 114 15 41 | 41,0 |
| 114 15 42 | 42,0 |
| 114 15 43 | 43,0 |
| 114 15 44 | 44,0 |
| 114 15 45 | 45,0 |
| 114 15 46 | 46,0 |
| 114 15 47 | 47,0 |
| 114 15 48 | 48,0 |
| 114 15 49 | 49,0 |
| 114 15 50 | 50,0 |
| 114 15 51 | 51,0 |
| 114 15 52 | 52,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 15 53 | 53,0 |
| 114 15 54 | 54,0 |
| 114 15 55 | 55,0 |
| 114 15 56 | 56,0 |
| 114 15 57 | 57,0 |
| 114 15 58 | 58,0 |
| 114 15 59 | 59,0 |
| 114 15 60 | 60,0 |
| 114 15 61 | 61,0 |
| 114 15 62 | 62,0 |
| 114 15 63 | 63,0 |
| 114 15 64 | 64,0 |
| 114 15 65 | 65,0 |
| 114 15 66 | 66,0 |
| 114 15 67 | 67,0 |
| 114 15 68 | 68,0 |
| 114 15 69 | 69,0 |
| 114 15 70 | 70,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

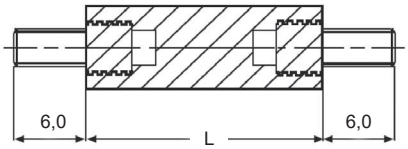
# ABKM-2A-M2,5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Aussengewinde M2,5
- Schlüsselweite (SW) 6
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 1,3 Nm
- Auszugsmoment: 300 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 114 22 15 | 15,0 |
| 114 22 16 | 16,0 |
| 114 22 17 | 17,0 |
| 114 22 18 | 18,0 |
| 114 22 19 | 19,0 |
| 114 22 20 | 20,0 |
| 114 22 21 | 21,0 |
| 114 22 22 | 22,0 |
| 114 22 23 | 23,0 |
| 114 22 24 | 24,0 |
| 114 22 25 | 25,0 |
| 114 22 26 | 26,0 |
| 114 22 27 | 27,0 |
| 114 22 28 | 28,0 |
| 114 22 29 | 29,0 |
| 114 22 30 | 30,0 |
| 114 22 31 | 31,0 |
| 114 22 32 | 32,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 22 33 | 33,0 |
| 114 22 34 | 34,0 |
| 114 22 35 | 35,0 |
| 114 22 36 | 36,0 |
| 114 22 37 | 37,0 |
| 114 22 38 | 38,0 |
| 114 22 39 | 39,0 |
| 114 22 40 | 40,0 |
| 114 22 41 | 41,0 |
| 114 22 42 | 42,0 |
| 114 22 43 | 43,0 |
| 114 22 44 | 44,0 |
| 114 22 45 | 45,0 |
| 114 22 46 | 46,0 |
| 114 22 47 | 47,0 |
| 114 22 48 | 48,0 |
| 114 22 49 | 49,0 |
| 114 22 50 | 50,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 22 51 | 51,0 |
| 114 22 52 | 52,0 |
| 114 22 53 | 53,0 |
| 114 22 54 | 54,0 |
| 114 22 55 | 55,0 |
| 114 22 56 | 56,0 |
| 114 22 57 | 57,0 |
| 114 22 58 | 58,0 |
| 114 22 59 | 59,0 |
| 114 22 60 | 60,0 |
| 114 22 61 | 61,0 |
| 114 22 62 | 62,0 |
| 114 22 63 | 63,0 |
| 114 22 64 | 64,0 |
| 114 22 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

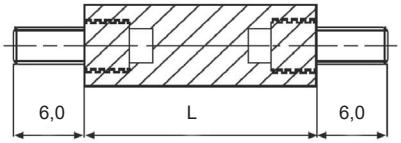
# ABKM-2A-M3 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Aussengewinde M3
- Schlüsselweite (SW) 6
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 1,3 Nm
- Auszugsmoment: 300 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | Art.-Nr. | L (mm) | Art.-Nr. | L (mm) |
|---|---|---|---|---|---|
| 114 23 15 | 15,0 | 114 23 32 | 32,0 | 114 23 49 | 49,0 |
| 114 23 16 | 16,0 | 114 23 33 | 33,0 | 114 23 50 | 50,0 |
| 114 23 17 | 17,0 | 114 23 34 | 34,0 | 114 23 51 | 51,0 |
| 114 23 18 | 18,0 | 114 23 35 | 35,0 | 114 23 52 | 52,0 |
| 114 23 19 | 19,0 | 114 23 36 | 36,0 | 114 23 53 | 53,0 |
| 114 23 20 | 20,0 | 114 23 37 | 37,0 | 114 23 54 | 54,0 |
| 114 23 21 | 21,0 | 114 23 38 | 38,0 | 114 23 55 | 55,0 |
| 114 23 22 | 22,0 | 114 23 39 | 39,0 | 114 23 56 | 56,0 |
| 114 23 23 | 23,0 | 114 23 40 | 40,0 | 114 23 57 | 57,0 |
| 114 23 24 | 24,0 | 114 23 41 | 41,0 | 114 23 58 | 58,0 |
| 114 23 25 | 25,0 | 114 23 42 | 42,0 | 114 23 59 | 59,0 |
| 114 23 26 | 26,0 | 114 23 43 | 43,0 | 114 23 60 | 60,0 |
| 114 23 27 | 27,0 | 114 23 44 | 44,0 | 114 23 61 | 61,0 |
| 114 23 28 | 28,0 | 114 23 45 | 45,0 | 114 23 62 | 62,0 |
| 114 23 29 | 29,0 | 114 23 46 | 46,0 | 114 23 63 | 63,0 |
| 114 23 30 | 30,0 | 114 23 47 | 47,0 | 114 23 64 | 64,0 |
| 114 23 31 | 31,0 | 114 23 48 | 48,0 | 114 23 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

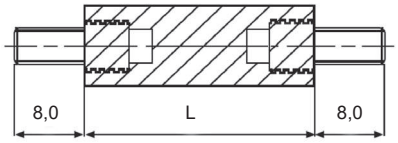
# ABKM-2A-M4 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Aussengewinde M4
- Schlüsselweite (SW) 8
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 3,0 Nm
- Auszugsmoment: 600 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | Art.-Nr. | L (mm) | Art.-Nr. | L (mm) |
|---|---|---|---|---|---|
| 114 24 15 | 15,0 | 114 24 32 | 32,0 | 114 24 49 | 49,0 |
| 114 24 16 | 16,0 | 114 24 33 | 33,0 | 114 24 50 | 50,0 |
| 114 24 17 | 17,0 | 114 24 34 | 34,0 | 114 24 51 | 51,0 |
| 114 24 18 | 18,0 | 114 24 35 | 35,0 | 114 24 52 | 52,0 |
| 114 24 19 | 19,0 | 114 24 36 | 36,0 | 114 24 53 | 53,0 |
| 114 24 20 | 20,0 | 114 24 37 | 37,0 | 114 24 54 | 54,0 |
| 114 24 21 | 21,0 | 114 24 38 | 38,0 | 114 24 55 | 55,0 |
| 114 24 22 | 22,0 | 114 24 39 | 39,0 | 114 24 56 | 56,0 |
| 114 24 23 | 23,0 | 114 24 40 | 40,0 | 114 24 57 | 57,0 |
| 114 24 24 | 24,0 | 114 24 41 | 41,0 | 114 24 58 | 58,0 |
| 114 24 25 | 25,0 | 114 24 42 | 42,0 | 114 24 59 | 59,0 |
| 114 24 26 | 26,0 | 114 24 43 | 43,0 | 114 24 60 | 60,0 |
| 114 24 27 | 27,0 | 114 24 44 | 44,0 | 114 24 61 | 61,0 |
| 114 24 28 | 28,0 | 114 24 45 | 45,0 | 114 24 62 | 62,0 |
| 114 24 29 | 29,0 | 114 24 46 | 46,0 | 114 24 63 | 63,0 |
| 114 24 30 | 30,0 | 114 24 47 | 47,0 | 114 24 64 | 64,0 |
| 114 24 31 | 31,0 | 114 24 48 | 48,0 | 114 24 65 | 65,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

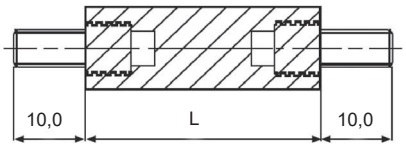
# ABKM-2A-M5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2x Aussengewinde M5
- Schlüsselweite (SW) 10
- Durchgangswiderstand: $10^{12}$ Ohm/cm
- Durchschlagfestigkeit: 50kV/mm
- Drehmoment: 4,5 Nm
- Auszugsmoment: 800 N
- Material Körper: Polyamid 6.6, UL94V-2
- Material Gewindeeinsatz: Messing
- Temperaturbeständigkeit bis 110 °C
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) |
|---|---|
| 114 25 15 | 15,0 |
| 114 25 16 | 16,0 |
| 114 25 17 | 17,0 |
| 114 25 18 | 18,0 |
| 114 25 19 | 19,0 |
| 114 25 20 | 20,0 |
| 114 25 21 | 21,0 |
| 114 25 22 | 22,0 |
| 114 25 23 | 23,0 |
| 114 25 24 | 24,0 |
| 114 25 25 | 25,0 |
| 114 25 26 | 26,0 |
| 114 25 27 | 27,0 |
| 114 25 28 | 28,0 |
| 114 25 29 | 29,0 |
| 114 25 30 | 30,0 |
| 114 25 31 | 31,0 |
| 114 25 32 | 32,0 |
| 114 25 33 | 33,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 25 34 | 34,0 |
| 114 25 35 | 35,0 |
| 114 25 36 | 36,0 |
| 114 25 37 | 37,0 |
| 114 25 38 | 38,0 |
| 114 25 39 | 39,0 |
| 114 25 40 | 40,0 |
| 114 25 41 | 41,0 |
| 114 25 42 | 42,0 |
| 114 25 43 | 43,0 |
| 114 25 44 | 44,0 |
| 114 25 45 | 45,0 |
| 114 25 46 | 46,0 |
| 114 25 47 | 47,0 |
| 114 25 48 | 48,0 |
| 114 25 49 | 49,0 |
| 114 25 50 | 50,0 |
| 114 25 51 | 51,0 |
| 114 25 52 | 52,0 |

| Art.-Nr. | L (mm) |
|---|---|
| 114 25 53 | 53,0 |
| 114 25 54 | 54,0 |
| 114 25 55 | 55,0 |
| 114 25 56 | 56,0 |
| 114 25 57 | 57,0 |
| 114 25 58 | 58,0 |
| 114 25 59 | 59,0 |
| 114 25 60 | 60,0 |
| 114 25 61 | 61,0 |
| 114 25 62 | 62,0 |
| 114 25 63 | 63,0 |
| 114 25 64 | 64,0 |
| 114 25 65 | 65,0 |
| 114 25 66 | 66,0 |
| 114 25 67 | 67,0 |
| 114 25 68 | 68,0 |
| 114 25 69 | 69,0 |
| 114 25 70 | 70,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

NEU

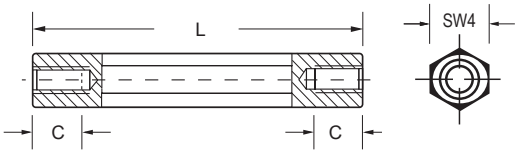
# ABS-2I-M2,5 - SW4 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M2,5
- Schlüsselweite (SW) 4
- Material: Stahl glanzverzinkt

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 099 21 05 | 5,0 | durchgehend |
| 099 21 08 | 8,0 | durchgehend |
| 099 21 10 | 10,0 | durchgehend |
| 099 21 12 | 12,0 | durchgehend |
| 099 21 15 | 15,0 | durchgehend |
| 099 21 18 | 18,0 | 9,0 |
| 099 21 20 | 20,0 | 10,0 |
| 099 21 25 | 25,0 | 10,0 |
| 099 21 30 | 30,0 | 10,0 |
| 099 21 33 | 33,0 | 10,0 |
| 099 21 35 | 35,0 | 10,0 |
| 099 21 40 | 40,0 | 10,0 |

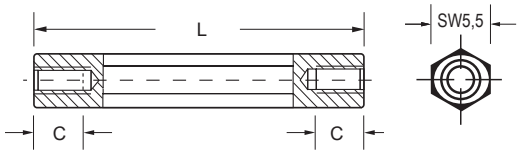
# ABS-2I-M3 - SW5,5 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M3
- Schlüsselweite (SW) 5,5
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 106 23 04 | 4,0 | durchgehend |
| 106 23 05 | 5,0 | durchgehend |
| 106 23 06 | 6,0 | durchgehend |
| 106 23 07 | 7,0 | durchgehend |
| 106 23 08 | 8,0 | durchgehend |
| 106 23 08,5 | 8,5 | durchgehend |
| 106 23 09 | 9,0 | durchgehend |
| 106 23 10 | 10,0 | durchgehend |
| 106 23 11 | 11,0 | durchgehend |
| 106 23 12 | 12,0 | durchgehend |
| 106 23 12,5 | 12,5 | durchgehend |
| 106 23 13 | 13,0 | durchgehend |
| 106 23 13,5 | 13,5 | durchgehend |
| 106 23 14 | 14,0 | durchgehend |
| 106 23 15 | 15,0 | durchgehend |
| 106 23 16 | 16,0 | durchgehend |
| 106 23 17 | 17,0 | durchgehend |
| 106 23 18 | 18,0 | durchgehend |
| 106 23 18,5 | 18,5 | durchgehend |
| 106 23 19 | 19,0 | durchgehend |
| 106 23 20 | 20,0 | durchgehend |
| 106 23 21 | 21,0 | 6,0 |
| 106 23 22 | 22,0 | 6,0 |
| 106 23 23 | 23,0 | 6,0 |
| 106 23 24 | 24,0 | 6,0 |
| 106 23 25 | 25,0 | 6,0 |
| 106 23 26 | 26,0 | 6,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 106 23 27 | 27,0 | 6,0 |
| 106 23 28 | 28,0 | 6,0 |
| 106 23 29 | 29,0 | 6,0 |
| 106 23 30 | 30,0 | 6,0 |
| 106 23 31 | 31,0 | 6,0 |
| 106 23 32 | 32,0 | 6,0 |
| 106 23 33 | 33,0 | 6,0 |
| 106 23 34 | 34,0 | 6,0 |
| 106 23 35 | 35,0 | 6,0 |
| 106 23 36 | 36,0 | 6,0 |
| 106 23 37 | 37,0 | 6,0 |
| 106 23 38 | 38,0 | 6,0 |
| 106 23 40 | 40,0 | 6,0 |
| 106 23 42 | 42,0 | 6,0 |
| 106 23 44 | 44,0 | 6,0 |
| 106 23 45 | 45,0 | 6,0 |
| 106 23 50 | 50,0 | 7,0 |
| 106 23 52 | 52,0 | 6,0 |
| 106 23 55 | 55,0 | 6,0 |
| 106 23 60 | 60,0 | 6,0 |
| 106 23 62 | 62,0 | 6,0 |
| 106 23 70 | 70,0 | 6,0 |
| 106 23 80 | 80,0 | 6,0 |
| 106 23 86 | 86,0 | 6,0 |
| 106 23 90 | 90,0 | 6,0 |
| 106 23 105 | 105,0 | 6,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

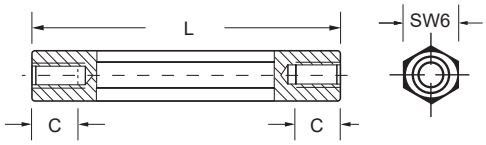
# ABS-2I-M3 - SW6 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M3
- Schlüsselweite (SW) 6
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 102 23 05 | 5,0 | durchgehend |
| 102 23 06 | 6,0 | durchgehend |
| 102 23 07 | 7,0 | durchgehend |
| 102 23 07,5 | 7,5 | durchgehend |
| 102 23 08 | 8,0 | durchgehend |
| 102 23 09 | 9,0 | durchgehend |
| 102 23 10 | 10,0 | durchgehend |
| 102 23 12 | 12,0 | durchgehend |
| 102 23 14 | 14,0 | durchgehend |
| 102 23 15 | 15,0 | durchgehend |
| 102 23 18 | 18,0 | durchgehend |
| 102 23 19 | 19,0 | durchgehend |
| 102 23 20 | 20,0 | durchgehend |
| 102 23 21 | 21,0 | 6,0 |
| 102 23 22 | 22,0 | 6,0 |
| 102 23 23 | 23,0 | 6,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 102 23 24 | 24,0 | 6,0 |
| 102 23 25 | 25,0 | 6,0 |
| 102 23 28 | 28,0 | 6,0 |
| 102 23 30 | 30,0 | 6,0 |
| 102 23 32 | 32,0 | 6,0 |
| 102 23 33 | 33,0 | 6,0 |
| 102 23 35 | 35,0 | 6,0 |
| 102 23 38 | 38,0 | 6,0 |
| 102 23 40 | 40,0 | 6,0 |
| 102 23 42 | 42,0 | 6,0 |
| 102 23 45 | 45,0 | 6,0 |
| 102 23 50 | 50,0 | 6,0 |
| 102 23 55 | 55,0 | 6,0 |
| 102 23 80 | 80,0 | 6,0 |
| 102 23 85 | 85,0 | 10,0 |
| 102 23 100 | 100,0 | 6,0 |

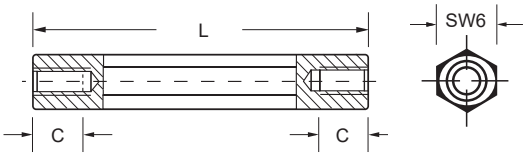
# ABS-2I-M4 - SW6 ABSTANDSBOLZEN

Merkmale:

- 6-kant Abstandsbolzen mit beidseitigem M4 Innengewinde
- Schlüsselweite (SW) 6
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 102 24 10 | 10,0 | durchgehend |
| 102 24 13 | 13,0 | durchgehend |
| 102 24 14 | 14,0 | durchgehend |
| 102 24 18 | 18,0 | durchgehend |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 102 24 35 | 35,0 | 8,0 |
| 102 24 41 | 41,0 | 8,0 |
| 102 24 48 | 48,0 | 8,0 |
| 102 24 55 | 55,0 | 8,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

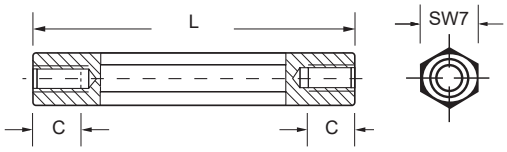
# ABS-2I-M4 - SW7 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M4
- Schlüsselweite (SW) 7
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 107 24 06 | 6,0 | durchgehend |
| 107 24 08 | 8,0 | durchgehend |
| 107 24 09 | 9,0 | durchgehend |
| 107 24 10 | 10,0 | durchgehend |
| 107 24 12 | 12,0 | durchgehend |
| 107 24 14 | 14,0 | durchgehend |
| 107 24 15 | 15,0 | durchgehend |
| 107 24 17 | 17,0 | durchgehend |
| 107 24 20 | 20,0 | durchgehend |
| 107 24 21 | 21,0 | 8,0 |
| 107 24 22 | 22,0 | 8,0 |
| 107 24 25 | 25,0 | 8,0 |
| 107 24 26 | 26,0 | 8,0 |
| 107 24 29 | 29,0 | 8,0 |
| 107 24 30 | 30,0 | 8,0 |
| 107 24 32 | 32,0 | 10,0 |
| 107 24 34 | 34,0 | 8,0 |
| 107 24 35 | 35,0 | 8,0 |
| 107 24 37 | 37,0 | 8,0 |
| 107 24 38 | 38,0 | 8,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 107 24 39 | 39,0 | 8,0 |
| 107 24 40 | 40,0 | 8,0 |
| 107 24 42 | 42,0 | 8,0 |
| 107 24 44 | 44,0 | 8,0 |
| 107 24 45 | 45,0 | 8,0 |
| 107 24 47 | 47,0 | 9,0 |
| 107 24 48 | 48,0 | 8,0 |
| 107 24 50 | 50,0 | 8,0 |
| 107 24 53 | 53,0 | 8,0 |
| 107 24 55 | 55,0 | 8,0 |
| 107 24 60 | 60,0 | 8,0 |
| 107 24 62 | 62,0 | 10,0 |
| 107 24 65 | 65,0 | 8,0 |
| 107 24 67 | 67,0 | 10,0 |
| 107 24 70 | 70,0 | 8,0 |
| 107 24 71 | 71,0 | 10,0 |
| 107 24 75 | 75,0 | 8,0 |
| 107 24 79 | 79,0 | 8,0 |
| 107 24 80 | 80,0 | 8,0 |
| 107 24 85 | 85,0 | 8,0 |
| 107 24 100 | 100,0 | 10,0 |
| 107 24 109 | 109,0 | 9,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

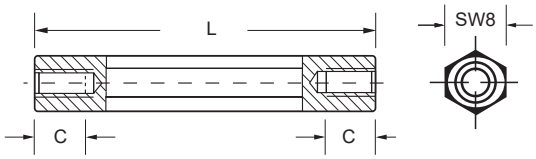
# ABS-2I-M4 - SW8 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M4
- Schlüsselweite (SW) 8
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 108 24 08 | 8,0 | durchgehend |
| 108 24 09 | 9,0 | durchgehend |
| 108 24 10 | 10,0 | durchgehend |
| 108 24 12 | 12,0 | durchgehend |
| 108 24 13 | 13,0 | durchgehend |
| 108 24 15 | 15,0 | durchgehend |
| 108 24 16 | 16,0 | durchgehend |
| 108 24 17 | 17,0 | durchgehend |
| 108 24 18 | 18,0 | durchgehend |
| 108 24 20 | 20,0 | durchgehend |
| 108 24 21 | 21,0 | 8,0 |
| 108 24 22 | 22,0 | 8,0 |
| 108 24 25 | 25,0 | 8,0 |
| 108 24 26 | 26,0 | 8,0 |
| 108 24 30 | 30,0 | 8,0 |
| 108 24 34 | 34,0 | 8,0 |
| 108 24 35 | 35,0 | 8,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 108 24 38 | 38,0 | 8,0 |
| 108 24 40 | 40,0 | 8,0 |
| 108 24 45 | 45,0 | 8,0 |
| 108 24 50 | 50,0 | 8,0 |
| 108 24 53 | 53,0 | 8,0 |
| 108 24 55 | 55,0 | 8,0 |
| 108 24 58 | 58,0 | 8,0 |
| 108 24 60 | 60,0 | 8,0 |
| 108 24 66 | 66,0 | 8,0 |
| 108 24 70 | 70,0 | 8,0 |
| 108 24 73 | 73,0 | 8,0 |
| 108 24 90 | 90,0 | 8,0 |
| 108 24 100 | 100,0 | 8,0 |
| 108 24 120 | 120,0 | 8,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

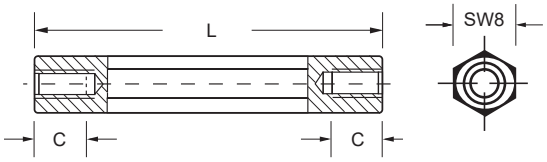
# ABS-2I-M5 - SW8 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M5
- Schlüsselweite (SW) 8
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm



| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 108 25 10 | 10,0 | durchgehend |
| 108 25 11 | 11,0 | durchgehend |
| 108 25 12 | 12,0 | durchgehend |
| 108 25 15 | 15,0 | durchgehend |
| 108 25 18 | 18,0 | durchgehend |
| 108 25 20 | 20,0 | durchgehend |
| 108 25 21 | 21,0 | 10,0 |
| 108 25 24 | 24,0 | 10,0 |
| 108 25 25 | 25,0 | 10,0 |
| 108 25 30 | 30,0 | 10,0 |
| 108 25 37 | 37,0 | 10,0 |
| 108 25 38 | 38,0 | 10,0 |
| 108 25 39 | 39,0 | 10,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 108 25 40 | 40,0 | 10,0 |
| 108 25 44 | 44,0 | 10,0 |
| 108 25 45 | 45,0 | 10,0 |
| 108 25 50 | 50,0 | 10,0 |
| 108 25 55 | 55,0 | 10,0 |
| 108 25 58 | 58,0 | 10,0 |
| 108 25 60 | 60,0 | 10,0 |
| 108 25 65 | 65,0 | 10,0 |
| 108 25 70 | 70,0 | 10,0 |
| 108 25 75 | 75,0 | 10,0 |
| 108 25 80 | 80,0 | 10,0 |
| 108 25 100 | 100,0 | 10,0 |
| 108 25 110 | 110,0 | 10,0 |
| 108 25 145 | 145,0 | 10,0 |

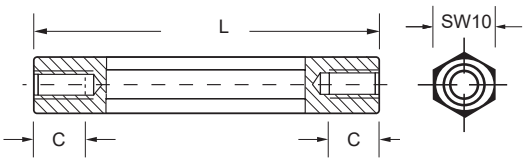
# ABS-2I-M6 - SW10 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M6
- Schlüsselweite (SW) 10
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm

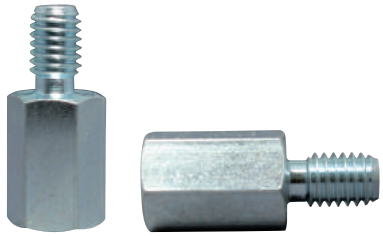


| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 109 26 10 | 10,0 | durchgehend |
| 109 26 12 | 12,0 | durchgehend |
| 109 26 15 | 15,0 | durchgehend |
| 109 26 18 | 18,0 | durchgehend |
| 109 26 20 | 20,0 | durchgehend |
| 109 26 24 | 24,0 | 10,0 |
| 109 26 25 | 25,0 | 10,0 |
| 109 26 30 | 30,0 | 10,0 |
| 109 26 35 | 35,0 | 10,0 |
| 109 26 40 | 40,0 | 10,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 109 26 45 | 45,0 | 10,0 |
| 109 26 50 | 50,0 | 10,0 |
| 109 26 55 | 55,0 | 10,0 |
| 109 26 60 | 60,0 | 10,0 |
| 109 26 65 | 65,0 | 10,0 |
| 109 26 70 | 70,0 | 10,0 |
| 109 26 80 | 80,0 | 10,0 |
| 109 26 85 | 85,0 | 10,0 |
| 109 26 90 | 90,0 | 10,0 |
| 109 26 100 | 100,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABS-IA-M2,5 - SW4 ABSTANDSBOLZEN

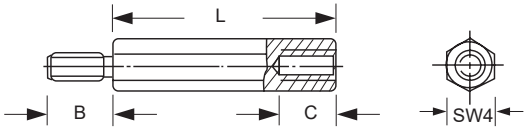


Merkmale

- 6-kant Abstandsbolzen mit M2,5 Innen/Aussengewinde
- Schlüsselweite (SW) 4
- Aussengewinde mit Hinterstich nach DIN76
  (kein Buchstabe "H" in der Art.-Nr. bedeutet ohne Hinterstich)
- Material: Stahl glanzverzinkt

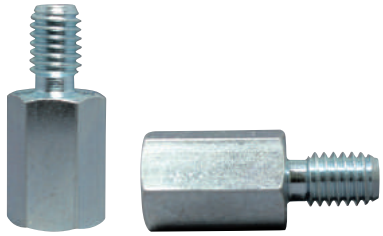
Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 099 01 05 H | 5,0 | 6,0 | 3,0 |
| 099 01 08 H | 8,0 | 6,0 | 5,0 |
| 099 01 10 H | 10,0 | 6,0 | 6,0 |
| 099 01 10 HB10 | 10,0 | 10,0 | 10,0 |
| 099 01 12 HB10 | 12,0 | 10,0 | 10,0 |
| 099 01 13 HB10 | 13,0 | 10,0 | 10,0 |
| 099 01 14 HB8 | 14,0 | 8,0 | 10,0 |
| 099 01 15 H | 15,0 | 6,0 | 10,0 |
| 099 01 18 H | 18,0 | 6,0 | 10,0 |
| 099 01 20 H | 20,0 | 6,0 | 10,0 |
| 099 01 25 H | 25,0 | 6,0 | 10,0 |
| 099 01 30 H | 30,0 | 6,0 | 10,0 |
| 099 01 35 H | 35,0 | 6,0 | 10,0 |
| 099 01 40 H | 40,0 | 6,0 | 10,0 |

# ABS-IA-M2,5 - SW5 ABSTANDSBOLZEN

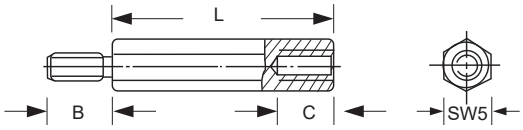


Merkmale

- 6-kant Abstandsbolzen mit M2,5 Innen/Aussengewinde
- Schlüsselweite (SW) 5
- Aussengewinde mit Hinterstich nach DIN76
  (kein Buchstabe "H" in der Art.-Nr. bedeutet ohne Hinterstich)
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm



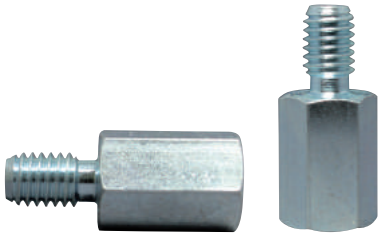

| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 104 01 04 H | 4,0 | 6,0 | 2,0 |
| 104 01 06 H | 6,0 | 6,0 | 4,0 |
| 104 01 08 H | 8,0 | 6,0 | 5,0 |
| 104 01 09,5 HB6 | 9,5 | 6,0 | 6,0 |
| 104 01 15 H | 15,0 | 6,0 | 6,0 |
| 104 01 18 H | 18,0 | 6,0 | 7,0 |
| 104 01 20 H | 20,0 | 6,0 | 6,0 |
| 104 01 24 H | 24,0 | 6,0 | 6,0 |
| 104 01 25 H | 25,0 | 6,0 | 6,0 |
| 104 01 26 H | 26,0 | 6,0 | 6,0 |

# AB-IA-M3-SW5 ABSTANDSBOLZEN

NEU

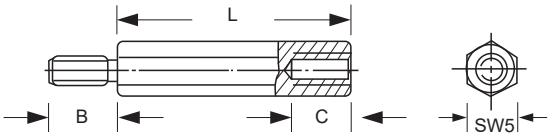
## Merkmale

- 6-kant Abstandsbolzen mit M3 Innen-/Außengewinde
- Schlüsselweite (SW) 5
- Außengewinde mit Hinterstich nach DIN76
- Material: Stahl, verzinkt



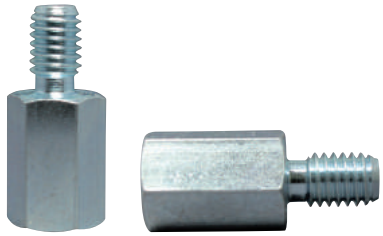
## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 104 03 05 H | 5,0 | 6,0 | 3,0 |
| 104 03 08 H | 8,0 | 6,0 | 5,0 |
| 104 03 10 HB6 | 10,0 | 6,0 | 6,0 |
| 104 03 11,5 HB16 | 11,5 | 6,0 | 6,0 |
| 104 03 12 H | 12,0 | 6,0 | 7,0 |
| 104 03 15 H | 15,0 | 6,0 | 6,0 |
| 104 03 16 H | 16,0 | 6,0 | 7,0 |
| 104 03 20 H | 20,0 | 6,0 | 10,0 |
| 104 03 20 HB6 | 20,0 | 6,0 | 10,0 |
| 104 03 25 H | 25,0 | 6,0 | 10,0 |
| 104 03 30 H | 30,0 | 6,0 | 10,0 |
| 104 03 40 H | 40,0 | 6,0 | 10,0 |
| 104 03 40 HB10 | 40,0 | 6,0 | 10,0 |
| 104 03 45 H | 45,0 | 6,0 | 10,0 |

# ABS-IA-M3 - SW5,5 ABSTANDSBOLZEN

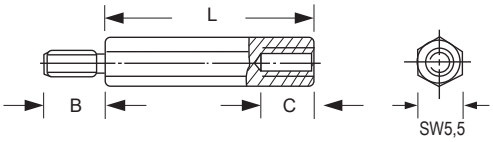


## Merkmale

- 6-kant Abstandsbolzen mit M3 Innen/Aussengewinde
- Schlüsselweite (SW) 5,5
- Aussengewinde mit Hinterstich nach DIN76
  (kein Buchstabe "H" in der Art.-Nr. bedeutet ohne Hinterstich)
- Material: Stahl glanzverzinkt

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 106 03 04 H | 4,0 | 6,0 | 3,0 |
| 106 03 05 HB3,5 | 5,0 | 3,5 | 3,0 |
| 106 03 05 HB4 | 5,0 | 4,0 | 3,0 |
| 106 03 05 B5 | 5,0 | 5,0 | 3,0 |
| 106 03 05 HB5 | 5,0 | 5,0 | 3,0 |
| 106 03 05 H | 5,0 | 6,0 | 3,0 |
| 106 03 05 HB12 | 5,0 | 12,0 | 3,0 |
| 106 03 06 H | 6,0 | 6,0 | 4,0 |
| 106 03 07 HB4 | 7,0 | 4,0 | 4,0 |
| 106 03 07 H | 7,0 | 6,0 | 4,0 |
| 106 03 07,5 H | 7,5 | 6,0 | 4,0 |
| 106 03 08 H | 8,0 | 6,0 | 6,0 |
| 106 03 08,5 HB3,5 | 8,5 | 3,5 | 6,0 |
| 106 03 09 HB4 | 9,0 | 4,0 | 6,0 |
| 106 03 09 H | 9,0 | 6,0 | 6,0 |
| 106 03 10 HB3,5 | 10,0 | 3,5 | 6,0 |
| 106 03 10 H | 10,0 | 6,0 | 6,0 |
| 106 03 10 HB8 | 10,0 | 8,0 | 6,0 |
| 106 03 11 H | 11,0 | 6,0 | 6,0 |
| 106 03 11,5H | 11,5 | 6,0 | 6,0 |
| 106 03 12 H | 12,0 | 6,0 | 6,0 |
| 106 03 12,5 HB6 | 12,5 | 6,0 | 6,0 |
| 106 03 13 H | 13,0 | 6,0 | 6,0 |
| 106 03 13,5 H | 13,5 | 6,0 | 6,0 |
| 106 03 14 H | 14,0 | 6,0 | 6,0 |
| 106 03 15 HB3 | 15,0 | 3,0 | 6,0 |
| 106 03 15 HB3,5 | 15,0 | 3,5 | 6,0 |
| 106 03 15 H | 15,0 | 6,0 | 6,0 |
| 106 03 16 HB3,5 | 16,0 | 3,5 | 6,0 |
| 106 03 16 H | 16,0 | 6,0 | 6,0 |
| 106 03 16,5 HB5 | 16,5 | 5,0 | 6,0 |
| 106 03 16,5 H | 16,5 | 6,0 | 6,0 |
| 106 03 17 HB3 | 17,0 | 3,0 | 6,0 |
| 106 03 17 HB3,5 | 17,0 | 3,5 | 6,0 |
| 106 03 17 HB4 | 17,0 | 4,0 | 6,0 |
| 106 03 17 H | 17,0 | 6,0 | 7,0 |
| 106 03 17 HB10 | 17,0 | 10,0 | 6,0 |
| 106 03 17,5 H | 17,5 | 6,0 | 6,0 |
| 106 03 18 H | 18,0 | 6,0 | 6,0 |
| 106 03 18,5 H | 18,5 | 6,0 | 6,0 |
| 106 03 20 H | 20,0 | 6,0 | 6,0 |
| 106 03 21 H | 21,0 | 6,0 | 6,0 |
| 106 03 22 H | 22,0 | 6,0 | 6,0 |
| 106 03 23 H | 23,0 | 6,0 | 7,0 |

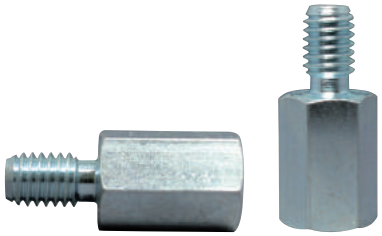
| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 106 03 24 H | 24,0 | 6,0 | 6,0 |
| 106 03 25 H | 25,0 | 6,0 | 6,0 |
| 106 03 26 H | 26,0 | 6,0 | 6,0 |
| 106 03 27 H | 27,0 | 6,0 | 6,0 |
| 106 03 28 H | 28,0 | 6,0 | 6,0 |
| 106 03 29 H | 29,0 | 6,0 | 6,0 |
| 106 03 30 H | 30,0 | 6,0 | 6,0 |
| 106 03 30 HB10 | 30,0 | 10,0 | 3,0 |
| 106 03 30 HB15 | 30,0 | 15,0 | 6,0 |
| 106 03 31 H | 31,0 | 6,0 | 3,0 |
| 106 03 31,5 H | 31,5 | 6,0 | 6,0 |
| 106 03 32 H | 32,0 | 6,0 | 6,0 |
| 106 03 32,7 HB6 | 32,7 | 6,0 | 6,0 |
| 106 03 33 H | 33,0 | 6,0 | 6,0 |
| 106 03 34 H | 34,0 | 6,0 | 6,0 |
| 106 03 35 H | 35,0 | 6,0 | 7,0 |
| 106 03 36 H | 36,0 | 6,0 | 6,0 |
| 106 03 36 HB16 | 36,0 | 16,0 | 6,0 |
| 106 03 37 HB4 | 37,0 | 4,0 | 7,0 |
| 106 03 38 H | 38,0 | 6,0 | 6,0 |
| 106 03 39 H | 39,0 | 6,0 | 6,0 |
| 106 03 40 H | 40,0 | 6,0 | 7,0 |
| 106 03 43 H | 43,0 | 6,0 | 6,0 |
| 106 03 44 HB6 | 44,0 | 6,0 | 3,0 |
| 106 03 45 H | 45,0 | 6,0 | 6,0 |
| 106 03 47 H | 47,0 | 6,0 | 6,0 |
| 106 03 48 H | 48,0 | 6,0 | 6,0 |
| 106 03 48 HB16 | 48,0 | 16,0 | 6,0 |
| 106 03 48,5 H | 48,5 | 6,0 | 6,0 |
| 106 03 50 H | 50,0 | 6,0 | 6,0 |
| 106 03 53 H | 53,0 | 6,0 | 6,0 |
| 106 03 55 H | 55,0 | 6,0 | 6,0 |
| 106 03 55 HB6 | 55,0 | 6,0 | 6,0 |
| 106 03 55 HB11 | 55,0 | 11,0 | 6,0 |
| 106 03 58 H | 58,0 | 6,0 | 6,0 |
| 106 03 60 H | 60,0 | 6,0 | 6,0 |
| 106 03 70 H | 70,0 | 6,0 | 6,0 |
| 106 03 75 H | 75,0 | 6,0 | 6,0 |
| 106 03 80 H | 80,0 | 6,0 | 6,0 |
| 106 03 85 H | 85,0 | 6,0 | 6,0 |
| 106 03 88 H | 88,0 | 6,0 | 6,0 |
| 106 03 90 H | 90,0 | 6,0 | 6,0 |
| 106 03 100 H | 100,0 | 6,0 | 6,0 |
| 106 03 120 H | 120,0 | 6,0 | 6,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABS-IA-M3 - SW6 ABSTANDSBOLZEN

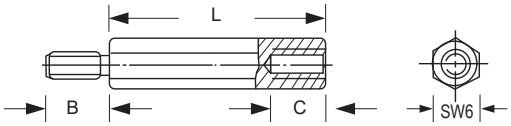
## Merkmale

- 6-kant Abstandsbolzen mit M3 Innen/Aussengewinde
- Schlüsselweite (SW) 6
- Aussengewinde mit Hinterstich nach DIN76
  (kein Buchstabe "H" in der Art.-Nr. bedeutet ohne Hinterstich)
- Material: Stahl glanzverzinkt



## Abmessungen

► Einheit = mm

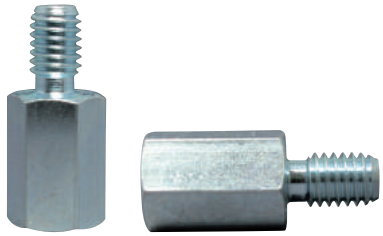



| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 102 03 05 H | 5,0 | 6,0 | 3,0 |
| 102 03 06 H | 6,0 | 6,0 | 4,0 |
| 102 03 08 H | 8,0 | 6,0 | 6,0 |
| 102 03 10 H | 10,0 | 6,0 | 6,0 |
| 102 03 11 H | 11,0 | 6,0 | 6,0 |
| 102 03 12 H | 12,0 | 6,0 | 6,0 |
| 102 03 12,5 H | 12,5 | 6,0 | 6,0 |
| 102 03 13 H | 13,0 | 6,0 | 6,0 |
| 102 03 13,5 H | 13,5 | 6,0 | 6,0 |
| 102 03 14 H | 14,0 | 6,0 | 6,0 |
| 102 03 15 H | 15,0 | 6,0 | 6,0 |
| 102 03 16 H | 16,0 | 6,0 | 6,0 |
| 102 03 18 H | 18,0 | 6,0 | 6,0 |
| 102 03 20 H | 20,0 | 6,0 | 6,0 |
| 102 03 22 H | 22,0 | 6,0 | 6,0 |

| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 102 03 24 H | 24,0 | 6,0 | 6,0 |
| 102 03 25 H | 25,0 | 6,0 | 6,0 |
| 102 03 30 H | 30,0 | 6,0 | 6,0 |
| 102 03 32 H | 32,0 | 6,0 | 6,0 |
| 102 03 35 H | 35,0 | 6,0 | 6,0 |
| 102 03 36 H | 36,0 | 6,0 | 6,0 |
| 102 03 37 H | 37,0 | 6,0 | 6,0 |
| 102 03 40 H | 40,0 | 6,0 | 6,0 |
| 102 03 45 H | 45,0 | 6,0 | 6,0 |
| 102 03 47 H | 47,0 | 6,0 | 6,0 |
| 102 03 48 H | 48,0 | 6,0 | 6,0 |
| 102 03 50 H | 50,0 | 6,0 | 6,0 |
| 102 03 60 H | 60,0 | 6,0 | 6,0 |
| 102 03 83 HB10 | 83,0 | 10,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABS-IA-M4 - SW7 ABSTANDSBOLZEN

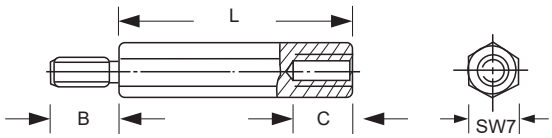


## Merkmale

- 6-kant Abstandsbolzen mit M4 Innen/Aussengewinde
- Schlüsselweite (SW) 7
- Aussengewinde mit Hinterstich nach DIN76
  (kein Buchstabe "H" in der Art.-Nr. bedeutet ohne Hinterstich)
- Material: Stahl glanzverzinkt

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 107 04 08 HB5 | 8,0 | 5,0 | 6,0 |
| 107 04 08 H | 8,0 | 8,0 | 6,0 |
| 107 04 09 H | 9,0 | 8,0 | 6,0 |
| 107 04 10 H | 10,0 | 8,0 | 6,0 |
| 107 04 12 H | 12,0 | 8,0 | 8,0 |
| 107 04 13 H | 13,0 | 6,0 | 8,0 |
| 107 04 14 H | 14,0 | 8,0 | 8,0 |
| 107 04 15 H | 15,0 | 8,0 | 8,0 |
| 107 04 16 H | 16,0 | 8,0 | 8,0 |
| 107 04 17 H | 17,0 | 8,0 | 8,0 |
| 107 04 18 H | 18,0 | 8,0 | 9,0 |
| 107 04 20 H | 20,0 | 8,0 | 8,0 |
| 107 04 22 H | 22,0 | 8,0 | 8,0 |
| 107 04 24 H | 24,0 | 8,0 | 8,0 |
| 107 04 25 H | 25,0 | 8,0 | 8,0 |
| 107 04 27 H | 27,0 | 8,0 | 8,0 |
| 107 04 29 H | 29,0 | 8,0 | 8,0 |
| 107 04 30 H | 30,0 | 8,0 | 8,0 |
| 107 04 32 H | 32,0 | 8,0 | 8,0 |
| 107 04 32,5 HB8 | 32,5 | 8,0 | 8,0 |
| 107 04 33 H | 33,0 | 8,0 | 8,0 |
| 107 04 34 H | 34,0 | 8,0 | 10,0 |
| 107 04 35 HB5 | 35,0 | 5,0 | 8,0 |

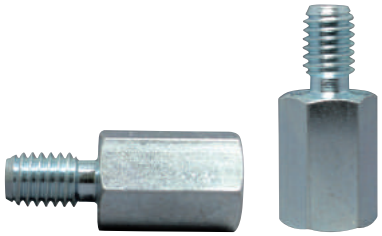
| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 107 04 35 H | 35,0 | 8,0 | 9,0 |
| 107 04 35 HB10 | 35,0 | 10,0 | 8,0 |
| 107 04 38 H | 38,0 | 8,0 | 8,0 |
| 107 04 40 H | 40,0 | 8,0 | 8,0 |
| 107 04 42 H | 42,0 | 8,0 | 8,0 |
| 107 04 43 H | 43,0 | 8,0 | 10,0 |
| 107 04 44 H | 44,0 | 8,0 | 10,0 |
| 107 04 45 H | 45,0 | 8,0 | 8,0 |
| 107 04 46 H | 46,0 | 8,0 | 8,0 |
| 107 04 48 H | 48,0 | 8,0 | 8,0 |
| 107 04 50 H | 50,0 | 8,0 | 8,0 |
| 107 04 54 H | 54,0 | 8,0 | 8,0 |
| 107 04 55 H | 55,0 | 8,0 | 8,0 |
| 107 04 60 H | 60,0 | 8,0 | 8,0 |
| 107 04 65 H | 65,0 | 8,0 | 8,0 |
| 107 04 67 H | 67,0 | 8,0 | 8,0 |
| 107 04 70 H | 70,0 | 8,0 | 8,0 |
| 107 04 75 H | 75,0 | 8,0 | 6,0 |
| 107 04 80 H | 80,0 | 8,0 | 6,0 |
| 107 04 92 H | 92,0 | 8,0 | 8,0 |
| 107 04 95 H | 95,0 | 8,0 | 6,0 |
| 107 04 100 H | 100,0 | 8,0 | 6,0 |
| 107 04 105 H | 105,0 | 10,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABS-IA-M4 - SW8 ABSTANDSBOLZEN

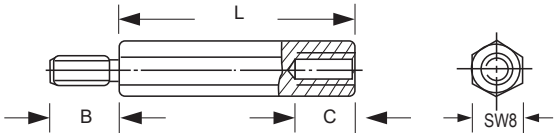
## Merkmale

- 6-kant Abstandsbolzen mit M4 Innen/Aussengewinde
- Schlüsselweite (SW) 8
- Aussengewinde mit Hinterstich nach DIN76
  (kein Buchstabe "H" in der Art.-Nr. bedeutet ohne Hinterstich)
- Material: Stahl glanzverzinkt



## Abmessungen

► Einheit = mm

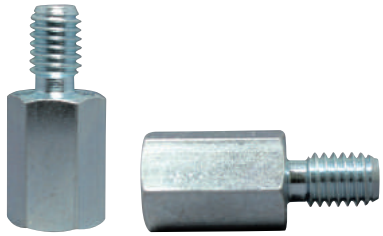



| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 108 04 08 H | 8,0 | 8,0 | 6,0 |
| 108 04 10 HB5 | 10,0 | 5,0 | 6,0 |
| 108 04 10 H | 10,0 | 8,0 | 6,0 |
| 108 04 12 H | 12,0 | 8,0 | 8,0 |
| 108 04 13 H | 13,0 | 8,0 | 8,0 |
| 108 04 14 H | 14,0 | 8,0 | 8,0 |
| 108 04 15 H | 15,0 | 8,0 | 8,0 |
| 108 04 17 H | 17,0 | 8,0 | 8,0 |
| 108 04 18 H | 18,0 | 8,0 | 8,0 |
| 108 04 20 H | 20,0 | 8,0 | 8,0 |
| 108 04 22 H | 22,0 | 8,0 | 8,0 |
| 108 04 24 H | 24,0 | 8,0 | 8,0 |
| 108 04 25 H | 25,0 | 8,0 | 8,0 |
| 108 04 27 H | 27,0 | 8,0 | 8,0 |
| 108 04 28 H | 28,0 | 8,0 | 8,0 |
| 108 04 30 H | 30,0 | 8,0 | 8,0 |
| 108 04 31 H | 31,0 | 8,0 | 8,0 |

| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 108 04 35 HB6,5 | 35,0 | 6,5 | 8,0 |
| 108 04 35 H | 35,0 | 8,0 | 8,0 |
| 108 04 36 H | 36,0 | 8,0 | 8,0 |
| 108 04 38 H | 38,0 | 8,0 | 10,0 |
| 108 04 40 H | 40,0 | 8,0 | 8,0 |
| 108 04 44 H | 44,0 | 8,0 | 8,0 |
| 108 04 45 H | 45,0 | 8,0 | 8,0 |
| 108 04 50 H | 50,0 | 8,0 | 8,0 |
| 108 04 51 H | 51,0 | 8,0 | 8,0 |
| 108 04 55 H | 55,0 | 8,0 | 8,0 |
| 108 04 60 H | 60,0 | 8,0 | 8,0 |
| 108 04 65 H | 65,0 | 8,0 | 8,0 |
| 108 04 70 H | 70,0 | 8,0 | 8,0 |
| 108 04 75 H | 75,0 | 8,0 | 8,0 |
| 108 04 80 H | 80,0 | 8,0 | 8,0 |
| 108 04 90 H | 90,0 | 8,0 | 8,0 |
| 108 04 92 H | 92,0 | 8,0 | 8,0 |
| 108 04 95 H | 95,0 | 8,0 | 8,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABS-IA-M5 - SW8 ABSTANDSBOLZEN

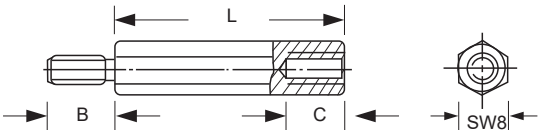


Merkmale:

- 6-kant Abstandsbolzen mit M5 Innen/Aussengewinde
- Schlüsselweite (SW) 8
- Aussengewinde mit Hinterstich nach DIN76
  (kein Buchstabe "H" in der Art.-Nr. bedeutet ohne Hinterstich)
- Material: Stahl glanzverzinkt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 108 05 10 HB6 | 10,0 | 6,0 | 6,0 |
| 108 05 10 H | 10,0 | 10,0 | 6,0 |
| 108 05 12 H | 12,0 | 10,0 | 7,0 |
| 108 05 13 | 13,0 | 8,0 | 10,0 |
| 108 05 15 H | 15,0 | 10,0 | 10,0 |
| 108 05 16 H | 16,0 | 10,0 | 10,0 |
| 108 05 17 H | 17,0 | 10,0 | 10,0 |
| 108 05 18 H | 18,0 | 10,0 | 10,0 |
| 108 05 20 H | 20,0 | 10,0 | 10,0 |
| 108 05 22 H | 22,0 | 10,0 | 10,0 |
| 108 05 23 H | 23,0 | 10,0 | 10,0 |
| 108 05 25 H | 25,0 | 10,0 | 10,0 |
| 108 05 27 H | 27,0 | 10,0 | 10,0 |
| 108 05 30 H | 30,0 | 10,0 | 10,0 |
| 108 05 32 H | 32,0 | 10,0 | 10,0 |
| 108 05 35 H | 35,0 | 10,0 | 10,0 |

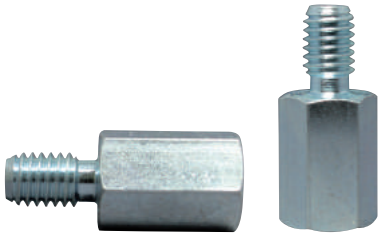
| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 108 05 36 H | 36,0 | 10,0 | 10,0 |
| 108 05 40 H | 40,0 | 10,0 | 10,0 |
| 108 05 45 H | 45,0 | 10,0 | 10,0 |
| 108 05 47 H | 47,0 | 10,0 | 10,0 |
| 108 05 50 H | 50,0 | 10,0 | 10,0 |
| 108 05 55 HB8 | 55,0 | 8,0 | 10,0 |
| 108 05 55 H | 55,0 | 10,0 | 10,0 |
| 108 05 60 H | 60,0 | 10,0 | 10,0 |
| 108 05 70 H | 70,0 | 10,0 | 10,0 |
| 108 05 71 HB8 | 71,0 | 8,0 | 10,0 |
| 108 05 75 H | 75,0 | 10,0 | 10,0 |
| 108 05 80 H | 80,0 | 10,0 | 10,0 |
| 108 05 90 HB8 | 90,0 | 8,0 | 10,0 |
| 108 05 90 H | 90,0 | 10,0 | 8,0 |
| 108 05 95 H | 95,0 | 10,0 | 10,0 |
| 108 05 100 H | 100,0 | 10,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABS-IA-M6 - SW10 ABSTANDSBOLZEN

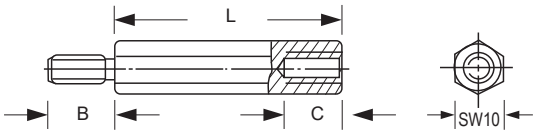
## Merkmale

- 6-kant Abstandsbolzen mit M6 Innen/Aussengewinde
- Schlüsselweite (SW) 10
- Aussengewinde mit Hinterstich nach DIN76
  (kein Buchstabe "H" in der Art.-Nr. bedeutet ohne Hinterstich)
- Material: Stahl glanzverzinkt



## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 109 06 10 HB7 | 10,0 | 7,0 | 8,0 |
| 109 06 10 H | 10,0 | 10,0 | 10,0 |
| 109 06 12 H | 12,0 | 10,0 | 8,0 |
| 109 06 15 HB7,5 | 15,0 | 7,5 | 10,0 |
| 109 06 15 H | 15,0 | 10,0 | 10,0 |
| 109 06 16 H | 16,0 | 10,0 | 10,0 |
| 109 06 17 H | 17,0 | 10,0 | 10,0 |
| 109 06 18 H | 18,0 | 10,0 | 10,0 |
| 109 06 20 H | 20,0 | 10,0 | 10,0 |
| 109 06 25 H | 25,0 | 10,0 | 10,0 |
| 109 06 25 HB12 | 25,0 | 12,0 | 10,0 |
| 109 06 30 H | 30,0 | 10,0 | 10,0 |
| 109 06 30 HB12 | 30,0 | 12,0 | 10,0 |
| 109 06 35 H | 35,0 | 10,0 | 10,0 |
| 109 06 40 H | 40,0 | 10,0 | 10,0 |
| 109 06 40 HB12 | 40,0 | 12,0 | 10,0 |
| 109 06 45 H | 45,0 | 10,0 | 10,0 |

| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 109 06 50 HB6 | 50,0 | 6,0 | 10,0 |
| 109 06 50 H | 50,0 | 10,0 | 10,0 |
| 109 06 50 HB12 | 50,0 | 12,0 | 10,0 |
| 109 06 52 HB12 | 52,0 | 12,0 | 12,0 |
| 109 06 55 H | 55,0 | 10,0 | 10,0 |
| 109 06 60 H | 60,0 | 12,0 | 10,0 |
| 109 06 70 H | 70,0 | 10,0 | 10,0 |
| 109 06 70 HB12 | 70,0 | 12,0 | 10,0 |
| 109 06 75 H | 75,0 | 10,0 | 10,0 |
| 109 06 80 H | 80,0 | 10,0 | 10,0 |
| 109 06 90 H | 90,0 | 10,0 | 10,0 |
| 109 06 95 H | 95,0 | 10,0 | 10,0 |
| 109 06 95 HB12 | 95,0 | 12,0 | 10,0 |
| 109 06 100 HB10 | 100,0 | 10,0 | 10,0 |
| 109 06 100 H | 100,0 | 12,0 | 10,0 |
| 109 06 120 H | 120,0 | 10,0 | 10,0 |
| 109 06 150 H | 150,0 | 10,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

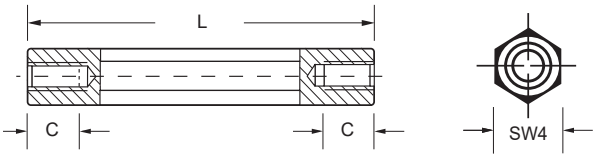
# ABM-2I-M2 - SW4 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M2
- Schlüsselweite (SW) 4
- Material: Messing vernickelt

Abmessungen

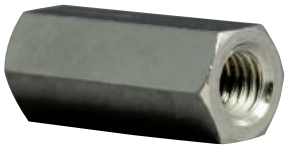
► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 099 32 05 | 5,0 | durchgehend |
| 099 32 06 | 6,0 | durchgehend |
| 099 32 07 | 7,0 | durchgehend |
| 099 32 08 | 8,0 | durchgehend |
| 099 32 09 | 9,0 | durchgehend |
| 099 32 10 | 10,0 | durchgehend |
| 099 32 11 | 11,0 | durchgehend |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 099 32 12 | 12,0 | durchgehend |
| 099 32 15 | 15,0 | 6,0 |
| 099 32 16 | 16,0 | 6,0 |
| 099 32 20 | 20,0 | 6,0 |
| 099 32 23 | 23,0 | 6,0 |
| 099 32 25 | 25,0 | 6,0 |
| 099 32 30 | 30,0 | 6,0 |

# ABM-2I-M2,5 - SW5 ABSTANDSBOLZEN

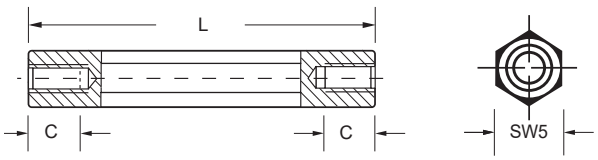


Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M2,5
- Schlüsselweite (SW) 5
- Material: Messing vernickelt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 104 31 05 | 5,0 | durchgehend |
| 104 31 06 | 6,0 | durchgehend |
| 104 31 06,5 | 6,5 | durchgehend |
| 104 31 07 | 7,0 | durchgehend |
| 104 31 07,5 | 7,5 | durchgehend |
| 104 31 08 | 8,0 | durchgehend |
| 104 31 09,5 | 9,5 | durchgehend |
| 104 31 10 | 10,0 | durchgehend |
| 104 31 11 | 11,0 | durchgehend |
| 104 31 12 | 12,0 | durchgehend |
| 104 31 13 | 13,0 | durchgehend |
| 104 31 14 | 14,0 | durchgehend |
| 104 31 15 | 15,0 | durchgehend |
| 104 31 17 | 17,0 | 8,0 |
| 104 31 18 | 18,0 | 8,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 104 31 19 | 19,0 | 8,0 |
| 104 31 20 | 20,0 | 10,0 |
| 104 31 21 | 21,0 | 10,0 |
| 104 31 22 | 22,0 | 10,0 |
| 104 31 23 | 23,0 | 10,0 |
| 104 31 25 | 25,0 | 10,0 |
| 104 31 26 | 26,0 | 10,0 |
| 104 31 27 | 27,0 | 10,0 |
| 104 31 28 | 28,0 | 10,0 |
| 104 31 29 | 29,0 | 10,0 |
| 104 31 30 | 30,0 | 10,0 |
| 104 31 34 | 34,0 | 10,0 |
| 104 31 35 | 35,0 | 10,0 |
| 104 31 38 | 38,0 | 10,0 |
| 104 31 40 | 40,0 | 10,0 |

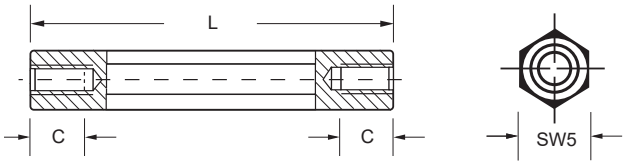
# ABM-2I-M3 - SW5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M3
- Schlüsselweite (SW) 5
- Material: Messing vernickelt

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 104 33 05 | 5,0 | durchgehend |
| 104 33 06 | 6,0 | durchgehend |
| 104 33 07 | 7,0 | durchgehend |
| 104 33 07,5 | 7,5 | durchgehend |
| 104 33 08 | 8,0 | durchgehend |
| 104 33 09 | 9,0 | durchgehend |
| 104 33 10 | 10,0 | durchgehend |
| 104 33 11 | 11,0 | durchgehend |
| 104 33 12 | 12,0 | durchgehend |
| 104 33 12,5 | 12,5 | durchgehend |
| 104 33 13 | 13,0 | durchgehend |
| 104 33 13,5 | 13,5 | durchgehend |
| 104 33 14 | 14,0 | durchgehend |
| 104 33 15 | 15,0 | durchgehend |
| 104 33 16 | 16,0 | durchgehend |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 104 33 17 | 17,0 | durchgehend |
| 104 33 18 | 18,0 | durchgehend |
| 104 33 19 | 19,0 | durchgehend |
| 104 33 20 | 20,0 | durchgehend |
| 104 33 25 | 25,0 | 10,0 |
| 104 33 27 | 27,0 | 10,0 |
| 104 33 29 | 29,0 | 10,0 |
| 104 33 30 | 30,0 | 10,0 |
| 104 33 32 | 32,0 | 10,0 |
| 104 33 35 | 35,0 | 10,0 |
| 104 33 40 | 40,0 | 10,0 |
| 104 33 45 | 45,0 | 10,0 |
| 104 33 48 | 48,0 | 10,0 |
| 104 33 50 | 50,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage:
Telefon 09852 6109-0

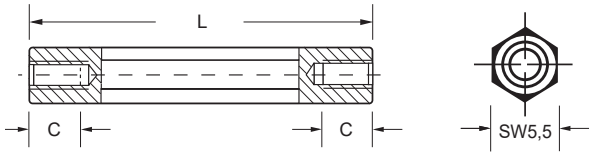
# ABM-2I-M3 - SW5,5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M3
- Schlüsselweite (SW) 5,5
- Material: Messing vernickelt

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 106 33 05 | 5,0 | durchgehend |
| 106 33 06 | 6,0 | durchgehend |
| 106 33 06,5 | 6,5 | durchgehend |
| 106 33 07 | 7,0 | durchgehend |
| 106 33 08 | 8,0 | durchgehend |
| 106 33 09 | 9,0 | durchgehend |
| 106 33 10 | 10,0 | durchgehend |
| 106 33 11 | 11,0 | durchgehend |
| 106 33 12 | 12,0 | durchgehend |
| 106 33 12,5 | 12,5 | durchgehend |
| 106 33 13 | 13,0 | durchgehend |
| 106 33 13,5 | 13,5 | durchgehend |
| 106 33 14 | 14,0 | durchgehend |
| 106 33 15 | 15,0 | durchgehend |
| 106 33 16 | 16,0 | durchgehend |
| 106 33 17 | 17,0 | durchgehend |
| 106 33 18 | 18,0 | durchgehend |
| 106 33 18,5 | 18,5 | durchgehend |
| 106 33 19 | 19,0 | durchgehend |
| 106 33 20 | 20,0 | durchgehend |
| 106 33 21 | 21,0 | 6,0 |
| 106 33 22 | 22,0 | 6,0 |
| 106 33 24 | 24,0 | 6,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 106 33 25 | 25,0 | 6,0 |
| 106 33 26 | 26,0 | 6,0 |
| 106 33 27 | 27,0 | 6,0 |
| 106 33 28 | 28,0 | 6,0 |
| 106 33 29 | 29,0 | 10,0 |
| 106 33 30 | 30,0 | 6,0 |
| 106 33 31 | 31,0 | 6,0 |
| 106 33 33 | 33,0 | 6,0 |
| 106 33 34 | 34,0 | 6,0 |
| 106 33 35 | 35,0 | 6,0 |
| 106 33 37 | 37,0 | 6,0 |
| 106 33 38 | 38,0 | 6,0 |
| 106 33 40 | 40,0 | 7,0 |
| 106 33 41 | 41,0 | 6,0 |
| 106 33 42 | 42,0 | 6,0 |
| 106 33 45 | 45,0 | 6,0 |
| 106 33 50 | 50,0 | 6,0 |
| 106 33 52 | 52,0 | 6,0 |
| 106 33 55 | 55,0 | 6,0 |
| 106 33 60 | 60,0 | 6,0 |
| 106 33 65 | 65,0 | 6,0 |
| 106 33 69 | 69,0 | 6,0 |
| 106 33 70 | 70,0 | 6,0 |
| 106 33 100 | 100,0 | 6,0 |

Weitere Abmessungen und Größen auf Anfrage:
Telefon 09852 6109-0

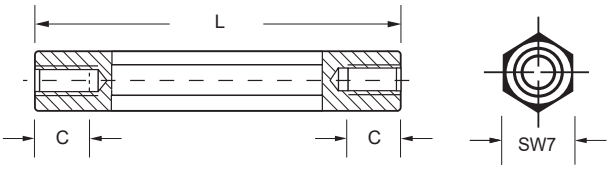
# ABM-2I-M4 - SW7 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M4
- Schlüsselweite (SW) 7
- Material: Messing vernickelt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 107 34 05 | 5,0 | durchgehend |
| 107 34 06 | 6,0 | durchgehend |
| 107 34 08 | 8,0 | durchgehend |
| 107 34 09 | 9,0 | durchgehend |
| 107 34 10 | 10,0 | durchgehend |
| 107 34 12 | 12,0 | durchgehend |
| 107 34 14 | 14,0 | durchgehend |
| 107 34 15 | 15,0 | durchgehend |
| 107 34 17 | 17,0 | durchgehend |
| 107 34 18 | 18,0 | durchgehend |
| 107 34 20 | 20,0 | durchgehend |
| 107 34 21 | 21,0 | 10,0 |
| 107 34 22 | 22,0 | 10,0 |
| 107 34 23 | 23,0 | 10,0 |
| 107 34 25 | 25,0 | 10,0 |
| 107 34 26 | 26,0 | 10,0 |
| 107 34 27 | 27,0 | 10,0 |
| 107 34 28 | 28,0 | 10,0 |
| 107 34 30 | 30,0 | 8,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 107 34 31 | 31,0 | 8,0 |
| 107 34 32 | 32,0 | 8,0 |
| 107 34 33 | 33,0 | 8,0 |
| 107 34 35 | 35,0 | 8,0 |
| 107 34 37 | 37,0 | 8,0 |
| 107 34 40 | 40,0 | 8,0 |
| 107 34 45 | 45,0 | 8,0 |
| 107 34 50 | 50,0 | 8,0 |
| 107 34 52 | 52,0 | 8,0 |
| 107 34 55 | 55,0 | 8,0 |
| 107 34 58 | 58,0 | 8,0 |
| 107 34 60 | 60,0 | 8,0 |
| 107 34 65 | 65,0 | 8,0 |
| 107 34 69 | 69,0 | 8,0 |
| 107 34 70 | 70,0 | 8,0 |
| 107 34 71 | 71,0 | 8,0 |
| 107 34 75 | 75,0 | 8,0 |
| 107 34 80 | 80,0 | 8,0 |
| 107 34 100 | 100,0 | 8,0 |

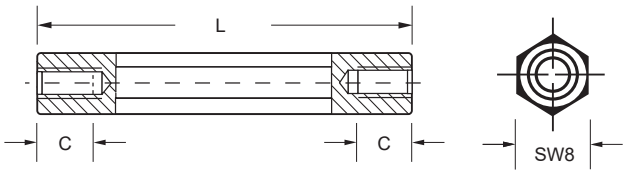
# ABM-2I-M5 - SW8 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit 2 x Innengewinde M5
- Schlüsselweite (SW) 8
- Material: Messing vernickelt

Abmessungen

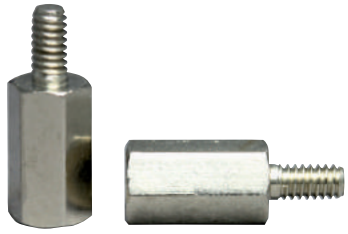
► Einheit = mm




| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 108 35 10 | 10,0 | durchgehend |
| 108 35 12 | 12,0 | durchgehend |
| 108 35 15 | 15,0 | durchgehend |
| 108 35 18 | 18,0 | durchgehend |
| 108 35 20 | 20,0 | durchgehend |
| 108 35 25 | 25,0 | 10,0 |
| 108 35 30 | 30,0 | 10,0 |
| 108 35 32 | 32,0 | 10,0 |

| Art.-Nr. | L (mm) | C (mm) |
|---|---|---|
| 108 35 35 | 35,0 | 10,0 |
| 108 35 40 | 40,0 | 10,0 |
| 108 35 45 | 45,0 | 10,0 |
| 108 35 50 | 50,0 | 10,0 |
| 108 35 55 | 55,0 | 10,0 |
| 108 35 60 | 60,0 | 10,0 |
| 108 35 90 | 90,0 | 10,0 |
| 108 35 100 | 100,0 | 10,0 |

# ABM-IA-M2 - SW4 ABSTANDSBOLZEN

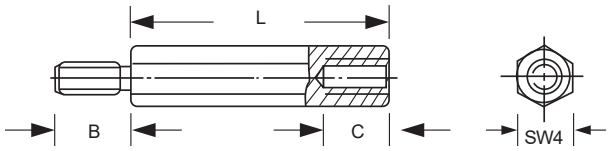


Merkmale

- 6-kant Abstandsbolzen mit M2 Innen-/ Aussengewinde
- Schlüsselweite (SW) 4
- Außengewinde mit Hinterstich nach DIN76
  (kein Buchstabe „H“ in der Art.Nr. = ohne Hinterstich)
- Material: Messing vernickelt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 099 12 05 B4 | 5,0 | 4,0 | 3,0 |
| 099 12 05 H | 5,0 | 5,0 | 2,5 |
| 099 12 06,3 HB4 | 6,3 | 4,0 | 4,3 |
| 099 12 06 H | 6,0 | 6,0 | 4,0 |
| 099 12 07,5 B4 | 7,5 | 4,0 | 4,0 |
| 099 12 07 B3C4 | 7,0 | 3,0 | 4,0 |
| 099 12 07 B4 | 7,0 | 4,0 | 4,0 |

| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 099 12 07 B6C3 | 7,0 | 6,0 | 3,0 |
| 099 12 07,5 B4 | 7,5 | 4,0 | 5,0 |
| 099 12 08 H | 8,0 | 6,0 | 6,0 |
| 099 12 09,5 H | 9,5 | 5,0 | 5,0 |
| 099 12 12 HB4 | 12,0 | 4,0 | 6,0 |
| 099 12 15 H | 15,0 | 5,0 | 6,0 |

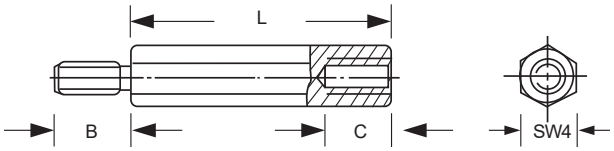
# ABM-IA-M2,5 - SW4 ABSTANDSBOLZEN

Merkmale

- 6-kant Abstandsbolzen mit M2,5 Innen-/ Aussengewinde
- Schlüsselweite (SW) 4
- Außengewinde mit Hinterstich nach DIN76
  (kein Buchstabe „H“ in der Art.Nr. = ohne Hinterstich)
- Material: Messing vernickelt

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 099 11 05 HB3C3 | 5,0 | 2,5 | 2,5 |
| 099 11 05 | 5,0 | 6,0 | 2,5 |
| 099 11 05 HB6 | 5,0 | 6,0 | 3,0 |
| 099 11 06 H | 6,0 | 6,0 | 4,0 |
| 099 11 07 H | 7,0 | 6,0 | 4,0 |
| 099 11 08 H | 8,0 | 6,0 | 5,0 |
| 099 11 09 H | 9,0 | 6,0 | 5,0 |
| 099 11 10 HB5C7 | 10,0 | 5,0 | 7,0 |
| 099 11 10 H | 10,0 | 6,0 | 6,5 |
| 099 11 11 | 11,0 | 6,0 | 7,0 |
| 099 11 11 H | 11,0 | 6,0 | 6,0 |
| 099 11 12 HB6 | 12,0 | 6,0 | 6,5 |
| 099 11 14 H | 14,0 | 6,0 | 6,0 |

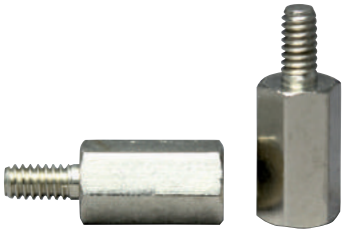
| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 099 11 16 H | 16,0 | 6,0 | 10,0 |
| 099 11 17 H | 17,0 | 6,0 | 6,0 |
| 099 11 17 HB10 | 17,0 | 10,0 | 10,0 |
| 099 11 18 | 18,0 | 6,0 | 6,5 |
| 099 11 18 H | 18,0 | 6,0 | 6,5 |
| 099 11 20 H | 20,0 | 6,0 | 6,5 |
| 099 11 22 H | 22,0 | 6,0 | 6,5 |
| 099 11 23 H | 23,0 | 6,0 | 6,5 |
| 099 11 28 H | 28,0 | 6,0 | 6,5 |
| 099 11 30 H | 30,0 | 6,0 | 10,0 |
| 099 11 35 H | 35,0 | 6,0 | 10,0 |
| 099 11 40 H | 40,0 | 6,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon 09852 6109-0

# ABM-IA-M2,5 - SW5 ABSTANDSBOLZEN

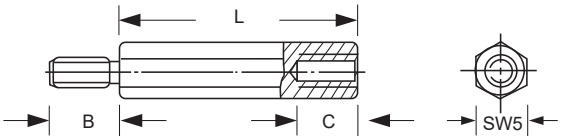
## Merkmale

- 6-kant Abstandsbolzen mit M2,5 Innen-/Aussengewinde
- Schlüsselweite (SW) 5
- Außengewinde mit Hinterstich nach DIN76
  (kein Buchstabe „H“ in der Art.Nr. bedeutet ohne Hinterstich)
- Material: Messing vernickelt



## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 104 11 05 | 5,0 | 6,0 | 2,5 |
| 104 11 05 H | 5,0 | 6,0 | 3,0 |
| 104 11 05,5 H | 5,5 | 6,0 | 3,0 |
| 104 11 06 | 6,0 | 6,0 | 3,0 |
| 104 11 08 | 8,0 | 6,0 | 4,0 |
| 104 11 08 H | 8,0 | 6,0 | 5,0 |
| 104 11 09 | 9,0 | 6,0 | 4,0 |
| 104 11 09 H | 9,0 | 6,0 | 5,0 |
| 104 11 10 | 10,0 | 6,0 | 6,0 |
| 104 11 10 H | 10,0 | 6,0 | 6,0 |
| 104 11 12 | 12,0 | 6,0 | 8,0 |
| 104 11 13 | 13,0 | 6,0 | 8,0 |
| 104 11 14 | 14,0 | 6,0 | 8,0 |

| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 104 11 15 | 15,0 | 6,0 | 8,0 |
| 104 11 16 | 16,0 | 6,0 | 8,0 |
| 104 11 16 H | 16,0 | 6,0 | 8,0 |
| 104 11 20 | 20,0 | 6,0 | 8,0 |
| 104 11 22 | 22,0 | 6,0 | 8,0 |
| 104 11 23 | 23,0 | 6,0 | 8,0 |
| 104 11 24 | 24,0 | 6,0 | 8,0 |
| 104 11 25 | 25,0 | 6,0 | 10,0 |
| 104 11 27 | 27,0 | 8,0 | 10,0 |
| 104 11 28 | 28,0 | 8,0 | 10,0 |
| 104 11 30 | 30,0 | 8,0 | 10,0 |
| 104 11 35 | 35,0 | 8,0 | 10,0 |
| 104 11 36 | 36,0 | 6,0 | 10,0 |
| 104 11 40 H | 40,0 | 6,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

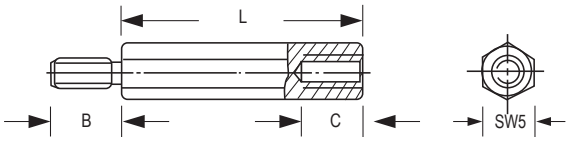
# ABM-IA-M3 - SW5 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit M3 Innen-/Aussengewinde
- Schlüsselweite (SW) 5
- Außengewinde mit Hinterstich nach DIN76
  (kein Buchstabe „H“ in der Art.Nr. bedeutet ohne Hinterstich)
- Material: Messing vernickelt

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 104 13 04 H | 4,0 | 6,0 | 2,0 |
| 104 13 04 HB8 | 4,0 | 8,0 | 2,0 |
| 104 13 05 HB4 | 5,0 | 4,0 | 2,5 |
| 104 13 05 HB6 | 5,0 | 6,0 | 2,5 |
| 104 13 05 HB8 | 5,0 | 8,0 | 2,5 |
| 104 13 05 H | 5,0 | 8,0 | 2,5 |
| 104 13 06 HB4 | 6,0 | 4,0 | 4,0 |
| 104 13 06 HB6 | 6,0 | 6,0 | 4,0 |
| 104 13 06 | 6,0 | 8,0 | 4,0 |
| 104 13 06 H | 6,0 | 8,0 | 4,0 |
| 104 13 06 B12 | 6,0 | 12,0 | 4,0 |
| 104 13 07 | 7,0 | 8,0 | 4,0 |
| 104 13 08 HB6 | 8,0 | 6,0 | 5,0 |
| 104 13 08 | 8,0 | 8,0 | 5,0 |
| 104 13 08 H | 8,0 | 8,0 | 5,0 |
| 104 13 08,5 | 8,5 | 6,0 | 5,0 |
| 104 13 09 H | 9,0 | 8,0 | 5,0 |
| 104 13 10 | 10,0 | 6,0 | 5,0 |
| 104 13 11 | 11,0 | 8,0 | 6,0 |
| 104 13 11H | 11,0 | 8,0 | 6,0 |
| 104 13 12 HB6 | 12,0 | 6,0 | 8,0 |
| 104 13 12 H | 12,0 | 8,0 | 8,0 |
| 104 13 13 H | 12,0 | 8,0 | 8,0 |
| 104 13 13,5 HB6 | 13,5 | 6,0 | 8,0 |
| 104 13 13,5 H | 13,5 | 8,0 | 8,0 |
| 104 13 14 H | 14,0 | 8,0 | 10,0 |

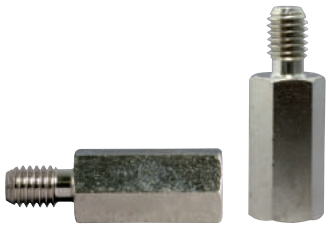
| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 104 13 15 HB4 | 15,0 | 4,0 | 10,0 |
| 104 13 15 HB6 | 15,0 | 6,0 | 10,0 |
| 104 13 15 H | 15,0 | 8,0 | 10,0 |
| 104 13 15 HB10 | 15,0 | 10,0 | 10,0 |
| 104 13 16 HB6 | 16,0 | 6,0 | 10,0 |
| 104 13 17 H | 17,0 | 8,0 | 10,0 |
| 104 13 17 HB10 | 17,0 | 10,0 | 10,0 |
| 104 13 18 | 18,0 | 8,0 | 10,0 |
| 104 13 20 HB6 | 20,0 | 6,0 | 10,0 |
| 104 13 20 | 20,0 | 8,0 | 10,0 |
| 104 13 20 H | 20,0 | 8,0 | 10,0 |
| 104 13 25 | 25,0 | 6,0 | 10,0 |
| 104 13 25 H | 25,0 | 6,0 | 10,0 |
| 104 13 25 HB8 | 25,0 | 8,0 | 10,0 |
| 104 13 30 HB6 | 30,0 | 6,0 | 10,0 |
| 104 13 30 H | 30,0 | 8,0 | 10,0 |
| 104 13 30 HB10 | 30,0 | 10,0 | 10,0 |
| 104 13 35 H | 35,0 | 6,0 | 10,0 |
| 104 13 36 | 36,0 | 10,0 | 10,0 |
| 104 13 36 HB10 | 36,0 | 10,0 | 10,0 |
| 104 13 37 HB10 | 37,0 | 10,0 | 10,0 |
| 104 13 38 H | 38,0 | 8,0 | 10,0 |
| 104 13 40 HB6 | 40,0 | 6,0 | 10,0 |
| 104 13 40 | 40,0 | 8,0 | 10,0 |
| 104 13 45 H | 45,0 | 10,0 | 10,0 |
| 104 13 50 H | 50,0 | 10,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABM-IA-M3 - SW5,5 ABSTANDSBOLZEN

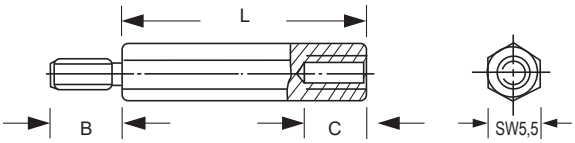
## Merkmale

- 6-kant Abstandsbolzen mit M3 Innen-/Aussengewinde
- Schlüsselweite (SW) 5,5
- Außengewinde mit Hinterstich nach DIN76
  (kein Buchstabe „H“ in der Art.Nr. bedeutet ohne Hinterstich)
- Material: Messing vernickelt



## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 106 13 05 HB5 | 5,0 | 5,0 | 3,0 |
| 106 13 05 H | 5,0 | 8,0 | 3,0 |
| 106 13 05 HB6 | 5,0 | 6,0 | 3,0 |
| 106 13 06 HB6 | 6,0 | 6,0 | 3,0 |
| 106 13 06 H | 6,0 | 8,0 | 3,0 |
| 106 13 07 H | 7,0 | 8,0 | 5,0 |
| 106 13 08 HB6 | 8,0 | 6,0 | 6,0 |
| 106 13 08 HB7 | 8,0 | 7,0 | 6,0 |
| 106 13 08 H | 8,0 | 8,0 | 6,0 |
| 106 13 08,5 HB6 | 8,5 | 6,0 | 6,0 |
| 106 13 09 HB4 | 9,0 | 4,0 | 5,0 |
| 106 13 09 H | 9,0 | 8,0 | 6,0 |
| 106 13 10 HB6 | 9,0 | 6,0 | 6,0 |
| 106 13 10 H | 10,0 | 8,0 | 6,0 |
| 106 13 11 HB6 | 11,0 | 6,0 | 6,0 |
| 106 13 11 H | 11,0 | 8,0 | 6,0 |
| 106 13 12 HB4 | 12,0 | 4,0 | 6,0 |
| 106 13 12 HB6 | 12,0 | 6,0 | 6,0 |
| 106 13 12 H | 12,0 | 8,0 | 6,0 |
| 106 13 13 H | 13,0 | 8,0 | 6,0 |
| 106 13 13,5 HB4 | 13,5 | 4,0 | 6,0 |
| 106 13 14 HB4 | 14,0 | 4,0 | 6,0 |
| 106 13 14 HB6 | 14,0 | 6,0 | 6,0 |
| 106 13 14 H | 14,0 | 8,0 | 6,0 |
| 106 13 15 HB6 | 15,0 | 6,0 | 6,0 |

| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 106 13 15 H | 15,0 | 8,0 | 6,0 |
| 106 13 16 HB6 | 16,0 | 6,0 | 10,0 |
| 106 13 17 H | 17,0 | 8,0 | 6,0 |
| 106 13 18 HB6 | 18,0 | 6,0 | 6,0 |
| 106 13 18 H | 18,0 | 8,0 | 6,0 |
| 106 13 19 H | 19,0 | 8,0 | 6,0 |
| 106 13 20 H | 20,0 | 8,0 | 6,0 |
| 106 13 21 H | 21,0 | 8,0 | 6,0 |
| 106 13 22 H | 22,0 | 8,0 | 6,0 |
| 106 13 24 H | 24,0 | 8,0 | 6,0 |
| 106 13 25 HB6 | 25,0 | 6,0 | 6,0 |
| 106 13 25 H | 25,0 | 8,0 | 6,0 |
| 106 13 28 H | 28,0 | 8,0 | 6,0 |
| 106 13 29 H | 29,0 | 6,0 | 6,0 |
| 106 13 30 H | 30,0 | 6,0 | 6,0 |
| 106 13 30 HB8 | 30,0 | 8,0 | 6,0 |
| 106 13 35 H | 35,0 | 6,0 | 6,0 |
| 106 13 40 H | 40,0 | 6,0 | 6,0 |
| 106 13 40 HB8 | 40,0 | 8,0 | 8,0 |
| 106 13 44 H | 44,0 | 6,0 | 6,0 |
| 106 13 45 H | 45,0 | 6,0 | 6,0 |
| 106 13 50 H | 50,0 | 6,0 | 6,0 |
| 106 13 55 H | 55,0 | 8,0 | 6,0 |
| 106 13 60 H | 60,0 | 6,0 | 6,0 |
| 106 13 65 H | 65,0 | 6,0 | 6,0 |
| 106 13 75 H | 75,0 | 6,0 | 6,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

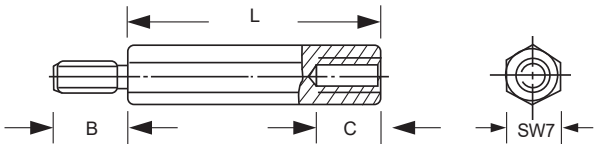
# ABM-IA-M4 - SW7 ABSTANDSBOLZEN

## Merkmale

- 6-kant Abstandsbolzen mit M4 Innen-/Aussengewinde
- Schlüsselweite (SW) 7
- Außengewinde mit Hinterstich nach DIN76
  (kein Buchstabe „H“ in der Art.Nr. bedeutet ohne Hinterstich)
- Material: Messing vernickelt

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 107 14 05 HB5 | 5,0 | 5,0 | 3,0 |
| 107 14 05 H | 5,0 | 8,0 | 3,0 |
| 107 14 06 H | 6,0 | 8,0 | 3,0 |
| 107 14 07 H | 7,0 | 6,0 | 3,0 |
| 107 14 08 H | 8,0 | 6,0 | 6,0 |
| 107 14 09 H | 9,0 | 8,0 | 5,0 |
| 107 14 10 HB5 | 10,0 | 5,0 | 5,0 |
| 107 14 10 HB6 | 10,0 | 6,0 | 7,0 |
| 107 14 10 H | 10,0 | 8,0 | 5,0 |
| 107 14 12 HB6 | 12,0 | 6,0 | 7,0 |
| 107 14 12 H | 12,0 | 8,0 | 8,0 |
| 107 14 13 H | 13,0 | 8,0 | 8,0 |
| 107 14 13,5 H | 13,5 | 8,0 | 8,0 |
| 107 14 14 H | 14,0 | 8,0 | 8,0 |
| 107 14 15 HB6C10 | 15,0 | 6,0 | 8,0 |
| 107 14 15 H | 15,0 | 8,0 | 8,0 |
| 107 14 16 HB5 | 16,0 | 5,0 | 8,0 |
| 107 14 16 HB7 | 16,0 | 7,0 | 8,0 |
| 107 14 16 H | 16,0 | 8,0 | 8,0 |
| 107 14 17 H | 17,0 | 8,0 | 8,0 |

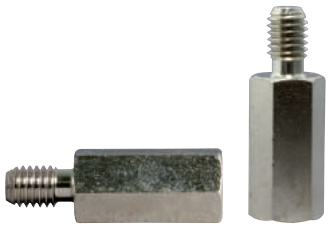
| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 107 14 18 H | 18,0 | 8,0 | 8,0 |
| 107 14 20 H | 20,0 | 8,0 | 8,0 |
| 107 14 20,5 HB5 | 20,5 | 5,0 | 8,0 |
| 107 14 22 H | 22,0 | 8,0 | 8,0 |
| 107 14 25 H | 25,0 | 8,0 | 8,0 |
| 107 14 27 B10 | 27,0 | 10,0 | 11,0 |
| 107 14 28 HB5 | 28,0 | 5,0 | 8,0 |
| 107 14 30 H | 30,0 | 8,0 | 8,0 |
| 107 14 30 HB10 | 30,0 | 10,0 | 10,0 |
| 107 14 34 H | 34,0 | 8,0 | 8,0 |
| 107 14 35 H | 35,0 | 6,0 | 8,0 |
| 107 14 38 H | 38,0 | 8,0 | 8,0 |
| 107 14 40 H | 40,0 | 8,0 | 8,0 |
| 107 14 45 H | 45,0 | 10,0 | 8,0 |
| 107 14 50 H | 50,0 | 10,0 | 8,0 |
| 107 14 55 H | 55,0 | 10,0 | 8,0 |
| 107 14 57 H | 57,0 | 8,0 | 8,0 |
| 107 14 60 H | 60,0 | 8,0 | 8,0 |
| 107 14 65 H | 65,0 | 8,0 | 8,0 |
| 107 14 70 H | 70,0 | 8,0 | 8,0 |
| 107 14 100 H | 100,0 | 8,0 | 8,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ABM-IA-M5 - SW8 ABSTANDSBOLZEN

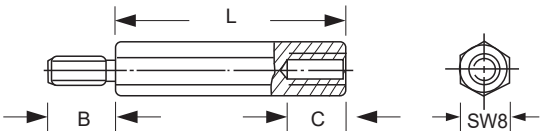
## Merkmale

- 6-kant Abstandsbolzen mit M5 Innen-/Aussengewinde
- Schlüsselweite (SW) 8
- Außengewinde mit Hinterstich nach DIN76
  (kein Buchstabe „H“ in der Art.Nr. bedeutet ohne Hinterstich)
- Material: Messing vernickelt



## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 108 15 10 H | 10,0 | 8,0 | 6,0 |
| 108 15 12 H | 12,0 | 8,0 | 6,0 |
| 108 15 12 HB10 | 12,0 | 10,0 | 6,0 |
| 108 15 13 H | 13,0 | 8,0 | 10,0 |
| 108 15 15 H | 15,0 | 8,0 | 10,0 |
| 108 15 17 H | 17,0 | 8,0 | 10,0 |
| 108 15 17 HB10 | 17,0 | 10,0 | 10,0 |
| 108 15 20 H | 20,0 | 10,0 | 10,0 |
| 108 15 25 HB8 | 25,0 | 8,0 | 10,0 |
| 108 15 25 H | 25,0 | 10,0 | 10,0 |
| 108 15 30 H | 30,0 | 10,0 | 10,0 |

| Art.-Nr. | L (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 108 15 34 H | 34,0 | 8,0 | 10,0 |
| 108 15 35 H | 35,0 | 10,0 | 10,0 |
| 108 15 36 HB8C12 | 36,0 | 8,0 | 10,0 |
| 108 15 36 H | 36,0 | 10,0 | 10,0 |
| 108 15 40 H | 40,0 | 10,0 | 10,0 |
| 108 15 45 H | 45,0 | 10,0 | 10,0 |
| 108 15 50 H | 50,0 | 10,0 | 10,0 |
| 108 15 55 H | 55,0 | 8,0 | 10,0 |
| 108 15 90 H | 90,0 | 10,0 | 10,0 |
| 108 15 100 H | 100,0 | 10,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

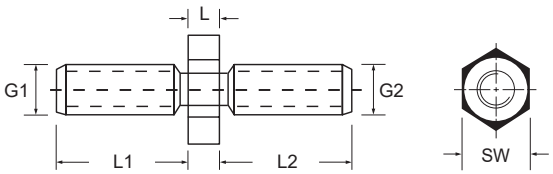
# ABM-2A ABSTANDSBOLZEN

## Merkmale

- beidseitiges Aussengewinde
- Material: Stahl glanzverzinkt, Messing vernickelt oder Edelstahl
- Wahlweise mit oder ohne Hinterstich nach DIN76
- Gewindefreistich nach DIN76

## Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | Material | SW | G1 (mm) | G2 (mm) | L1 (mm) | L2 (mm) |
|---|---|---|---|---|---|---|---|
| 099 51 01 H | 1,0 | Stahl verzinkt | 4,0 | M2 | M2 | 5,0 | 5,0 |
| 106 53 01,7 H | 1,7 | Stahl verzinkt | 5,5 | M3 | M3 | 6,0 | 8,0 |
| 099 51 02 HB5 | 2,0 | Stahl verzinkt | 4,0 | M2 | M2 | 5,0 | 5,0 |
| 107 54 02 H | 2,0 | Stahl verzinkt | 7,0 | M4 | M4 | 6,0 | 7,0 |
| 104 51 03 HB5 | 3,0 | Stahl verzinkt | 5,0 | M2,5 | M2,5 | 5,0 | 5,0 |
| 106 53 03,0 H | 3,0 | Messing vernickelt | 5,5 | M3 | M3 | 5,0 | 5,0 |
| 106 53 03 HA2 | 3,0 | Edelstahl | 5,5 | M3 | M3 | 6,0 | 8,0 |
| 104 53 04,5 H | 4,5 | Stahl verzinkt | 5,0 | M3 | M3 | 6,0 | 6,0 |
| 106 53 04,5 | 4,5 | Stahl verzinkt | 5,5 | M3 | M3 | 6,5 | 6,5 |
| 104 53 04,7 H | 4,7 | Stahl verzinkt | 5,0 | M3 | M3 | 6,0 | 6,0 |
| 106 53 05 H | 5,0 | Stahl verzinkt | 5,5 | M3 | M3 | 6,0 | 8,0 |
| 106 53 06 H | 6,0 | Messing vernickelt | 5,5 | M3 | M3 | 6,0 | 6,0 |
| 107 54 05 H | 5,0 | Stahl verzinkt | 7,0 | M4 | M4 | 6,0 | 8,0 |
| 104 53 10 H | 10,0 | Messing vernickelt | 5,0 | M3 | M3 | 8,0 | 8,0 |
| 106 53 10 H | 10,0 | Stahl verzinkt | 5,5 | M3 | M3 | 6,0 | 8,0 |
| 107 54 10 HB6/6 | 10,0 | Stahl verzinkt | 7,0 | M4 | M4 | 6,0 | 6,0 |
| 109 56 10 HB11A2 | 10,0 | Edelstahl | 10,0 | M6 | M6 | 11,0 | 11,0 |
| 106 53 12 HB7 | 12,0 | Stahl verzinkt | 5,5 | M3 | M3 | 7,0 | 7,0 |
| 102 53 14 H | 14,0 | Stahl verzinkt | 6,0 | M3 | M3 | 6,0 | 6,0 |
| 104 53 15 HB8MN | 15,0 | Messing vernickelt | 5,0 | M3 | M5 | 8,0 | 8,0 |
| 106 53 30 | 30,0 | Stahl verzinkt | 5,5 | M3 | M3 | 6,0 | 8,0 |
| 108 55 40 HB8 | 40,0 | Stahl verzinkt | 8,0 | M5 | M5 | 8,0 | 8,0 |
| 107 54 45 H | 45,0 | Stahl verzinkt | 7,0 | M4 | M4 | 8,0 | 8,0 |
| 106 53 73 H | 73,0 | Stahl verzinkt | 5,5 | M3 | M3 | 6,0 | 8,0 |
| 109 55 80 H | 80,0 | Stahl verzinkt | 10,0 | M5 | M5 | 10,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

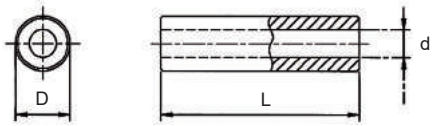
# ABSTANDSHÜLSEN AUS KUNSTSTOFF

Merkmale

- Material: Polyamid glasfaserverstärkt (PA-GV)
- Farbe: schwarz
- temperaturbeständig bis +110 °C

Abmessungen

► Einheit = mm



| Art.-Nr. | D (mm) | d (mm) | L (mm) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 101 28 XX | 4,0 | 2,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |
| 101 21 XX | 5,0 | 2,7 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | | | |
| 101 23 XX | 4,0 | 3,0 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | | | | | |
| 101 05 XX | 5,0 | 2,7 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | | |
| 101 06 XX | 5,0 | 3,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |
| 101 07 XX | 6,0 | 3,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |
| 101 03 XX | 6,0 | 3,4 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |

Bitte bei der Bestellung XX durch Länge „L“ ersetzen, z.B. Länge 2 mm = 101 28 02.

# ABSTANDSHÜLSEN AUS KUNSTSTOFF

| Art.-Nr. | D (mm) | d (mm) | L (mm) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 101 27 XX | 6,0 | 4,1 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | | | |
| 101 46 XX | 7,0 | 3,4 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |
| 101 13 XX | 7,0 | 4,5 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |
| 101 53 XX | 7,0 | 5,0 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | | | | |
| 101 22 XX | 8,0 | 4,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |
| 101 65 XX | 10,0 | 3,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | | | | | |
| 101 14 XX | 10,0 | 5,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| 101 09 XX | 10,0 | 6,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | | |

Bitte bei der Bestellung XX durch Länge „L“ ersetzen, z.B. Länge 2 mm = 101 28 02.

# ABSTANDSHÜLSEN AUS KUNSTSTOFF

| Art.-Nr. | D (mm) | d (mm) | L (mm) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 101 58 XX | 12,0 | 5,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | | | | | | | |
| 101 26 XX | 12,0 | 6,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | 61,0 | 62,0 | 63,0 | 64,0 | 65,0 |
| 101 32 XX | 12,0 | 8,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | 61,0 | 62,0 | 63,0 | | |
| 101 45 XX | 12,0 | 9,6 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |
| 101 35 XX | 16,0 | 10,5 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |
| 101 31 XX | 16,0 | 12,5 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |

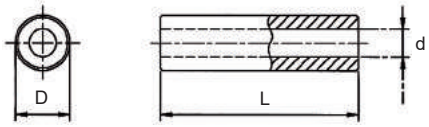
Bitte bei der Bestellung XX durch Länge „L“ ersetzen, z.B. Länge 2 mm = 101 28 02.

# ABSTANDSHÜLSEN AUS KUNSTSTOFF

Merkmale

- Material: Polystyrol (PS-S)
- Farbe: schwarz
- temperaturbeständig bis +70 °C

Abmessungen
► Einheit = mm



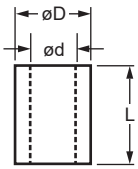

| Art.-Nr. | D (mm) | d (mm) | L (mm) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 101 02 XX | 7,0 | 3,6 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | | | | | | |
| 101 04 XX | 8,0 | 4,5 | 2,0 | 2,5 | 3,0 | 4,0 | 5,0 | 5,5 | 6,0 | 7,0 |
| | | | 8,0 | 9,0 | 10,0 | 10,5 | 11,0 | 12,0 | 13,0 | 14,0 |
| | | | 15,0 | 16,0 | 16,5 | 17,0 | 18,0 | 19,0 | 20,0 | 21,0 |
| | | | 22,0 | 23,0 | 24,0 | 25,0 | 25,5 | 26,0 | 26,5 | 27,0 |
| | | | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 | 34,0 | 35,0 |
| 101 17 XX | 10,0 | 5,5 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | | | | | | |
| 101 57 XX | 10,0 | 6,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | | | | | | |

# ABSTANDSHÜLSEN AUS KUNSTSTOFF

Merkmale

- Material: Nylon 66 (UL94V-2) = Standard, PBT (UL94V-0) auf Anfrage
- Farbe: natur = Standard, schwarz auf Anfrage

Abmessungen ► Einheit = mm




| Art.-Nr. | D (mm) | d (mm) | L (mm) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 101 55 XX | 3,7 | 2,2 | 1,8 | 2,0 | 2,5 | 3,0 | 3,2 | 4,0 | 4,3 | 5,0 |
| | | | 5,3 | 6,0 | 7,0 | 8,0 | 9,0 | 9,5 | 10,0 | 11,0 |
| | | | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | | | |
| 101 59 XX | 4,5 | 2,6 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | |

Bitte bei der Bestellung XX durch Länge „L“ ersetzen, z.B. Länge 2 mm = 101 02 02.

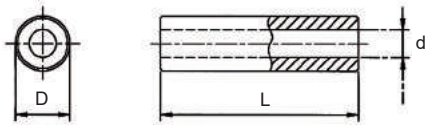
# ABSTANDSHÜLSEN AUS KUNSTSTOFF

Merkmale

- Material: Polystyrol (PA-W)
- Farbe: weiss
- temperaturbeständig bis +70 °C

Abmessungen

► Einheit = mm




| Art.-Nr. | D (mm) | d (mm) | L (mm) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 101 34 XX | 4,0 | 2,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |
| 101 38 XX | 5,0 | 2,7 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | | |
| 101 11 XX | 5,0 | 3,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |
| 101 42 XX | 6,0 | 2,7 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | | |
| 101 10 XX | 6,0 | 3,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |
| 101 19 XX | 6,0 | 3,4 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |

Bitte bei der Bestellung XX durch Länge „L“ ersetzen, z.B. Länge 2 mm = 101 34 02.

# ABSTANDSHÜLSEN AUS KUNSTSTOFF

| Art.-Nr. | D (mm) | d (mm) | L (mm) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 101 47 XX | 7,0 | 3,4 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |
| 101 54 XX | 7,0 | 5,0 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | | | | |
| 101 50 XX | 8,0 | 3,5 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |
| 101 18 XX | 8,0 | 4,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | | | | | |
| 101 52 XX | 10,0 | 3,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | | | | | |
| 101 56 XX | 10,0 | 6,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | | |
| 101 40 XX | 12,0 | 6,2 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | 51,0 | 52,0 | 53,0 | 54,0 | 55,0 | 56,0 | 57,0 |
| | | | 58,0 | 59,0 | 60,0 | 61,0 | 62,0 | 63,0 | 64,0 | 65,0 |
| 101 08 XX | 16,0 | 12,5 | 2,0 | 3,0 | 4,0 | 5,0 | 6,0 | 7,0 | 8,0 | 9,0 |
| | | | 10,0 | 11,0 | 12,0 | 13,0 | 14,0 | 15,0 | 16,0 | 17,0 |
| | | | 18,0 | 19,0 | 20,0 | 21,0 | 22,0 | 23,0 | 24,0 | 25,0 |
| | | | 26,0 | 27,0 | 28,0 | 29,0 | 30,0 | 31,0 | 32,0 | 33,0 |
| | | | 34,0 | 35,0 | 36,0 | 37,0 | 38,0 | 39,0 | 40,0 | 41,0 |
| | | | 42,0 | 43,0 | 44,0 | 45,0 | 46,0 | 47,0 | 48,0 | 49,0 |
| | | | 50,0 | | | | | | | |

Bitte bei der Bestellung XX durch Länge „L“ ersetzen, z.B. Länge 2 mm = 101 34 02.

# ABSTANDSHÜLSE AUS KUNSTSTOFF MIT SELBSTHALTELIPPE

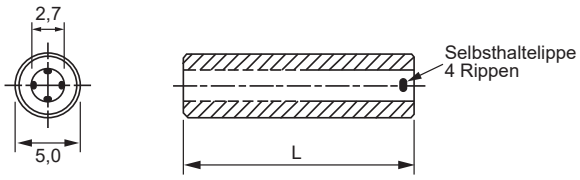
NEU

Merkmale

- Material: Polyamid, glasfaserverstärkt (PA-GV)
- Farbe: schwarz
- temperaturbeständig bis +110 °C

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | Art.-Nr. | L (mm) | Art.-Nr. | L (mm) |
|---|---|---|---|---|---|
| 101 05 02S | 2,0 | 101 05 20S | 20,0 | 101 05 38S | 38,0 |
| 101 05 03S | 3,0 | 101 05 21S | 21,0 | 101 05 39S | 39,0 |
| 101 05 04S | 4,0 | 101 05 22S | 22,0 | 101 05 40S | 40,0 |
| 101 05 05S | 5,0 | 101 05 23S | 23,0 | 101 05 41S | 41,0 |
| 101 05 06S | 6,0 | 101 05 24S | 24,0 | 101 05 42S | 42,0 |
| 101 05 07S | 7,0 | 101 05 25S | 25,0 | 101 05 43S | 43,0 |
| 101 05 08S | 8,0 | 101 05 26S | 26,0 | 101 05 44S | 44,0 |
| 101 05 09S | 9,0 | 101 05 27S | 27,0 | 101 05 45S | 45,0 |
| 101 05 10S | 10,0 | 101 05 28S | 28,0 | 101 05 46S | 46,0 |
| 101 05 11S | 11,0 | 101 05 29S | 29,0 | 101 05 47S | 47,0 |
| 101 05 12S | 12,0 | 101 05 30S | 30,0 | 101 05 48S | 48,0 |
| 101 05 13S | 13,0 | 101 05 31S | 31,0 | 101 05 49S | 49,0 |
| 101 05 14S | 14,0 | 101 05 32S | 32,0 | 101 05 50S | 50,0 |
| 101 05 15S | 15,0 | 101 05 33S | 33,0 | 101 05 51S | 51,0 |
| 101 05 16S | 16,0 | 101 05 34S | 34,0 | 101 05 52S | 52,0 |
| 101 05 17S | 17,0 | 101 05 35S | 35,0 | 101 05 53S | 53,0 |
| 101 05 18S | 18,0 | 101 05 36S | 36,0 | 101 05 54S | 54,0 |
| 101 05 19S | 19,0 | 101 05 37S | 37,0 | 101 05 55S | 55,0 |

# STECK-DISTANZHÜLSEN

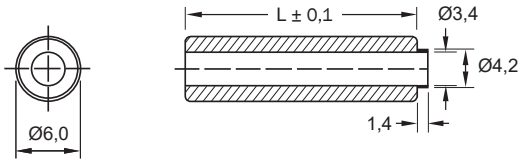
NEU

Merkmale

- Material: Polyamid, glasfaserverstärkt (PA-GV)
- Farbe: schwarz
- temperaturbeständig bis +110 °C

Abmessungen

► Einheit = mm




| Art.-Nr. | L (mm) | Art.-Nr. | L (mm) | Art.-Nr. | L (mm) |
|---|---|---|---|---|---|
| 101 66 02 | 2,0 | 101 66 12 | 12,0 | 101 66 22 | 22,0 |
| 101 66 03 | 3,0 | 101 66 13 | 13,0 | 101 66 23 | 23,0 |
| 101 66 04 | 4,0 | 101 66 14 | 14,0 | 101 66 24 | 24,0 |
| 101 66 05 | 5,0 | 101 66 15 | 15,0 | 101 66 25 | 25,0 |
| 101 66 06 | 6,0 | 101 66 16 | 16,0 | 101 66 26 | 26,0 |
| 101 66 07 | 7,0 | 101 66 17 | 17,0 | 101 66 27 | 27,0 |
| 101 66 08 | 8,0 | 101 66 18 | 18,0 | 101 66 28 | 28,0 |
| 101 66 09 | 9,0 | 101 66 19 | 19,0 | 101 66 29 | 29,0 |
| 101 66 10 | 10,0 | 101 66 20 | 20,0 | 101 66 30 | 30,0 |
| 101 66 11 | 11,0 | 101 66 21 | 21,0 | | |

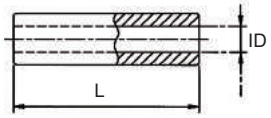
# ABSTANDSHÜLSEN AUS MESSING

Merkmale

- Material: Messing
- Oberfläche: vernickelt

Abmessungen

► Einheit = mm




| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 11 02 | 2,2 | 4,0 | 2,0 |
| 103 11 03 | 2,2 | 4,0 | 3,0 |
| 103 11 04 | 2,2 | 4,0 | 4,0 |
| 103 11 05 | 2,2 | 4,0 | 5,0 |
| 103 11 06 | 2,2 | 4,0 | 6,0 |
| 103 11 07 | 2,2 | 4,0 | 7,0 |
| 103 11 08 | 2,2 | 4,0 | 8,0 |
| 103 11 09 | 2,2 | 4,0 | 9,0 |
| 103 11 10 | 2,2 | 4,0 | 10,0 |
| 103 11 12 | 2,2 | 4,0 | 12,0 |

| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 08 02 | 3,2 | 6,0 | 2,0 |
| 103 08 03 | 3,2 | 6,0 | 3,0 |
| 103 08 04 | 3,2 | 6,0 | 4,0 |
| 103 08 05 | 3,2 | 6,0 | 5,0 |
| 103 08 06 | 3,2 | 6,0 | 6,0 |
| 103 08 07 | 3,2 | 6,0 | 7,0 |
| 103 08 08 | 3,2 | 6,0 | 8,0 |
| 103 08 09 | 3,2 | 6,0 | 9,0 |
| 103 08 10 | 3,2 | 6,0 | 10,0 |
| 103 08 11 | 3,2 | 6,0 | 11,0 |
| 103 08 12 | 3,2 | 6,0 | 12,0 |
| 103 08 13 | 3,2 | 6,0 | 13,0 |
| 103 08 13,5 | 3,2 | 6,0 | 13,5 |
| 103 08 14 | 3,2 | 6,0 | 14,0 |
| 103 08 15 | 3,2 | 6,0 | 15,0 |
| 103 08 18 | 3,2 | 6,0 | 18,0 |
| 103 08 19 | 3,2 | 6,0 | 19,0 |
| 103 08 20 | 3,2 | 6,0 | 20,0 |
| 103 08 22 | 3,2 | 6,0 | 22,0 |
| 103 08 25 | 3,2 | 6,0 | 25,0 |
| 103 08 30 | 3,2 | 6,0 | 30,0 |

| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 10 02 | 5,3 | 10,0 | 2,0 |
| 103 10 03 | 5,3 | 10,0 | 3,0 |
| 103 10 04 | 5,3 | 10,0 | 4,0 |
| 103 10 05 | 5,3 | 10,0 | 5,0 |
| 103 10 06 | 5,3 | 10,0 | 6,0 |
| 103 10 07 | 5,3 | 10,0 | 7,0 |
| 103 10 08 | 5,3 | 10,0 | 8,0 |
| 103 10 09 | 5,3 | 10,0 | 9,0 |
| 103 10 10 | 5,3 | 10,0 | 10,0 |
| 103 10 12 | 5,3 | 10,0 | 12,0 |
| 103 10 15 | 5,3 | 10,0 | 15,0 |
| 103 10 18 | 5,3 | 10,0 | 18,0 |
| 103 10 20 | 5,3 | 10,0 | 20,0 |
| 103 10 25 | 5,3 | 10,0 | 25,0 |
| 103 10 30 | 5,3 | 10,0 | 30,0 |

Weitere Abmessungen und Größen auf Anfrage:
Telefon: 09852 61079-0

| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 02 02 | 2,6 | 5,0 | 2,0 |
| 103 02 03 | 2,6 | 5,0 | 3,0 |
| 103 02 04 | 2,6 | 5,0 | 4,0 |
| 103 02 05 | 2,6 | 5,0 | 5,0 |
| 103 02 06 | 2,6 | 5,0 | 6,0 |
| 103 02 07 | 2,6 | 5,0 | 7,0 |
| 103 02 08 | 2,6 | 5,0 | 8,0 |
| 103 02 09 | 2,6 | 5,0 | 9,0 |
| 103 02 09,5 | 2,6 | 5,0 | 9,5 |
| 103 02 10 | 2,6 | 5,0 | 10,0 |
| 103 02 12 | 2,6 | 5,0 | 12,0 |
| 103 02 15 | 2,6 | 5,0 | 15,0 |

| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 01 02 | 4,3 | 8,0 | 2,0 |
| 103 01 03 | 4,3 | 8,0 | 3,0 |
| 103 01 04 | 4,3 | 8,0 | 4,0 |
| 103 01 05 | 4,3 | 8,0 | 5,0 |
| 103 01 06 | 4,3 | 8,0 | 6,0 |
| 103 01 07 | 4,3 | 8,0 | 7,0 |
| 103 01 08 | 4,3 | 8,0 | 8,0 |
| 103 01 09 | 4,3 | 8,0 | 9,0 |
| 103 01 10 | 4,3 | 8,0 | 10,0 |
| 103 01 11 | 4,3 | 8,0 | 11,0 |
| 103 01 12 | 4,3 | 8,0 | 12,0 |
| 103 01 13 | 4,3 | 8,0 | 13,0 |
| 103 01 14 | 4,3 | 8,0 | 14,0 |
| 103 01 15 | 4,3 | 8,0 | 15,0 |
| 103 01 16 | 4,3 | 8,0 | 16,0 |
| 103 01 18 | 4,3 | 8,0 | 18,0 |
| 103 01 20 | 4,3 | 8,0 | 20,0 |
| 103 01 22 | 4,3 | 8,0 | 22,0 |
| 103 01 25 | 4,3 | 8,0 | 25,0 |
| 103 01 30 | 4,3 | 8,0 | 30,0 |

| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 15 01 | 6,4 | 11,0 | 1,0 |
| 103 15 03 | 6,4 | 11,0 | 3,0 |
| 103 15 04 | 6,4 | 11,0 | 4,0 |
| 103 15 05 | 6,4 | 11,0 | 5,0 |
| 103 15 07 | 6,4 | 11,0 | 7,0 |
| 103 15 08 | 6,4 | 11,0 | 8,0 |
| 103 15 09 | 6,4 | 11,0 | 9,0 |
| 103 15 10 | 6,4 | 11,0 | 10,0 |
| 103 15 12 | 6,4 | 11,0 | 12,0 |
| 103 15 15 | 6,4 | 11,0 | 15,0 |
| 103 15 16 | 6,4 | 11,0 | 16,0 |
| 103 15 17 | 6,4 | 11,0 | 17,0 |
| 103 15 19 | 6,4 | 11,0 | 19,0 |
| 103 15 20 | 6,4 | 11,0 | 20,0 |
| 103 15 22 | 6,4 | 11,0 | 22,0 |
| 103 15 25 | 6,4 | 11,0 | 25,0 |
| 103 15 30 | 6,4 | 11,0 | 30,0 |
| 103 15 35 | 6,4 | 11,0 | 35,0 |
| 103 15 40 | 6,4 | 11,0 | 40,0 |
| 103 15 60 | 6,4 | 11,0 | 60,0 |

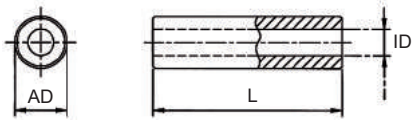
# ABSTANDSHÜLSEN AUS ALUMINIUM

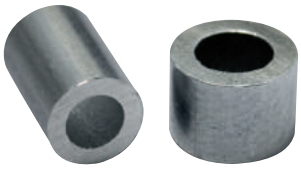
Merkmale

- Material: Aluminium

Abmessungen

► Einheit = mm



| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 18 01 | 2,4 | 4,0 | 1,0 |
| 103 18 02 | 2,4 | 4,0 | 2,0 |
| 103 18 03 | 2,4 | 4,0 | 3,0 |
| 103 18 04 | 2,4 | 4,0 | 4,0 |
| 103 18 05 | 2,4 | 4,0 | 5,0 |
| 103 18 06 | 2,4 | 4,0 | 6,0 |
| 103 18 08 | 2,4 | 4,0 | 8,0 |
| 103 18 09 | 2,4 | 4,0 | 9,0 |
| 103 18 10 | 2,4 | 4,0 | 10,0 |
| 103 18 12 | 2,4 | 4,0 | 12,0 |
| 103 18 12,5 | 2,4 | 4,0 | 12,5 |
| 103 18 15 | 2,4 | 4,0 | 15,0 |
| 103 18 20 | 2,4 | 4,0 | 20,0 |
| 103 18 30 | 2,4 | 4,0 | 30,0 |

| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 19 02 | 2,7 | 4,5 | 2,0 |
| 103 19 02,5 | 2,7 | 4,5 | 2,5 |
| 103 19 03 | 2,7 | 4,5 | 3,0 |
| 103 19 03,5 | 2,7 | 4,5 | 3,5 |
| 103 19 04 | 2,7 | 4,5 | 4,0 |
| 103 19 04,5 | 2,7 | 4,5 | 4,5 |
| 103 19 05 | 2,7 | 4,5 | 5,0 |
| 103 19 06 | 2,7 | 4,5 | 6,0 |
| 103 19 06,5 | 2,7 | 4,5 | 6,5 |
| 103 19 07 | 2,7 | 4,5 | 7,0 |
| 103 19 08 | 2,7 | 4,5 | 8,0 |
| 103 19 08,5 | 2,7 | 4,5 | 8,5 |
| 103 19 09 | 2,7 | 4,5 | 9,0 |
| 103 19 10 | 2,7 | 4,5 | 10,0 |
| 103 19 11 | 2,7 | 4,5 | 11,0 |
| 103 19 12 | 2,7 | 4,5 | 12,0 |
| 103 19 13,5 | 2,7 | 4,5 | 13,5 |
| 103 19 14 | 2,7 | 4,5 | 14,0 |
| 103 19 15 | 2,7 | 4,5 | 15,0 |
| 103 19 16 | 2,7 | 4,5 | 16,0 |
| 103 19 20 | 2,7 | 4,5 | 20,0 |

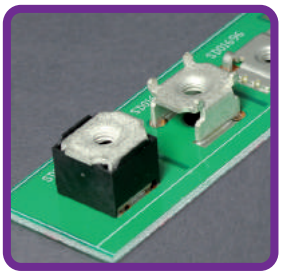
| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 17 01 | 3,3 | 5,5 | 1,0 |
| 103 17 01,5 | 3,3 | 5,5 | 1,5 |
| 103 17 02 | 3,3 | 5,5 | 2,0 |
| 103 17 02,5 | 3,3 | 5,5 | 2,5 |
| 103 17 03 | 3,3 | 5,5 | 3,0 |
| 103 17 04 | 3,3 | 5,5 | 4,0 |
| 103 17 05 | 3,3 | 5,5 | 5,0 |
| 103 17 05,5 | 3,3 | 5,5 | 5,5 |
| 103 17 06 | 3,3 | 5,5 | 6,0 |
| 103 17 06,5 | 3,3 | 5,5 | 6,5 |
| 103 17 07 | 3,3 | 5,5 | 7,0 |
| 103 17 07,5 | 3,3 | 5,5 | 7,5 |
| 103 17 08 | 3,3 | 5,5 | 8,0 |
| 103 17 09 | 3,3 | 5,5 | 9,0 |
| 103 17 10 | 3,3 | 5,5 | 10,0 |
| 103 17 11 | 3,3 | 5,5 | 11,0 |
| 103 17 12 | 3,3 | 5,5 | 12,0 |
| 103 17 12,5 | 3,3 | 5,5 | 12,5 |
| 103 17 13 | 3,3 | 5,5 | 13,0 |
| 103 17 14 | 3,3 | 5,5 | 14,0 |
| 103 17 15 | 3,3 | 5,5 | 15,0 |
| 103 17 16 | 3,3 | 5,5 | 16,0 |
| 103 17 18,5 | 3,3 | 5,5 | 18,5 |
| 103 17 19 | 3,3 | 5,5 | 19,0 |
| 103 17 20 | 3,3 | 5,5 | 20,0 |
| 103 17 24 | 3,3 | 5,5 | 24,0 |
| 103 17 25 | 3,3 | 5,5 | 25,0 |
| 103 17 30 | 3,3 | 5,5 | 30,0 |
| 103 17 40 | 3,3 | 5,5 | 40,0 |

| Art.-Nr. | ID (mm) | AD (mm) | L (mm) |
|---|---|---|---|
| 103 14 02 | 4,2 | 7,0 | 2,0 |
| 103 14 03 | 4,2 | 7,0 | 3,0 |
| 103 14 04 | 4,2 | 7,0 | 4,0 |
| 103 14 05 | 4,2 | 7,0 | 5,0 |
| 103 14 06 | 4,2 | 7,0 | 6,0 |
| 103 14 07 | 4,2 | 7,0 | 7,0 |
| 103 14 08 | 4,2 | 7,0 | 8,0 |
| 103 14 10 | 4,2 | 7,0 | 10,0 |
| 103 14 11 | 4,2 | 7,0 | 11,0 |
| 103 14 12 | 4,2 | 7,0 | 12,0 |
| 103 14 12,5 | 4,2 | 7,0 | 12,5 |
| 103 14 14 | 4,2 | 7,0 | 14,0 |
| 103 14 15 | 4,2 | 7,0 | 15,0 |
| 103 14 16 | 4,2 | 7,0 | 16,0 |
| 103 14 16,5 | 4,2 | 7,0 | 16,5 |
| 103 14 17 | 4,2 | 7,0 | 17,0 |
| 103 14 18 | 4,2 | 7,0 | 18,0 |
| 103 14 20 | 4,2 | 7,0 | 20,0 |
| 103 14 22 | 4,2 | 7,0 | 22,0 |
| 103 14 25 | 4,2 | 7,0 | 25,0 |
| 103 14 28 | 4,2 | 7,0 | 28,0 |
| 103 14 30 | 4,2 | 7,0 | 30,0 |

Sondertypen z.B. andere Längen auf Anfrage möglich:
Telefon: 09852 61079-0

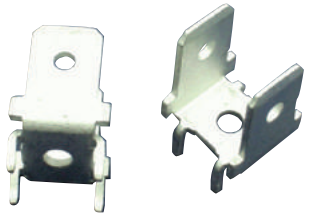
Notizen

# KONTAKTTEILE FÜR LEITERPLATTEN




| | |
|---|---|
| Flachstecker | Seite 166 |
| Sicherungshalter | Seite 167 - 168 |
| Ground Terminals | Seite 169 |
| Jumper Terminals | Seite 170 |
| Kabelanschlussklemme für SMT | Seite 171 |
| Kabelklemme für SMT | Seite 172 |
| Printklemmen | Seite 173 - 175 |

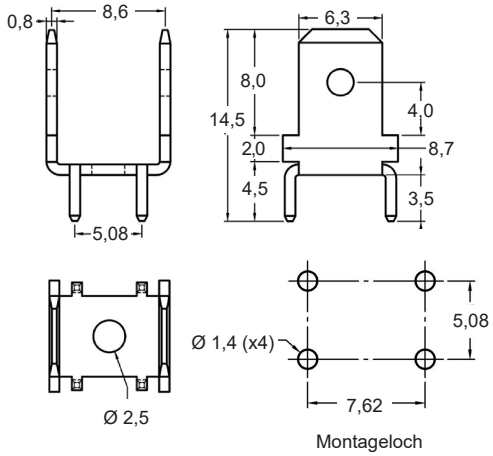
# PCU250 FLACHSTECKER FÜR LEITERPLATTENMONTAGE



Merkmale

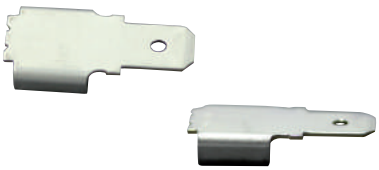
- Leiterplattenmontage
- 6,3 x 0,8 mm
- 2-polig
- Material: Messing verzinnt

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 302 01 01 | PCU250 |

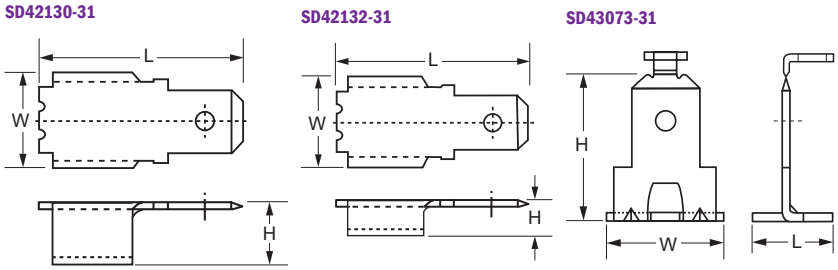
# SMD-FLACHSTECKER



Merkmale

- Größe: 4,8 x 0,5 mm
- Strombelastbarkeit max. 12 A
- für SMT-Bestückung
- Materialstärke: 0,5 mm
- Material: Messing verzinnt

Abmessungen ► Einheit = mm




| Typ | L (mm) | W (mm) | H (mm) | Rollengröße |
|---|---|---|---|---|
| SD42130-31 | 16,65 | 8,0 | 4,5 | 1.000 |
| SD42132-31 | 16,65 | 8,0 | 3,0 | 1.500 |
| SD43073-31 | 5,5 | 8,0 | 10,0 | 500 |

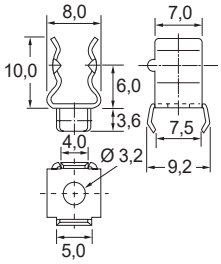
# SICHERUNGSHALTER

## Merkmale

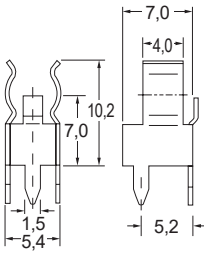
- für Handbestückung
- Materialstärke (t): siehe Tabelle

## Abmessungen ► Einheit = mm

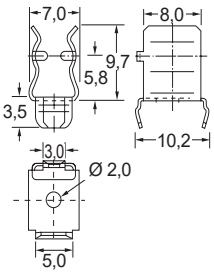
**00014**



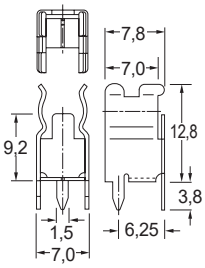

**00096**



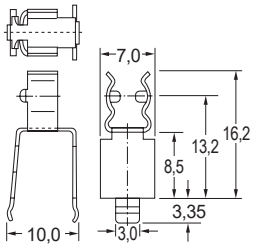

**00106**




**00144**




**00369**



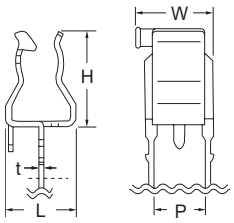

| Typ | t (mm) | Material | Oberfläche | für Sicherungen / Ø |
|---|---|---|---|---|
| B00014 | 0,5 | Phosphor-Bronze | verzinnt | 6,35 - 6,4 |
| B00096 | 0,4 | Messing | verzinnt | 5,2 |
| B00106 | 0,4 | Messing | verzinnt | 6,35 - 6,4 |
| B00144 | 0,5 | Messing | verzinnt | 6,35 - 6,4 |
| B00369 | 0,4 | Kupfer-Legierung | verzinnt | 5,2 |

## Merkmale

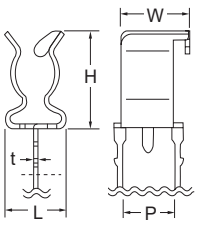
- für Ø 5 mm Sicherungen
- für THT-Bestückung
- Lieferform: Bandware in Zickzackform in Box
- Materialstärke (t): siehe Tabelle

## Abmessungen ► Einheit = mm

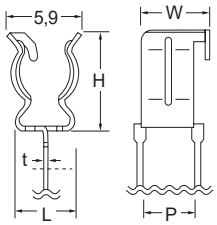
**00331 + 00337**



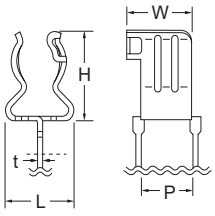

**00373**



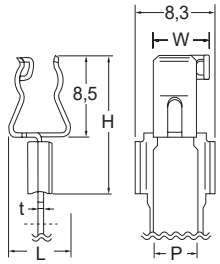

**00368**




**00526**




**00763**




| Typ | L (mm) | W (mm) | H (mm) | t (mm) | P (mm) | Material | Oberfläche | Box / Stck. |
|---|---|---|---|---|---|---|---|---|
| TP00331-31 | 6,0 | 6,75 | 8,0 | 0,4 | 5,0 | Phosphor-Bronze | verzinnt | 1.000 |
| TP00337-31 | 6,0 | 6,75 | 8,0 | 0,4 | 5,0 | Kupfer-Legierung | verzinnt | 1.000 |
| TP00368-31 | 5,2 | 6,65 | 8,1 | 0,3 | 5,0 | Kupfer-Legierung | verzinnt | 1.000 |
| TP00373-31 | 5,3 | 6,65 | 8,1 | 0,3 | 5,0 | Phosphor-Bronze | verzinnt | 1.000 |
| TP00526-31 | 5,9 | 6,5 | 7,7 | 0,3 | 5,0 | Kupfer-Legierung | verzinnt | 1.000 |
| TP00763-31 | 6,5 | 5,95 | 14,5 | 0,5 | 5,0 | Kupfer-Legierung | verzinnt | 1.000 |

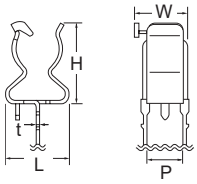
# SICHERUNGSHALTER

Merkmale

- für Ø 6,3 mm Sicherungen
- für THT-Bestückung
- Lieferform: Bandware auf Tape in Zickzackform in Box
- Materialstärke (t): 0,5 mm

Abmessungen ► Einheit = mm

**00335** **00350**



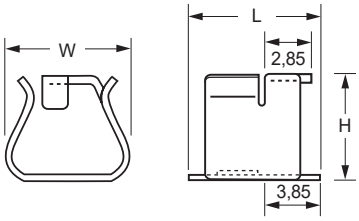

| Typ | L (mm) | W (mm) | H (mm) | P (mm) | Material | Oberfläche | Box / Stck. |
|---|---|---|---|---|---|---|---|
| TP00335-31 | 7,8 | 7,0 | 10,3 | 5,0 | Kupfer-Legierung | verzinnt | 1.000 |
| TP00350-31 | 7,8 | 7,0 | 10,3 | 5,0 | Phosphor-Bronze | verzinnt | 1.000 |

# SICHERUNGSHALTER

Merkmale

- für SMT-Bestückung
- für Ø 5 mm Sicherungen
- Materialstärke: 0,3 mm
- Material: Kupfer-Legierung

Abmessungen ► Einheit = mm




| Typ | L (mm) | W (mm) | H (mm) | Rollengröße in Stück |
|---|---|---|---|---|
| SD01182-31 | 7,5 | 7,0 | 6,0 | 1.000 |

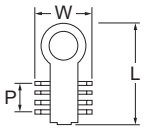
# SD GROUND TERMINAL

## Merkmale

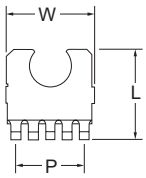
- Masse- / Erdungsanschlüsse für Leiterplatten
- für SMT-Bestückung
- Materialstärke: 0,3 mm
- Material: Kupfer verzinnt

## Abmessungen ► Einheit = mm

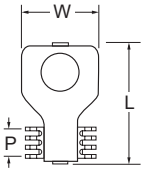
**SD00405**



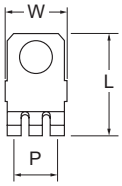

**SD01138**



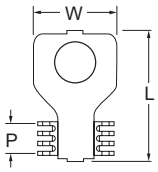

**SD00433**



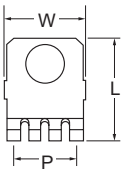

**SD01218**



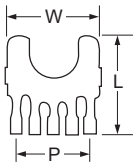

**SD01228 | SD01255**



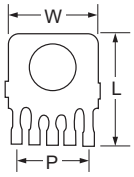

**SD01294**



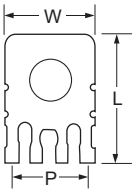

**SD01387**




**SD01388**




**SD01480**




| Art.-Nr. | Typ | L (mm) | W (mm) | P (mm) | Loch-Ø (mm) | für Schraube | Rollengröße in Stück |
|---|---|---|---|---|---|---|---|
| 611 05 00 | SD00405 | 10,7 | 6,0 | 1x3 | 3,0 | M2,6 | 2.000 |
| 611 05 01 | SD01138 | 8,5 | 8,3 | 1,6x4 | 4,0 | M3 | 2.000 |
| 611 05 02 | SD00433 | 12,7 | 8,0 | 1x3 | 4,0 | M3 | 2.000 |
| 611 05 03 | SD01218 | 7,5 | 4,5 | 1,6x2 | 2,4 | M2 | 3.000 |
| 611 05 04 | SD01228 | 12,7 | 8,0 | 1x3 | 4,5 | M3 | 2.000 |
| 611 05 05 | SD01255 | 12,7 | 8,0 | 1x3 | 4,4 | M3 | 2.000 |
| 611 05 06 | SD01294 | 8,0 | 6,0 | 1,6x3 | 3,0 | M2,6 | 2.000 |
| 611 05 07 | SD01387 | 8,5 | 8,0 | 1,6x4 | 4,2 | M3 | 3.000 |
| 611 05 08 | SD01388 | 10,0 | 8,0 | 1,6x4 | 4,2 | M3 | 3.000 |
| 611 05 09 | SD01480 | 10,0 | 7,0 | 1,9x3 | 3,2 | M3 | 3.000 |

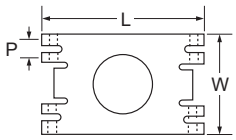
## Merkmale

- Masse- / Erdungsanschlüsse für Leiterplatten
- für SMT-Bestückung
- Materialstärke (t): siehe Tabelle
- Material: Messing verzinnt

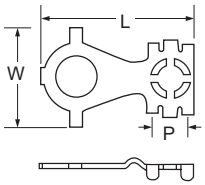
## Abmessungen

► Einheit = mm

**SD01506**

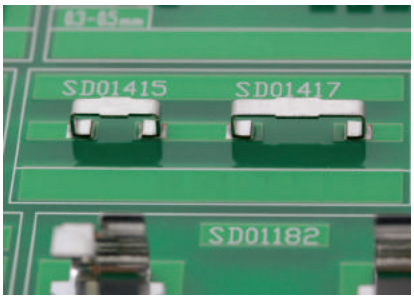



**SD01688**




| Art.-Nr. | Typ | L (mm) | W (mm) | t (mm) | P (mm) | Loch-Ø (mm) | für Schraube | Rollengröße in Stück |
|---|---|---|---|---|---|---|---|---|
| 611 05 10 | SD01506 | 9,0 | 15,0 | 0,3 | 2,1x4 | 5,6 | M4 | 1.500 |
| 611 05 11 | SD01688 | 19,5 | 10,0 | 0,5 | 4,5x2 | 5,2 | M4 | 1.000 |

# JUMPER TERMINAL

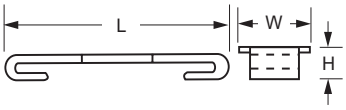



Merkmale

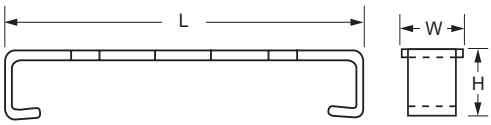
- für SMT-Bestückung
- Materialstärke: 0,3 mm
- Material: Messing verzinnt

Abmessungen ► Einheit = mm

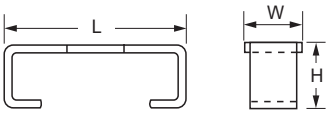
**SD00655-31**



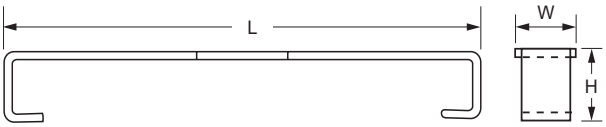

**SD01106-31**



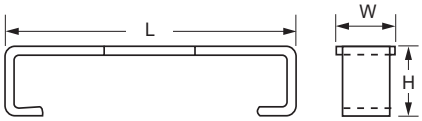

**SD01415-31**




**SD01416-31**




**SD01417-31**



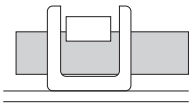

| Typ | L (mm) | W (mm) | H (mm) | Rollengröße in Stück |
|---|---|---|---|---|
| SD00655-31 | 6,4 | 2,0 | 0,9 | 3.000 |
| SD01106-31 | 12,8 | 2,0 | 2,3 | 3.000 |
| SD01415-31 | 6,4 | 2,0 | 2,3 | 3.000 |
| SD01416-31 | 16,0 | 2,0 | 2,3 | 3.000 |
| SD01417-31 | 9,6 | 2,0 | 2,3 | 3.000 |

# CN KABELANSCHLUSSKLEMME FÜR SMT

## Merkmale

- lötfreie Kabelverbindung auf der Leiterplatte
- Abisolierung von Hand nicht mehr nötig
- nutzbar für Multi-Drop-Verbindung
- Material: Phosphor Bronze
- Oberfläche: unternickelt und vergoldet
- passende Kabelgröße: AWG22 UL Style 1007, CSA Typ TR-64 (Litzendraht)
- Stromaufnahme: 3A
- Kontaktwiderstand: ≤ 30m Ω
- Betriebstemperatur: -40 °C bis +90 °C

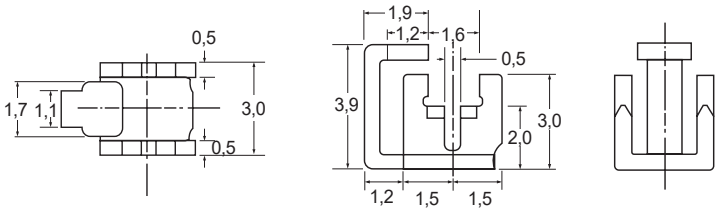
- Zugfestigkeit: 14,7 N (1,5 kgf)



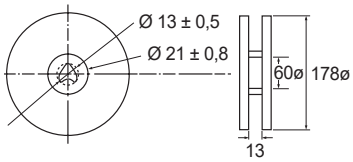
→ Zugrichtung

| Typ | Verpackung |
|---|---|
| CN-5-22 | 450 Stück/Rolle |
| CN-5-22 | 100 Stück/Packung |

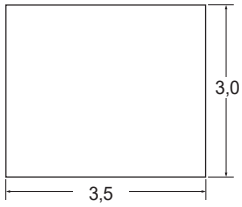
## Abmessungen ► Einheit = mm



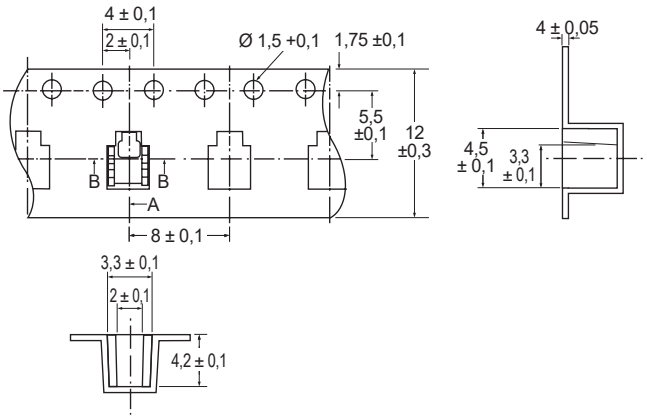

**Rolle**




**Lötpad-Größe**




**Streifen**




**Spezialwerkzeug:**

CN-5-22-JIP

**Anweisung zum Kabel verbinden / Leiterplatte mit CN Kabelanschlussklemme:**

1. Kabel von der Seite in die CN stecken
2. Kabel von oben mit CN-5-22-JIP drücken
3. Abdeckung nach unten drücken, um das Kabel zu halten

# WXF KABELKLEMME FÜR SMT

## Merkmale

- lötfreie Kabelverbindung auf der Leiterplatte
- geeignet für automatische Montage (für pick and place)
- Material Hebel: Stahl
- Material Innenfeder: rostfreier Stahl
- Material Oberkörper: Cu (Oberfläche: unternickelt und verzinnt)
- Material Unterkörper: Phosphor Bronze (Oberfläche: unternickelt und verzinnt)
- Adaptive Kabelgröße:
  WXF-3-2: AWG28 - 26
  WXF-4-2: AWG28 - 20
- Zu entferndende Länge des Vinylmantels des Kabels:
  WXF-3-2: 4,5 mm
  WXF-4-2: 7,0 mm
- Empfohlene Lötdicke: 150 - 200 µm
- Stromaufnahme:
  WXF-3-2: 5 A
  WXF-4-2: 8 A
- Betriebstemperatur: -40 °C bis +125 °C

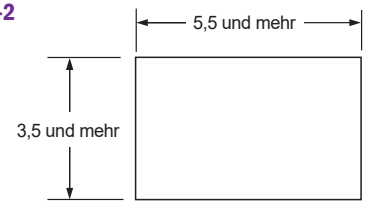
### Wie wird bestellt

| Art.-Nr. | Typ | Verpackung |
|---|---|---|
| **302 01 02** | WXF-3-2 | 250 Stück/Rolle |
| **302 01 02L** | WXF-3-2-B | 10 Stück/Packung |
| **302 01 03** | WXF-4-2 | 200 Stück/Rolle |
| **302 01 03L** | WXF-4-2-B | 10 Stück/Packung |

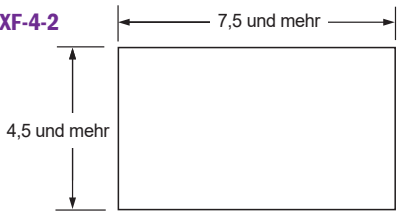
## Abmessungen ► Einheit = mm

**Empfohlene Lötpad-Größe**

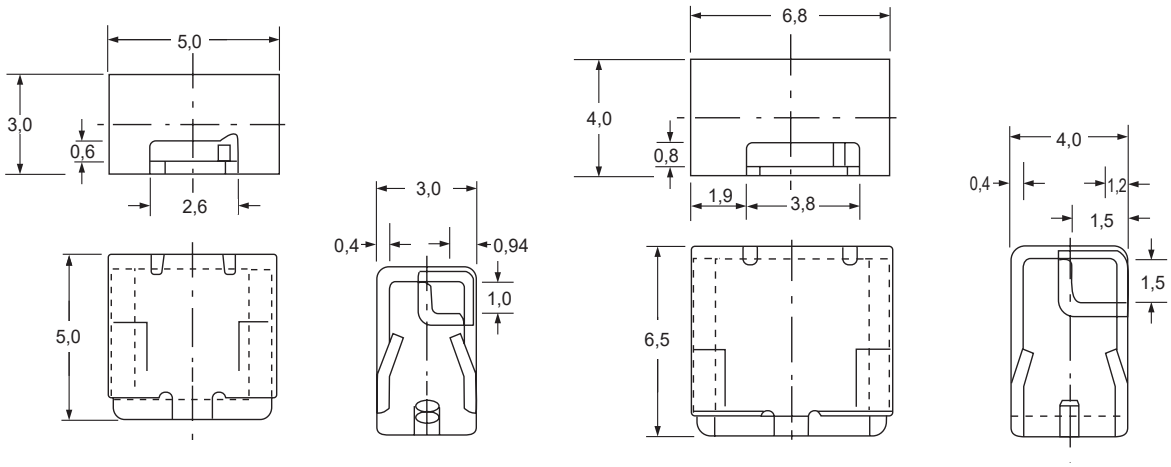
**WXF-3-2**




**WXF-4-2**




## Abmessungen ► Einheit = mm

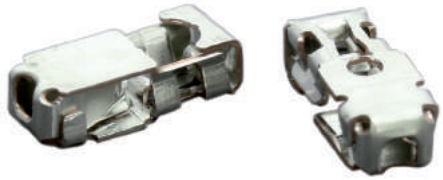


# MPK-SMD MINIATURISIERTE PRINTKLEMMEN

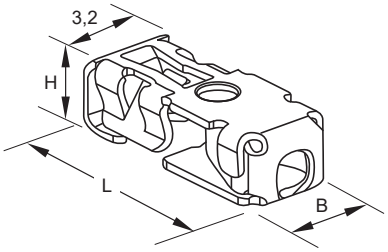
NEU

## Merkmale

- nur 2,5 mm hoch
- kein Kunststoffgehäuse
- horizontal und vertikal kontaktierbar
- Leiter einfach mittels Stift lösbar
- Lieferung in gegurteter Ausführung für automatische Bestückung
- Material: Kupferlegierung verzinnt



## Abmessungen ► Einheit = mm




| Typ | L (mm) | B (mm) | H (mm) |
|---|---|---|---|
| MPK1-SMD | 8,6 | 3,6 | 2,5 |

## Technische Daten

### Eigenschaften

| | | |
|---|---|---|
| Nennspannung | | 320 V |
| Nennstrom | | 4 A |
| Max. Umgebungstemperatur | | T85 |
| Abisolierlänge | | 8,0 + 1,0 mm |
| Klemmbereich | Horizontal | 0,2 - 0,5 mm² eindrähtig |
| | Vertikal | 0,5 mm² eindrähtig |

NEU

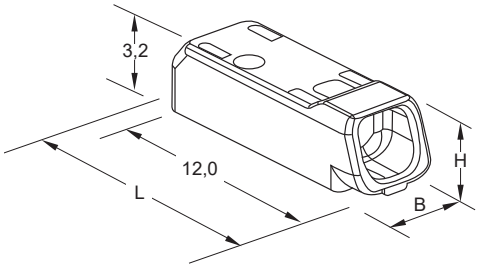
# MPKI-SMD MINIATURISIERTE PRINTKLEMMEN

## Merkmale

- Klemmbereich 0,2 - 0,75 mm²
- für starre und flexible Leiter
- Leiter mittels Stift oder durch Drehen und Ziehen lösbar
- für manuelle und automatische Verdrahtung
- niedrigste Bauhöhe 3,5 mm
- Material: Polycarbonat

## Abmessungen

► Einheit = mm
Einheit




| Typ | L (mm) | B (mm) | H (mm) |
|---|---|---|---|
| MPKI1-SMD | 13,1 | 3,9 | 3,5 |
| MPKI2-SMD | 13,1 | 7,9 | 3,5 |

## Technische Daten

### Eigenschaften

| | | | |
|---|---|---|---|
| Nennspannung | MPKI1-SMD | 1 POL | 600 V |
| | MPKI2-SMD | 2 POL | 320 V |
| Nennstrom | | | 6 A |
| Max. Umgebungstemperatur | | | T105 |
| Abisolierlänge | | | 8,0 + 1,0 mm |
| Klemmbereich | | | 0,2 - 0,75 mm² |

# MPKIP-SMD MINIATURISIERTE PRINTKLEMMEN

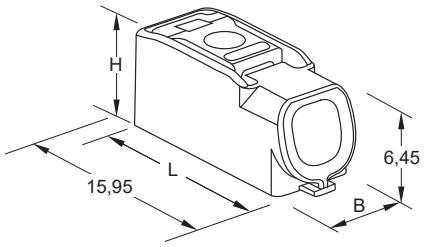
NEU

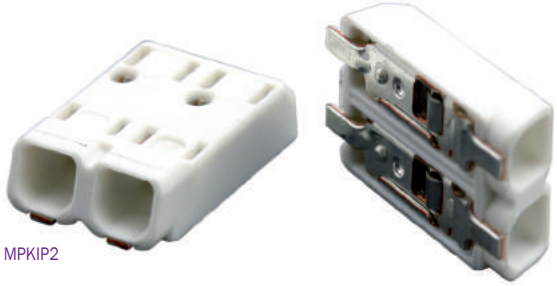
## Merkmale

- Klemmbereich 0,5 - 2,5 mm²
- für starre und flexible Leiter
- Leiter einfach mit Drücker lösbar
- für manuelle und automatische Verdrahtung
- intern gebrückte Variante verfügbar*
- Testöffnung auf der Oberseite
- Material: Polycarbonat

MPKIP1

## Abmessungen ► Einheit = mm



MPKIP2

| Typ | L (mm) | B (mm) | H (mm) |
|---|---|---|---|
| **MPKIP1-SMD** | 15,2 | 5,9 | 7,0 |
| **MPKIP3-SMD** | 15,2 | 17,9 | 7,0 |
| **MPKIP2-SMD** | 15,2 | 11,9 | 7,0 |
| **MPKIP2C-SMD*** | 15,2 | 11,9 | 7,0 |

## Technische Daten

### Eigenschaften

| | | | |
|---|---|---|---|
| Nennspannung | MPKIP1-SMD | 1 POL | 500 V |
| | MPKIP2C-SMD | 2C | 500 V |
| | MPKIP2-SMD | 2 POL | 400 V |
| | MPKIP3-SMD | 3 POL | 400 V |
| Nennstrom | | | 16 A |
| Max. Umgebungstemperatur | | | T85 |
| Abisolierlänge | | | 9,0 + 1,0 mm |
| Klemmbereich | | | 0,5 - 2,5 mm² |

Notizen

# KABELBEFESTIGUNG

**Kabelbinder** Seite 178 - 188

**Spannwerkzeuge für Kabelbinder** Seite 189 - 190

**Befestigungssockel für Kabelbinder** Seite 191 - 196

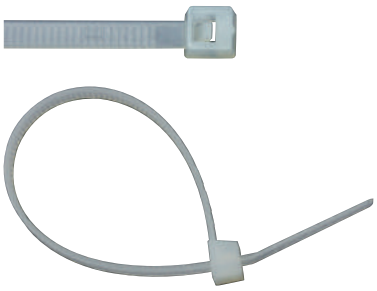
**Kabelhalter**

- Steckmontage Seite 197 - 220
- Klebemontage Seite 221 - 232
- Schraub- und Nietmontage Seite 233 - 237
- Sonstige Seite 238 - 239

**Flachbandkabelhalter**

- Steckmontage Seite 240 - 247
- Klebemontage Seite 248 - 253
- Sonstige Seite 254

# KB-N KABELBINDER

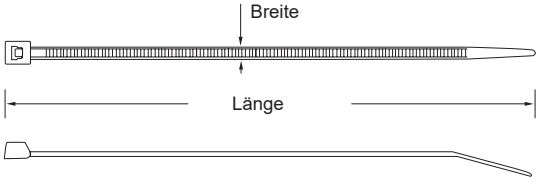


Merkmale:

- Kabelbinder für den Einsatz im Innenbereich
- Einsatztemperatur: -40 °C bis +85 °C → kurzzeitig: +110 °C
- Verarbeitungstemperatur: -10 °C bis +60 °C
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | min. Bündel Ø (mm) | max. Bündel Ø (mm) | Zugkraft (kg) | Zugkraft (N) | VPE |
|---|---|---|---|---|---|---|---|---|
| 201 22 075 | KB2,2x75N | 75,0 | 2,2 | 0,75 | 15,0 | 6,12 | 60,0 | 100 |
| 200 22 075 | KB2,2x75N | 75,0 | 2,2 | 0,75 | 15,0 | 6,12 | 60,0 | 1.000 |
| 201 25 088 | KB2,5x88N | 88,0 | 2,5 | 1,0 | 18,0 | 8,16 | 80,0 | 100 |
| 200 25 088 | KB2,5x88N | 88,0 | 2,5 | 1,0 | 18,0 | 8,16 | 80,0 | 1.000 |
| 201 25 098 | KB2,5x98N | 98,0 | 2,5 | 1,0 | 21,0 | 8,16 | 80,0 | 100 |
| 200 25 098 | KB2,5x98N | 98,0 | 2,5 | 1,0 | 21,0 | 8,16 | 80,0 | 1.000 |
| 200 25 100 | KB2,5x100N | 100,0 | 2,5 | 1,0 | 22,0 | 8,1 | 80,0 | 1.000 |
| 201 26 130 | KB2,5x135N | 135,0 | 2,5 | 1,0 | 32,0 | 8,16 | 80,0 | 100 |
| 200 26 130 | KB2,5x135N | 135,0 | 2,5 | 1,0 | 32,0 | 8,16 | 80,0 | 1.000 |
| 200 25 160 | KB2,5x160N | 160,0 | 2,5 | 1,0 | 40,0 | 8,16 | 80,0 | 1.000 |
| 201 26 160 | KB2,6x160N | 160,0 | 2,6 | 1,0 | 40,0 | 8,16 | 80,0 | 100 |
| 201 26 200 | KB2,6x200N | 200,0 | 2,6 | 1,0 | 52,0 | 8,16 | 80,0 | 100 |
| 200 26 200 | KB2,6x200N | 200,0 | 2,6 | 1,0 | 52,0 | 8,16 | 80,0 | 100 |
| 200 35 150 | KB3,5x150N | 150,0 | 3,5 | 1,0 | 36,0 | 11,22 | 110,0 | 1.000 |
| 201 36 140 | KB3,6x140N | 140,0 | 3,6 | 2,0 | 35,0 | 13,26 | 130,0 | 100 |
| 200 36 140 | KB3,6x140N | 140,0 | 3,6 | 2,0 | 35,0 | 13,26 | 130,0 | 1.000 |
| 200 36 141 | KB3,6x140N | 140,0 | 3,6 | 2,0 | 33,0 | 18,2 | 180,0 | 1.000 |
| 201 36 200 | KB3,6x200N | 200,0 | 3,6 | 2,0 | 50,0 | 13,26 | 130,0 | 100 |
| 200 36 200 | KB3,6x200N | 200,0 | 3,6 | 2,0 | 50,0 | 13,26 | 130,0 | 1.000 |
| 201 36 290 | KB3,6x290N | 290,0 | 3,6 | 2,0 | 80,0 | 13,26 | 130,0 | 100 |
| 200 36 290 | KB3,6x290N | 290,0 | 3,6 | 2,0 | 80,0 | 13,26 | 130,0 | 1.000 |
| 200 36 370 | KB3,6x370N | 370,0 | 3,6 | 2,0 | 103,0 | 13,26 | 130,0 | 100 |
| 201 45 160 | KB4,5x160N | 160,0 | 4,5 | 2,5 | 40,0 | 22,44 | 220,0 | 100 |
| 200 45 160 | KB4,5x160N | 160,0 | 4,5 | 2,5 | 40,0 | 22,44 | 220,0 | 1.000 |
| 201 48 120 | KB4,5x120N | 120,0 | 4,8 | 2,5 | 24,0 | 22,44 | 220,0 | 100 |
| 200 48 120 | KB4,5x120N | 120,0 | 4,8 | 2,5 | 24,0 | 22,44 | 220,0 | 1.000 |
| 201 48 178 | KB4,8x178N | 178,0 | 4,8 | 2,0 | 45,0 | 22,44 | 220,0 | 100 |
| 200 48 178 | KB4,8x178N | 178,0 | 4,8 | 2,0 | 45,0 | 22,44 | 220,0 | 1.000 |
| 201 48 200 | KB4,8x200N | 200,0 | 4,8 | 3,0 | 50,0 | 22,44 | 220,0 | 100 |
| 200 48 200 | KB4,8x200N | 200,0 | 4,8 | 3,0 | 50,0 | 22,44 | 220,0 | 1.000 |
| 200 48 290 | KB4,8x290N | 290,0 | 4,8 | 3,5 | 79,0 | 22,44 | 540,0 | 100 |
| 200 48 360 | KB4,8x360N | 360,0 | 4,8 | 3,5 | 103,0 | 22,44 | 540,0 | 100 |
| 200 48 390 | KB4,8x390N | 390,0 | 4,8 | 3,5 | 106,0 | 22,44 | 540,0 | 100 |
| 200 48 430 | KB4,8x430N | 430,0 | 4,8 | 3,5 | 115,0 | 22,44 | 540,0 | 100 |
| 200 76 150 | KB7,6x150N | 150,0 | 7,6 | 2,5 | 35,0 | 54,0 | 540,0 | 100 |
| 200 78 180 | KB7,8x180N | 180,0 | 7,8 | 3,5 | 45,0 | 55,0 | 540,0 | 100 |
| 200 78 240 | KB7,8x240N | 240,0 | 7,8 | 3,5 | 63,0 | 55,0 | 540,0 | 100 |
| 200 78 300 | KB7,8x300N | 300,0 | 7,8 | 4,0 | 80,0 | 55,0 | 540,0 | 100 |
| 200 78 365 | KB7,8x365N | 365,0 | 7,8 | 8,0 | 100,0 | 55,0 | 540,0 | 100 |
| 200 78 450 | KB7,8x450N | 450,0 | 7,8 | 35,0 | 130,0 | 55,0 | 540,0 | 100 |
| 200 78 540 | KB7,8x540N | 540,0 | 7,8 | 35,0 | 158,0 | 55,0 | 540,0 | 100 |
| 200 78 750 | KB7,8x750N | 750,0 | 7,8 | 35,0 | 220,0 | 55,0 | 540,0 | 100 |
| 200 90 780 | KB9,0x780N | 780,0 | 9,0 | 32,0 | 233,0 | 71,4 | 700,0 | 100 |
| 200 126 500 | KB12,6x500N | 500,0 | 12,6 | 30,0 | 143,0 | 110,0 | 1.080,0 | 50 |
| 200 126 850 | KB12,6x850N | 850,0 | 12,6 | 40,0 | 255,0 | 110,0 | 1.080,0 | 50 |
| 200 126 1000 | KB12,6x1000N | 1.000,0 | 12,6 | 40,0 | 302,0 | 110,0 | 1.080,0 | 50 |

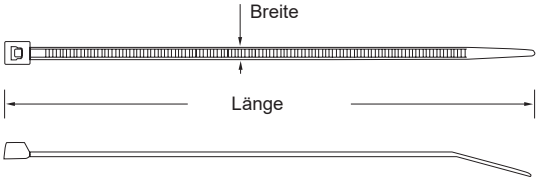
# KB-S KABELBINDER

Merkmale:

- Kabelbinder für den Einsatz im Aussenbereich, UV-beständig
- Einsatztemperatur: -40 °C bis +85 °C → kurzzeitig: +110 °C
- Verarbeitungstemperatur: -10 °C bis +60 °C
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | min. Bündel Ø (mm) | max. Bündel Ø (mm) | Zugkraft (kg) | Zugkraft (N) | VPE |
|---|---|---|---|---|---|---|---|---|
| 203 22 075 | KB2,2x75S | 75,0 | 2,2 | 0,75 | 15,0 | 6,12 | 60,0 | 100 |
| 202 22 075 | KB2,2x75S | 75,0 | 2,2 | 0,75 | 15,0 | 6,12 | 60,0 | 1.000 |
| 203 25 088 | KB2,5x88S | 88,0 | 2,5 | 1,0 | 18,0 | 8,16 | 80,0 | 100 |
| 202 25 088 | KB2,5x88S | 88,0 | 2,5 | 1,0 | 18,0 | 8,16 | 80,0 | 1.000 |
| 203 25 098 | KB2,5x98S | 98,0 | 2,5 | 1,0 | 21,0 | 8,16 | 80,0 | 100 |
| 202 25 098 | KB2,5x98S | 98,0 | 2,5 | 1,0 | 21,0 | 8,16 | 80,0 | 1.000 |
| 203 26 130 | KB2,5x135S | 135,0 | 2,5 | 1,0 | 32,0 | 8,16 | 80,0 | 100 |
| 202 26 130 | KB2,5x135S | 135,0 | 2,5 | 1,0 | 32,0 | 8,16 | 80,0 | 1.000 |
| 203 26 200 | KB2,6x200S | 200,0 | 2,6 | 1,0 | 52,0 | 8,16 | 80,0 | 100 |
| 202 26 200 | KB2,6x200S | 200,0 | 2,6 | 1,0 | 52,0 | 8,16 | 80,0 | 100 |
| 203 29 160 | KB2,6x160S | 160,0 | 2,6 | 1,0 | 40,0 | 8,16 | 80,0 | 100 |
| 202 29 160 | KB2,6x160S | 160,0 | 2,6 | 1,0 | 40,0 | 8,16 | 80,0 | 1.000 |
| 203 36 140 | KB3,6x140S | 140,0 | 3,6 | 2,0 | 35,0 | 13,26 | 130,0 | 100 |
| 202 36 140 | KB3,6x140S | 140,0 | 3,6 | 2,0 | 35,0 | 13,26 | 130,0 | 1.000 |
| 203 36 200 | KB3,6x200S | 200,0 | 3,6 | 2,0 | 50,0 | 13,26 | 130,0 | 100 |
| 202 36 200 | KB3,6x200S | 200,0 | 3,6 | 2,0 | 50,0 | 13,26 | 130,0 | 1.000 |
| 203 36 290 | KB3,6x290S | 290,0 | 3,6 | 2,0 | 80,0 | 13,26 | 130,0 | 100 |
| 202 36 290 | KB3,6x290S | 290,0 | 3,6 | 2,0 | 80,0 | 13,26 | 130,0 | 1.000 |
| 202 36 370 | KB3,6x370S | 370,0 | 3,6 | 2,0 | 103,0 | 13,26 | 130,0 | 100 |
| 203 45 160 | KB4,5x160S | 160,0 | 4,5 | 2,5 | 40,0 | 22,44 | 220,0 | 100 |
| 202 45 160 | KB4,5x160S | 160,0 | 4,5 | 2,5 | 40,0 | 22,44 | 220,0 | 1.000 |
| 203 48 120 | KB4,5x120S | 120,0 | 4,5 | 2,5 | 24,0 | 22,44 | 220,0 | 100 |
| 202 48 120 | KB4,5x120S | 120,0 | 4,5 | 2,5 | 24,0 | 22,44 | 220,0 | 1.000 |
| 203 48 178 | KB4,8x178S | 178,0 | 4,8 | 2,0 | 45,0 | 22,44 | 220,0 | 100 |
| 202 48 178 | KB4,8x178S | 178,0 | 4,8 | 2,0 | 45,0 | 22,44 | 220,0 | 1.000 |
| 203 48 200 | KB4,8x200S | 200,0 | 4,8 | 3,0 | 50,0 | 22,44 | 220,0 | 100 |
| 202 48 200 | KB4,8x200S | 200,0 | 4,8 | 3,0 | 50,0 | 22,44 | 220,0 | 1.000 |
| 202 48 290 | KB4,8x290S | 290,0 | 4,8 | 3,5 | 79,0 | 22,44 | 220,0 | 100 |
| 202 48 360 | KB4,8x360S | 360,0 | 4,8 | 3,5 | 103,0 | 22,44 | 220,0 | 100 |
| 202 48 390 | KB4,8x390S | 390,0 | 4,8 | 3,5 | 106,0 | 22,44 | 220,0 | 100 |
| 202 48 430 | KB4,8x430S | 430,0 | 4,8 | 3,5 | 115,0 | 22,44 | 220,0 | 100 |
| 202 76 150 | KB7,6x150S | 150,0 | 7,6 | 2,0 | 35,0 | 54,0 | 540,0 | 100 |
| 202 78 180 | KB7,8x180S | 180,0 | 7,8 | 3,5 | 45,0 | 55,0 | 540,0 | 100 |
| 202 78 240 | KB7,8x240S | 240,0 | 7,8 | 3,5 | 63,0 | 55,0 | 540,0 | 100 |
| 202 78 300 | KB7,8x300S | 300,0 | 7,8 | 4,0 | 80,0 | 55,0 | 540,0 | 100 |
| 202 78 365 | KB7,8x365S | 365,0 | 7,8 | 8,0 | 100,0 | 55,0 | 540,0 | 100 |
| 202 78 450 | KB7,8x450S | 450,0 | 7,8 | 35,0 | 130,0 | 55,0 | 540,0 | 100 |
| 202 78 540 | KB7,8x540S | 540,0 | 7,8 | 35,0 | 158,0 | 55,0 | 540,0 | 100 |
| 202 78 750 | KB7,8x750S | 750,0 | 7,8 | 35,0 | 220,0 | 55,0 | 540,0 | 100 |
| 202 90 780 | KB9,0x780S | 780,0 | 9,0 | 32,0 | 233,0 | 71,4 | 700,0 | 100 |
| 202 126 225 | KB12,6x225S | 225,0 | 12,6 | 7,5 | 57,0 | 110,0 | 1.080,0 | 50 |
| 202 126 480 | KB12,6x480S | 480,0 | 12,6 | 30,0 | 143,0 | 110,0 | 1.080,0 | 50 |
| 202 126 720 | KB12,6x720S | 720,0 | 12,6 | 30,0 | 213,0 | 110,0 | 1.080,0 | 50 |
| 202 126 850 | KB12,6x850S | 850,0 | 12,6 | 40,0 | 255,0 | 110,0 | 1.080,0 | 50 |
| 202 90 920 | KB9,0x920S | 920,0 | 8,8 | 9,0 | 280,0 | 80,0 | 800,0 | 100 |
| 202 126 1000 | KB12,6x1000S | 1.000,0 | 12,6 | 40,0 | 302,0 | 110,0 | 1.080,0 | 50 |

NEU

# KB-MZ KABELBINDER MIT METALLZUNGE

Merkmale

- zum Bündeln und Befestigen von Kabeln, Leitungen etc.
- Verschlusskopf mit Metallzunge aus antimagnetischem, korrosionsbeständigem V4A-Stahl
- durch extra breite Stahlverschlüsse werden noch höhere Zugkraftwerte erreicht
- halogen- und silikonfrei
- Temperaturbeständigkeit: -40 °C bis +85 °C
- Farbe: natur oder schwarz (UV-stabilisiert)
- Material: PA 6.6., UL94-V2

| Art.-Nr. | Farbe | Typ | Breite (mm) | Länge (mm) | Bündel Ø (mm) | Mindestzugfestigkeit (N) |
|---|---|---|---|---|---|---|
| 205 25 100 | natur | KB2,5x100MZN | 2,5 | 100 | 1,6 - 24,0 | 180 |
| 205 25 100 S | schwarz | KB2,5x100MZS | 2,5 | 100 | 1,6 - 24,0 | 180 |
| 205 25 160 | natur | KB2,5x160MZN | 2,5 | 160 | 3,0 - 39,8 | 180 |
| 205 25 160 S | schwarz | KB2,5x160MZS | 2,5 | 160 | 3,0 - 39,8 | 180 |
| 205 25 200 | natur | KB2,5x200MZN | 2,5 | 200 | 1,6 - 55,0 | 180 |
| 205 25 200 S | schwarz | KB2,5x200MZS | 2,5 | 200 | 1,6 - 55,0 | 180 |
| 205 35 140 | natur | KB3,5x140MZN | 3,5 | 140 | 1,6 - 36,0 | 280 |
| 205 35 140 S | schwarz | KB3,5x140MZS | 3,5 | 140 | 1,6 - 36,0 | 280 |
| 205 35 200 | natur | KB3,5x200MZN | 3,5 | 200 | 1,6 - 55,0 | 280 |
| 205 35 200 S | schwarz | KB3,5x200MZS | 3,5 | 200 | 1,6 - 55,0 | 280 |
| 205 36 141 | natur | KB3,6x140MHN | 3,6 | 140 | 3,5 - 33,0 | 250 |
| 205 36 141 S | schwarz | KB3,6x140MHS | 3,6 | 140 | 3,5 - 33,0 | 250 |
| 205 36 200 | natur | KB3,6x200MHN | 3,6 | 200 | 3,5 - 52,5 | 250 |
| 205 36 200 S | schwarz | KB3,6x200MHS | 3,6 | 200 | 3,5 - 52,5 | 250 |
| 206 36 300 | natur | KB3,6x300MHN | 3,6 | 300 | 3,5 - 84,0 | 250 |
| 206 36 300 S | schwarz | KB3,6x300MHS | 3,6 | 300 | 3,5 - 84,0 | 250 |
| 206 36 370 | natur | KB3,6x370MHN | 3,6 | 370 | 3,5 - 106,0 | 250 |
| 206 36 370 S | schwarz | KB3,6x370MHS | 3,6 | 370 | 3,5 - 106,0 | 250 |
| 205 45 186 | natur | KB4,5x186MZN | 4,5 | 186 | 1,6 - 51,0 | 400 |
| 205 45 186 S | schwarz | KB4,5x186MZS | 4,5 | 186 | 1,6 - 51,0 | 400 |
| 205 45 290 | natur | KB4,5x290MZN | 4,5 | 290 | 1,6 - 76,0 | 400 |
| 205 45 290 S | schwarz | KB4,5x290MZS | 4,5 | 290 | 1,6 - 76,0 | 400 |
| 205 45 360 | natur | KB4,5x360MZN | 4,5 | 360 | 1,6 - 101,0 | 400 |
| 205 45 360 S | schwarz | KB4,5x360MZS | 4,5 | 360 | 1,6 - 101,0 | 400 |
| 205 48 200 | natur | KB4,8x200MHN | 4,8 | 200 | 3,5 - 49,5 | 360 |
| 205 48 200 S | schwarz | KB4,8x200MHS | 4,8 | 200 | 3,5 - 49,5 | 360 |
| 205 48 250 | natur | KB4,8x250MHN | 4,8 | 250 | 3,5 - 65,0 | 360 |
| 205 48 250 S | schwarz | KB4,8x250MHS | 4,8 | 250 | 3,5 - 65,0 | 360 |
| 205 48 300 | natur | KB4,8x300MHN | 4,8 | 300 | 3,5 - 81,0 | 360 |
| 205 48 300 S | schwarz | KB4,8x300MHS | 4,8 | 300 | 3,5 - 81,0 | 360 |
| 205 48 370 | natur | KB4,8x370MHN | 4,8 | 370 | 3,5 - 103,5 | 360 |
| 205 48 370 S | schwarz | KB4,8x370MHS | 4,8 | 370 | 3,5 - 103,5 | 360 |
| 205 76 220 | natur | KB7,6x220MHN | 7,6 | 220 | 8,5 - 57,2 | 780 |
| 205 76 220 S | schwarz | KB7,6x220MHS | 7,6 | 220 | 8,5 - 57,2 | 780 |
| 205 76 300 | natur | KB7,6x300MHN | 7,6 | 300 | 8,5 - 82,8 | 780 |
| 205 76 300 S | schwarz | KB7,6x300MHS | 7,6 | 300 | 8,5 - 82,8 | 780 |
| 205 76 370 | natur | KB7,6x370MHN | 7,6 | 370 | 8,5 - 103,5 | 780 |
| 205 76 370 S | schwarz | KB7,6x370MHS | 7,6 | 370 | 8,5 - 103,5 | 780 |
| 205 76 360 | natur | KB7,6x360MZN | 7,6 | 360 | 8,5 - 101,0 | 780 |
| 205 76 360 S | schwarz | KB7,6x360MZS | 7,6 | 360 | 8,5 - 101,0 | 780 |
| 205 76 460 | natur | KB7,6x460MZN | 7,6 | 460 | 8,5 - 130,5 | 780 |
| 205 76 460 S | schwarz | KB7,6x460MZS | 7,6 | 460 | 8,5 - 130,5 | 780 |
| 205 76 620 | natur | KB7,6x620MZN | 7,6 | 620 | 8,5 - 181,5 | 780 |
| 205 76 620 S | schwarz | KB7,6x620MZS | 7,6 | 620 | 8,5 - 181,5 | 780 |

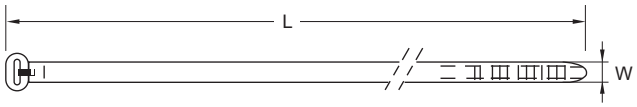
# TY-RAP KABELBINDER

NEU

## Merkmale

- zum Bündeln und Befestigen von Kabeln, Leitungen etc.
- UV-beständige und hitzestabilisiertere Version, speziell für Installation im Außenbereich in schwarz erhältlich (bis +150°C)
- Verriegelungsnase aus antimagnetischem, korrosionsbeständigem Stahl Typ 316
- Temperaturbeständigkeit: -40°C bis +85°C
- Material: Polyamid 6.6
- Farbe: natur, schwarz (UV-beständig)

## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Typ | Länge (mm) | Breite (mm) | Stärke (mm) | Bündel Ø von ... bis (mm) | min. Zugfestigkeit (N) |
|---|---|---|---|---|---|---|---|
| **205 24 092** | TY23M | natur | 92 | 2,4 | 1,0 | 2,0 - 16,0 | 80 |
| **205 24 092 S** | TY23MX | schwarz | 92 | 2,4 | 1,0 | 2,0 - 16,0 | 80 |
| **205 24 200** | TY232M | natur | 203 | 2,4 | 1,0 | 2,0 - 50,0 | 80 |
| **205 36 140** | TY24M | natur | 140 | 3,6 | 1,1 | 2,0 -29,0 | 180 |
| **250 36 140 S** | TY24MX | schwarz | 140 | 3,6 | 1,1 | 2,0 - 29,0 | 180 |
| **205 36 208** | TY242M | natur | 204 | 3,6 | 1,1 | 2,0 - 50,0 | 180 |
| **205 36 281** | TY26M | natur | 284 | 3,6 | 1,1 | 2,0 - 76,0 | 130 |
| **205 36 281 S** | TY26MX | schwarz | 284 | 3,6 | 1,1 | 2,0 - 76,0 | 130 |
| **205 48 186** | TY25M | natur | 186 | 4,8 | 1,3 | 3,5 - 45,0 | 220 |
| **205 48 186 S** | TY25MX | schwarz | 186 | 4,8 | 1,3 | 3,5 - 45,0 | 220 |
| **205 48 293** | TY253M | natur | 295 | 4,8 | 1,3 | 3,5 - 78,0 | 220 |
| **205 48 293 S** | TY253MX | schwarz | 295 | 4,8 | 1,3 | 3,5 - 78,0 | 220 |
| **205 48 360** | TY28M | natur | 361 | 4,8 | 1,4 | 3,5 - 102,0 | 220 |
| **205 48 360 S** | TY28MX | schwarz | 361 | 4,8 | 1,4 | 3,5 - 102,0 | 220 |
| **205 76 338** | TY27M | natur | 340 | 6,9 | 1,6 | 6,0 - 90,0 | 540 |
| **205 76 338 S** | TY27MX | schwarz | 340 | 6,9 | 1,6 | 6,0 - 90,0 | 540 |

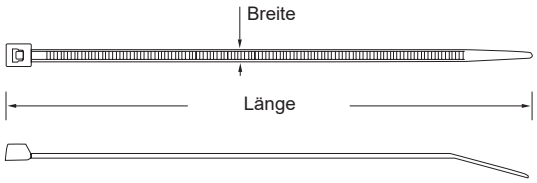
# KB-H KABELBINDER HITZESTABIL

Merkmale

- Kabelbinder kurzzeitig hitzestabil bis +145 °C
- Einsatztemperatur: -40 °C bis +125 °C
- Material: Nylon 66, UL94V-2
- Farbe: natur oder schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | min. Bündel Ø (mm) | max. Bündel Ø (mm) | Zugkraft (kg) | Zugkraft (N) | Farbe |
|---|---|---|---|---|---|---|---|---|
| 201 25 098 H | KB2,5x98NH | 98,0 | 2,5 | 1,0 | 21,0 | 8,16 | 80,0 | natur |
| 203 25 098 H | KB2,5x98SH | 98,0 | 2,5 | 1,0 | 21,0 | 8,16 | 80,0 | schwarz |
| 201 36 140 H | KB3,6x140NH | 140,0 | 3,6 | 2,0 | 35,0 | 13,26 | 130,0 | natur |
| 203 36 140 H | KB3,6x140SH | 140,0 | 3,6 | 2,0 | 35,0 | 13,26 | 130,0 | schwarz |
| 201 36 200 H | KB3,6x200NH | 200,0 | 3,6 | 2,0 | 50,0 | 13,26 | 130,0 | natur |
| 203 36 200 H | KB3,6x200SH | 200,0 | 3,6 | 2,0 | 50,0 | 13,26 | 130,0 | schwarz |
| 201 48 200 H | KB4,8x200NH | 200,0 | 4,8 | 3,0 | 50,0 | 22,44 | 220,0 | natur |
| 203 48 200 H | KB4,8x200SH | 200,0 | 4,8 | 3,0 | 50,0 | 22,44 | 220,0 | schwarz |
| 200 48 290 H | KB4,8x290NH | 290,0 | 4,8 | 3,5 | 79,0 | 22,44 | 220,0 | natur |
| 202 48 290 H | KB4,8x290SH | 290,0 | 4,8 | 3,5 | 79,0 | 22,44 | 220,0 | schwarz |
| 200 78 365 H | KB7,8x365NH | 365,0 | 7,8 | 8,0 | 100,0 | 55,0 | 540,0 | natur |
| 202 78 365 H | KB7,8x365SH | 365,0 | 7,8 | 8,0 | 100,0 | 55,0 | 540,0 | schwarz |

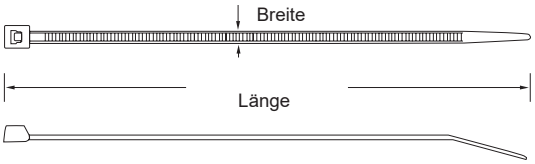
# KB-UV KABELBINDER UV-BESTÄNDIG

Merkmale

- Kabelbinder speziell für den Einsatz im Aussenbereich - bis zu 10 Jahre beständig gegen UV-Licht
- Einsatztemperatur: -40 °C bis +105 °C
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm

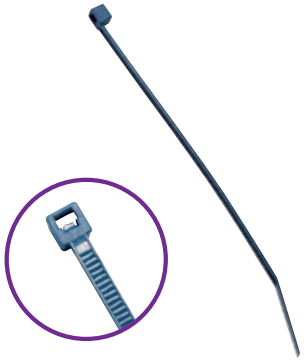



| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | min. Bündel Ø (mm) | max. Bündel Ø (mm) | Zugkraft (kg) | Zugkraft (N) |
|---|---|---|---|---|---|---|---|
| 203 25 098 UV | KB2,5x98NUV | 98,0 | 2,5 | 1,0 | 21,0 | 8,16 | 80,0 |
| 203 36 140 UV | KB3,6x140NUV | 140,0 | 3,6 | 2,0 | 35,0 | 13,26 | 130,0 |
| 203 36 200 UV | KB3,6x200NUV | 200,0 | 3,6 | 2,0 | 50,0 | 13,26 | 130,0 |
| 203 48 200 UV | KB4,8x200NUV | 200,0 | 4,8 | 3,0 | 50,0 | 22,44 | 220,0 |
| 202 48 290 UV | KB4,8x290NUV | 290,0 | 4,8 | 3,5 | 79,0 | 22,44 | 220,0 |
| 202 78 365 UV | KB7,8x365NUV | 365,0 | 7,8 | 8,0 | 100,0 | 55,00 | 540,0 |

# KB-DT KABELBINDER

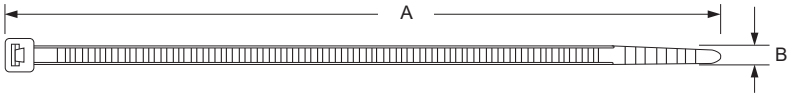
Merkmale

- detektierbarer (wiederauffindbarer) Kabelbinder - Metallpigmente im gesamten Band lokalisierbar
- besonders geeignet für die Anwendung in der pharmazeutischen und chemischen Industrie, sowie in Lebensmittel- und Tierfutterprodukten, zum Verschließen von Transportbehältern, Gebinden und Säcken und auch zur Installation von Produktionsanlagen
- hervorragende Lösung zur Reduzierung von Produktverunreinigungen - verwendbar im Rahmen des HACCP-Prozesses
- Farbe: blau ( = sorgt gleichzeitig für gute Erkennbarkeit)
- Material: PA 6.6 mit Eisenoxidanteilen, halogenfrei, silikonfrei
- Einsatztemperatur: -40 °C bis +85 °C
- Brennbarkeitsklasse: UL94-HB



Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | B (mm) | A (mm) | Bündel Ø min. (mm) | Bündel Ø max. (mm) | Zugkraft (N) |
|---|---|---|---|---|---|---|
| 201 25 098 DT | KB2,5x98DT | 2,5 | 98,0 | 1,0 | 21,0 | 80,0 |
| 201 35 140 DT | KB3,5x140DT | 3,5 | 140,0 | 2,0 | 35,0 | 130,0 |
| 201 35 200 DT | KB3,5x200DT | 3,5 | 200,0 | 3,0 | 50,0 | 130,0 |
| 201 45 200 DT | KB4,5x200DT | 4,8 | 200,0 | 3,0 | 50,0 | 220,0 |
| 201 45 290 DT | KB4,5x290DT | 4,5 | 290,0 | 3,0 | 79,0 | 220,0 |
| 201 45 360 DT | KB4,5x360DT | 4,5 | 360,0 | 3,0 | 100,0 | 220,0 |
| 201 75 365 DT | KB7,5x365DT | 7,5 | 365,0 | 8,0 | 100,0 | 540,0 |

# KB2T KABELBINDER

NEU

Merkmale

- zur Kantenbefestigung, 2-teilig mit Kanten-Clip
- der Kopf des Binders kann in optimale Bündelposition gebracht werden
- für Kanten von 1,0 - 3,0 mm
- Einsatztemperatur: -40 °C bis +85 °C
- Material: Polyamid 6.6, UL94V-2-UV-stabilisiert
- Farbe: schwarz

| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | min. Bündel Ø (mm) | max. Bündel Ø (mm) | Zugkraft (N) |
|---|---|---|---|---|---|---|
| 207 10 02 | KB2T-4,8x200 | 200 | 4,8 | 3,5 | 49,5 | 230,0 |
| 207 10 03 | KB2T-4,8x280 | 280 | 4,8 | 3,5 | 74,8 | 230,0 |
| 207 10 04 | KB2T-4,8x360 | 360 | 4,8 | 3,5 | 100,0 | 230,0 |

# ESB-KV EDELSTAHLBINDER

Merkmale

- mit Kugelverschluss
- beständig gegen hohe Temperaturen, Chemikalien, feuerfest
- Material: Edelstahl 304 (1.4301)

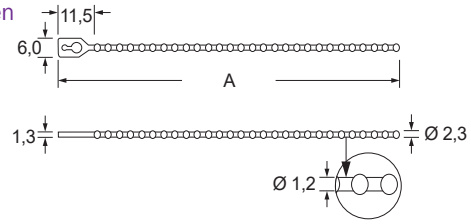
| Art.-Nr. | Typ | Breite (mm) | Länge (mm) | Bündel Ø max. (mm) | Zugkraft (kg) | VPE |
|---|---|---|---|---|---|---|
| 208 46 125 | ESB4,6x125KV | 4,6 | 125,0 | 25,0 | 55,0 | 100 |
| 208 46 150 | ESB4,6x150KV | 4,6 | 150,0 | 44,0 | 55,0 | 100 |
| 208 46 200 | ESB4,6x200KV | 4,6 | 200,0 | 51,0 | 55,0 | 100 |
| 208 46 260 | ESB4,6x260KV | 4,6 | 260,0 | 69,0 | 55,0 | 100 |
| 208 46 290 | ESB4,6x290KV | 4,6 | 290,0 | 75,0 | 55,0 | 100 |
| 208 46 360 | ESB4,6x360KV | 4,6 | 360,0 | 102,0 | 55,0 | 100 |
| 208 46 520 | ESB4,6x520KV | 4,6 | 520,0 | 152,0 | 55,0 | 100 |
| 208 46 680 | ESB4,6x680KV | 4,6 | 6800 | 203,0 | 55,0 | 50 |
| 208 46 840 | ESB4,6x840KV | 4,6 | 840,0 | 254,0 | 55,0 | 50 |
| 208 79 200 | ESB7,9x200KV | 7,9 | 200,0 | 51,0 | 120,0 | 100 |
| 208 79 290 | ESB7,9x290KV | 7,9 | 290,0 | 75,0 | 120,0 | 100 |
| 208 79 360 | ESB7,9x360KV | 7,9 | 360,0 | 102,0 | 120,0 | 100 |
| 208 79 520 | ESB7,9x520KV | 7,9 | 520,0 | 152,0 | 120,0 | 100 |
| 208 79 680 | ESB7,9x680KV | 7,9 | 680,0 | 203,0 | 120,0 | 50 |
| 208 79 840 | ESB7,9x840KV | 7,9 | 840,0 | 254,0 | 120,0 | 50 |
| 208 12 360 | ESB12,3x360KV | 12,3 | 360,0 | 51,0 | 220,0 | 100 |
| 208 12 520 | ESB12,3x520KV | 12,3 | 520,0 | 102,0 | 220,0 | 100 |
| 208 12 680 | ESB12,3x680KV | 12,3 | 680,0 | 152,0 | 220,0 | 50 |
| 208 12 840 | ESB12,3x840KV | 12,3 | 840,0 | 203,0 | 220,0 | 50 |

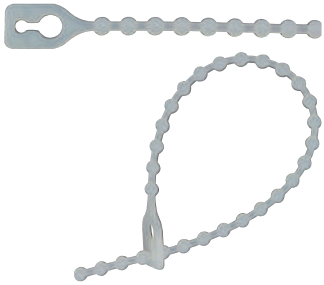
# PKB PERLEN-KABELBINDER

Merkmale:

- Perlen-Kabelbinder, wiederlösbar / wiederverwendbar
- Material: Nylon 66, UL94V-2 • Farbe: natur, schwarz

Abmessungen
► Einheit = mm



| Art.-Nr. | Typ | Farbe | A (mm) |
|---|---|---|---|
| 204 23 070 | PKB-70 | schwarz | 70,0 |
| 204 23 107 | PKB-100 | natur | 107,0 |

# KL KLETTBINDER

Merkmale:

- Klettverschluss haftet in jeder beliebigen Position
- wiederlösbar, wiederverwendbar
- Einsatztemperatur: -20°C bis +55°C
- Material: Nylon
- Farbe: schwarz (Standard), sowie weiss, blau, grün und gelb auf Anfrage

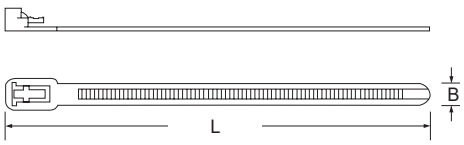
| Art.-Nr. | Typ | Breite (mm) | Länge (mm) | Stärke (mm) | Bündel Ø max. (mm) |
|---|---|---|---|---|---|
| 208 01 130 | KL12,5x130S | 12,5 | 130,0 | 1,70 | 35,0 |
| 208 01 180 | KL12,5x180S | 12,5 | 180,0 | 1,70 | 51,0 |
| 208 01 205 | KL12,5x205S | 12,5 | 205,0 | 1,70 | 59,0 |
| 208 01 300 | KL12,5x300S | 12,5 | 300,0 | 1,70 | 89,0 |
| 208 02 310 | KL17,0x310S | 17,0 | 310,0 | 1,70 | 92,0 |

# KBW KABELBINDER WIEDERLÖSBAR

Merkmale:

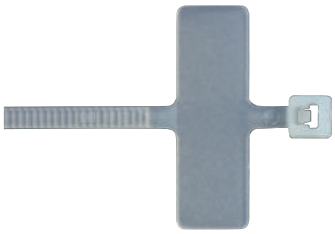
- wiederlösbarer Kabelbinder
- temperaturbeständig von -40°C bis +70°C
- Material: Nylon 66, UL94V-2 • Farbe: schwarz, natur

Abmessungen
► Einheit = mm



| Art.-Nr. | Typ | Farbe | B (mm) | L (mm) |
|---|---|---|---|---|
| 200 76 100 W | KWB7,6x100N | natur | 7,6 | 100,0 |
| 202 76 100 W | KWB7,6x100S | schwarz | 7,6 | 100,0 |
| 200 76 120 W | KWB7,6x120N | natur | 7,6 | 120,0 |
| 202 76 120 W | KWB7,6x120S | schwarz | 7,6 | 120,0 |
| 202 76 150 W | KWB7,6x150S | schwarz | 7,6 | 150,0 |
| 202 76 200 W | KWB7,6x200S | schwarz | 7,6 | 200,0 |
| 200 76 250 W | KWB7,6x250N | natur | 7,6 | 250,0 |
| 202 76 250 W | KWB7,6x250S | schwarz | 7,6 | 250,0 |
| 200 76 300 W | KWB7,6x300N | natur | 7,6 | 300,0 |
| 202 76 300 W | KWB7,6x300S | schwarz | 7,6 | 300,0 |
| 200 76 370 W | KWB7,6x370N | natur | 7,6 | 370,0 |
| 202 76 370 W | KWB7,6x370S | schwarz | 7,6 | 370,0 |

# KBB KABELBINDER MIT BESCHRIFTUNGSFELD

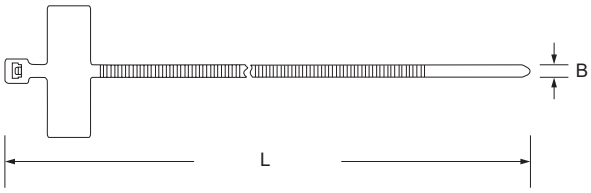


Merkmale

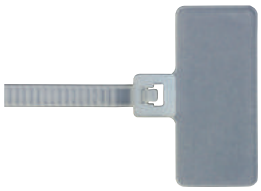
- Größe des Beschriftungsfeldes = 8,0 mm x 25,4 mm
- Material: Nylon 66, UL94V-2
- Farbe: Typ N = natur, Typ S = schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | min. Bündel Ø (mm) | max. Bündel Ø (mm) | Zugkraft (kg) | Zugkraft (N) |
|---|---|---|---|---|---|---|---|
| 206 25 100 | KBB2,5x100N | 100,0 | 2,5 | 6,0 | 20,0 | 8,16 | 80,0 |
| 206 25 100 S | KBB2,5x100S | 100,0 | 2,5 | 6,0 | 20,0 | 8,16 | 80,0 |
| 206 25 200 | KBB2,5x200N | 200,0 | 2,5 | 5,0 | 50,0 | 8,16 | 80,0 |

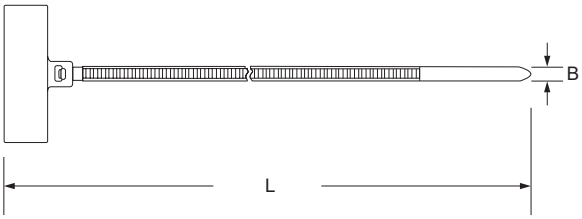


Merkmale

- Größe des Beschriftungsfeldes = 9,1 mm x 20,4 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm



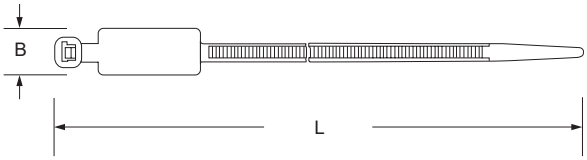

| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | min. Bündel Ø (mm) | max. Bündel Ø (mm) | Zugkraft (kg) | Zugkraft (N) |
|---|---|---|---|---|---|---|---|
| 206 25 110 | KBB2,5x110N | 110,0 | 2,5 | 1,0 | 20,0 | 8,16 | 80,0 |
| 206 25 210 | KBB2,5x210N | 210,0 | 2,5 | 1,0 | 52,0 | 8,16 | 80,0 |

Merkmale

- Größe des Beschriftungsfeldes = 13,0 mm x 28,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | min. Bündel Ø (mm) | max. Bündel Ø (mm) | Zugkraft (kg) | Zugkraft (N) |
|---|---|---|---|---|---|---|---|
| 206 48 188 | KBB4,8x188N | 190,0 | 4,8 | 10,0 | 48,0 | 22,44 | 220,0 |
| 206 48 270 | KBB4,8x270N | 270,0 | 4,8 | 10,0 | 68,0 | 22,44 | 220,0 |

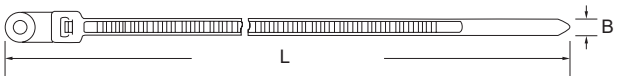
Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# KBÖ KABELBINDER

Merkmale

- mit Befestigungsöse
- Schraub- bzw. Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm



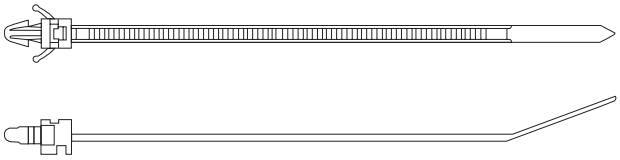

| Art.-Nr. | Typ | Länge (mm) | Breite (mm) | max. Bündel Ø (mm) | Zugkraft max. (kg) | Loch-Ø |
|---|---|---|---|---|---|---|
| 204 25 110 | KBÖ2,5x110N | 110,0 | 2,5 | 18,0 | 8,0 | 3,2 |
| 204 36 150 | KBÖ3,6x150N | 150,0 | 3,6 | 32,0 | 13,0 | 4,0 |
| 204 48 200 | KBÖ4,8x200N | 200,0 | 4,8 | 54,0 | 20,0 | 5,0 |
| 204 48 400 | KBÖ4,8x400N | 406,0 | 4,8 | 115,0 | 20,0 | 5,5 |
| 204 78 200 | KBÖ7,8x200N | 200,0 | 7,8 | 50,0 | 55,0 | 6,5 |
| 204 78 300 | KBÖ7,8x300N | 300,0 | 7,8 | 75,0 | 55,0 | 6,5 |

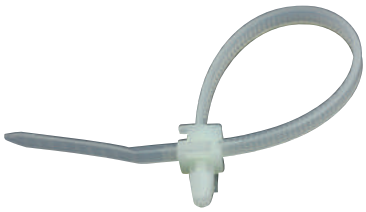
# SG KABELBINDER MIT RASTFUSS

Merkmale

- wiederlösbarer Kabelbinder
- Steckmontage
- Material: Nylon 66, UL94V-0
- Farbe: natur oder schwarz

Abmessungen
► Einheit = mm





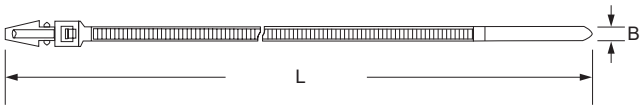
| Art.-Nr. | Typ | Farbe | Länge (mm) | Breite (mm) | Bündel Ø max. | Loch-Ø | Plattenstärke |
|---|---|---|---|---|---|---|---|
| 208 10 13 | SG-130-V0 | schwarz | 130,0 | 3,3 | 24,0 | 4,0 | 0,5 - 2,0 |
| 207 10 14 | SG-123 | natur | 123,0 | 3,4 | 25,0 | 4,0 | 1,0 - 2,5 |

# KBR KABELBINDER MIT RASTFUSS

Merkmale

- Steckmontage
- nicht lösbar
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm



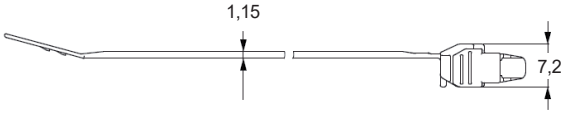

| Art.-Nr. | Typ | L in mm | B (mm) | Loch-Ø (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|
| 207 33 155 | KBR3,3x155N | 155,0 | 3,6 | 5,2 | 2,7 |
| 207 48 200 | KBR4,8x200N | 200,0 | 4,8 | 6,4 | 3,2 |

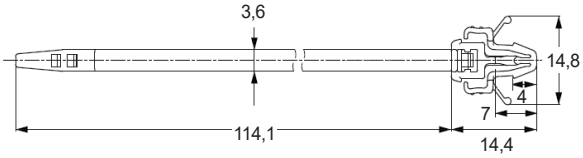
# RST-130V0 KABELBINDER

Merkmale:

- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- Montageloch 4,8 mm
- für Plattenstärke 0,5 - 2,3 mm
- Bündel-Ø 1,0 - 28,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss
- Art.Nr. 207 10 00

Abmessungen
► Einheit = mm



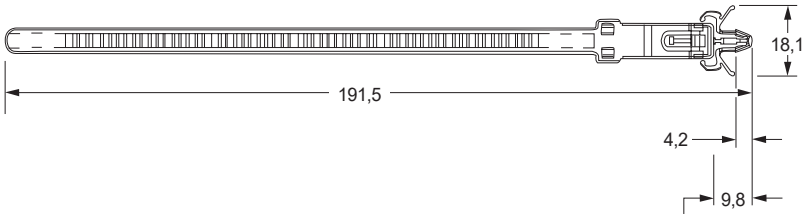



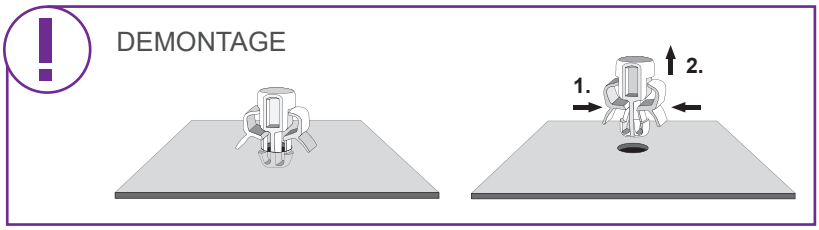

# RST-5NV0B KABELBINDER

Merkmale:

- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- Montagloch 4,8 mm
- für Plattenstärke 0,5 - 2,3 mm
- Bündel-Ø 10,0 - 45,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: schwarz
- Artikel.Nr. 207 10 01

Abmessungen
► Einheit = mm



## KB-SWK KABELBINDER SPANNWERKZEUG

Merkmale

- zum Spannen und Schneiden von Kabelbindern in einem Arbeitsgang
- Kunststoffausführung
- für Kabelbinder mit einer Breite von 2,2 bis 4,8 mm
- mit Stellrad für die Einstellung der Anziehkraft

| Art.-Nr. | Typ |
|---|---|
| 200 99 02 | KB-SWK |

## KB-SWM KABELBINDER SPANNWERKZEUG

Merkmale

- zum Spannen und Schneiden von Kabelbindern in einem Arbeitsgang
- Metallausführung
- für Kabelbinder mit einer Breite von 2,2 bis 4,8 mm
- mit Stellrad für die Einstellung der Anziehkraft von 3 - 13 kg (29,4 - 127,45 N)

| Art.-Nr. | Typ |
|---|---|
| 200 99 01 | KB-SWM |

## KB-SWK-HD KABELBINDER SPANNWERKZEUG

Merkmale

- zum Spannen und Schneiden von Kabelbindern in einem Arbeitsgang
- Kunststoffausführung - schwarz
- für Kabelbinder mit einer Breite von 4,8 bis 7,8 mm
- mit Einstellmechanismus zur Verjustierung verschiedener Abbindewerte

| Art.-Nr. | Typ |
|---|---|
| 200 99 07 | KB-SWK-HD |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# KB-SWM-5400
## KABELBINDER SPANNWERKZEUG

Merkmale

- zum Spannen und Schneiden von Kabelbindern in einem Arbeitsgang
- Metallausführung
- für Kabelbinder mit einer Breite von 5,0 bis 9,0 mm
- manuelle Einstellung der Zugfestigkeit
- ist die gewünschte Abbindekraft erreicht, wird der Binder mit dem zusätzlichen Hebel abgeschnitten

| Art.-Nr. | Typ |
|---|---|
| 200 99 08 | KB-SWM-5400 |

# KB-SWM-7,8/13
## KABELBINDER SPANNWERKZEUG

Merkmale

- zum Spannen und Schneiden von Kabelbindern in einem Arbeitsgang
- Metallausführung
- für Kabelbinder mit einer Breite von 7,8 bis 13,0 mm
- manuelle Einstellung der Zugfestigkeit und automatische Abbindung

| Art.-Nr. | Typ |
|---|---|
| 200 99 09 | KB-SWM-7,8/13 |

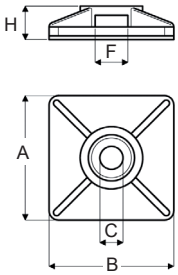
# KS/SS-2 BEFESTIGUNGSSOCKEL

Merkmale

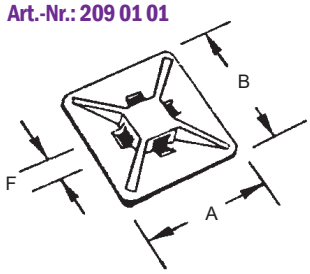
- zum sicheren Befestigen von Kabelbindern
- Kabelbinder-Einführung von 4 Seiten möglich
- Material: ABS, UL94HB
- Material: Nylon 66
- Farbe: natur oder schwarz

Abmessungen

► Einheit = mm




Art.-Nr.: 209 01 01



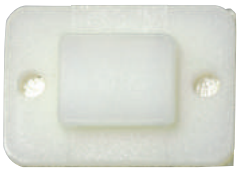

| Art.-Nr. | Farbe | Typ | max. KB-Breite (mm) | A (mm) | B (mm) | C (mm) | F (mm) | H (mm) | Klebefläche |
|---|---|---|---|---|---|---|---|---|---|
| 209 01 01 | natur | KS3,0x2N | 3,0 | 12,7 | 12,7 | - | 3,0 | - | ja |

| Art.-Nr. | Farbe | Typ | max. KB-Breite (mm) | A (mm) | B (mm) | C (mm) | F (mm) | H (mm) | Klebefläche |
|---|---|---|---|---|---|---|---|---|---|
| 209 01 36 | natur | KS3,6x2N | 3,6 | 19,0 | 19,0 | 4,3 | 4,0 | 6,0 | ja |
| 209 01 48 | natur | KS4,8x2N | 4,8 | 26,5 | 26,5 | 4,3 | 6,0 | 8,0 | ja |
| 209 02 36 | natur | SS3,6x2N | 3,6 | 19,0 | 19,0 | 4,3 | 4,0 | 6,0 | nein |
| 209 02 48 | natur | SS4,8x2N | 4,8 | 26,5 | 26,5 | 4,3 | 6,0 | 8,0 | nein |
| 210 01 36 | schwarz | KS3,6x2S | 3,6 | 19,0 | 19,0 | 4,3 | 4,0 | 6,0 | ja |
| 210 01 48 | schwarz | KS4,8x2S | 4,8 | 26,5 | 26,5 | 4,3 | 6,0 | 8,0 | ja |

# TY3G1S BEFESTIGUNGSSOCKEL

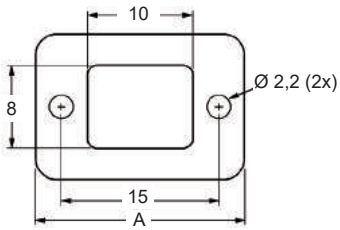
Merkmale

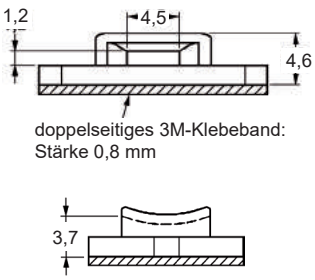
- Befestigungssockel für Kabelbinder
- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur



Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | Klebefläche |
|---|---|---|---|
| 209 03 45 | TY3G1S | 20,0 | ja |

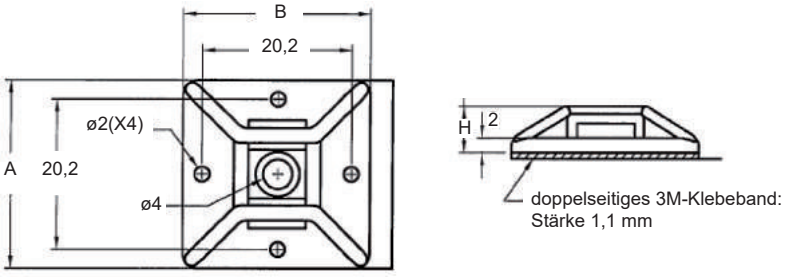
# CM BEFESTIGUNGSSOCKEL

### Merkmale

- Klebemontage, Schutzfolie leicht abziehbar (Easy Peel Tape)
- zum sicheren Befestigen von Kabelbindern
- temperaturbeständig bis + 80 °C
- Material: Nylon 66, UL94V-2
- Farbe: natur

### Abmessungen

► Einheit = mm



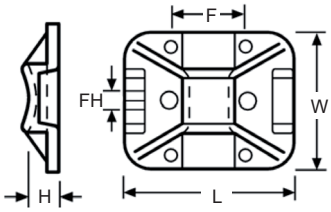

| Art.-Nr. | Typ | A (mm) | B (mm) | H (mm) | Klebefläche |
|---|---|---|---|---|---|
| **209 01 49** | CM-1AD | 25,0 | 25,0 | 6,2 | ja |

# TY8G1S BEFESTIGUNGSSOCKEL

### Merkmale

- Klebemontage
- Binderbreite = max. 8,0 mm
- Einsatztemperatur: -40 °C bis +85 °C (kurzfristig bis +105 °C (bei 500h))
- Material: PA66, UL94 V-2 (ohne Kleber)
- Material Kleber: Acrylat
- Farbe: natur

### Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | F (mm) | Ø FH (mm) | H (mm) | L (mm) | W (mm) | Klebefläche |
|---|---|---|---|---|---|---|---|
| **209 01 50** | TY8G1S | 15,0 | 3,2 | 5,2 | 32,0 | 25,0 | ja |

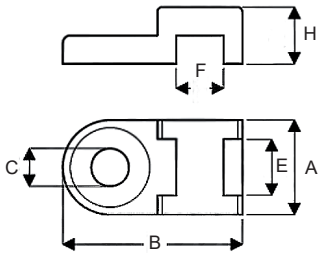
# BÖ BEFESTIGUNGSÖSE

Merkmale

- zum einfachen Befestigen von Kabelbindern
- Schraub- bzw. Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur oder schwarz

Abmessungen

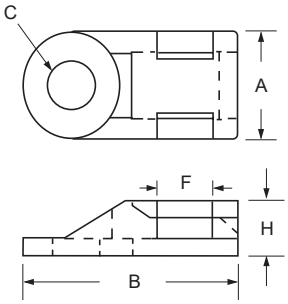
► Einheit = mm




| Art.-Nr. | Typ | Farbe | A (mm) | B (mm) | C (mm) | E (mm) | F (mm) | H (mm) |
|---|---|---|---|---|---|---|---|---|
| 209 05 48 | BÖ4,8N | natur | 9,8 | 19,2 | 4,3 | 5,2 | 5,0 | 6,0 |
| 210 05 48 | BÖ4,8S | schwarz | 9,8 | 19,2 | 4,3 | 5,2 | 5,0 | 6,0 |

Abmessungen

► Einheit = mm



| Art.-Nr. | Typ | Farbe | A (mm) | B (mm) | C (mm) | F (mm) | H (mm) |
|---|---|---|---|---|---|---|---|
| 209 05 47 | BÖ-1 | natur | 9,6 | 19,5 | 4,4 | 5,0 | 4,9 |
| 209 05 46 | BÖ-3 | natur | 9,5 | 19,5 | 3,6 | 5,5 | 4,8 |
| 209 05 49 | BÖ-4 | natur | 9,5 | 19,0 | 4,3 | 5,0 | 4,9 |

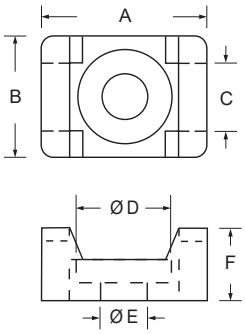
# TM BEFESTIGUNGSSOCKEL

Merkmale

- zum sicheren Befestigen von Kabelbindern
- Schraub- und Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur oder schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbe | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) |
|---|---|---|---|---|---|---|---|---|
| 209 05 01 | TM-1S4 | natur | 13,3 | 8,2 | 3,6 | 5,9 | 3,2 | 5,85 |
| 209 05 02 | TM-2S6 | natur | 14,9 | 9,6 | 5,6 | 7,8 | 3,7 | 7,2 |
| 209 05 02 S | TM-2S6 | schwarz | 14,9 | 9,6 | 5,6 | 7,8 | 3,7 | 7,2 |
| 209 05 03 | TM-2S8 | natur | 14,9 | 9,6 | 5,6 | 7,8 | 4,5 | 7,2 |
| 209 05 03 S | TM-2S8 | schwarz | 14,9 | 9,6 | 5,6 | 7,8 | 4,5 | 7,2 |
| 209 05 04 | TM-3S8 | natur | 22,0 | 16,0 | 9,2 | 8,0 | 4,5 | 9,6 |
| 209 05 05 | TM-3S10 | natur | 22,0 | 16,0 | 9,2 | 9,6 | 4,8 | 9,6 |
| 209 05 06 | TM-3S25 | natur | 22,0 | 16,0 | 9,2 | 12,7 | 6,4 | 9,6 |
| 209 05 06 S | TM-3S25 | schwarz | 22,0 | 16,0 | 9,2 | 12,7 | 6,4 | 9,6 |

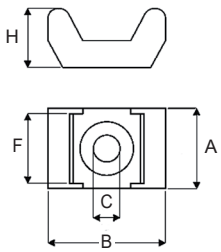
# SS-9H BEFESTIGUNGSSOCKEL

Merkmale

- zum sicheren Befestigen von Kabelbindern
- Schraub- und Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur oder schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | für KB-Breite | Farbe | A (mm) | B (mm) | C (mm) | F (mm) | H (mm) |
|---|---|---|---|---|---|---|---|---|
| 209 05 90 | SS-9H | 9,0 | natur | 14,6 | 22,5 | 5,0 | 9,3 | 11,0 |
| 209 05 90 S | SS-9H | 9,0 | schwarz | 14,6 | 22,5 | 5,0 | 9,3 | 11,0 |

# SO KABELBINDERSOCKEL

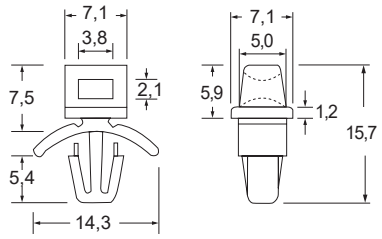
Merkmale

- Kabelbindersockel mit Rastfuss
- Material: Nylon 66, UL94V-2
- Farbe: natur

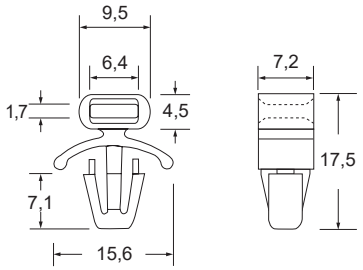
Abmessungen

► Einheit = mm

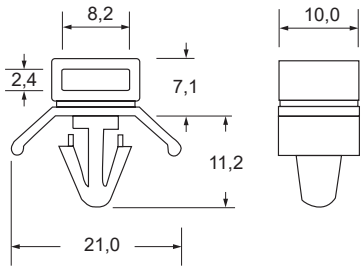
**Art.-Nr. 209 05 60**




**Art.-Nr. 209 05 62**




**Art.-Nr. 209 05 63**




| Art.-Nr. | Typ | für Loch-Ø (mm) | für Plattenstärke (mm) |
|---|---|---|---|
| 209 05 60 | SO-1 | 4,8 | 0,8 - 2,0 |
| 209 05 62 | SO-2 | 6,4 | 1,2 - 2,8 |
| 209 05 63 | SO-3 | 6,2 | 0,8 - 3,2 |

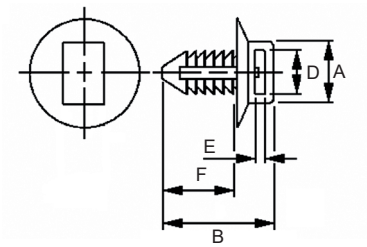
# SST-7-6 KABELBINDERSOCKEL

Merkmale

- Kabelbindersockel mit Rastfuss
- für Plattenstärke 0,9 - 3,8 mm
- Loch-Ø = 6,0 mm
- Material: PA
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) | B (mm) | D (mm) | E (mm) | F (mm) |
|---|---|---|---|---|---|
| 209 05 61 | 10,0 | 15,1 | 7,0 | 1,6 | 8,5 |

# AHKB AUFSTECKHALTER FÜR KABELBINDER

Merkmale

- zum Bündeln von Kabeln, Leitungen und Rohren an einer Kante
- einfache Montage per Hand durch Aufschieben auf eine Kunststoff- oder Blechkante
- integrierte Metallklammer sorgt für den richtigen Halt - keine zusätzlichen Maßnahmen zur Fixierung erforderlich
- zusammen mit unseren Kabelbindern Typ KB-UV bzw. Typ KB-S (z.B. Art.-Nr. 202 48 200) ergeben diese Aufsteckhalter eine rationelle Befestigungslösung
- Temperaturbereich: -40 °C bis +105 °C (kurzzeitig 140 °C)
- Material Halter: Polyamid 6.6 schwarz, schlagzäh-, hitze- und witterungsstabil
- Material Metallklammer: Federstahl, gehärtete Oberfläche entspricht höchsten Korrosionsschutzansprüchen

► Blechstärke = 0,7 - 3,0 mm

**Typ AHKB-3-A**

**Typ AHKB-3-B**

**Typ AHKB-3-C**

**Typ AHKB-3-D**

| Art.-Nr. | Typ | Kante (mm) | Ausführung |
|---|---|---|---|
| 209 05 20 | AHKB-3-A | 0,7 - 3,0 | Kabelband im 90° Winkel zur Kante, Führung auf Clip |
| 209 05 21 | AHKB-3-B | 0,7 - 3,0 | Kabelband im 90° Winkel zur Kante, Führung seitlich am Clip |
| 209 05 22 | AHKB-3-C | 0,7 - 3,0 | Kabelband parallel zur Kante, Führung auf Clip |
| 209 05 23 | AHKB-3-D | 0,7 - 3,0 | Kabelband parallel zur Kante, Führung seitlich am Clip |

► Blechstärke = 3,0 - 6,0 mm

**Typ AHKB-6-A**

**Typ AHKB-6-B**

**Typ AHKB-6-C**

**Typ AHKB-6-D**

| Art.-Nr. | Typ | Kante (mm) | Ausführung |
|---|---|---|---|
| 209 05 24 | AHKB-6-A | 3,0 - 6,0 | Kabelband im 90° Winkel zur Kante, Führung auf Clip |
| 209 05 25 | AHKB-6-B | 3,0 - 6,0 | Kabelband im 90° Winkel zur Kante, Führung seitlich am Clip |
| 209 05 26 | AHKB-6-C | 3,0 - 6,0 | Kabelband parallel zur Kante, Führung auf Clip |
| 209 05 27 | AHKB-6-D | 3,0 - 6,0 | Kabelband parallel zur Kante, Führung seitlich am Clip |

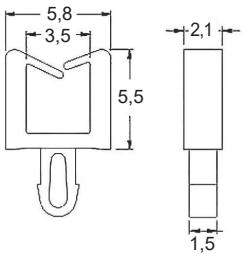
# MWS LEITUNGSHALTER

## Merkmale

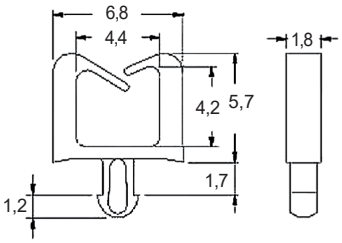
- mit Rastfuss
- Material: Nylon 66, UL94V-2 (V-0 auf Anfrage möglich)
- Farbe: natur

## Abmessungen ► Einheit = mm

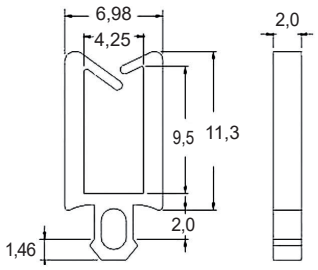
**Art.-Nr. 222 14 10**



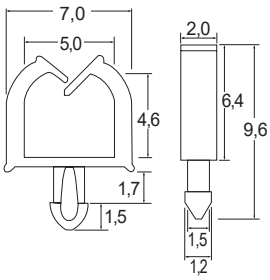

**Art.-Nr. 222 14 14**



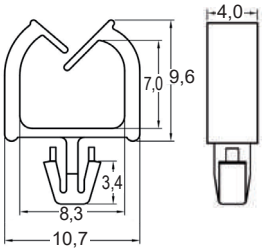

**Art.-Nr. 222 14 13**




**Art.-Nr. 222 14 08**




**Art.-Nr. 222 14 15**




| Art.-Nr. | Typ | Plattenstärke (mm) | Loch-Ø (mm) |
|---|---|---|---|
| **222 14 10** | MWS-08 | 1,6 - 1,8 | 2,0 |
| **222 14 14** | MWS-16 | 1,6 | 1,75 |
| **222 14 13** | MWS-24 | 2,0 | 2,8 |
| **222 14 08** | MWS-17 | 1,6 | 1,75 |
| **222 14 15** | MWS-15 | 1,6 | 3,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

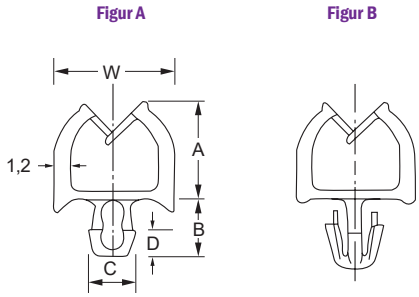
# UAMS MINI-LEITUNGSHALTER

Merkmale

- Steckmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur oder schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Farbe | Typ | Figur | A (mm) | B (mm) | C (mm) | D (mm) | W (mm) | Loch-Ø (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 222 14 01 | natur | UAMS-02-0 | A | 4,0 | 3,0 | 2,2 | 1,5 | 7,0 | 1,7 | 1,6 |
| 222 14 02 | natur | UAMS-03-0 | A | 6,0 | 3,0 | 2,2 | 1,5 | 7,0 | 1,7 | 1,6 |
| 222 14 12 | natur | UAMS-03-W | A | 6,0 | 3,0 | 2,2 | 1,5 | 9,0 | 1,7 | 1,5 - 1,7 |
| 222 14 03 | natur | UAMS-05-0 | A | 7,3 | 4,3 | 3,6 | 2,0 | 9,0 | 3,0 | 1,2 - 1,6 |
| 222 14 04 | schwarz | UAMS-05-2 | A | 7,3 | 4,3 | 3,6 | 2,0 | 9,0 | 3,0 | 1,0 - 1,2 |
| 222 14 05 | natur | UAMS-05L-0 | B | 7,3 | 5,3 | 4,5 | 3,4 | 9,0 | 3,5 | 1,6 |
| 222 14 06 | natur | UAMS-05S-0 | B | 7,3 | 5,3 | 4,5 | 3,4 | 9,0 | 3,0 | 1,6 |
| 222 14 07 | natur | UAMS-07-0 | B | 9,2 | 4,9 | 4,5 | 3,0 | 10,6 | 3,5 | 1,6 |
| 222 14 09 | natur | UAMS-09-0 | B | 11,2 | 4,9 | 4,5 | 3,0 | 11,8 | 3,5 | 1,6 |
| 222 14 11 | natur | UAMS-11-0 | B | 13,0 | 4,9 | 4,5 | 3,0 | 11,8 | 3,5 | 1,6 |

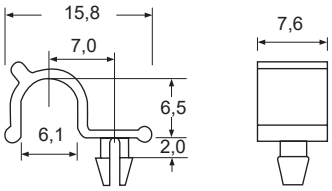
# CLI-6 KABELHALTER

Merkmale

- Steckmontage
- für Plattenstärke 1,6 mm
- Loch-Ø = 3,2 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 222 02 04 | CLI-6 |

# TMIS-17 KABELHALTER

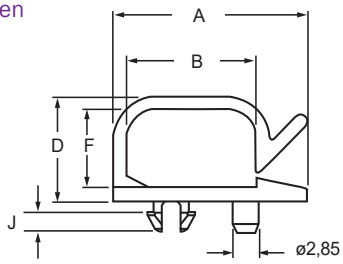
NEU

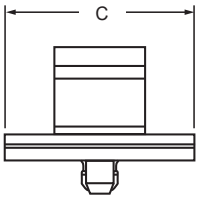
Merkmale:

- Steckmontage
- für Plattenstärke 1,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: natur

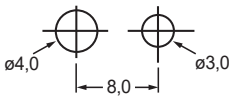
Abmessungen

► Einheit = mm




Montagemaße




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | F (mm) | J (mm) |
|---|---|---|---|---|---|---|---|
| 222 04 04 | TMIS-17 | 20,8 | 13,8 | 18,8 | 11,3 | 8,3 | 2,0 |

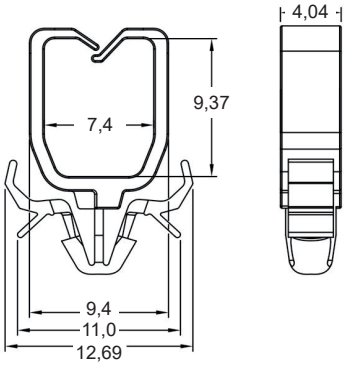
# MWSB-1 KABELHALTER

Merkmale

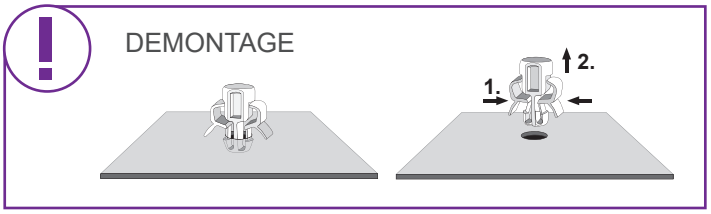
- Druck-Montage
- für Plattenstärke: 0,6 - 1,6 mm
- Loch-Ø = 3,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 220 24 33 | MWSB-1 |



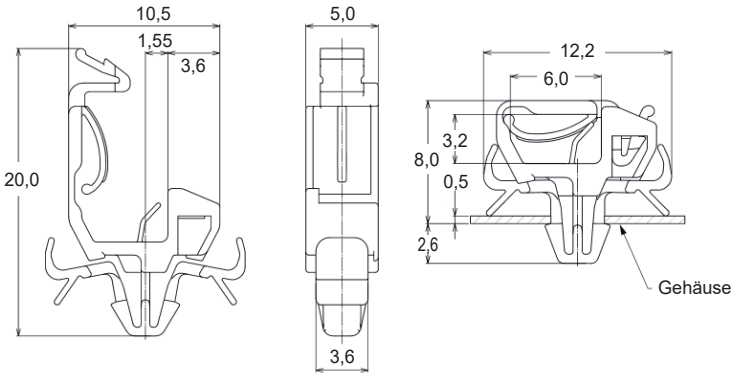
# RPMS KABELHALTER

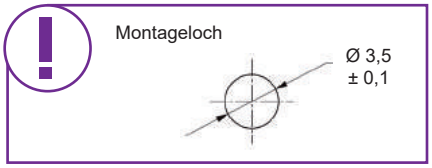
Merkmale:

- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,5 - 1,6 mm
- Material: Nylon 66, UL94V-0

Abmessungen ► Einheit = mm

**Art.-Nr. 220 24 31**

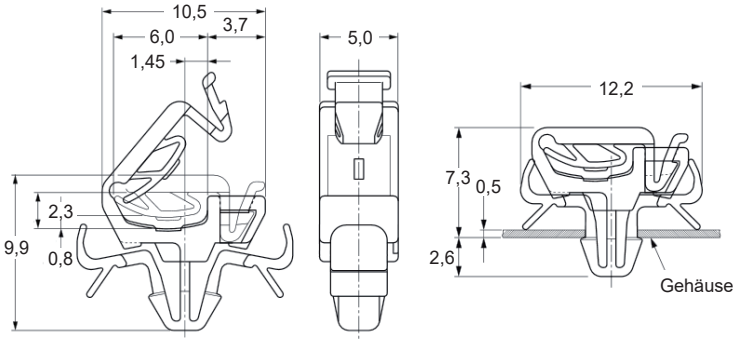


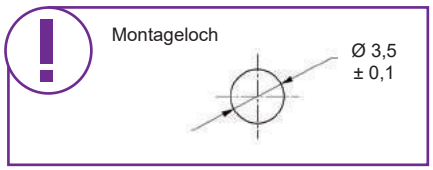




| Art.-Nr. | Typ | Farbe |
|---|---|---|
| 220 24 31 | RPMS-1,5VOG | grau |

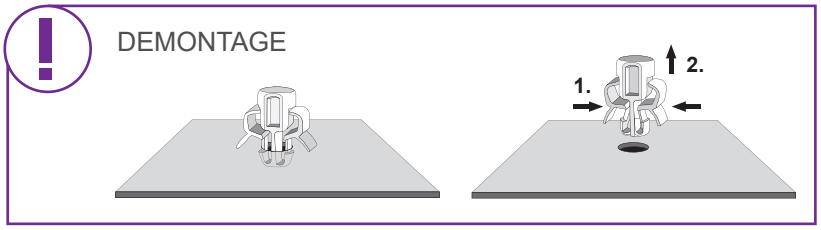
Abmessungen ► Einheit = mm

**Art.-Nr. 220 24 32**




| Art.-Nr. | Typ | Farbe |
|---|---|---|
| 220 24 32 | RPMS-1VOB | schwarz |

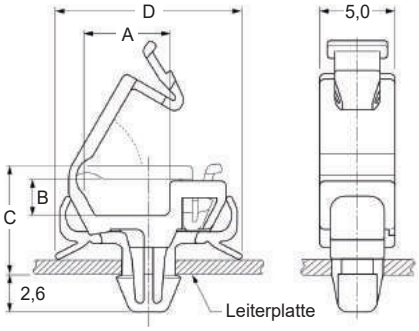


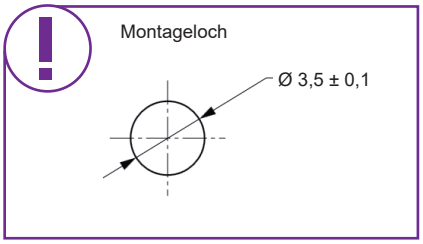
# RLMS KABELHALTER

Merkmale:

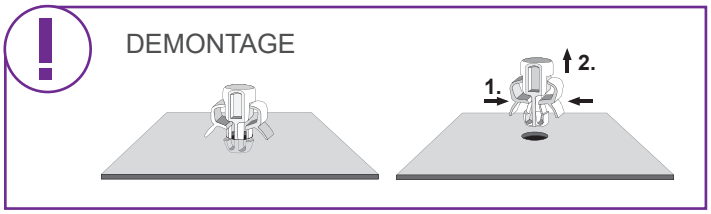
- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,5 - 1,6 mm
- Material: Nylon 66, UL94V-0 • Farbe: weiss

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 220 24 22 | RLMS-1VO | 5,7 | 2,5 | 7,3 | 12,4 |
| 220 24 23 | RLMS-2VO | 9,0 | 4,0 | 9,6 | 16,6 |

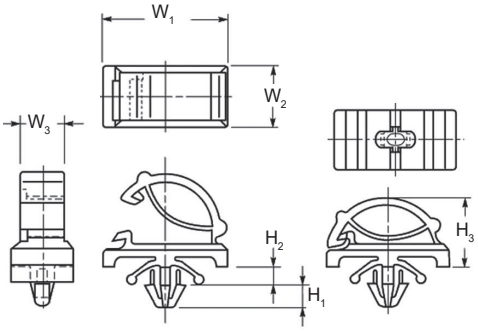


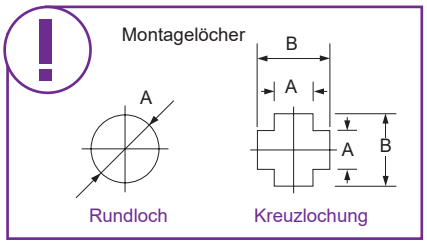

# PL KABELHALTER

Merkmale

- Steckmontage
- Material: Nylon 6, UL94V-2 • Farbe: natur

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | für max. Kabel-Ø (mm) | W1 (mm) | W2 (mm) | W3 (mm) | H1 (mm) | H2 (mm) | H3 (mm) | Loch-Ø (mm) | Kreuzlochung A (mm) | Kreuzlochung B (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 222 16 20 | PL-10N | 2,1 | 13,4 | 8,0 | 6,0 | 3,0 | 2,1 | 5,8 | 3,8 | 2,2 | 3,8 | 0,5 - 1,8* |
| 222 16 22 | PL-20N | 4,5 | 16,2 | 8,0 | 6,0 | 3,0 | 2,1 | 9,0 | 3,8 | 2,2 | 3,8 | 0,5 - 1,8* |
| 222 16 24 | PL-30N | 8,0 | 21,4 | 10,0 | 8,0 | 5,0 | 2,4 | 12,8 | 4,8 | 3,2 | 4,8 | 0,5 - 1,8* |
| 222 16 20-2 | PL-10N2 | 2,1 | 13,4 | 8,0 | 6,0 | 3,0 | 2,1 | 5,8 | 3,8 | 2,2 | 3,8 | 1,6 - 2,5 |
| 222 16 22-2 | PL-20N2 | 4,5 | 16,2 | 8,0 | 6,0 | 3,0 | 2,1 | 9,0 | 3,8 | 2,2 | 3,8 | 1,6 - 2,5 |
| 222 16 24-2 | PL-30N2 | 8,0 | 21,4 | 10,0 | 8,0 | 5,0 | 2,4 | 12,8 | 4,8 | 3,2 | 4,8 | 1,6 - 2,5 |

* Plattenstärke bei Kreuzlochung: 0,5 - 1,6 mm

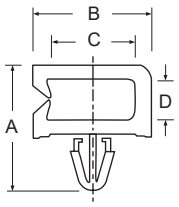
# WH-A MINI-KABELHALTER

Merkmale

- Steckmontage
- für Plattenstärke 1,6 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

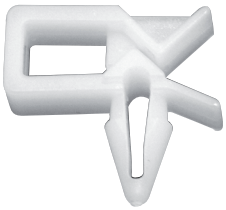
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 222 04 07 | WH-A | 15,0 | 14,2 | 10,0 | 4,8 |

# S KABELHALTER

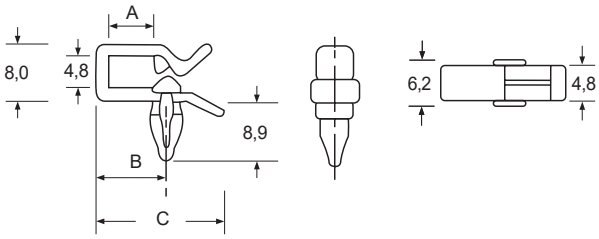


Merkmale

- Steckmontage
- für Plattenstärke 0,5 - 1,6 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|
| 222 02 05 | S-5 | 6,6 | 10,8 | 17,5 |
| 222 02 10 | S-10 | 10,0 | 13,4 | 20,9 |

NEU

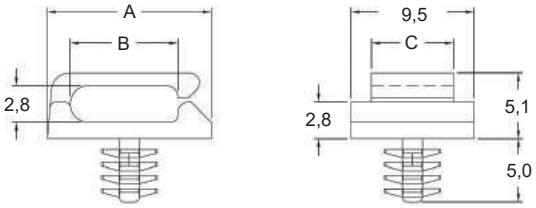
# MBHWSSE MINI-KABELHALTER

Merkmale

- zur Blindloch-/Sacklochmontage
- Material: Nylon 6/6, UL94-V2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | Loch-Ø (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|---|
| 222 04 01 | MBHWSSE-1-01 | 12,7 | 8,3 | 6,4 | 4,0 | 1,0 - 4,1 |
| 222 04 02 | MBHWSSE1-1-01 | 17,0 | 12,5 | 8,0 | 4,0 | 1,0 - 4,1 |

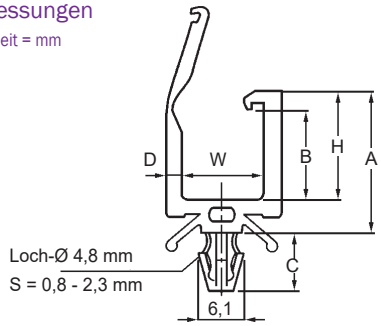
# LWS-S LEITUNGSHALTER

Merkmale

- mit Rastfuss
- für Plattenstärke 0,5 - 2,3 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | H (mm) | W (mm) |
|---|---|---|---|---|---|---|---|
| 222 09 01 | LWS-1.5S | 18,0 | 12,5 | 7,7 | 2,0 | 14,0 | 10,4 |
| 222 09 02 | LWS-2.5S | 23,2 | 16,5 | 7,7 | 2,0 | 19,0 | 12,0 |
| 222 09 03 | LWS-3.5S | 25,7 | 19,0 | 7,7 | 2,2 | 21,5 | 14,0 |

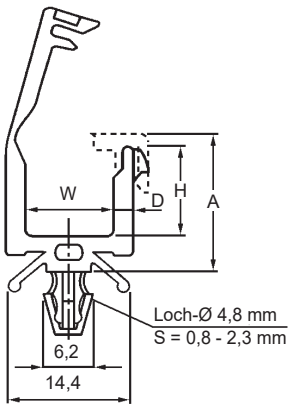
# LWS LEITUNGSHALTER

Merkmale

- mit Rastfuss
- für Plattenstärke 0,5 - 2,3 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-0 bzw. UL94V-2

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | D (mm) | H (mm) | W (mm) | Farbe |
|---|---|---|---|---|---|---|
| 222 10 01 | LWS-1S | 9,2 | 2,0 | 5,2 | 11,0 | natur |
| 222 10 02 | LWS-3SV0W | 14,2 | 2,0 | 10,2 | 11,0 | weiss |
| 222 10 03 | LWS-3S-2WV0W | 14,2 | 2,0 | 10,2 | 16,5 | weiss |
| 222 10 11 | LWS-5S-2WV0 | 17,2 | 2,0 | 13,2 | 16,5 | schwarz |
| 222 10 13 | LWS-8S-2,5WH | 27,5 | 2,5 | 23,5 | 18,0 | natur |
| 222 10 13 S | LWS-8S-2,5WHS | 27,5 | 2,5 | 23,5 | 18,0 | schwarz |

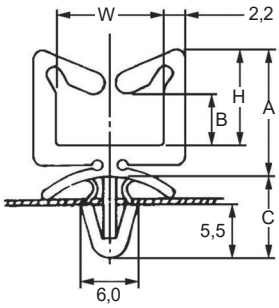
# WS-NS LEITUNGSHALTER

Merkmale

- mit Rastfuss
- für Plattenstärke 0,5 - 2,0 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur oder schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | H (mm) | W (mm) | Farbe |
|---|---|---|---|---|---|---|---|
| 222 07 01 | WS-1 NS | 13,0 | 5,0 | 8,2 | 9,5 | 11,1 | natur |
| 222 07 02 | WS-2 NS | 18,2 | 10,2 | 8,2 | 14,7 | 11,1 | natur |
| 222 07 02 S | WS-2 NS | 18,2 | 10,2 | 8,2 | 14,7 | 11,1 | schwarz |
| 222 07 05 | WS-2 WS | 19,0 | 11,2 | 8,2 | 15,5 | 16,0 | natur |
| 222 07 03 | WS-3 NS | 27,2 | 19,2 | 8,2 | 23,7 | 11,1 | natur |
| 222 07 04 | WS-4 NS | 35,1 | 27,1 | 8,2 | 31,6 | 11,1 | natur |
| 222 07 06 | WS-6 NS | 18,2 | 10,2 | 9,9 | 14,7 | 11,1 | natur |

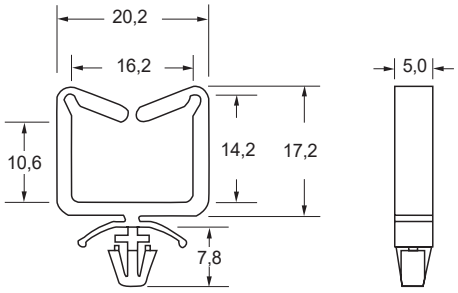
# CHR-11 KABELHALTER

Merkmale

- mit Rastfuss
- für Plattenstärke 1,0 - 2,5 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur (schwarz auf Anfrage möglich)

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 222 07 07 | CHR-11 |

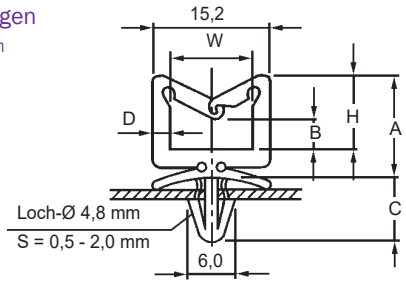
# LWS-NS LEITUNGSHALTER

Merkmale

- mit Rastfuss
- für Plattenstärke 0,5 - 2,3 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2 (UL94V-0)
- Farbe: natur (weiß oder schwarz bei UL94V-0)

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | H (mm) | W (mm) |
|---|---|---|---|---|---|---|---|
| 222 08 01 | LWS-1NS | 12,7 | 2,8 | 8,2 | 2,2 | 9,2 | 11,0 |
| 222 08 02 | LWS-2NS | 17,9 | 8,6 | 8,2 | 2,2 | 14,4 | 11,0 |
| 222 08 03 | LWS-3NS | 26,9 | 18,6 | 8,2 | 2,2 | 23,4 | 11,0 |
| 222 08 04 | LWS-4NS | 34,8 | 26,2 | 8,2 | 2,2 | 31,3 | 11,0 |

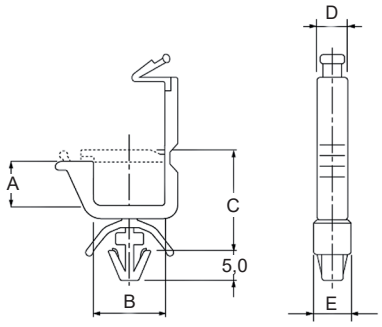
# LWS-S KABELHALTER

Merkmale

- mit Rastfuss
- für Plattenstärke 0,5 - 3,2 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|---|---|---|---|---|---|---|
| 222 10 04 | LWS-0511S | 5,2 | 11,5 | 14,5 | 5,0 | 6,0 |
| 222 10 05 | LWS-0711S | 7,2 | 11,5 | 16,5 | 5,0 | 6,0 |
| 222 10 06 | LWS-1211S | 12,4 | 11,5 | 21,7 | 5,0 | 6,0 |
| 222 10 07 | LWS-2111S | 21,5 | 11,5 | 31,2 | 5,0 | 6,0 |
| 222 10 08 | LWS-1316S | 13,2 | 16,0 | 22,9 | 5,0 | 6,0 |
| 222 10 09 | LWS-2218S | 22,7 | 18,0 | 32,4 | 5,0 | 6,0 |
| 222 10 10 | LWS-3030S | 30,0 | 30,0 | 41,0 | 6,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

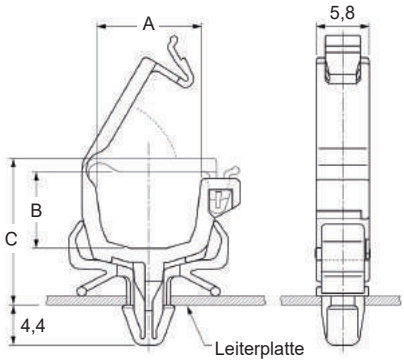
# RLWC KABELHALTER

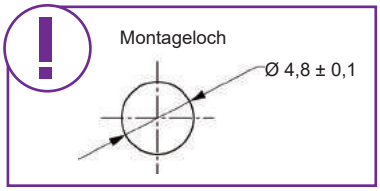
Merkmale:

- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,5 - 2,3 mm
- Material: Nylon 66, UL94V-0 • Farbe: weiss

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | t = Plattenstärke (mm) |
|---|---|---|---|---|---|
| 220 24 04 | RLWC-2HTVO | 11,0 | 8,5 | 16,7 | 1,2 - 3,2 |
| 220 24 05 | RLWC-1SVO | 10,0 | 6,0 | 13,0 | 0,5 - 2,3 |
| 220 24 06 | RLWC-2SVO | 11,0 | 8,5 | 16,0 | 0,5 - 2,3 |
| 220 24 07 | RLWC-3SVO | 12,0 | 12,0 | 20,2 | 0,5 - 2,3 |
| 220 24 08 | RLWC-5SVO | 16,0 | 14,0 | 22,7 | 0,5 - 2,3 |
| 220 24 09 | RLWC-6SVO | 20,0 | 20,0 | 28,7 | 0,5 - 2,3 |
| 220 24 10 | RLWC-7SVO | 26,0 | 30,0 | 38,7 | 0,8 - 2,3 |

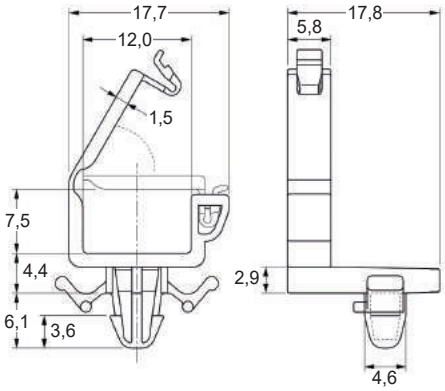
# RLWA-2VO KABELHALTER

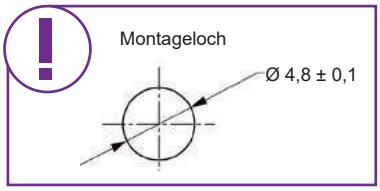
Merkmale:

- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

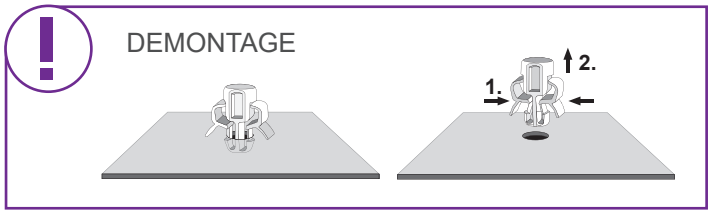
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 220 24 18 | RLWA-2VO |



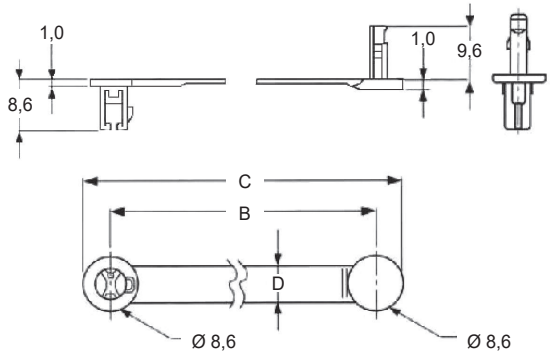
# NAD KABELHALTER

Merkmale

- mit Spreizfuss
- für Plattenstärke siehe Tabelle
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Kabel-Ø | B (mm) | C (mm) | D (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|---|
| 220 10 03 | NAD-03 | 5,5 | 28,0 | 36,0 | 4,0 | 0,8 - 2,3 |
| 220 10 04 | NAD-04 | 6,5 | 33,0 | 41,0 | 6,0 | 0,8 - 3,2 |
| 220 10 06 | NAD-06 | 9,5 | 43,0 | 51,6 | 6,0 | 0,8 - 3,2 |
| 220 10 09 | NAD-09 | 14,0 | 62,0 | 70,6 | 6,0 | 0,6 - 3,0 |
| 220 10 13 | NAD-13 | 22,0 | 88,0 | 96,6 | 6,0 | 0,6 - 3,0 |

# TCHD-18 KABELHALTER

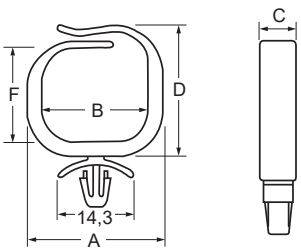
NEU

Merkmale

- Steckmontage
- für Plattenstärke: 0,8 - 2,0 mm
- Loch-Ø: 4,8 - 5,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | F (mm) |
|---|---|---|---|---|---|---|
| 222 05 06 | TCHD-18 | 26,4 | 20,8 | 6,9 | 25,9 | 18,5 |

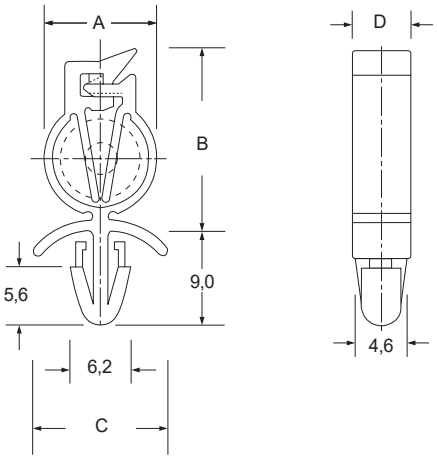
# LCT KABELHALTER

Merkmale:

- Steckmontage
- für Plattenstärke 0,8 - 3,2 mm
- Loch-Ø = 4,8 - 5,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | Bündel - Ø (mm) |
|---|---|---|---|---|---|---|
| 222 05 02 | LCT-1S | 11,4 | 17,0 | 13,0 | 5,6 | 8,0 |
| 222 05 03 | LCT-2S | 17,0 | 23,0 | 14,0 | 6,8 | 6,0 - 12,0 |
| 222 05 04 | LCT-2,5S | 22,0 | 27,5 | 14,0 | 5,6 | 9,0 - 16,0 |
| 222 05 05 | LCT-3S | 27,0 | 35,5 | 16,0 | 8,0 | 11,0 - 22,0 |

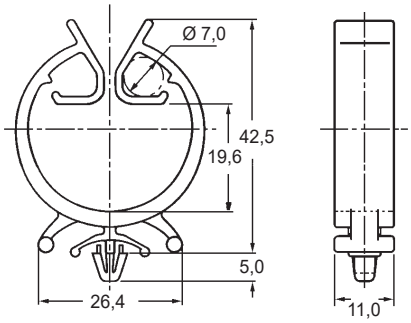
# CW-3048 KABELHALTER

Merkmale

- Steckmontage
- Clip für Kabelbündel mit 3 Halterzonen
  - davon 2 seperate Zonen für z.B. Zweigleitungen
- für Plattenstärke 0,6 - 1,2 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 6, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 222 05 11 | CW-3048 |

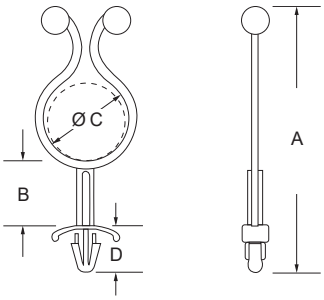
# TDRK DREHVERSCHLUSS MIT RASTFUSS

Merkmale

- Steckmontage
- für Plattenstärke 0,8 - 3,0 mm
- Loch-Ø 4,8 - 5,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 220 19 50 | TDRK-1 | 33,8 | 3,1 | 7,1 | 10,6 |
| 220 19 51 | TDRK-2 | 51,0 | 20,0 | 7,1 | 10,6 |
| 220 19 52 | TDRK-3 | 66,0 | 35,3 | 7,1 | 10,6 |
| 220 19 53 | TDRK-4 | 43,8 | 10,5 | 8,0 | 10,6 |
| 220 19 54 | TDRK-5 | 34,7 | 5,6 | 8,8 | 10,0 |
| 220 19 55 | TDRK-6 | 40,7 | 4,4 | 9,5 | 10,0 |
| 220 19 56 | TDRK-7 | 39,6 | 2,8 | 10,8 | 10,6 |
| 220 19 57 | TDRK-8 | 56,8 | 20,0 | 10,8 | 10,6 |
| 220 19 58 | TDRK-9 | 71,5 | 35,2 | 10,8 | 10,6 |
| 220 19 59 | TDRK-10 | 53,1 | 15,3 | 11,0 | 10,8 |
| 220 19 60 | TDRK-11 | 42,0 | 3,0 | 15,0 | 10,6 |
| 220 19 61 | TDRK-12 | 59,3 | 20,4 | 15,0 | 10,6 |
| 220 19 62 | TDRK-13 | 74,7 | 35,8 | 15,0 | 10,6 |
| 220 19 63 | TDRK-14 | 63,5 | 16,2 | 20,0 | 10,6 |
| 220 19 64 | TDRK-15 | 55,3 | 5,0 | 20,3 | 10,6 |
| 220 19 65 | TDRK-16 | 56,8 | 3,0 | 24,3 | 9,8 |

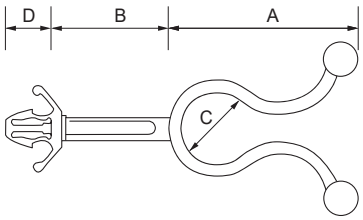
# TDR DREHVERSCHLUSS MIT RASTFUSS

Merkmale

- Steckmontage
- Material: Nylon 66, UL94V-2
- Loch-Ø 4,8 mm
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 220 19 21 | TDR-A | 30,5 | 19,0 | 12,0 | 7,5 |
| 220 19 22 | TDR-B | 20,0 | 33,0 | 6,0 | 7,5 |
| 220 19 23 | TDR-C | 29,0 | 2,0 | 10,0 | 7,5 |
| 220 19 24 | TDR-D2 | 36,7 | 4,9 | 17,1 | 7,8 |

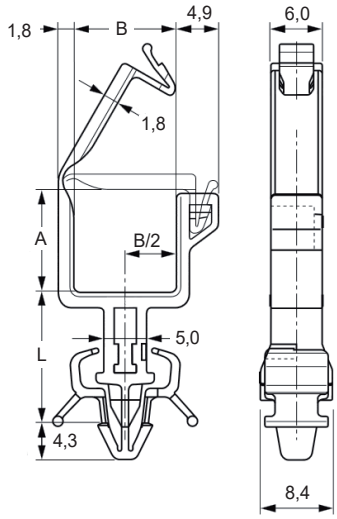
Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# RSPC-P KABELHALTER

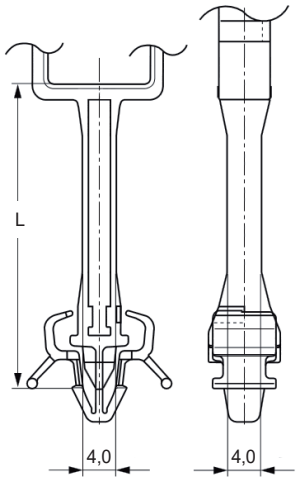
Merkmale:

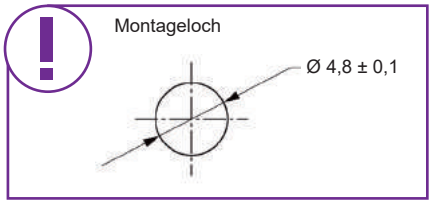
- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,5 - 2,3 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

Abmessungen ► Einheit = mm

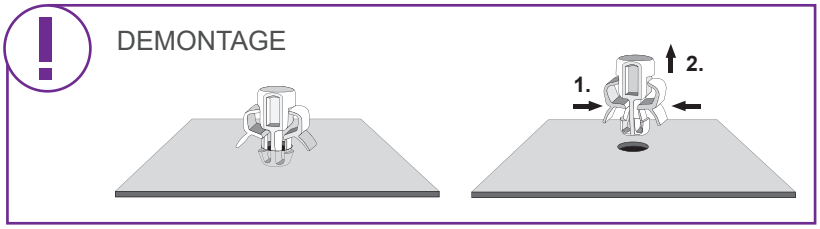



**RSPC-135P - Art.-Nr. 220 24 14**
**RSPC-335P - Art.-Nr. 220 24 17**




| Art.-Nr. | Typ | A (mm) | B (mm) | L (mm) |
|---|---|---|---|---|
| 220 24 12 | RSPC-115P | 6,0 | 12,0 | 15,0 |
| 220 24 13 | RSPC-125P | 6,0 | 12,0 | 25,0 |
| 220 24 14 | RSPC-135P | 6,0 | 12,0 | 35,0 |
| 220 24 15 | RSPC-315P | 12,0 | 12,0 | 15,0 |
| 220 24 16 | RSPC-325P | 12,0 | 12,0 | 25,0 |
| 220 24 17 | RSPC-335P | 12,0 | 12,0 | 35,0 |



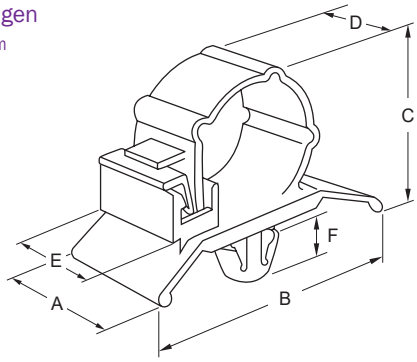
# CKS RUNDKABELHALTER

Merkmale

- Steckmontage
- für Plattenstärke 0,5 - 4,1 mm
- Loch-Ø = 6,4 mm
- Material: Nylon 6,6, UL94V-2
- Farbe: grau

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | für Plattenstärke (mm) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|---|
| 220 03 05 | CKS-05-L | 0,5 - 2,3 | 13,8 | 23,2 | 11,0 | 8,5 | 11,5 | 5,0 | 5,4 |
| 220 04 05 | CKS-05-H | 2,3 - 4,1 | 13,8 | 23,2 | 11,0 | 8,5 | 11,5 | 5,0 | 5,4 |
| 220 03 07 | CKS-07-L | 0,5 - 2,3 | 15,1 | 25,0 | 12,0 | 9,8 | 12,0 | 5,0 | 6,2 |
| 220 04 07 | CKS-07-H | 2,3 - 4,1 | 15,1 | 25,0 | 12,0 | 9,8 | 12,0 | 5,0 | 6,2 |
| 220 03 10 | CKS-10-L | 0,5 - 2,3 | 17,3 | 28,4 | 15,0 | 12,0 | 14,0 | 5,0 | 9,8 |
| 220 04 10 | CKS-10-H | 2,3 - 4,1 | 17,3 | 28,4 | 15,0 | 12,0 | 14,0 | 5,0 | 9,8 |
| 220 03 13 | CKS-13-L | 0,5 - 2,3 | 19,3 | 32,0 | 21,0 | 14,0 | 16,0 | 5,0 | 14,0 |
| 220 04 13 | CKS-13-H | 2,3 - 4,1 | 19,3 | 32,0 | 21,0 | 14,0 | 16,0 | 5,0 | 14,0 |
| 220 03 16 | CKS-16-L | 0,5 - 2,3 | 21,3 | 35,0 | 24,0 | 16,0 | 18,0 | 5,0 | 17,5 |
| 220 04 16 | CKS-16-H | 2,3 - 4,1 | 21,3 | 35,0 | 24,0 | 16,0 | 18,0 | 5,0 | 17,5 |
| 220 03 20 | CKS-20-L | 0,5 - 2,3 | 23,3 | 37,0 | 26,5 | 18,0 | 20,0 | 5,0 | 20,0 |
| 220 04 20 | CKS-20-H | 2,3 - 4,1 | 23,3 | 37,0 | 26,5 | 18,0 | 20,0 | 5,0 | 20,0 |
| 220 03 26 | CKS-26-L | 0,5 - 2,3 | 31,4 | 46,0 | 35,5 | 24,0 | 27,3 | 5,0 | 28,0 |

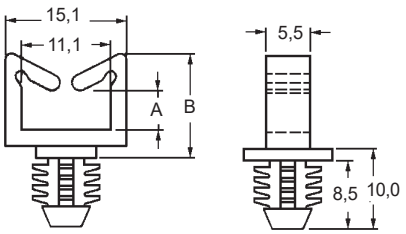
# WSBH KABELHALTER

Merkmale

- mit Rastfuss
- für max. Plattenstärke 6,4 mm
- Loch-Ø = 7,9 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 222 08 11 | WSBH-2 | 13,0 | 4,9 |
| 222 08 12 | WSBH-7 | 18,0 | 9,7 |
| 222 08 18 | WSBH-29 | 35,0 | 27,2 |

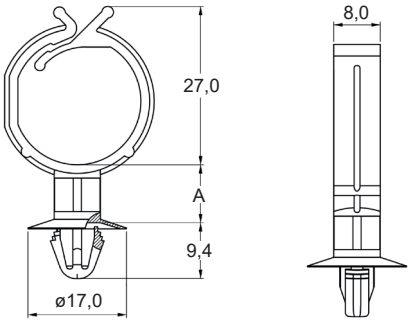
# SCCB KABELHALTER

## Merkmale

- Steckmontage
- für Plattenstärke: 0,6 - 2,0 mm
- Loch-Ø = 6,5 - 7,0 mm
- Material: Nylon 66, UL94 V-0
- Farbe: natur

## Abmessungen

► Einheit = mm

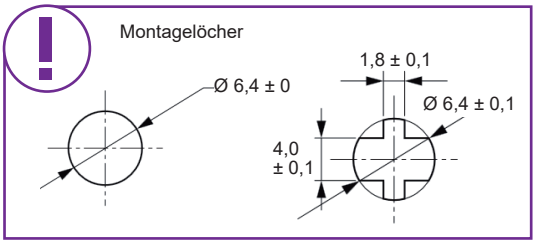



| Art.-Nr. | Typ | A (mm) | Kabelbündel max. Ø (mm) |
|---|---|---|---|
| **222 05 09** | SCCB-1-19 | 4,0 | 22,0 |

# RWC-17SB KABELHALTER

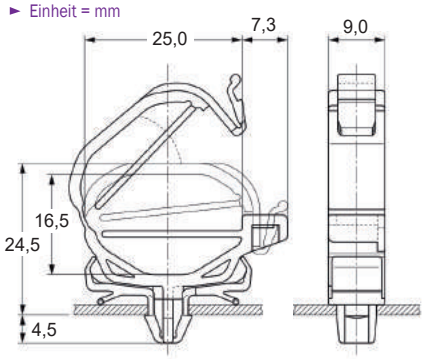
Merkmale:

- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: schwarz

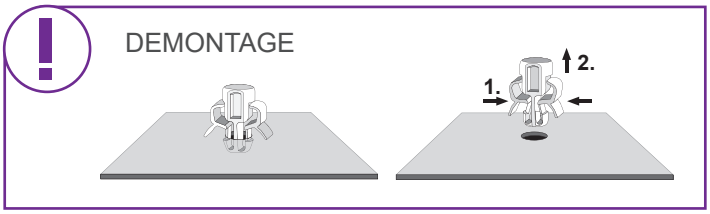



Abmessungen

► Einheit = mm



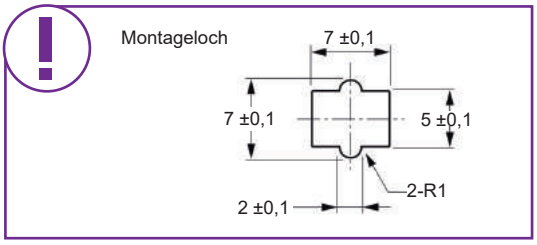
| Art.-Nr. | Typ |
|---|---|
| 220 24 11 | RWC-17SB |




# RWC KABELHALTER

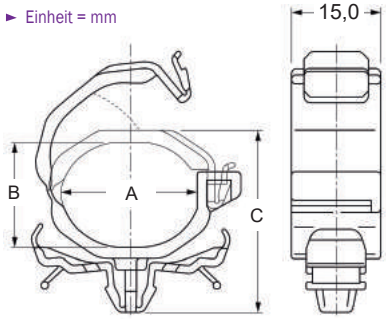
Merkmale:

- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,8 - 2,3 mm
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

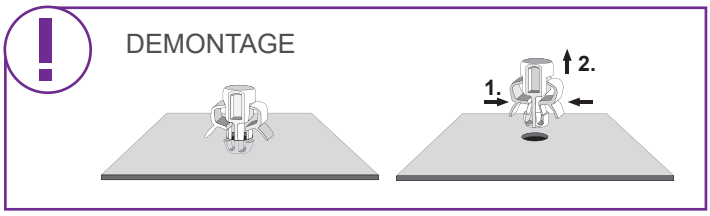



Abmessungen

► Einheit = mm



| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|
| 220 24 00 | RWC-20SB | 24,3 | 17,5 | 30,4 |
| 220 24 01 | RWC-30SB | 36,2 | 24,3 | 37,7 |
| 220 24 02 | RWC-60SB | 60,0 | 14,0 | 25,7 |



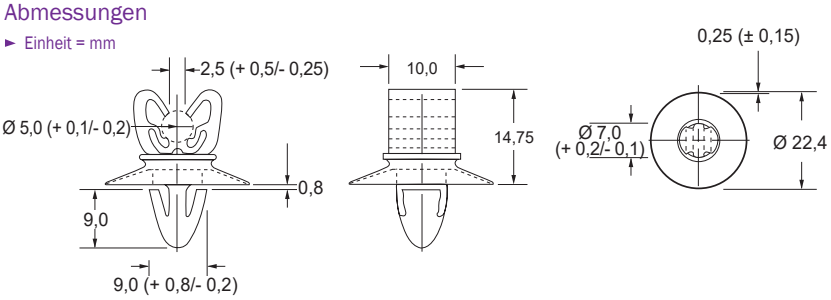
# CAC KABELHALTER

Merkmale

- Steckmontage
- für Plattenstärke max. 1,2 mm
- Loch-Ø = 8,0 mm
- für Kabel-Ø = 5,0 - 6,0 mm
- Material: POM
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 222 05 12 | CAC |

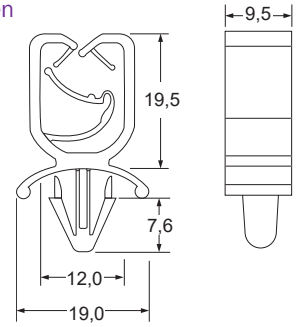
# HCMP-6 KABELHALTER

Merkmale:

- Plattenstärke 0,6 - 3,0 mm
- Loch-Ø = 6,3 - 7,2 mm
- für Kabel-Ø 6,0 - 12,0 mm
- Material: PA 6.6, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm

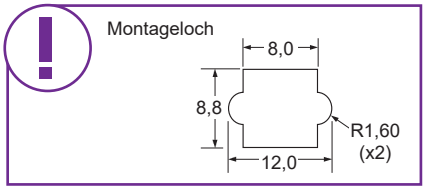



| Art.-Nr. | Typ |
|---|---|
| 222 05 13 | HCMP-6 |

# 1616-707 KABEL-/SCHLAUCHHALTER

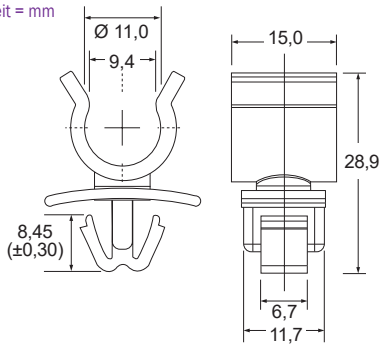
Merkmale

- Material: Nylon 66
- Farbe: schwarz




Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 222 05 14 | 161-707 |

## KKH KABELHALTER

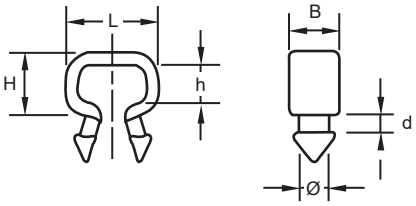
NEU

Merkmale

- Steckmontage
- Loch-Ø: 4,0 mm
- Material: Polyamid
- Farbe: schwarz

Abmessungen

Einheit = mm




| Art.-Nr. | Typ | h (mm) | B in mm | L (mm) | H (mm) | d (mm) | Bohrung Ø (mm) |
|---|---|---|---|---|---|---|---|
| 222 02 03 | KKH-9x5 | 3,0 | 5,0 | 9,0 | 5,0 | 1,6 | 4,0 |

## 332-2071-000 KABELHALTER

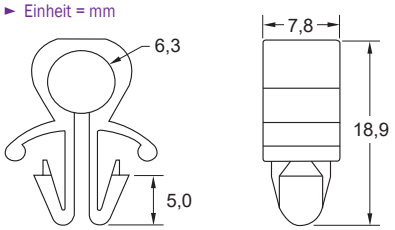
NEU

Merkmale

- Steckmontage
- für Plattenstärke: 2,5 - 4,0 mm
- Loch-Ø: 6,5
- Material: Polyamid 6.6
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 220 24 24 | 332-2071-000 |

NEU

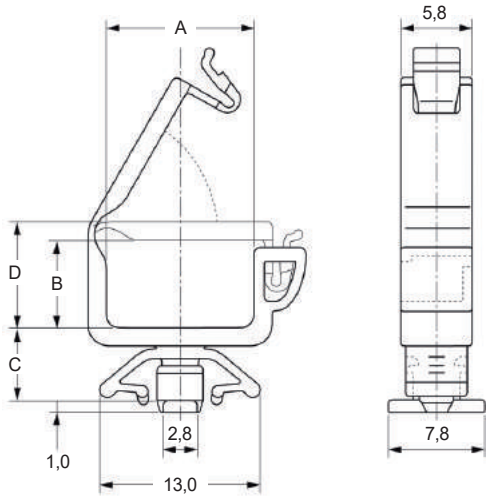
# RLWT KABELHALTER

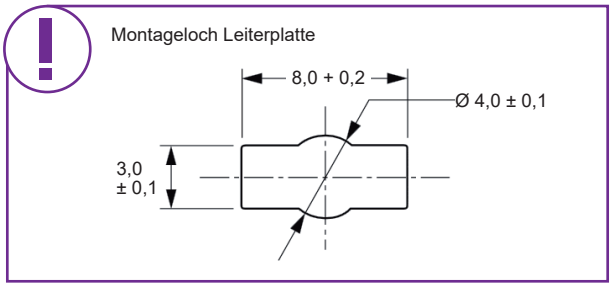
Merkmale:

- ROTATIONS-Montage
- von einer Seite montierbar und demontierbar
- mit extrem flachen Rastfuss
- wiederverwendbar
- für Leiterplattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

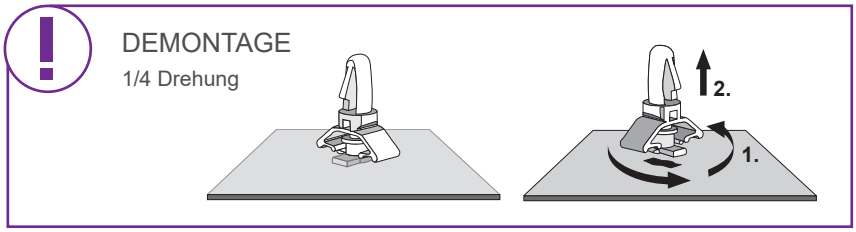
Abmessungen

► Einheit = mm



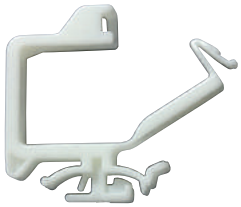

| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 220 22 00 | RLWT-0,5VO | 7,2 | 4,5 | 5,9 | 5,8 |
| 220 22 01 | RLWT-1VO | 11,0 | 5,2 | 5,9 | 6,7 |
| 220 22 02 | RLWT-2VO | 12,0 | 7,5 | 5,9 | 9,0 |
| 220 22 03 | RLWT-3VO | 12,0 | 12,0 | 5,9 | 13,5 |
| 220 22 04 | RLWT-4VO | 12,0 | 18,0 | 6,4 | 20,0 |
| 220 22 05 | RLWT-5VO | 16,0 | 14,0 | 6,4 | 16,0 |
| 220 22 06 | RLWT-6VO | 20,0 | 20,0 | 6,4 | 22,0 |



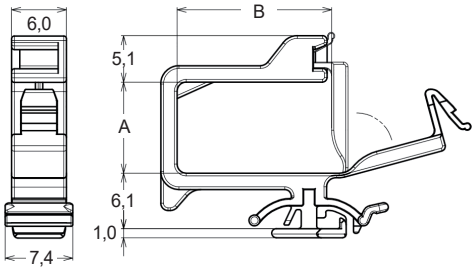
# RLSD KABELHALTER

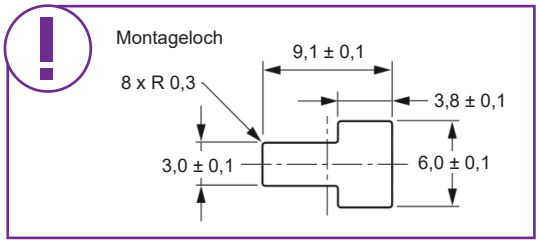
Merkmale:

- SCHIEBE-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- extrem flacher Rastfuss
- für Plattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0 • Farbe: weiss

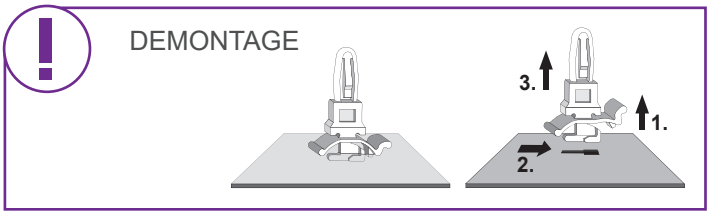


Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| 220 23 06 | RLSD-3VO | 12,0 | 12,0 |
| 220 23 07 | RLSD-4VO | 10,0 | 17,0 |



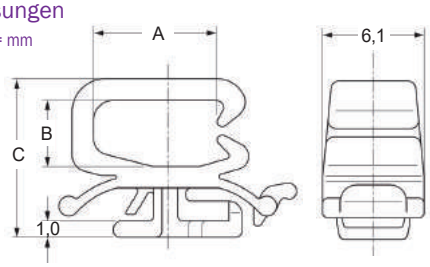

# RSC KABELHALTER

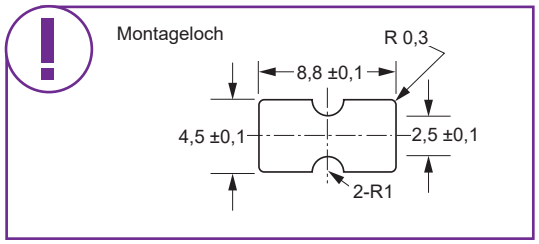
NEU

Merkmale:

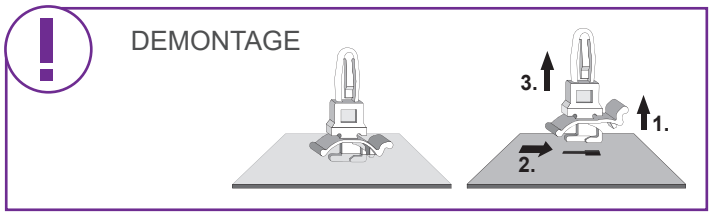
- SCHIEBE-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- extrem flacher Rastfuss
- für Plattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0 • Farbe: weiss

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | t = Plattenstärke (mm) |
|---|---|---|---|---|---|
| 220 23 09 | RSC-1VO | 7,5 | 4,0 | 9,6 | 0,8 - 1,6 |
| 220 23 10 | RSC-2VO | 9,4 | 5,0 | 13,2 | 0,8 - 2,0 |



NEU

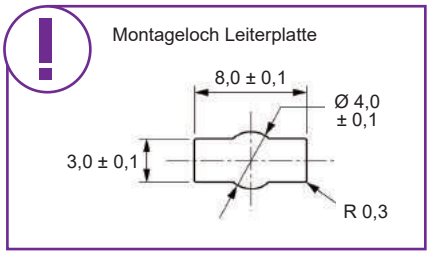
# RCAT KABELHALTER

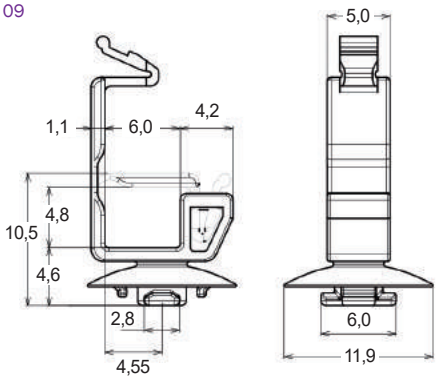
Merkmale:

- ROTATIONS-Montage
- von einer Seite montierbar und demontierbar
- mit extrem flachen Rastfuss
- wiederverwendbar
- für Leiterplattenstärke 0,5 - 1,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: schwarz

Abmessungen ► Einheit = mm

Art.-Nr. 220 22 09

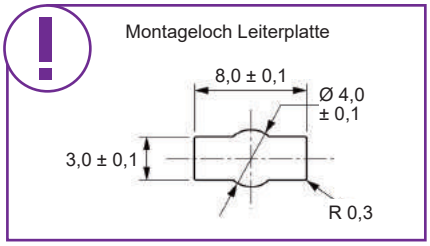


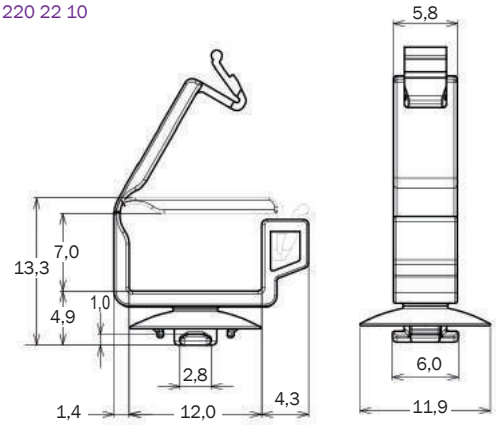




| Art.-Nr. | Typ |
|---|---|
| 220 22 09 | RCAT-0,5VOB |

Abmessungen ► Einheit = mm

Art.-Nr. 220 22 10

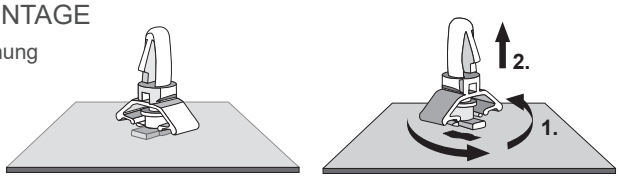



| Art.-Nr. | Typ |
|---|---|
| 220 22 10 | RCAT-2VOB |

DEMONTAGE

1/4 Drehung



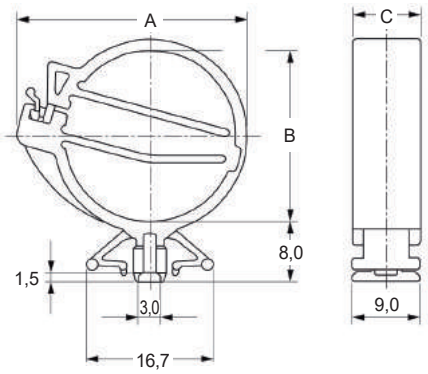
# RLCT KABELHALTER

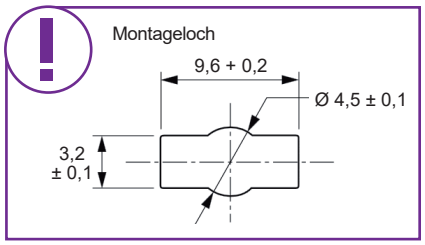
NEU

Merkmale:

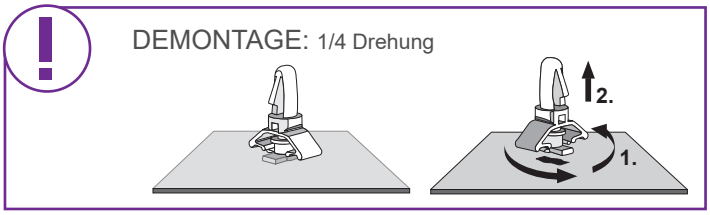
- ROTATIONS-Montage
- von einer Seite montierbar und demontierbar
- mit extrem flachen Rastfuss
- wiederverwendbar
- für Plattenstärke 0,8 - 3,2 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|
| 220 22 07 | RLCT-13VO | 23,1 | 16,1 | 7,0 |
| 220 22 08 | RLCT-20VO | 30,0 | 22,7 | 9,0 |

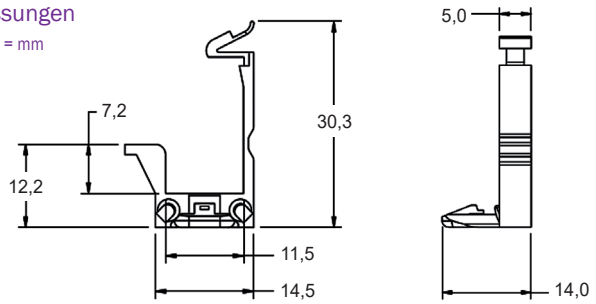



# SMWSLT-1-156 LEITUNGSHALTER

Merkmale

- mit Rastschuh und wiederlösbarem Verschluss
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 222 10 12 | SMWSLT-1-156 |

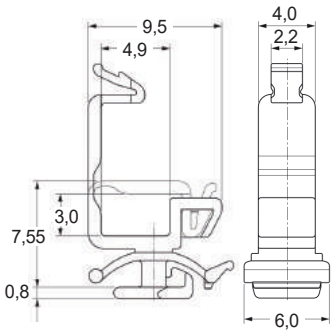
NEU

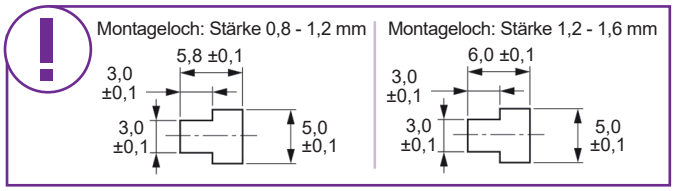
# RMCS-1VO KABELHALTER

Merkmale:

- SCHIEBE-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- extrem flacher Rastfuss
- für Plattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0 • Farbe: weiss

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 220 23 08 | RMCS-1VO |

NEU

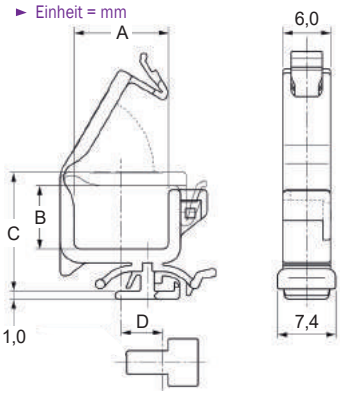
# RLSC KABELHALTER

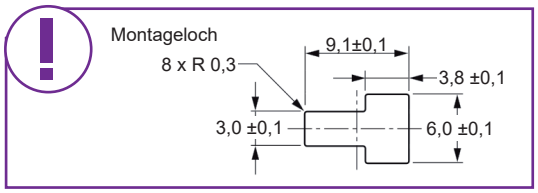
Merkmale:

- SCHIEBE-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- extrem flacher Rastfuss
- für Plattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0 • Farbe: weiss

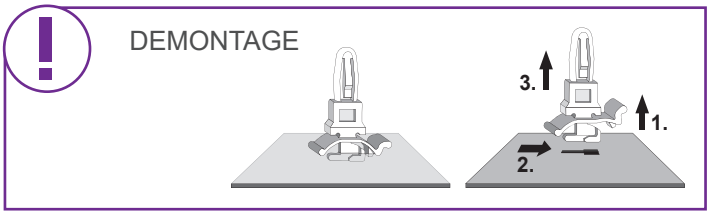
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 220 23 00 | RLSC-0,5VO | 5,0 | 3,6 | 9,6 | 3,4 |
| 220 23 01 | RLSC-1VO | 9,0 | 5,2 | 11,8 | 4,2 |
| 220 23 02 | RLSC-1,5VO | 12,0 | 3,6 | 9,6 | 6,7 |
| 220 23 03 | RLSC-2VO | 12,0 | 8,0 | 15,2 | 5,2 |
| 220 23 04 | RLSC-3VO | 12,0 | 12,0 | 19,2 | 5,2 |
| 220 23 05 | RLSC-5VO | 16,0 | 14,0 | 21,6 | 7,5 |



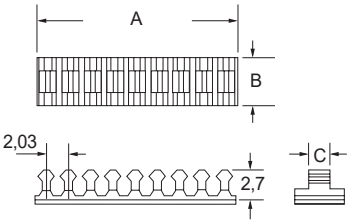
# MU + MUA LITZENFÜHRUNG

Merkmale

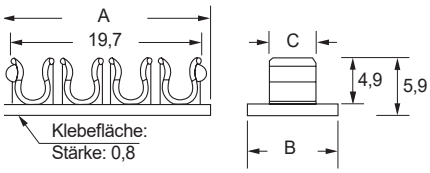
- geeignet für nachträgliches, sortierendes Fädeln von max. 4 bzw. 8 Litzen bis zu einem Ø von 1,0 - 1,2 mm bzw. von 2,75 nn
- sehr platzsparende Ausführung
- Material: Nylon 66
- Farbe: natur

Abmessungen ► Einheit = mm

**Art.-Nr. 222 03 01 + Art.-Nr. 222 03 02**




**Art.-Nr. 222 03 03**



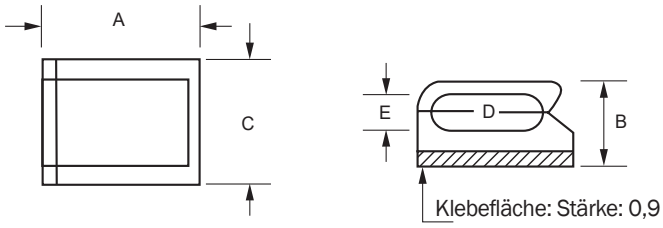

| Art.-Nr. | Typ | UL | Litzen-Ø (mm) | A (mm) | B (mm) | C (mm) | Klebefläche |
|---|---|---|---|---|---|---|---|
| 222 03 01 | MU-01-1-8 | UL94V-2 | 8 x 1,0 - 1,2 | 18,3 | 4,4 | 1,9 | ja |
| 222 03 02 | MU-01-1-8NT | UL94V-2 | 8 x 1,0 - 1,2 | 18,3 | 4,4 | 1,9 | nein |
| 222 03 03 | MUA-01 | UL94V-0 | 4 x 2,75 | 22,0 | 9,5 | 4,7 | ja |

# FW MINI-KABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | UL | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|---|---|---|---|---|---|---|---|
| 222 04 11 | FW-2S | UL94V-2 | 12,5 | 6,1 | 9,5 | 8,4 | 2,5 |
| 222 04 10 | FW-2M | UL94V-2 | 14,5 | 6,5 | 9,5 | 10,3 | 2,5 |
| 222 04 12 | FW-2L | UL94V-0 | 16,2 | 10,2 | 16,0 | 11,8 | 6,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

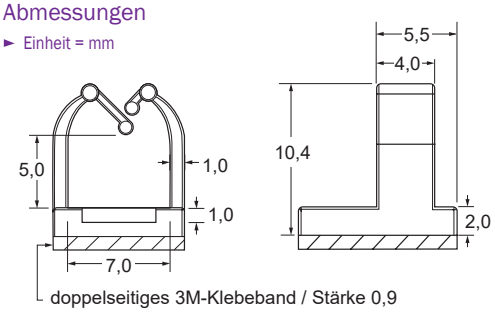
# WLL-8 KABELHALTER

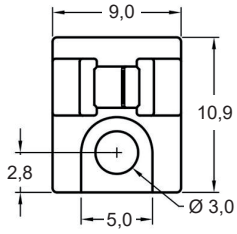
Merkmale

- Klebemontage • Material: Nylon 66, UL94 V-2 • Farbe: natur

Abmessungen

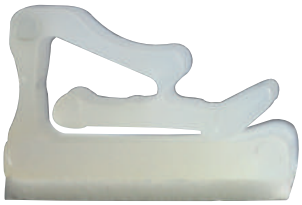
► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 222 04 13 | WLL-8 |

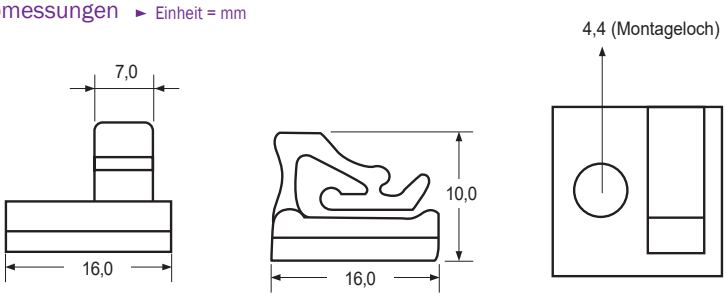
# 320-2622-500 KABELHALTER



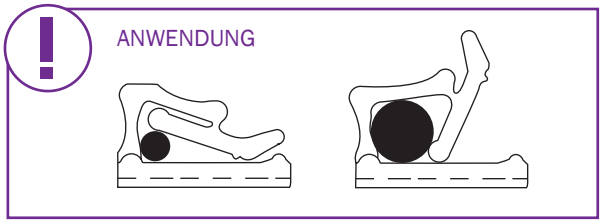
Merkmale:

- zum Kleben oder/und zum Schrauben
- zur Befestigung von Kabeln
- Einsatztemperatur: -20 °C bis +50 °C (Klebefolie Dauertemperatur)
- Material: PA 6.6
- Farbe: natur

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Farbe |
|---|---|---|
| 222 04 05 | 320-2622-500 | natur |

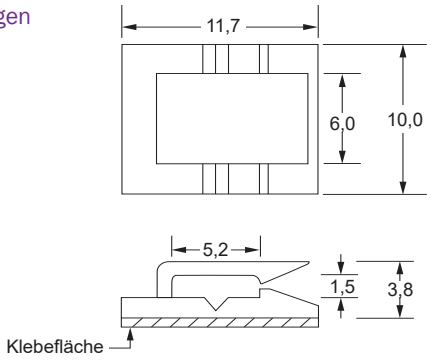


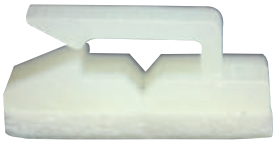
# WCLA-1 KABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm



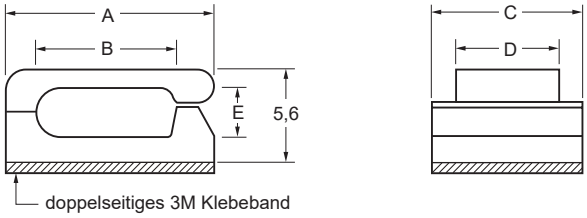
| Art.-Nr. | Typ |
|---|---|
| 220 16 06 | WCLA-1 |

# MWS MINI-KABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm



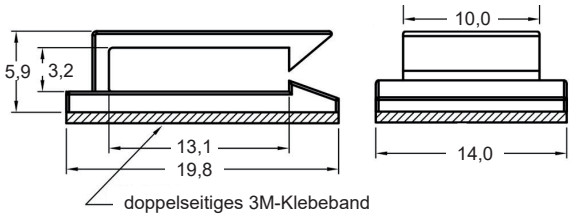
| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|---|---|---|---|---|---|---|
| 222 04 14 | MWS-2 | 13,0 | 8,5 | 9,2 | 6,3 | 3,0 |
| 222 04 15 | MWS-3 | 16,0 | 11,5 | 13,0 | 9,0 | 2,9 |

# MWS-30 KABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm



| Art.-Nr. | Typ |
|---|---|
| 222 04 03 | MWS-30 |

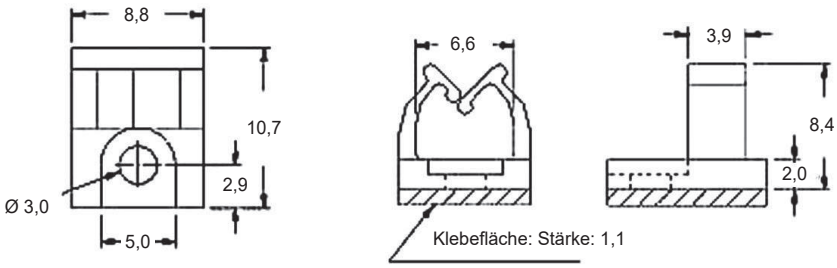
# WH-6A MINI-KABELHALTER

Merkmale

- Klebemontage und / oder Schraubmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 222 04 08 | WH-6A |

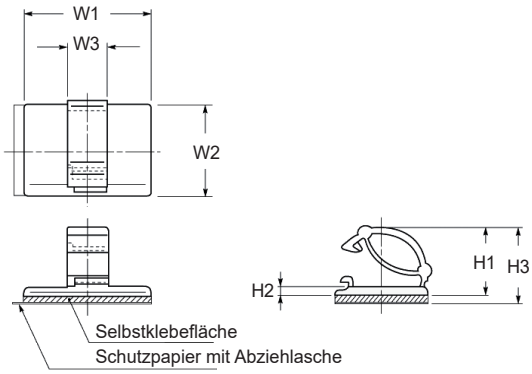
# PA KABELHALTER

Merkmale

- Klebemontage
- auch einzelne Litzen und Kabel werden dank der integrierten Kunststofffeder sicher gehalten
- Material: Nylon 6, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | für Kabel-Ø (mm) | W1 (mm) | W2 (mm) | W3 (mm) | H1 (mm) | H2 (mm) | H3 (mm) |
|---|---|---|---|---|---|---|---|---|
| 222 16 10 | PA-10N | 2,1 | 19,6 | 10,0 | 6,0 | 7,4 | 1,4 | 8,5 |
| 222 16 12 | PA-20N | 4,5 | 19,6 | 14,2 | 6,0 | 10,6 | 1,4 | 11,7 |
| 222 16 14 | PA-30N | 8,0 | 19,6 | 21,3 | 8,0 | 17,5 | 2,2 | 18,6 |

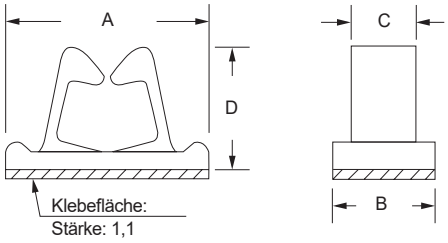
# WH-5A MINI-KABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66
- Farbe: natur

Abmessungen

► Einheit = mm



| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| **222 04 09** | WH-5A | 17,8 | 8,9 | 5,6 | 10,7 |

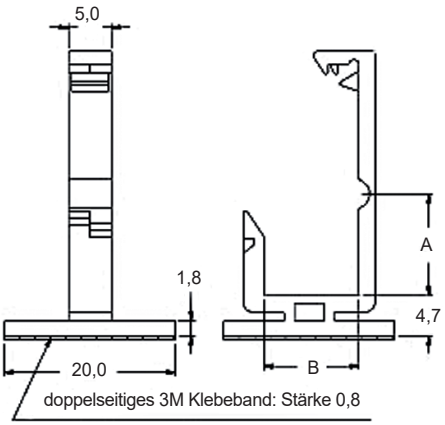
# WLN KABELHALTER

Merkmale

- wiederlösbar
- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm



| Art.-Nr. | Typ | A (mm) | B (mm) |
|---|---|---|---|
| **220 11 01** | WLN-1 | 6,7 | 11,1 |
| **220 11 02** | WLN-2 | 11,9 | 11,1 |
| **220 11 03** | WLN-3 | 15,7 | 15,7 |

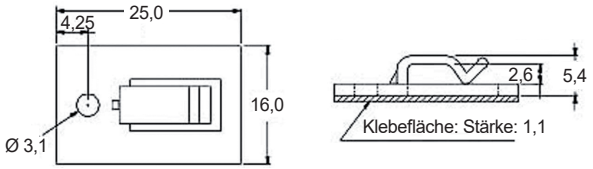
# FCA-10 KABELHALTER

Merkmale

- Klebe- und/oder Schraubmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 221 09 10 | FCA-10 |

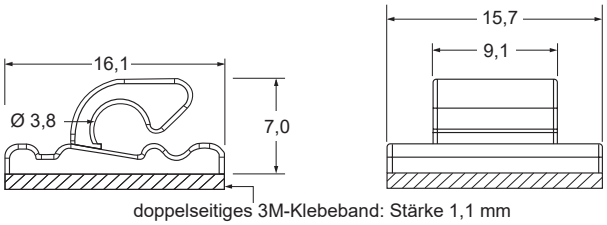
# KH-04 KABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66, UL94 V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 220 16 01 | KH-04 |

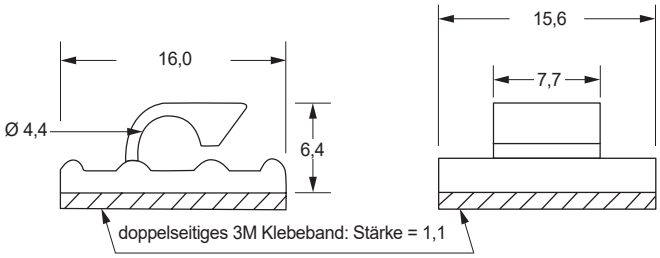
# WCK-180-01A-RT KABELHALTER

Merkmale

- Klebemontage
- zur Befestigung von Kabeln oder Schläuchen
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 220 16 02 | WCK-180-01A-RT |

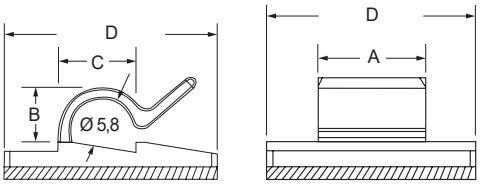
# KH KABELHALTER

Merkmale

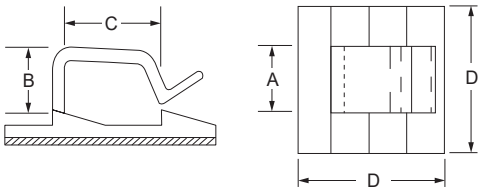
- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm

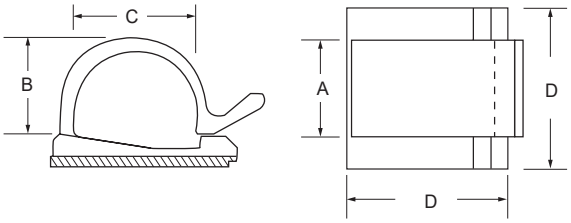
**Art.-Nr.: 220 16 03**



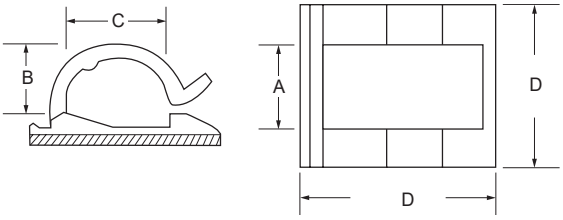
**Art.-Nr.: 220 16 04**



**Art.-Nr.: 220 16 05**

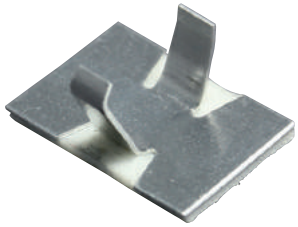


**Art.-Nr.: 220 16 09**



| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 220 16 03 | KH-05 | 10,0 | 5,0 | 6,0 | 19,0 |
| 220 16 04 | KH-08 | 12,3 | 8,0 | 12,0 | 26,0 |
| 220 16 05 | KH-15 | 16,0 | 15,0 | 18,0 | 26,0 |
| 220 16 09 | WCL-9 | 12,7 | 7,6 | 11,6 | 25,2 |

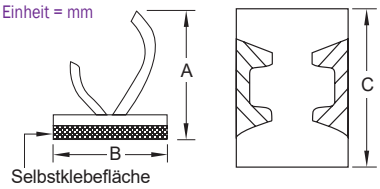
# ACC RUNDKABELHALTER



Merkmale

- Klebemontage
- für runde Einzelkabel oder Kabelbündel
- Material: Aluminium
- Farbe: natur

Abmessungen
► Einheit = mm



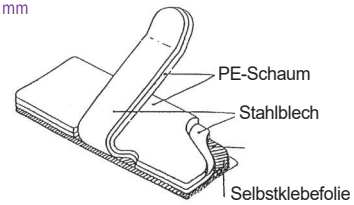

| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | für Kabel-Ø (mm) |
|---|---|---|---|---|---|
| 220 15 01 | ACC-01 | 9,5 | 11,0 | 16,0 | 6,3 |
| 220 15 02 | ACC-02 | 14,5 | 16,0 | 19,0 | 10,0 |

# K METALL KABELHALTER

Merkmale

- Klebemontage
- mit PE-Schaum ausgelegt, selbstklebend
- Beschädigungen werden vermieden/bessere Isolation
- ideale Lösung um variierende Kabelformen zu befestigen
- Material: Stahlblech verzinkt, Aluminium

Abmessungen ► Einheit = mm



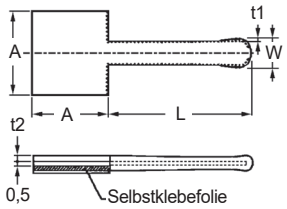

| Art.-Nr. | Typ | Klebefläche (mm) | für Kabel-Ø (mm) | Material |
|---|---|---|---|---|
| 220 12 03 | K-103G | 10,0 x 19,0 | 10,0 | Stahlblech verzinkt |
| 220 12 04 | K-104G | 10,0 x 24,0 | 9,0 | Stahlblech verzinkt |
| 220 12 05 | K-105G | 14,0 x 24,0 | 12,0 | Stahlblech verzinkt |
| 220 12 06 | K-106G | 15,0 x 25,0 | 15,0 | Stahlblech verzinkt |
| 220 12 15 | K-115G | 14,0 x 24,0 | 12,0 | Aluminium |

# CA METALL KABELHALTER MIT PVC-ÜBERZUG

Mekmale

- Klebemontage
- optimale elektrische Isolierung
- Material: Stahlblech verzinkt, PVC-Überzug SS-108
- Farbe: elfenbein

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | W (mm) | t1 (mm) | t2 (mm) | L (mm) |
|---|---|---|---|---|---|---|
| 220 12 20 | CA-8 | 8,0 | 2,1 | 0,2 (+ 0,2/-0,05) | 1,0 (±0,5) | 15,0 |
| 220 12 21 | CA-14 | 14,0 | 3,5 | 0,2 (+ 0,2/-0,05) | 1,0 (±0,5) | 25,0 |
| 220 12 22 | CA-19 | 19,0 | 4,0 | 0,2 (+ 0,2/-0,05) | 1,0 (±0,5) | 30,0 |

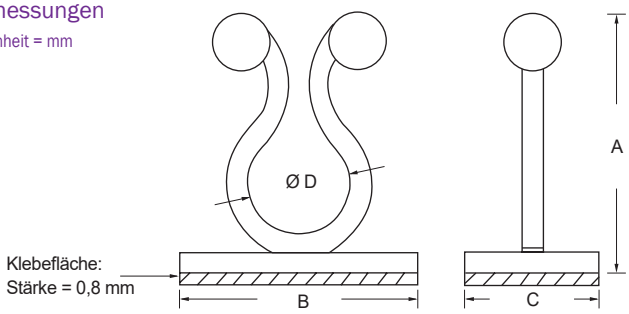
# TDK DREHVERSCHLUSS

Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | Ø D (mm) | Bündel-Ø max. (mm) |
|---|---|---|---|---|---|---|
| 220 19 31 | TDK-8 | 28,0 | 24,8 | 13,0 | 9,2 | 8,2 |
| 220 19 32 | TDK-10 | 31,2 | 21,0 | 19,0 | 10,8 | 10,0 |
| 220 19 33 | TDK-22 | 40,7 | 25,5 | 13,0 | 21,0 | 19,0 |
| 220 19 34 | TDK-13 | 34,7 | 25,0 | 22,0 | 14,7 | 13,0 |

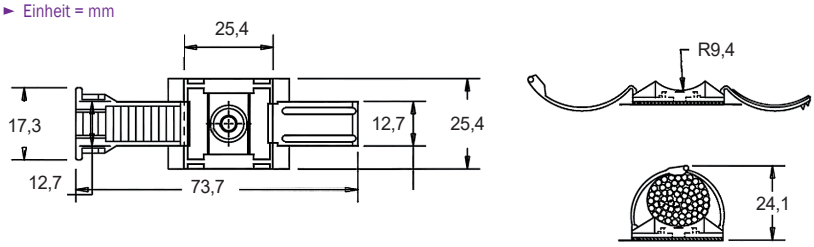
# ARC KABLEHALTER

Merkmale

- Schraub- bzw. Klebemontage
- wiederlösbar
- hält Kabelbündel von Ø = 4,8 - 17,5 mm
- Material: Polypropylen, UL94HB
- Farbe: weiss oder grau

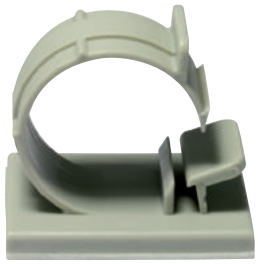
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbe | Bündel-Ø (mm) | Befestigungsart |
|---|---|---|---|---|
| 220 07 01 W | ARC.68-A | weiß | 4,8 - 17,5 | selbstklebend |
| 220 07 01 | ARC.68-A-14 | grau | 4,8 - 17,5 | selbstklebend |
| 220 07 02 W | ARC.68-S6 | weiß | 4,8 - 17,5 | für Schrauben M3 |
| 220 07 02 | ARC.68-S6-14 | grau | 4,8 - 17,5 | für Schrauben M3 |

# RKH KABELHALTER

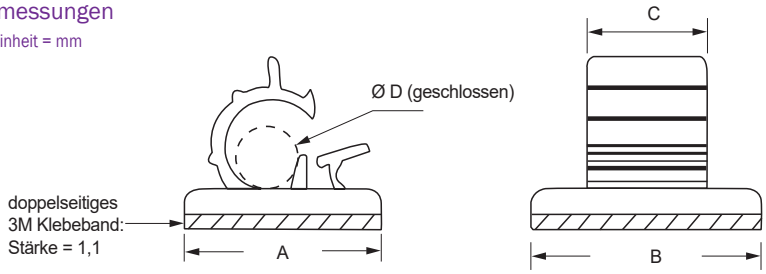


## Merkmale

- Rastverschluss, wiederlösbar
- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: grau (natur auf Anfrage möglich)

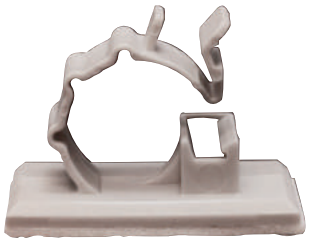
## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 220 01 40 | RKH-1 | 16,0 | 18,8 | 9,7 | 5,0 |
| 220 01 41 | RKH-2 | 25,3 | 25,4 | 16,1 | 11,0 |
| 220 01 42 | RKH-3 | 37,0 | 29,3 | 16,9 | 19,6 |
| 220 01 43 | RKH-4 | 57,1 | 50,5 | 31,7 | 26,8 |

# CKN RUNDKABELHALTER

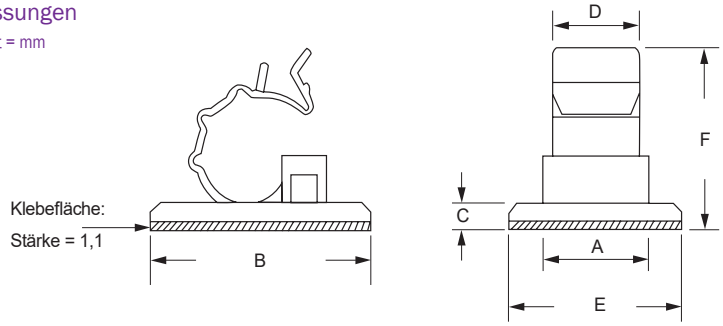


## Merkmale

- mit Rastverschluss, wiederlösbar
- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: grau

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|
| 220 01 05 | CKN-05 | 10,8 | 17,5 | 3,0 | 8,5 | 20,5 | 9,8 | 5,4 |
| 220 01 07 | CKN-07 | 12,1 | 25,5 | 3,2 | 9,8 | 17,5 | 11,0 | 6,5 |
| 220 01 10 | CKN-10 | 14,3 | 30,0 | 3,5 | 12,0 | 21,0 | 15,0 | 10,0 |
| 220 01 13 | CKN-13 | 16,3 | 30,0 | 3,5 | 14,0 | 24,0 | 21,0 | 14,4 |
| 220 01 16 | CKN-16 | 18,3 | 36,0 | 4,0 | 16,0 | 25,5 | 24,0 | 17,4 |
| 220 01 20 | CKN-20 | 20,3 | 40,0 | 4,0 | 18,0 | 30,0 | 26,0 | 20,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

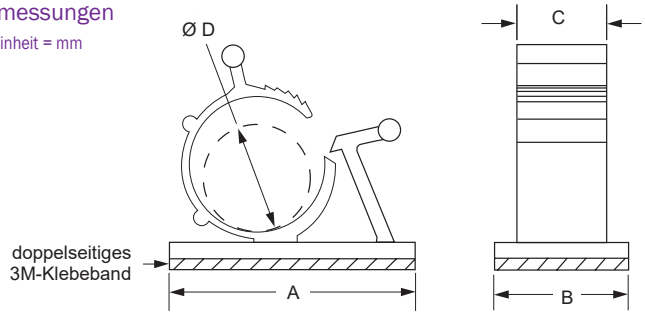
# RKR RUNDKABELHALTER

Merkmale

- Klebemontage
- Rastverschluss wiederlösbar
- Material: Nyon 66, UL94V-2
- Farbe: natur (schwarz auf Anfrage)

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (m) | Ø D (m) |
|---|---|---|---|---|---|
| 220 01 50 | RKR-1 | 24,8 | 18,8 | 10,2 | 7,9 - 10,3 |
| 220 01 51 | RKR-2 | 25,4 | 15,0 | 10,0 | 11,0 - 13,3 |
| 220 01 52 | RKR-3 | 30,2 | 15,0 | 10,0 | 11,9 - 14,3 |
| 220 01 53 | RKR-4 | 34,4 | 18,8 | 12,7 | 14,7 - 19,1 |
| 220 01 54 | RKR-5 | 36,0 | 19,0 | 12,7 | 18,0 - 22,0 |
| 220 01 55 | RKR-6 | 39,8 | 19,8 | 13,0 | 22,0 - 26,5 |

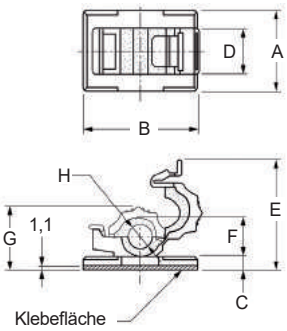
# DKN-GSP RUNDKABELHALTER

Merkmale

- Klebemontage
- mit Neopren-Einlage zum besseren Schutz des Kabels, auch bei Vibrationen
- auch geeignet für Glasfaserkabel
- Material: Nylon 66, UL94V-2
- Farbe: grau

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Kabel-Ø (mm) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 220 01 60 | DKN-5GSP1,5 | 3,0 - 4,5 | 19,0 | 17,5 | 3,1 | 8,0 | 19,7 | 7,0 | 11,6 | 2,5 |
| 220 01 61 | DKN-7GSP1,5 | 4,5 - 5,5 | 19,0 | 24,0 | 3,1 | 10,0 | 21,0 | 8,0 | 12,6 | 3,5 |
| 220 01 62 | DKN-10GSP2,0 | 5,0 - 8,0 | 21,0 | 30,0 | 3,6 | 12,0 | 29,0 | 11,3 | 16,9 | 4,5 |
| 220 01 63 | DKN-13GSP3,0 | 8,0 - 10,0 | 24,0 | 30,0 | 3,6 | 14,0 | 34,6 | 15,6 | 21,3 | 7,5 |
| 220 01 64 | DKN-16GSP4,0 | 9,0 - 13,0 | 25,5 | 36,0 | 4,1 | 16,0 | 42,6 | 18,5 | 25,6 | 8,5 |
| 220 01 65 | DKN-20GSP4,0 | 12,0 17,0 | 30,0 | 40,0 | 4,1 | 18,0 | 46,1 | 21,5 | 29,4 | 11,5 |

# VF VERDRAHTUNGSKANAL

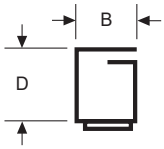
## Merkmale

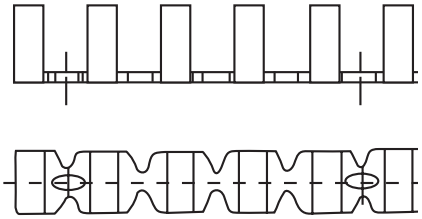
- zur flexiblen Leitungsführung
- schwerentflammbar und selbstverlöschend
- standardmäßig mit Bodenlochung
- leichte Konfektionsmöglichkeiten ohne Spezialwerkzeuge
- halogenfrei
- mit oder ohne Klebeband erhältlich
- Lieferlänge: 500 mm (± 10 mm)
- Material: PP, UL94-V0
- temperaturbeständig von -20°C bis +70°C
- Farbe: reinweiss RAL9010 (geringe Farbabweichung ferigungsbedingt möglich)

## Abmessungen

► Einheit = mm

**VF 10**
**VF 10K**

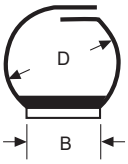


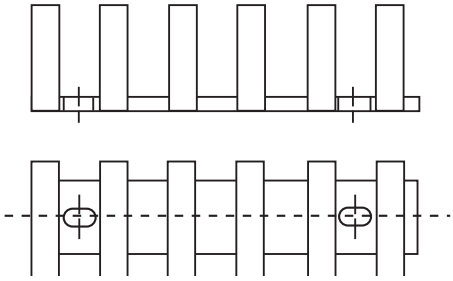



## Abmessungen

► Einheit = mm

**VF 20 - 40**
**VF 20K - 40K**



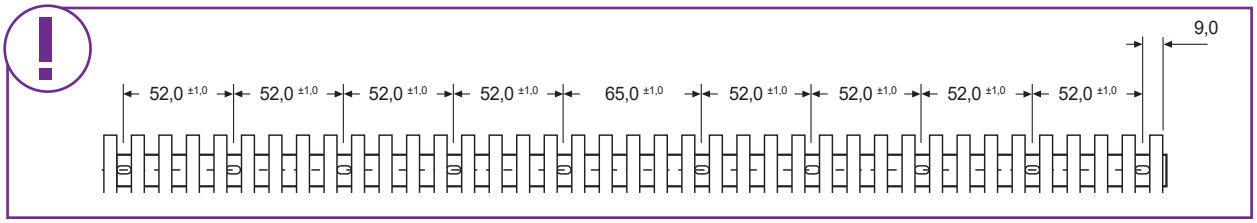
- ohne Klebeband

| Art.-Nr. | Typ | B (mm) | D (mm) |
|---|---|---|---|
| 233 02 10 | VF 10 | 11,0 | 9,0/11,0 |
| 233 02 20 | VF 20 | 14,0 | 20,0 |
| 233 02 30 | VF 30 | 14,0 | 30,0 |
| 233 02 40 | VF 40 | 18,0 | 40,0 |

- mit doppelseitigem, stark haftendem Klebeband

| Art.-Nr. | Typ | B (mm) | D (mm) |
|---|---|---|---|
| 233 02 11 | VF 10K | 11,0 | 9,0/11,0 |
| 233 02 21 | VF 20K | 14,0 | 20,0 |
| 233 02 31 | VF 30K | 14,0 | 30,0 |
| 233 02 41 | VF 40K | 18,0 | 40,0 |

| Fassungsvermögen für "n" Drähte | VF 10 (K) | VF 20 (K) | VF 30 (K) | VF 40 (K) |
|---|---|---|---|---|
| 0,75 mm² | 9,0 | 32,0 | 67,0 | - |
| 1,5 mm² | 6,0 | 22,0 | 50,0 | 81,0 |
| 2,5 mm² | 4,0 | 14,0 | 34,0 | 60,0 |



# NK NYLONSCHELLE

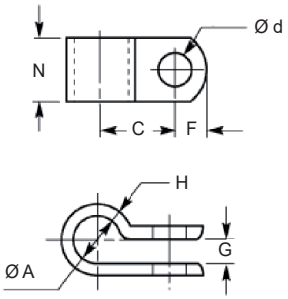
## Merkmale

- zur Befestigung von Kabeln oder Schläuchen
- Schraub- bzw. Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur (schwarz auf Anfrage möglich)

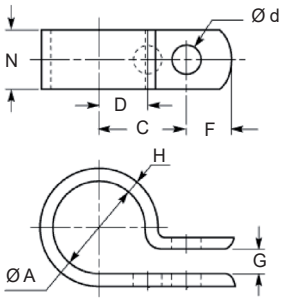
## Abmessungen

► Einheit = mm

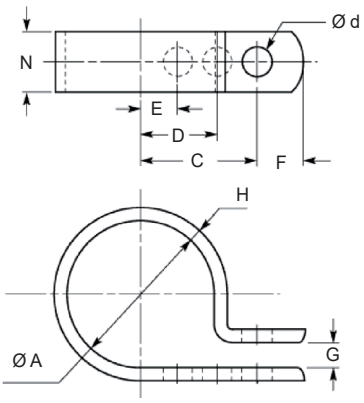
Figur 1




Figur 2




Figur 3




| Art.-Nr. | Typ | Fig. | Kabelbaum-Ø (mm) Aussenbohrung | Mittelbohrung | Innenbohrung | Ø A (mm) | Ø d (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (mm) | N (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 220 09 01 | NK-1N | 1 | 1,6 | - | - | 1,9 | 3,2 | 6,7 | - | - | 5,5 | 3,2 | 1,1 | 9,5 |
| 220 09 02 | NK-2N | 1 | 3,0 | - | - | 3,3 | 4,3 | 9,5 | - | - | 4,8 | 3,2 | 1,1 | 9,5 |
| 220 09 03 | NK-3N | 1 | 4,6 | - | - | 5,3 | 4,3 | 10,3 | - | - | 4,8 | 4,8 | 1,1 | 9,5 |
| 220 09 04 | NK-4N | 1 | 5,6 | - | - | 6,8 | 4,3 | 11,1 | - | - | 4,8 | 4,8 | 1,1 | 9,5 |
| 220 09 05 | NK-5N | 1 | 7,4 | - | - | 8,4 | 4,3 | 11,9 | - | - | 4,8 | 4,8 | 1,1 | 9,5 |
| 220 09 06 | NK-6N | 1 | 10,0 | - | - | 10,6 | 4,3 | 12,7 | - | - | 4,8 | 6,4 | 1,1 | 9,5 |
| 220 09 07 | NK-7N | 1 | 10,7 | - | - | 12,2 | 4,3 | 13,5 | - | - | 4,8 | 6,4 | 1,1 | 9,5 |
| 220 09 08 | NK-8N | 1 | 11,9 | - | - | 13,2 | 4,3 | 14,3 | - | - | 4,8 | 6,4 | 1,1 | 9,5 |
| 220 09 09 | NK-9N | 1 | 13,5 | - | - | 15,2 | 4,3 | 15,1 | - | - | 4,8 | 6,4 | 1,1 | 9,5 |
| 220 09 10 | NK-10N | 1 | 14,0 | - | - | 16,0 | 4,3 | 15,9 | - | - | 4,8 | 6,4 | 1,1 | 9,5 |
| 220 09 11 | NK-11N | 1 | 16,8 | - | - | 19,0 | 5,1 | 17,5 | - | - | 6,3 | 7,9 | 1,8 | 12,7 |
| 220 09 12 | NK-12N | 1 | 17,8 | - | - | 19,8 | 5,1 | 18,2 | - | - | 6,3 | 7,9 | 1,8 | 12,7 |
| 220 09 13 | NK-13N | 1 | 20,8 | - | - | 22,1 | 5,1 | 19,0 | - | - | 6,3 | 7,9 | 1,8 | 12,7 |
| 220 09 14 | NK-14N | 2 | 21,3 | 18,5 | - | 22,9 | 5,1 | 19,8 | 11,9 | - | 6,3 | 7,9 | 1,8 | 12,7 |
| 220 09 16 | NK-16N | 2 | 24,4 | 22,3 | - | 26,9 | 5,1 | 21,4 | 13,5 | - | 6,3 | 7,9 | 1,8 | 12,7 |
| 220 09 18 | NK-18N | 2 | 26,7 | 24,1 | - | 29,2 | 5,1 | 23,0 | 15,1 | - | 6,4 | 7,9 | 1,8 | 12,7 |
| 220 09 24 | NK-24N | 3 | 37,3 | 35,0 | 31,2 | 39,4 | 5,1 | 27,8 | 19,9 | 11,9 | 6,4 | 9,5 | 1,8 | 12,7 |
| 220 09 32 | NK-32N | 3 | 48,8 | 46,2 | 43,7 | 52,1 | 5,1 | 34,1 | 24,6 | 13,5 | 6,4 | 9,5 | 1,8 | 12,7 |

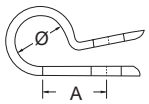
# GCL KABELSCHELLEN

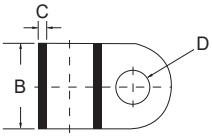
Merkmale:

- zur Befestigung von Kabeln oder Schläuchen
- Schraub- bzw. Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Ø (mm) | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|
| 220 09 80 | GCL-1/8 | 2,9 | 9,1 | 12,7 | 1,50 | 5,3 |
| 220 09 71 | GCL-1/8S | 3,3 | 8,2 | 9,1 | 1,27 | 5,4 |
| 220 09 81 | GCL-3/16 | 4,4 | 10,7 | 12,7 | 1,50 | 5,3 |
| 220 09 72 | GCL-3/16S | 4,8 | 9,6 | 9,1 | 1,27 | 5,4 |
| 220 09 82 | GCL-1/4 | 5,9 | 11,4 | 12,7 | 1,50 | 5,3 |
| 220 09 73 | GCL-1/4S | 6,6 | 10,3 | 9,1 | 1,27 | 5,4 |
| 220 09 74 | GCL-5/16S | 7,8 | 10,6 | 9,1 | 1,27 | 5,4 |
| 220 09 83 | GCL-3/8 | 9,1 | 13,4 | 12,7 | 1,50 | 5,3 |
| 220 09 75 | GCL-3/8S | 9,7 | 11,9 | 9,2 | 1,27 | 5,4 |
| 220 09 84 | GCL-3/7 | 11,1 | 13,5 | 12,7 | 1,50 | 5,3 |
| 220 09 85 | GCL-1/2 | 12,2 | 15,0 | 12,7 | 1,50 | 5,3 |
| 220 09 86 | GCL-9/16 | 13,8 | 15,8 | 12,7 | 1,50 | 5,3 |
| 220 09 88 | GCL-5/8 | 15,9 | 15,9 | 12,7 | 1,50 | 5,3 |
| 220 09 89 | GCL-2/3 | 17,4 | 16,9 | 12,7 | 1,50 | 5,3 |
| 220 09 90 | GCL-3/4 | 18,6 | 19,8 | 12,7 | 1,50 | 5,3 |
| 220 09 91 | GCL-4/5 | 20,6 | 19,9 | 12,7 | 1,50 | 5,3 |
| 220 09 92 | GCL-7/8 | 21,8 | 21,4 | 12,7 | 1,50 | 5,3 |
| 220 09 93 | GCL-1 | 25,4 | 20,9 | 12,7 | 1,50 | 5,3 |
| 220 09 94 | GCL-1-1/8 | 27,9 | 24,6 | 12,7 | 1,50 | 5,3 |
| 220 09 95 | GCL-1-1/4 | 31,8 | 24,9 | 12,7 | 1,50 | 5,3 |

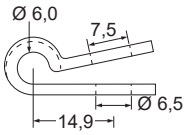
# RP-6 KABELSCHELLEN

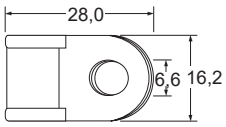
Merkmale

- Schraub- bzw. Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm



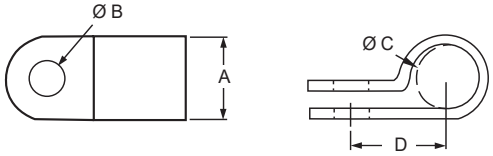

| Art.-Nr. | Typ |
|---|---|
| 220 09 99 | RP-6 |

# HxP KABELSCHELLEN

Merkmale

- zur Befestigung von Kabeln oder Schläuchen
- Schraub- bzw. Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | Ø B (mm) | Ø C (mm) | D (mm) |
|---|---|---|---|---|---|
| 220 09 41 | H1P | 9,9 | 4,4 | 3,0 | 8,5 |
| 220 09 42 | H2P | 10,0 | 4,2 | 5,0 | 9,5 |
| 220 09 43 | H3P | 10,0 | 4,3 | 6,5 | 9,9 |
| 220 09 46 | H4P | 10,0 | 4,2 | 11,0 | 7,75 |

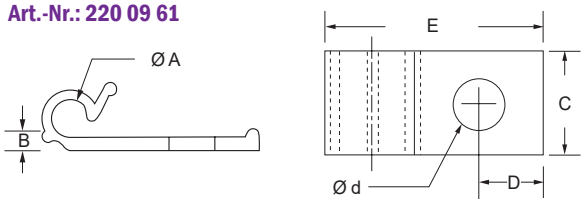
# WHC KABELHALTER

Merkmale

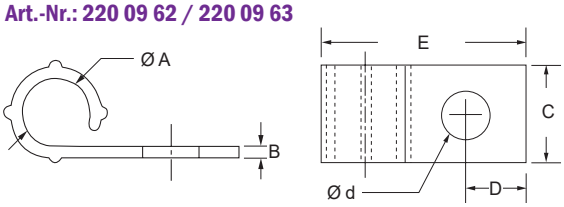
- zur Befestigung von Kabeln oder Schläuchen
- Schraub- bzw. Nietmontage
- *Art.-Nr. 220 09 62S und 220 09 63S mit Selbsthaltelippe, alle anderen Artikel mit Durchgangsloch
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen ► Einheit = mm

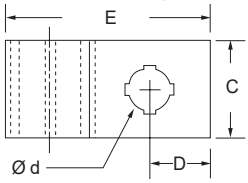
**Art.-Nr.: 220 09 61**



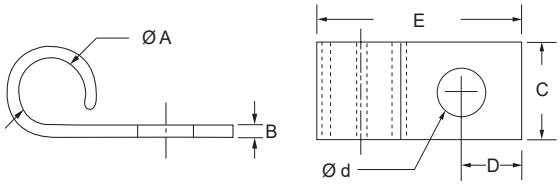

**Art.-Nr.: 220 09 62 / 220 09 63**




**Art.-Nr.: 220 09 62S / 220 09 63S**




**Art.-Nr.: 220 09 64 /220 09 65 / 220 09 66 / 220 09 67 / 220 09 68**




| Art.-Nr. | Typ | Ø A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Ø d (mm) |
|---|---|---|---|---|---|---|---|
| 220 09 61 | WHC-125-01 | 3,2 | 1,3 | 8,4 | 5,8 | 19,1 | 4,0 |
| 220 09 62 | WHC-250-01 | 6,4 | 1,0 | 10,2 | 6,4 | 21,1 | 5,0 |
| 220 09 62 S | WHC-250-01-SHL* | 6,0 | 1,5 | 10,3 | 6,3 | 21,2 | 5,2 |
| 220 09 63 | WHC-375-01 | 9,5 | 1,3 | 10,2 | 4,8 | 21,1 | 5,0 |
| 220 09 63 S | WHC-375-01-SHL* | 9,2 | 1,3 | 10,2 | 4,4 | 20,7 | 5,2 |
| 220 09 64 | WHC-500-01 | 12,7 | 1,8 | 10,2 | 6,4 | 29,4 | 5,0 |
| 220 09 65 | WHC-625-01 | 15,9 | 2,0 | 12,7 | 4,8 | 28,6 | 5,0 |
| 220 09 66 | WHC-750-01 | 19,1 | 2,0 | 12,7 | 4,8 | 32,5 | 5,0 |
| 220 09 67 | WHC-1000-01 | 25,4 | 2,3 | 12,7 | 4,8 | 38,9 | 5,0 |
| 220 09 68 | WHC-1500-01 | 38,1 | 2,5 | 12,7 | 4,8 | 53,9 | 5,0 |

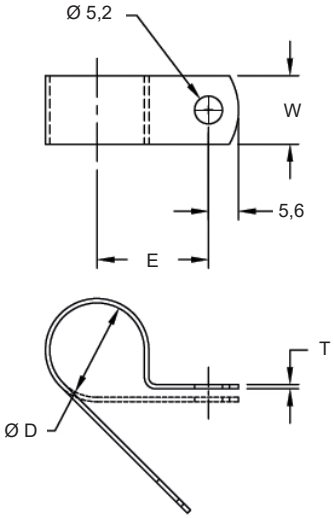
# AL KABELSCHELLEN

## Merkmale

- zur Befestigung von Kabeln oder Schläuchen
- ideal auch zur Masseanbindung/Erdung
- Material: Aluminium unbeschichtet 5052 H-32

## Abmessungen

► Einheit = mm



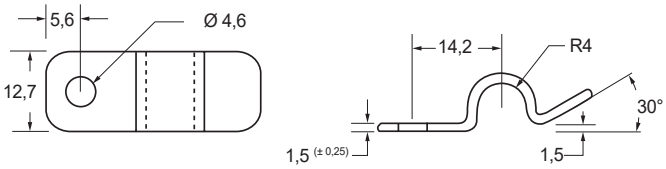

| Art.-Nr. | Typ | Ø D (mm) | E (mm) | T (mm) | W (mm) | VPE |
|---|---|---|---|---|---|---|
| 220 08 20 | AL2 | 3,2 | 11,7 | 0,8 | 9,5 | 1.000 |
| 220 08 21 | AL3 | 4,8 | 12,7 | 0,8 | 9,5 | 1.000 |
| 220 08 22 | AL4 | 6,4 | 13,5 | 0,8 | 9,5 | 1.000 |
| 220 08 23 | AL5 | 7,9 | 14,2 | 0,8 | 12,7 | 1.000 |
| 220 08 24 | AL6 | 9,5 | 15,0 | 0,8 | 9,5 | 1.000 |
| 220 08 25 | AL7 | 11,1 | 15,7 | 0,8 | 9,5 | 1.000 |
| 220 08 26 | AL8 | 12,7 | 16,5 | 0,8 | 9,5 | 1.000 |
| 220 08 27 | AL9 | 14,3 | 19,1 | 0,8 | 9,5 | 1.000 |
| 220 08 28 | AL10 | 15,9 | 19,8 | 0,8 | 9,5 | 1.000 |
| 220 08 29 | AL11 | 17,5 | 20,6 | 1,6 | 12,7 | 500 |
| 220 08 30 | AL12 | 19,1 | 21,3 | 1,6 | 12,7 | 500 |
| 220 08 31 | AL14 | 22,2 | 22,9 | 1,6 | 12,7 | 500 |
| 220 08 32 | AL16 | 25,4 | 24,4 | 1,6 | 12,7 | 500 |
| 220 08 33 | AL18 | 28,6 | 26,7 | 1,6 | 12,7 | 500 |
| 220 08 34 | AL20 | 31,8 | 28,2 | 1,6 | 12,7 | 500 |

# KSH-312 KABEL-/SCHLAUCHHALTER

Merkmale

- sicheres und einfaches Einführen oder Entfernen von Kabeln oder Schläuchen ohne den Halter selbst zu entfernen
- Schraub- bzw. Nietmontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen
► Einheit = mm



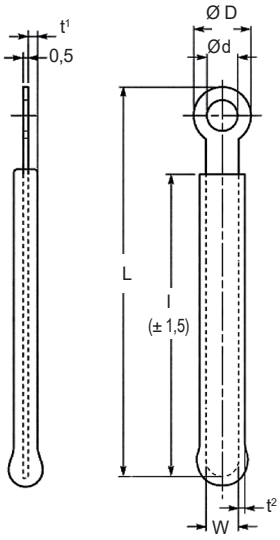

| Art.-Nr. | Typ |
|---|---|
| 222 08 01 | KSH-312 |

# CS KABELHALTER

Merkmale

- Kabelhalter mit Weich-PVC überzogen
- Schraub- bzw. Nietmontage
- optimale elektrische Isolierung
- Material: Stahl verzinkt, PVC-Überzug SS-108
- Farbe: schwarz

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | Ø D (mm) | Ø d (mm) | l (mm) | L (mm) | t1 (mm) | t2 (mm) | W (mm) |
|---|---|---|---|---|---|---|---|---|
| 220 14 01 | CS-1 | 6,0 | 3,3 | 45,0 | 54,0 | 1,0 (± 0,5) | > 0,2 | 3,5 |
| 220 14 02 | CS-2 | 8,0 | 3,3 | 30,0 | 41,0 | 1,0 (± 0,5) | > 0,2 | 3,5 |
| 220 14 03 | CS-3 | 8,0 | 3,3 | 45,0 | 56,0 | 1,0 (± 0,5) | > 0,2 | 3,5 |
| 220 14 04 | CS-4 | 8,0 | 3,3 | 55,0 | 66,0 | 1,0 (± 0,5) | > 0,2 | 4,5 |
| 220 14 05 | CS-5 | 8,0 | 4,4 | 45,0 | 56,0 | 1,0 (± 0,5) | > 0,2 | 4,5 |
| 220 14 06 | CS-6 | 8,0 | 4,4 | 55,0 | 66,0 | 1,0 (± 0,5) | > 0,2 | 4,5 |
| 220 14 07 | CS-7 | 8,0 | 4,4 | 65,0 | 76,0 | 1,0 (± 0,5) | > 0,2 | 4,5 |
| 220 14 08 | CS-8 | 8,0 | 3,3 | 49,0 | 60,0 | 1,0 (± 0,5) | > 0,2 | 3,0 |
| 220 14 09 | CS-9 | 8,0 | 3,5 | 22,5 | 34,5 | 1,0 (± 0,5) | > 0,2 | 5,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# WC-4 KABELHALTER

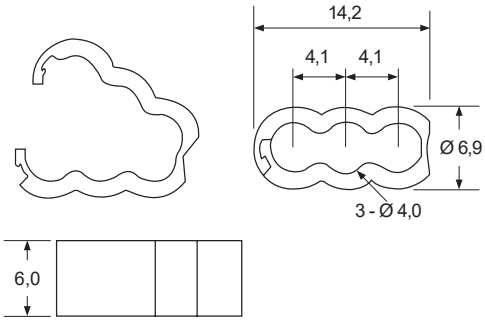
## Mekmale

- zum Bündeln von 3 bzw. 4 Kabel/Leitungen
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

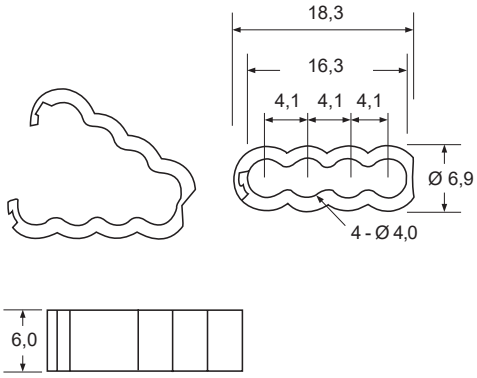
## Abmessungen

► Einheit = mm

**Art.-Nr.: 220 18 01**




**Art.-Nr.: 220 18 02**



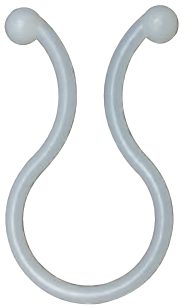

| Art.-Nr. | Typ |
|---|---|
| 220 18 01 | 3WC-4 |
| 220 18 02 | 4WC-4 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# TD DREHVERSCHLUSS

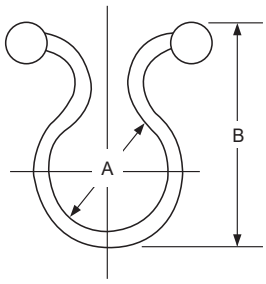
Merkmale

- wiederlösbar
- einfachste Kabelbündelung
- Material: Nylon 66, UL94V-2
- Farbe: natur



Abmessungen

► Einheit = mm

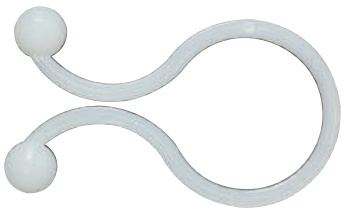



| Art.-Nr. | Typ | A (mm) | B (mm) | max. Bündel-Ø (mm) |
|---|---|---|---|---|
| 220 19 02 | TD-02 | 5,2 | 21,0 | 4,5 |
| 220 19 03 | TD-03 | 8,3 | 25,2 | 7,3 |
| 220 19 04 | TD-04 | 11,5 | 30,9 | 10,5 |
| 220 19 05 | TD-05 | 15,0 | 35,1 | 14,0 |
| 220 19 06 | TD-06 | 18,0 | 40,0 | 17,0 |
| 220 19 07 | TD-07 | 19,5 | 42,5 | 19,0 |
| 220 19 08 | TD-08 | 22,5 | 45,5 | 22,0 |
| 220 19 09 | TD-09 | 27,0 | 46,0 | 25,0 |

# 232 DRILLER

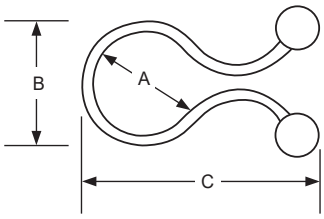
Merkmale

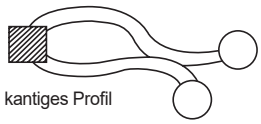
- wiederlösbar
- ermöglicht einfaches und schnelles Bündeln von Kabeln
- Material: PA 6,6, Ul94V-2
- Farbe: natur, andere Farben auf Anfrage



Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Bündel-Ø A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|
| 220 19 10 | 232-0787-000 | 4,0 - 6,9 | 8,5 | 20,0 |
| 220 19 11 | 232-0788-000 | 7,0 - 9,5 | 12,5 | 25,0 |
| 220 19 12 | 232-0789-000 | 10,0 - 12,5 | 15,0 | 30,0 |
| 220 19 13 | 232-0877-000 | 13,5 - 16,0 | 19,0 | 35,0 |
| 220 19 14 | 232-0794-000 | 17,0 - 20,0 | 23,0 | 40,0 |
| 220 19 15 | 232-1483-000 | 25,0 - 27,5 | 30,0 | 46,0 |
| 220 19 16 | 232-0874-000 | 32,0 - 35,0 | 38,0 | 56,0 |

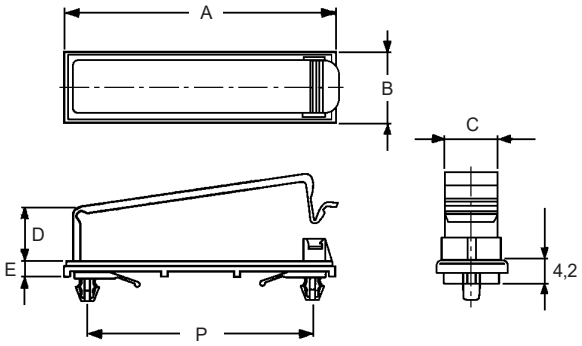
# FCS FLACHBANDKABELHALTER

Merkmale

- Rastmontage
- für Plattenstärke 05 - 2,3 mm
- Loch-Ø 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | P (mm) | für Kabel max. (mm) |
|---|---|---|---|---|---|---|---|---|
| 221 03 01 | FCS-3010 | 45,5 | 20,0 | 15,0 | 9,0 | 4,0 | 33,0 | 31,0 x 6,5 |
| 221 03 05 | FCS-3015 | 45,5 | 20,0 | 15,0 | 15,4 | 4,0 | 33,0 | 31,0 x 13,0 |
| 221 03 10 | FCS-6010 | 77,0 | 20,0 | 15,0 | 9,0 | 4,0 | 64,5 | 63,0 x 6,5 |
| 221 03 15 | FCS-6015 | 77,0 | 20,0 | 15,0 | 15,4 | 4,0 | 64,5 | 63,0 x 13,0 |

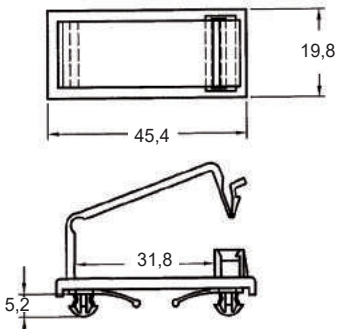
# FCT-9 FLACHBANDKABELHALTER

Merkmale

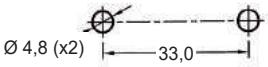
- Rastmontage
- für Plattenstärke 0,8 - 2,2 mm
- Loch-Ø = 4,8 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




Montageloch



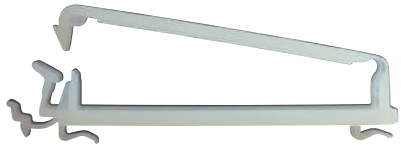

| Art.-Nr. | Typ |
|---|---|
| 221 03 06 | FCT-9 |

# RFCC FLACHBANDKABELHALTER

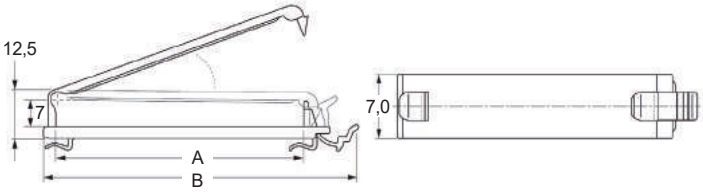
NEU

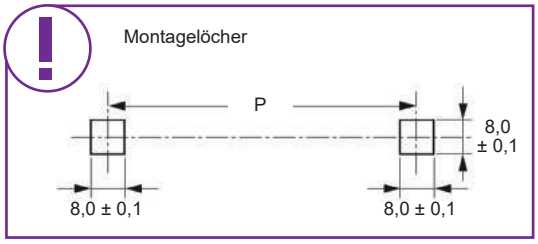
Merkmale:

- SCHIEBE-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 1,0 - 1,6 mm
- Material: Nylon 66, UL94V-2 • Farbe: weiss

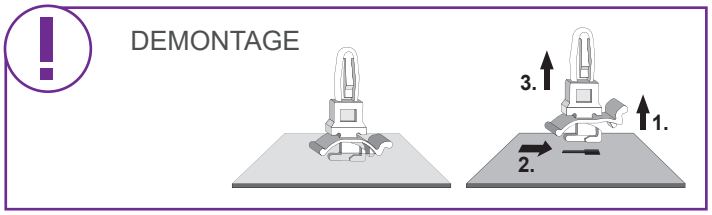


Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | P (mm) |
|---|---|---|---|---|
| 221 15 00 | RFCC-525S | 53,6 | 70,2 | 53,0 ± 0,2 |
| 221 15 01 | RFCC-625S | 63,6 | 80,9 | 63,0 ± 0,2 |



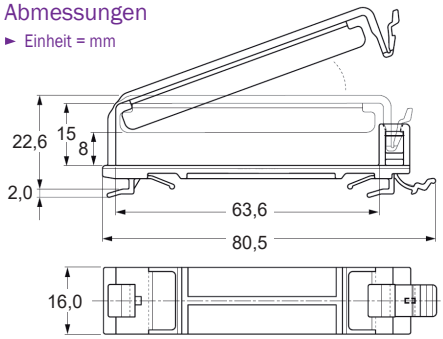

# RFCH-1564B FLACHBANDKABELHALTER

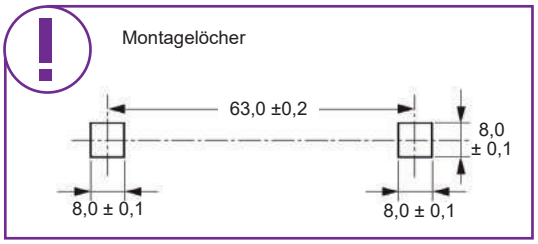
NEU

Merkmale:

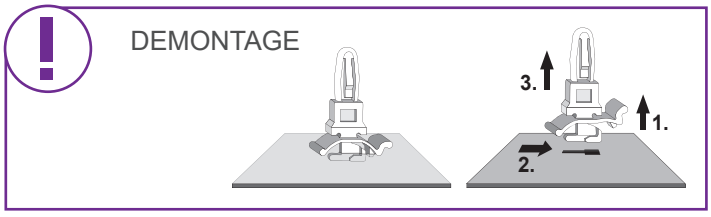
- SCHIEBE-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,5 - 2,0 mm
- Material: Nylon 66, UL94V-2 • Farbe: schwarz

Abmessungen
► Einheit = mm

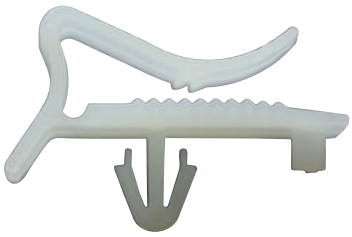



| Art.-Nr. | Typ |
|---|---|
| 221 15 02 | RFCH-1564B |



# MFS-1000 FLACHBANDKABELHALTER

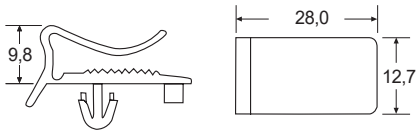


Merkmale

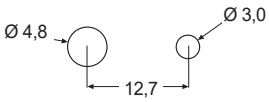
- mit Rastmontage
- mit Verdrehschutz
- für Plattenstärke 0,8 - 2,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




Montagemaße




| Art.-Nr. | Typ |
|---|---|
| 221 11 10 | MFS-1000 |

NEU

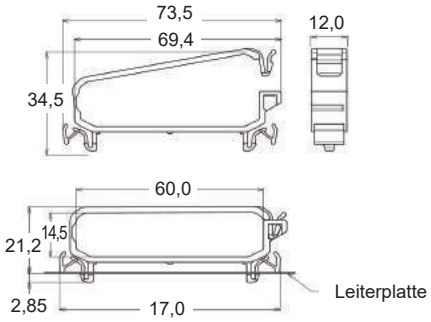
# RWC-60NVOB KABELHALTER

Merkmale:

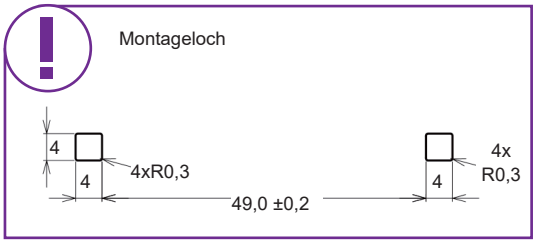
- DRUCK-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,8 - 2,3 mm
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

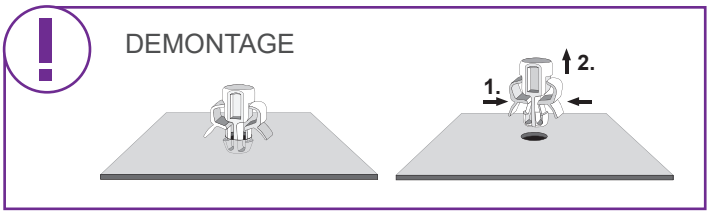
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 220 24 03 | RWC-60NVOB |

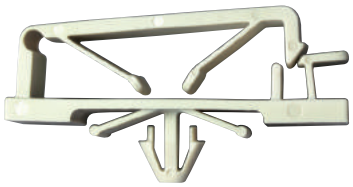


# FCJ FLACHBANDKABELHALTER

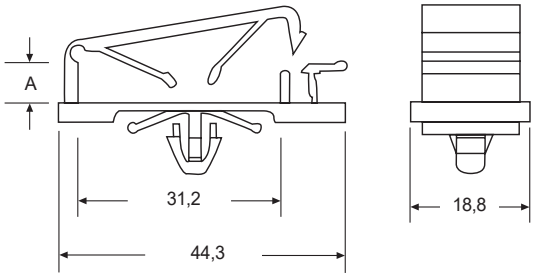
Merkmale

- Rastmontage
- für Plattenstärke max. 2,2 mm
- Loch-Ø = 6,5 mm
- Material: Nylon 66, UL94V-2
- Farbe: grau



Abmessungen

► Einheit = mm

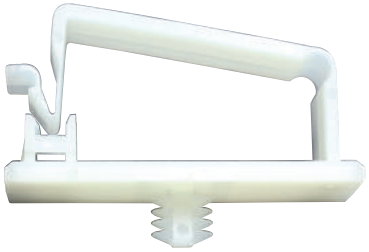



| Art.-Nr. | Typ | A (Innenmaß) |
|---|---|---|
| 221 01 26 | FCJ-30 | 7,7 |
| 221 01 27 | FCJ-31 | 13,5 |

# OEM-1 FLACHBANDKABELHALTER

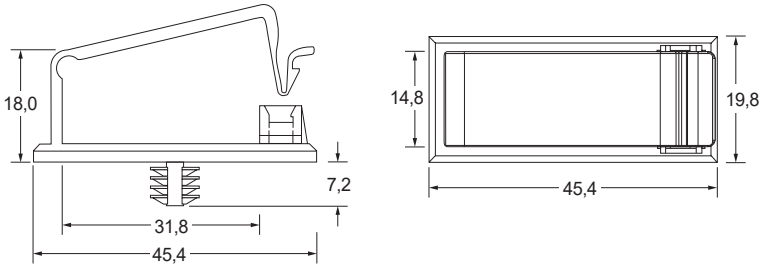
Merkmale:

- einseitig Rastverriegelung
- für Leiterplattenstärke 0,8 - 3,0 mm
- Loch-Ø = 6,5 - 7,0 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur



Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 221 01 01 | OEM-1 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

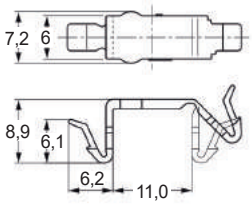
# RFC FLACHBANDKABELHALTER

Merkmale:

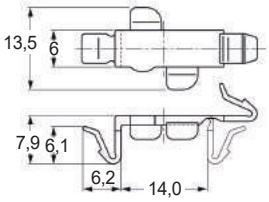
- SCHARNIER-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: weiss

Abmessungen ► Einheit = mm

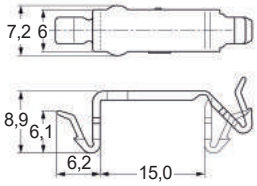
**RFC-11VO**
**Art.-Nr. 221 14 00**



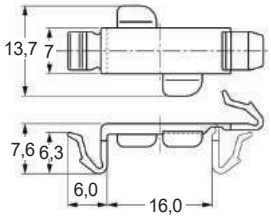

**RFC-14VO**
**Art.-Nr. 221 14 01**



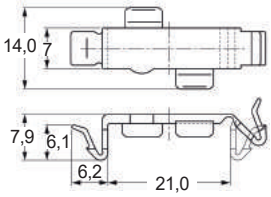

**RFC-15VO**
**Art.-Nr. 221 14 02**



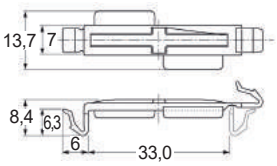

**RFC-16VO**
**Art.-Nr. 221 14 03**



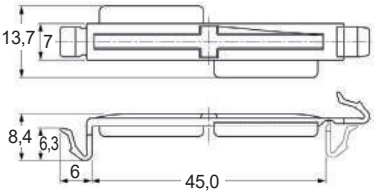

**RFC-21VO**
**Art.-Nr. 221 14 04**



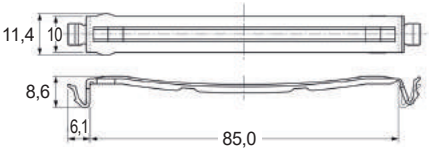

**RFC-33VO**
**Art.-Nr. 221 14 05**

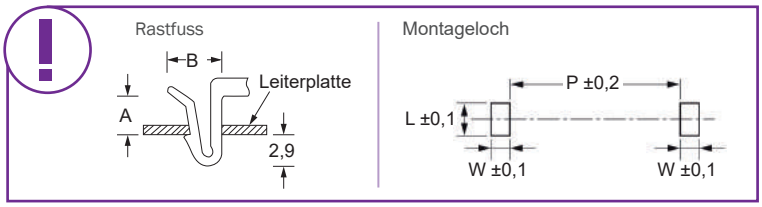



**RFC-45VO**
**Art.-Nr. 221 14 06**

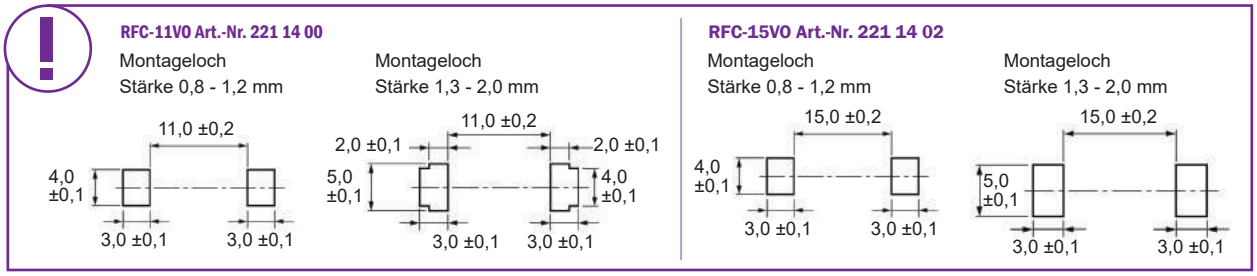


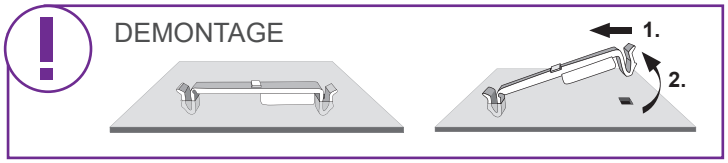

**RFC-85VO**
**Art.-Nr. 221 14 07**




| Art.-Nr. | Typ | A (mm) | B (mm) | L (mm) | W (mm) | P (mm) |
|---|---|---|---|---|---|---|
| 221 14 00 | RFC-11VO | 4,8 | 4,8 | - | - | - |
| 221 14 01 | RFC-14VO | 3,5 | 4,9 | 5,0 | 3,0 | 14,0 |
| 221 14 02 | RFC-15VO | 4,8 | 4,8 | - | - | - |
| 221 14 03 | RFC-16VO | 3,1 | 4,7 | 6,0 | 3,5 | 16,0 |
| 221 14 04 | RFC-21VO | 3,5 | 4,9 | 6,0 | 3,0 | 21,0 |
| 221 14 05 | RFC-33VO | 3,1 | 4,7 | 6,0 | 3,5 | 33,0 |
| 221 14 06 | RFC-45VO | 3,1 | 4,7 | 6,0 | 3,5 | 45,0 |
| 221 14 07 | RFC-85VO | 3,5 | 4,7 | 6,0 | 3,5 | 45,0 |



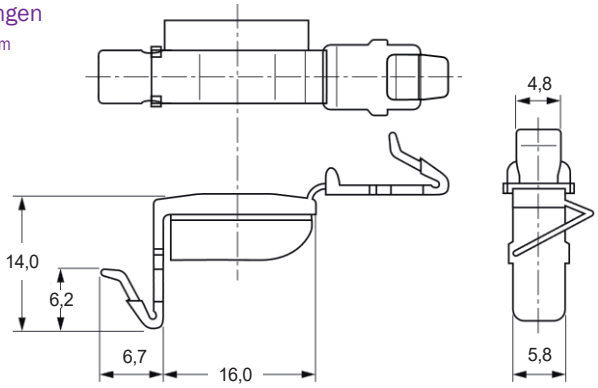
# WPC-16HV FLACHBANDKABELHALTER

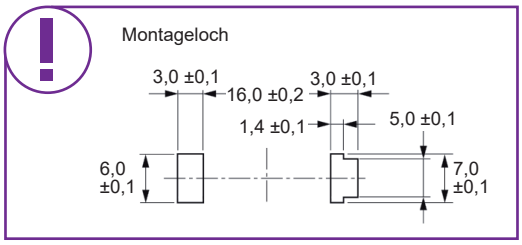
Merkmale:

- SCHARNIER-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Plattenstärke 1,0 - 1,6 mm
- Material: Nylon 66, UL94V-2
- Farbe: natur

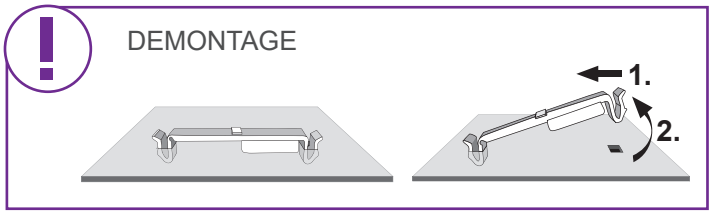
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 221 14 08 | WPC-16HB |



NEU

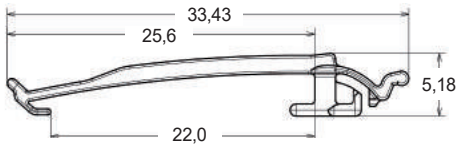
# RFPC-25NVOB FLACHBANDKABELHALTER

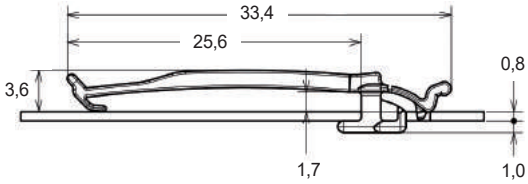
Merkmale:

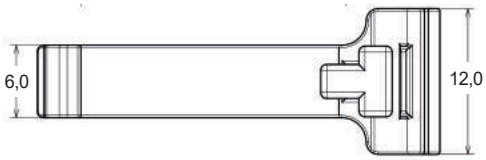
- SCHIEBE-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 0,8 - 2,0 mm
- Material: Nylon 66, UL94V-0
- Farbe: schwarz

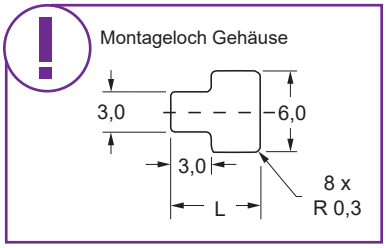
## Abmessungen

► Einheit = mm



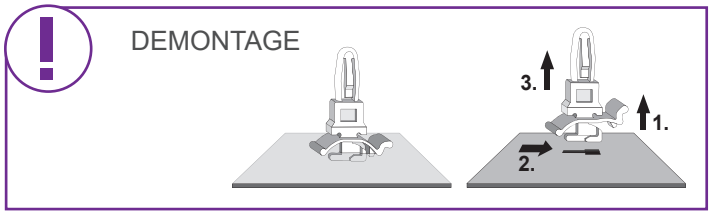




| Art.-Nr. | Typ |
|---|---|
| 221 15 03 | RFPC-25NVOB |

| Gehäusestärke t (mm) | L (mm) |
|---|---|
| 0,8 - 1,0 | 6,3 |
| 1,0 - 1,2 | 6,4 |
| 1,2 - 1,6 | 6,5 |
| 1,6 - 1,8 | 6,6 |
| 1,8 - 2,0 | 6,7 |



# RFS-30V0B FLACHBANDKABELHALTER

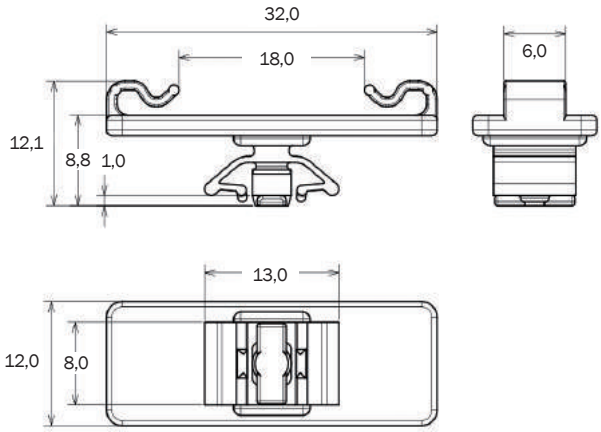
NEU

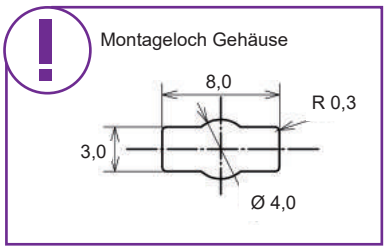
Merkmale:

- ROTATIONS-Montage
- von einer Seite montierbar und demontierbar
- wiederverwendbar
- für Leiterplattenstärke 0,5 - 1,6 mm
- Material: Nylon 66, UL94V-0
- Farbe: schwarz

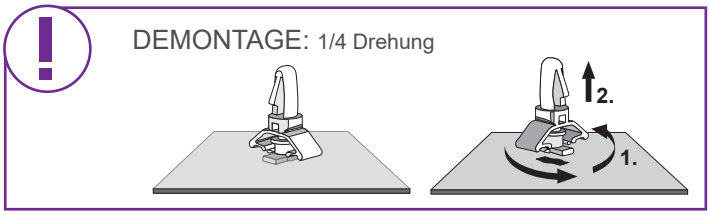
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 221 15 04 | RFS-30V0B |



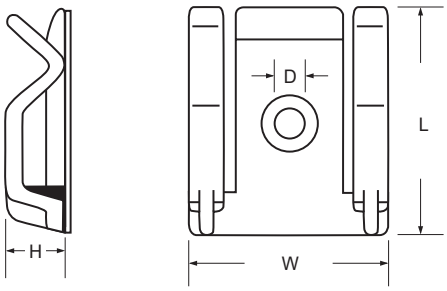
# TY8H1S FLACHBANDKABELHALTER

Merkmale

- Klebemontage und / oder Schraubmontage
- Material: Polyamid 6.6, UL94V-2
- Kleber: Acrylat-Klebeband
- Farbe: natur

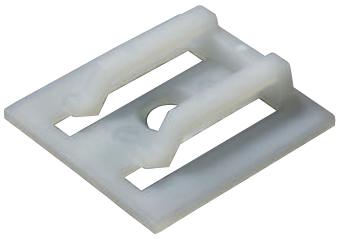
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | L (mm) | W (mm) | H (mm) | D (mm) |
|---|---|---|---|---|---|
| 221 10 11 | TY8H1S | 26,0 | 23,0 | 6,5 | 3,2 |

# SFCC FLACHBANDKABELHALTER

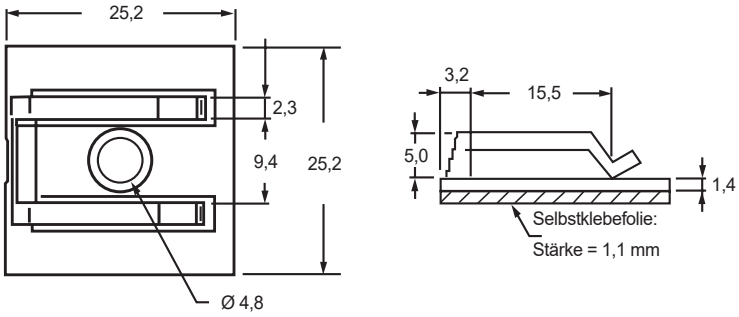


Merkmale

- Klebemontage und / oder Schraubmontage
- Material: Polyamid 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Klebefolie |
|---|---|---|
| 221 08 01 | SFCC | nein |
| 221 08 02 | SFCC | ja |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

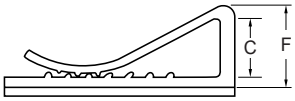
# FKH FLACHBANDKABELHALTER

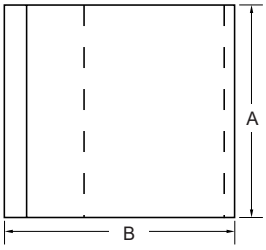
## Merkmale

- Klebemontage
- Material: siehe Tabelle
- Farbe: siehe Tabelle

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbe | Material | A (mm) | B (mm) | C (mm) | F (mm) |
|---|---|---|---|---|---|---|---|
| 221 10 08 | FKH-12 | weiss | PVC, UL94V-0 | 13,0 | 13,3 | - | 7,7 |
| 221 10 07 | FKH-15 | natur | Nylon 6.6, UL94V-2 | 15,0 | 27,0 | 6,4 | 8,8 |
| 221 10 09 | FKH-20 | weiss | PVC, UL94V-0 | 20,0 | 26,0 | - | 9,6 |
| 221 10 10 | FKH-25 | weiss | PVC, UL94V-0 | 25,0 | 26,0 | - | 9,6 |

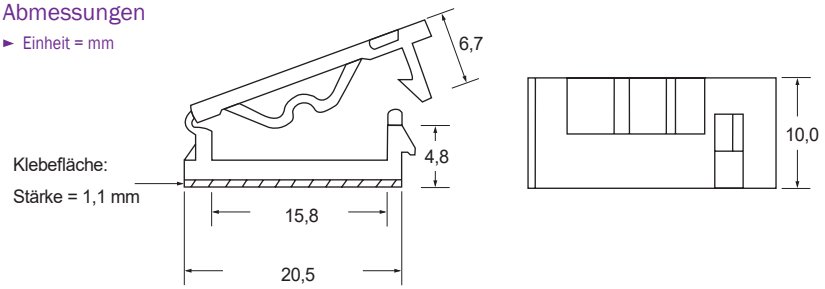
# LFC-16N-0 MINI-FLACHBANDKABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

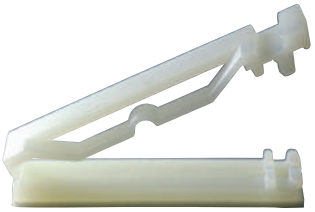
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ |
|---|---|
| 221 07 16 | LFC-16N-0 |

# LFC-30N-0 MINI-FLACHBANDKABELHALTER

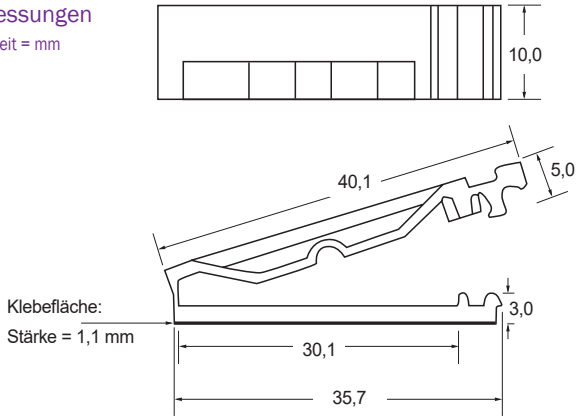


Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm



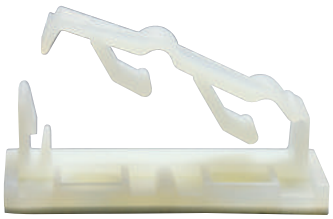

| Art.-Nr. | Typ |
|---|---|
| 221 07 30 | LFC-30N-0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# FCL-33 FLACHBANDKABELHALTER

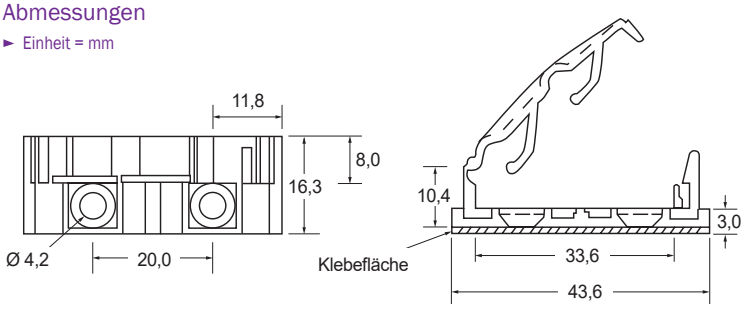
Merkmale

- Klebemontage und / oder Schraubmontage
- Material: Polyamid 66, UL94V-2
- Farbe: natur



Abmessungen

► Einheit = mm

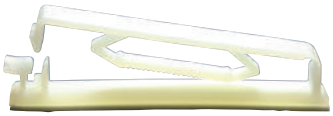



| Art.-Nr. | Typ |
|---|---|
| 221 01 06 | FCL-33 |

# FCB FLACHBANDKABELHALTER

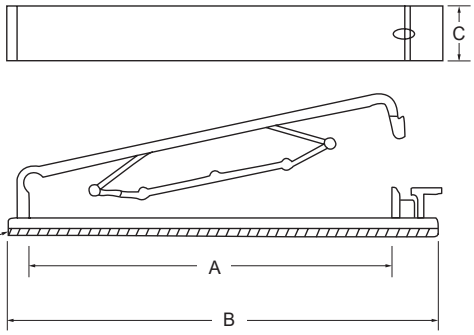
Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur



Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | für Kabel max. (mm) | A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|---|
| 221 02 06 | FCB-40 | 40-polig | 53,8 | 65,0 | 10,2 |
| 221 02 07 | FCB-50 | 50-polig | 64,5 | 77,0 | 10,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

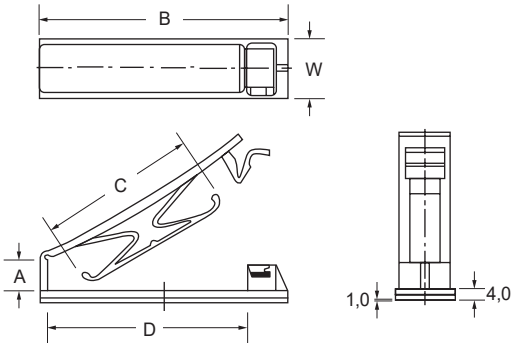
# FCN-P/M FLACHBANDKABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | für Kabel max. (mm) | W (mm) |
|---|---|---|---|---|---|---|---|
| 221 02 25 | FCN-25P | 12,0 | 47,0 | 23,0 | 32,0 | 32,0 x 2,6 | 19,0 |
| 221 02 50 | FCN-50P | 16,0 | 79,0 | 50,0 | 64,0 | 63,5 x 7,0 | 19,0 |
| 221 02 60 | FCC-60M | 26,0 | 90,0 | 76,0 | 78,0 | 77,0 x 16,0 | 19,0 |

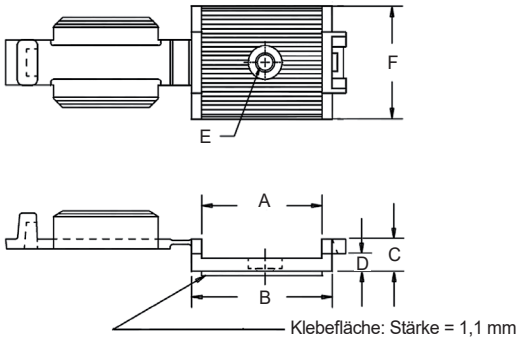
# FCH FLACHBANDKABELHALTER

Merkmale

- Klebemontage und / oder Schraubmontage
- Material: Nylon 66, UL94V-2
- Farbe: grau

Abmessungen

► Einheit = mm

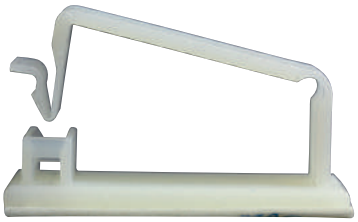



| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | Klebefläche |
|---|---|---|---|---|---|---|---|---|
| 221 01 00 | FCH-29 | 26,5 | 30,7 | 7,6 | 4,0 | 1 x 3,7 | 25,2 | nein |
| 221 02 00 | FCH-29 | 26,5 | 30,7 | 7,6 | 4,0 | 1 x 3,7 | 25,2 | ja |
| 221 01 02 | FCH-30 | 30,5 | 35,0 | 8,2 | 4,0 | 1 x 3,7 | 25,4 | nein |
| 221 02 02 | FCH-30 | 30,5 | 35,0 | 8,2 | 4,0 | 1 x 3,7 | 25,4 | ja |
| 221 01 03 | FCH-50 | 53,0 | 57,3 | 8,3 | 4,1 | 2 x 3,7 | 25,4 | nein |
| 221 02 03 | FCH-50 | 53,0 | 57,3 | 8,3 | 4,1 | 2 x 3,7 | 25,4 | ja |
| 221 02 04 | FCH-50 | 53,0 | 57,3 | 8,3 | 4,1 | 2 x 3,7 | 25,4 | ja (mit 3M-1600T) |
| 221 01 05 | FCH-80 | 78,9 | 82,3 | 12,3 | 6,3 | 2 x 3,8 | 25,4 | nein |
| 221 02 05 | FCH-80 | 78,9 | 82,3 | 12,3 | 6,3 | 2 x 3,8 | 25,4 | ja |

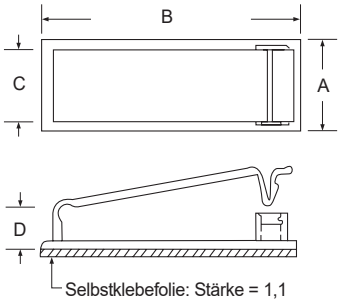
# FCN FLACHBANDKABELHALTER

Merkmale

- Klebemontage
- Material: Nylon 66, UL94V-2
- Farbe: natur



Abmessungen
► Einheit = mm



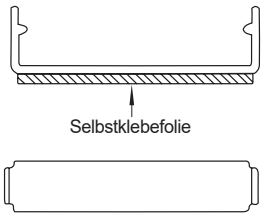

| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 221 05 01 | FCN-3010 | 20,0 | 45,5 | 15,0 | 9,0 |
| 221 05 05 | FCN-3015 | 20,0 | 45,5 | 15,0 | 15,4 |
| 221 05 10 | FCN-6010 | 20,0 | 77,0 | 15,0 | 9,0 |
| 221 05 15 | FCN-6015 | 20,0 | 77,0 | 15,0 | 15,4 |

# ACC FLACHBANDKABELHALTER

Merkmale

- Klebemontage
- Material: Aluminium

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | für Kabelbreite innen max. |
|---|---|---|
| 220 15 03 | ACC-10 | 12,7 |
| 220 15 04 | ACC-15 | 19,0 |
| 220 15 05 | ACC-20 | 25,4 |
| 220 15 06 | ACC-25 | 31,7 |
| 220 15 07 | ACC-26 | 33,1 |
| 220 15 08 | ACC-30 | 38,1 |
| 220 15 09 | ACC-34 | 43,3 |
| 220 15 10 | ACC-35 | 44,3 |
| 220 15 11 | ACC-40 | 50,8 |
| 220 15 12 | ACC-45 | 57,1 |
| 220 15 13 | ACC-50 | 63,5 |

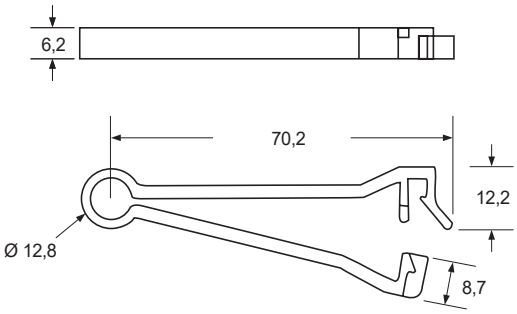
# FKK FLACHBANDKABELHALTER

## Merkmale

- für Flachbandkabel bis max. 40-polig
- Material: Nylon 66, UL94V-2
- Farbe: natur

## Abmessungen

► Einheit = mm

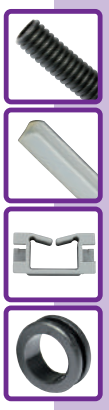



| Art.-Nr. | Typ |
|---|---|
| 221 10 20 | FKK |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# KABELSCHUTZ


| | |
|---|---|
| Schutz- und Isolierschläuche | Seite 256 - 260 |
| Kantenschutz | Seite 261 - 263 |
| Kantenschutz – Kabelhalter | Seite 264 - 265 |
| Kabeldurchführung | Seite 266 - 272 |

# TIS85 ISOLIERSCHLAUCH

Merkmale

- flexibler, kostengünstiger Isolierschlauch aus Weich-PVC nach DIN 40621 B
- Einsatztemperatur: -20°C bis +85°C
- Shorehärte 85° ± 3° A
- selbstverlöschend
- Durchschlagfestigkeit: min. 20 kV/mm nach IEC 243
- Isolierstoffklasse Y nach VDE 0530
- cadmiumfrei
- Farbe: schwarz

| Art.-Nr. | Typ | Ø Innen (mm) | Wandstärke (mm) |
|---|---|---|---|
| 269 01 02 | TIS85-2,0 | 2,1 + 0,3 | 0,4 ± 0,15 |
| 269 01 02,5 | TIS85-2,5 | 2,6 + 0,3 | 0,4 ± 0,15 |
| 269 01 03 | TIS85-3,0 | 3,1 + 0,3 | 0,4 ± 0,15 |
| 269 01 03,5 | TIS85-3,5 | 3,6 + 0,3 | 0,4 ± 0,15 |
| 269 01 04 | TIS85-4,0 | 4,1 + 0,3 | 0,5 ± 0,15 |
| 269 01 04,5 | TIS85-4,5 | 4,6 + 0,3 | 0,5 ± 0,15 |
| 269 01 05 | TIS85-5,0 | 5,1 + 0,3 | 0,6 ± 0,15 |
| 269 01 06 | TIS85-6,0 | 6,1 + 0,3 | 0,6 ± 0,15 |
| 269 01 07 | TIS85-7,0 | 7,1 + 0,3 | 0,7 ± 0,15 |
| 269 01 08 | TIS85-8,0 | 8,1 + 0,3 | 0,7 ± 0,15 |
| 269 01 09 | TIS85-9,0 | 9,1 + 0,4 | 0,7 ± 0,15 |
| 269 01 10 | TIS85-10,0 | 10,1 + 0,4 | 0,7 ± 0,15 |
| 269 01 11 | TIS85-11,0 | 11,1 + 0,4 | 0,7 ± 0,15 |
| 269 01 12 | TIS85-12,0 | 12,1 + 0,4 | 0,8 ± 0,15 |
| 269 01 13 | TIS85-13,0 | 13,1 + 0,5 | 0,8 ± 0,20 |
| 269 01 14 | TIS85-14,0 | 14,1 + 0,5 | 1,0 ± 0,20 |
| 269 01 16 | TIS85-16,0 | 16,1 + 0,6 | 1,0 ± 0,20 |
| 269 01 18 | TIS85-18,0 | 18,1 + 0,6 | 1,0 ± 0,20 |
| 269 01 20 | TIS85-20,0 | 20,1 + 0,6 | 1,2 ± 0,20 |
| 269 01 22 | TIS85-22,0 | 22,1 + 0,6 | 1,2 ± 0,20 |
| 269 01 24 | TIS85-24,0 | 24,1 + 0,6 | 1,2 ± 0,20 |
| 269 01 28 | TIS85-28,0 | 28,1 + 0,6 | 1,2 ± 0,20 |

Weitere Farben auf Anfrage möglich: Telefon: 09852 61079-0

# SCS GEWEBESCHLAUCH

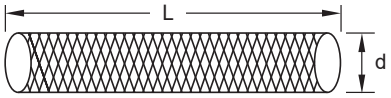
NEU

Merkmale:

- selbsteinrollend
- Material: Monofilament und Multifilament Polyester
- Farbe: schwarz, grau

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | d (mm) | Ø Bündel max. (mm) | L (m) |
|---|---|---|---|---|
| **269 31 05** | SCS-05 | 5,0 | 6,0 | 100,0 |
| **269 31 08** | SCS-08 | 8,0 | 9,0 | 100,0 |
| **269 31 10** | SCS-10 | 10,0 | 11,0 | 100,0 |
| **269 31 13** | SCS-13 | 13,0 | 14,0 | 50,0 |
| **269 31 19** | SCS-19 | 19,0 | 20,0 | 25,0 |
| **269 31 25** | SCS-25 | 25,0 | 27,0 | 25,0 |
| **269 31 29** | SCS-29 | 29,0 | 31,0 | 25,0 |
| **369 31 32** | SCS-32 | 32,0 | 34,0 | 25,0 |
| **369 31 38** | SCS-38 | 38,0 | 40,0 | 25,0 |
| **369 31 50** | SCS-50 | 50,0 | 52,0 | 25,0 |

## Technische Daten

**Eigenschaften**

| | |
|---|---|
| Hitzebeständigkeit | -50 °C bis +150 °C |
| Schmelzpunkt | 250 °C ±5,0 |
| Brennbarkeit | VW-1 |
| Stützkraft | IEC 352-5 |

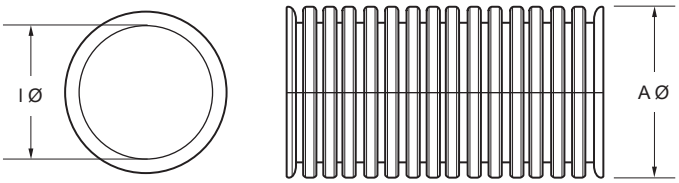
# FFPYL KABELSCHUTZSCHLAUCH

Merkmale:

- Kabelschutzschlauch
- Gebrauchstemperatur von -40 °C bis +105 °C
- halogenfrei
- Material: Polypropylen, UL94HB
- Farbe: schwarz, UV-beständig

Abmessungen

► Einheit = mm




| Art.-Nr. | NW Standard | I Ø (mm) | A Ø (mm) | VPE (m) |
|---|---|---|---|---|
| 230 07 01 | 4,5 | 4,7 | 7,0 | 100 |
| 230 07 02 | 5,0 | 4,9 | 7,0 | 100 |
| 230 07 03 | 6,0 | 5,9 | 8,6 | 50 |
| 230 07 04 | 7,5 | 6,7 | 9,9 | 50 |
| 230 07 05 | 8,5 | 8,2 | 11,4 | 50 |
| 230 07 06 | 10,0 | 9,7 | 12,8 | 50 |
| 230 07 07 | 11,0 | 10,8 | 13,6 | 50 |
| 230 07 08 | 12,0 | 11,6 | 15,7 | 50 |
| 230 07 09 | 13,0 | 12,6 | 18,9 | 50 |
| 230 07 10 | 14,0 | 14,4 | 18,4 | 50 |
| 230 07 11 | 16,0 | 14,8 | 18,8 | 50 |
| 230 07 12 | 17,0 | 16,5 | 20,9 | 50 |
| 230 07 13 | 19,0 | 19,1 | 24,0 | 50 |
| 230 07 14 | 22,0 | 21,2 | 25,5 | 50 |
| 230 07 15 | 23,0 | 23,0 | 28,0 | 50 |
| 230 07 16 | 26,0 | 25,6 | 31,1 | 50 |
| 230 07 17 | 29,0 | 28,8 | 33,9 | 25 |
| 230 07 18 | 33,0 | 33,1 | 38,2 | 25 |
| 230 07 19 | 37,0 | 33,5 | 41,6 | 25 |
| 230 07 20 | 50,0 | 45,0 | 53,2 | 25 |
| 230 07 21 | 65,0 | 63,0 | 73,9 | 25 |
| 230 07 22 | 75,0 | 76,5 | 85,7 | 25 |
| 230 07 23 | 100,0 | 101,0 | 110,0 | 25 |

- Chemisch beständig gegen: Säuren, Laugen, anorganische Salze, Kraftstoffe, Mineralöle, Fette, sowie gegen die meisten gebräuchlichen Lösungsmittel

Sonderfarben und Stücklängen auf Anfrage: Telefon: 09852 61079-0

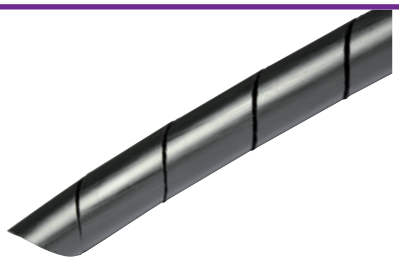
# GEFLECHTSCHUTZSCHLAUCH

Merkmale

- expandierbarer, hochwärmebeständiger (-50 °C bis +130 °C) Schutzschlauch aus Monofilament, Abdeckung ≥ 70%
- Material: PET, UL94V-2 (Material PA auf Anfrage möglich)
- Farbe: schwarz (grau auf Anfrage möglich)

| Art.-Nr. | Nenn-Ø (mm) | min.-Ø (mm) | max.-Ø (mm) | VPE (mm) |
|---|---|---|---|---|
| 230 05 03 | 3,0 | 2,0 | 6,0 | 100 |
| 230 05 04 | 4,0 | 3,0 | 10,0 | 100 |
| 230 05 05 | 5,0 | 4,0 | 10,0 | 100 |
| 230 05 06 | 6,0 | 4,0 | 10,5 | 100 |
| 230 05 08 | 8,0 | 8,0 | 16,0 | 100 |
| 230 05 10 | 10,0 | 8,0 | 14,0 | 100 |
| 230 05 12 | 12,0 | 12,0 | 24,0 | 50 |
| 230 05 15 | 15,0 | 15,0 | 27,0 | 50 |
| 230 05 20 | 20,0 | 19,0 | 32,0 | 25 |
| 230 05 25 | 25,0 | 18,0 | 33,0 | 25 |
| 230 05 30 | 30,0 | 28,0 | 47,0 | 25 |
| 230 05 40 | 40,0 | 28,0 | 42,0 | 25 |
| 230 05 50 | 50,0 | 45,0 | 75,0 | 25 |
| 230 05 100 | 100,0 | 90,0 | 100,0 | 100 |

# SP SPIRALBAND

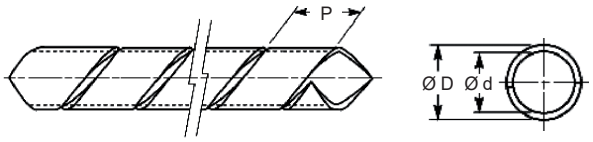


Merkmale

- Spiralband, hochflexibel und wiederverwendbar
- schützt und bündelt Drähte und Kabel
- Farbe: natur und schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbe | Material | Ø D (mm) | Ø d (mm) | P (mm) | für Kabelbaum Ø (mm) | VPE (m) |
|---|---|---|---|---|---|---|---|---|
| 230 01 02 | SP-02 | natur | Polyethylen | 3,0 | 1,5 | 5,0 | 2-15 | 50 |
| 230 04 02 | SP-02S | schwarz | Polyethylen | 3,0 | 1,5 | 5,0 | 2-15 | 50 |
| 230 01 04 | SP-04 | natur | Polyethylen | 4,0 | 2,4 | 6,0 | 3-25 | 100 |
| 230 01 05 | SP-05 | natur | Polyethylen | 4,6 | 3,2 | 7,0 | 4-30 | 25 |
| 230 04 05 | SP-05S | schwarz | Polyethylen | 4,6 | 3,2 | 7,0 | 4-30 | 25 |
| 230 01 08 | SP-08 | natur | Polyethylen | 7,0 | 5,2 | 10,0 | 7-40 | 25 |
| 230 04 08 | SP-08S | schwarz | Polyethylen | 7,0 | 5,2 | 10,0 | 7-40 | 25 |
| 230 01 09 | SP-09 | natur | Polyethylen | 9,0 | 7,2 | 12,0 | 12-50 | 25 |
| 230 04 09 | SP-09S | schwarz | Polyethylen | 9,0 | 7,2 | 12,0 | 12-50 | 25 |
| 230 01 12 | SP-12 | natur | Polyethylen | 11,0 | 8,6 | 14,0 | 13-70 | 25 |
| 230 04 12 | SP-12S | schwarz | Polyethylen | 11,0 | 8,6 | 14,0 | 13-70 | 25 |
| 230 01 15 | SP-15 | natur | Polyethylen | 14,0 | 12,0 | 16,0 | 15-80 | 50 |
| 230 01 20 | SP-20 | natur | Polyethylen | 20,0 | 17,6 | 22,0 | 20-120 | 25 |
| 230 04 20 | SP-20S | schwarz | Polyethylen | 20,0 | 17,6 | 22,0 | 20-120 | 25 |
| 230 01 25 | SP-25 | natur | Polyethylen | 25,0 | 22,2 | 27,0 | 25-150 | 20 |
| 230 01 29 | SP-29 | natur | Polyethylen | 29,0 | 25,0 | 28,0 | 25-300 | 20 |
| 230 02 04 | SPN-04 | natur | Nylon | 3,6 | 2,6 | 6,0 | 3-25 | 100 |
| 230 02 06 | SPN-06 | natur | Nylon | 7,2 | 6,0 | 7,5 | 6-18 | 100 |
| 230 02 11 | SPN-11 | natur | Nylon | 10,6 | 9,0 | 12,0 | 9-75 | 50 |

Andere Farben auf Anfrage: Telefon: 09852 61079-0

# KSS KABELSCHUTZSCHLAUCH

Merkmale

- optimale Lösung zum Bündeln langer Kabelstränge
- mit mitgeliefertem Montagewerkzeug einfach und schnell zu verarbeiten
- Material: Polypropylen, UL94HB
- Farbe: schwarz, UV-beständig

- Die Montagewerkzeuge in PP werden als Serienwerkzeuge jeder Verpackungseinheit beigelegt. Diese Werkzeuge können jedoch auf Wunsch auch als Ersatz- oder Zusatzwerkzeuge geliefert werden.

| Art.-Nr. | Typ | Nennmaß (mm) | Wandung (mm) | Bündel-Ø (mm) | VPE |
|---|---|---|---|---|---|
| 230 06 01 | KSS-8PP | 8,0 | 0,8 | 6,0 - 9,0 | 100 |
| 230 06 02 | KSS-15PP | 15,0 | 0,8 | 10,0 - 16,0 | 50 |
| 230 06 03 | KSS-20PP | 20,0 | 0,9 | 17,0 - 21,0 | 30 |
| 230 06 04 | KSS-25PP | 25,0 | 1,0 | 21,0 - 28,0 | 20 |
| 230 06 05 | KSS-32PP | 32,0 | 1,3 | 28,0 - 35,0 | 15 |

**Werkzeuge für Kabelschutzschlauch:**

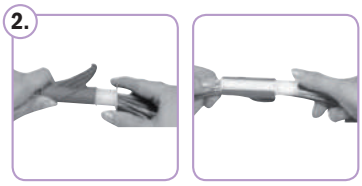
| Art.-Nr. | für Typ... |
|---|---|
| 230 06 01WZ | KSS-8PP |
| 230 06 02WZ | KSS-15PP |
| 230 06 03WZ | KSS-20PP |

| Art.-Nr. | für Typ... |
|---|---|
| 230 06 04WZ | KSS-25PP |
| 230 06 05WZ | KSS-32PP |

**Gebrauchsanweisung:**

1.

Die 2 Öffnungen übereinanderlegen und das Kabelbündel einführen.

2. 

Einen der Körper um 180° um das andere Teil drehen, um das Kabelbündel einzuschliessen.

3.

Schlauch auf die Nase stecken und seitlich in die Führungen des Werkzeuges ziehen.

4.

Schlauch ziehen, so dass er das Kabelbündel umwickelt.

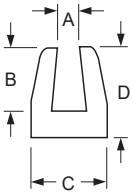
**Hinweis:** Wenn Sie ein oder mehrere Kabel herausnehmen wollen, brauchen Sie nur den weissen Teil zur Öffnung zu drehen, nun die gewünschten Kabel herausnehmen, wieder verschliessen und weiterziehen.

# DX KANTENSCHUTZ

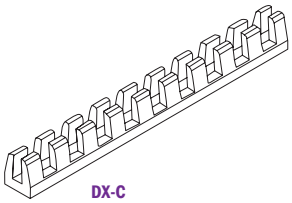
Merkmale

- flexibel für verschiedene Stärken und Formen von Kanten, Ausbrüchen und Bohrlöchern
- schützt Kabel, Schläuche und Leitungen vor scharfen Kanten
- Material: Polyethylen (-50 °C bis +85 °C)
- Farbe: natur

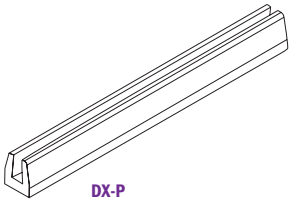
Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | VPE/Rollengröße (m) |
|---|---|---|---|---|---|---|
| 250 01 00 | DX1-C | 1,0 | 2,0 | 3,0 | 3,2 | 35,0 |
| 250 01 01 | DX1,5-C | 1,5 | 2,0 | 3,5 | 3,2 | 30,0 |
| 250 01 02 | DX2-C | 2,0 | 3,0 | 4,3 | 4,3 | 25,0 |
| 250 01 03 | DX3-C | 3,0 | 3,0 | 5,3 | 4,3 | 20,0 |
| 250 01 04 | DX4-C | 4,0 | 3,5 | 6,9 | 5,3 | 15,0 |


DX-C

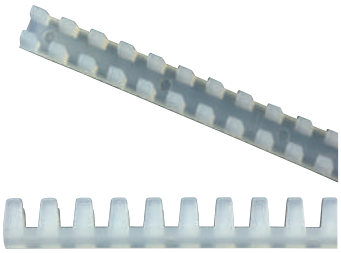
| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | VPE/Rollengröße (m) |
|---|---|---|---|---|---|---|
| 250 03 00 | DX1-P | 1,0 | 2,0 | 3,0 | 3,2 | 35,0 |
| 250 03 01 | DX1,5-P | 1,5 | 2,0 | 3,5 | 3,2 | 30,0 |
| 250 03 02 | DX2-P | 2,0 | 3,0 | 4,3 | 4,3 | 25,0 |
| 250 03 03 | DX3-P | 3,0 | 3,0 | 5,3 | 4,3 | 20,0 |
| 250 03 04 | DX4-P | 4,0 | 3,5 | 6,9 | 5,3 | 15,0 |


DX-P

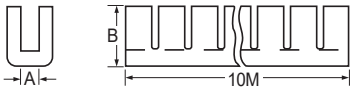
# KG KANTENSCHUTZ

Merkmale

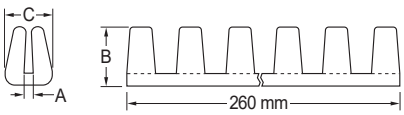
- flexibel, für verschiedene Stärken und Formen von Kanten, Ausbrüchen und Bohrlöchern
- schützt Kabel, Schläuche und Leitungen vor scharfen Kanten
- Material: Polyethylen (-50 °C bis +85 °C)
- Farbe: natur



Abmessungen ► Einheit = mm




Abmessungen ► Einheit = mm
**Typ KG...N**




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|
| 250 01 08 | KG-008N | 0,8 | 3,8 | 3,1 | 0,7 - 0,9 |
| 250 01 10 | KG-010 | 1,1 | 5,2 | - | 0,9 - 1,1 |
| 250 01 13 | KG-012 | 1,3 | 5,4 | - | 1,1 - 1,3 |
| 250 01 18 | KG-016 | 1,7 | 5,4 | - | 1,45 - 1,75 |
| 250 01 20 | KG-020 | 2,2 | 5,4 | - | 1,85 - 2,2 |
| 250 01 25 | KG-024 | 2,7 | 5,7 | - | 2,25 - 2,6 |
| 250 01 30 | KG-030 | 3,3 | 6,1 | - | 2,85 - 3,25 |
| 250 01 40 | KG-040 | 4,3 | 6,5 | - | 3,85 - 4,25 |

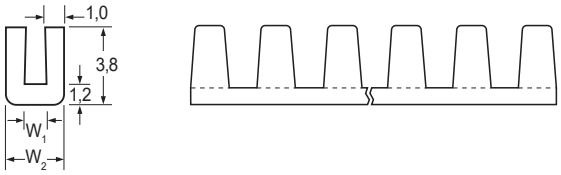
NEU

# EL KANTENSCHUTZ

Merkmale

- schützt Kabel, Schläuche und Leitungen vor scharfen Kanten
- Materiel: Nylon 6, UL94V-2
- Farbe: natur
- VPE = 100 m

Abmessungen ► Einheit = mm



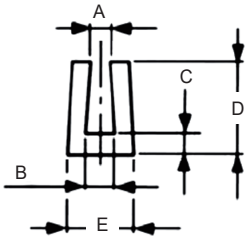

| Art.-Nr. | Typ | $W_1$ in mm | $W_2$ in mm | Plattenstärke in mm |
|---|---|---|---|---|
| 250 01 60 | EL-10 | 1,2 | 3,2 | 1,0 |
| 250 01 61 | EL-12 | 1,4 | 3,4 | 1,2 |
| 250 01 62 | EL-16 | 1,8 | 3,8 | 1,6 |
| 250 01 63 | EL-24 | 2,6 | 4,6 | 2,3 |
| 250 01 64 | EL-32 | 3,4 | 5,4 | 3,2 |

# CE KANTENSCHUTZ

Merkmale

- starr für gerade Kanten
- Material: Nylon 6, UL94-HB
- Farbe: natur
- in Stücken à 1 m

Abmessungen
► Einheit = mm



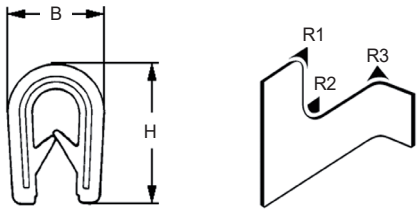

| Art.-Nr. | Typ | Plattenstärke (mm) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|---|---|---|---|---|---|---|---|
| 250 03 08 | CE-012S | 0,6 - 0,8 | 0,4 | 1,3 | 1,0 | 5,0 | 3,3 |
| 250 03 12 | CE-012 | 1,0 - 1,2 | 0,6 | 1,3 | 1,0 | 5,0 | 3,3 |
| 250 03 16 | CE-016 | 1,2 - 1,6 | 0,9 | 1,7 | 1,0 | 5,0 | 3,7 |
| 250 03 24 | CE-024 | 1,6 - 2,3 | 1,2 | 2,4 | 1,0 | 5,0 | 4,4 |
| 250 03 32 | CE-032 | 2,3 - 3,2 | 1,5 | 3,3 | 1,0 | 5,0 | 5,3 |

# PVC-STG KANTENSCHUTZ

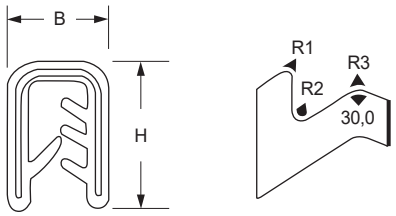
## Merkmale

- für verschiedene Stärken und Formen von Kanten
- schützt Kabel, Schläuche und Leitungen vor scharfen Kanten
- Material: PVC mit eingebettetem Stahlgerüst
- Farbe: schwarz und weissgrau

## Abmessungen




**205 04 05**




| Art.-Nr. | B (mm) | H (mm) | Klemmbereich (mm) | R1 (mm) | R2 (mm) | R3 (mm) | Farbe |
|---|---|---|---|---|---|---|---|
| **250 04 01** | 6,0 | 9,0 | 0,5-1,5 | 10,0 | 10,0 | 10,0 | schwarz |
| **250 04 02 WG** | 6,5 | 9,5 | 1,0-2,0 | 5,0 | 10,0 | 10,0 | weißgrau |
| **250 04 02** | 6,5 | 9,5 | 1,0-2,0 | 5,0 | 10,0 | 10,0 | schwarz |
| **250 04 03** | 10,5 | 14,5 | 1,0-4,5 | 30,0 | 20,0 | 15,0 | schwarz |
| **250 04 05** | 11,5 | 16,6 | 3,0-6,0 | 50,0 | 40,0 | 30,0 | schwarz |

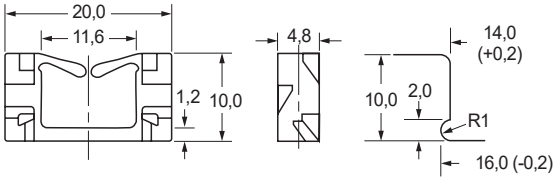
# EDS KABELHALTER + KANTENSCHUTZ

## Merkmale

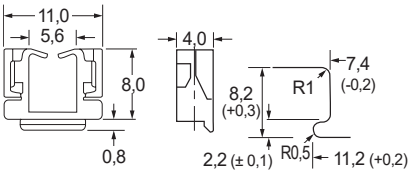
- hält und schützt Kabel vor scharfen Blechkanten
- geeignet für U-Durchbrüche mit 0,8 - 2,2 mm Blechstärke
- Material: Nylon 66, UL94V-2 bzw. UL94V-0

## Abmessungen ► Einheit = mm

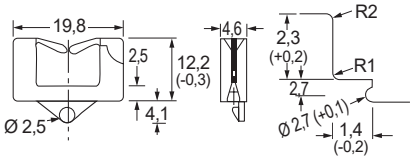
**EDS-1, EDS-2, EDS-3**



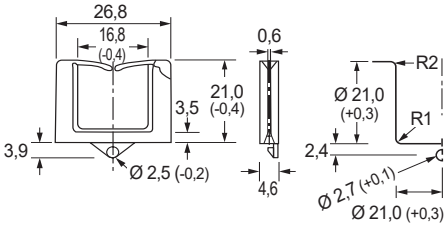

**EDS-0607M**



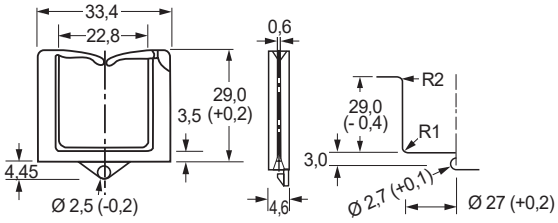

**EDS-1208U**



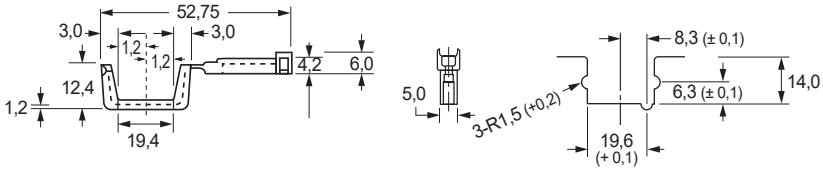

**EDS-1717U**



**EDS-2323U**

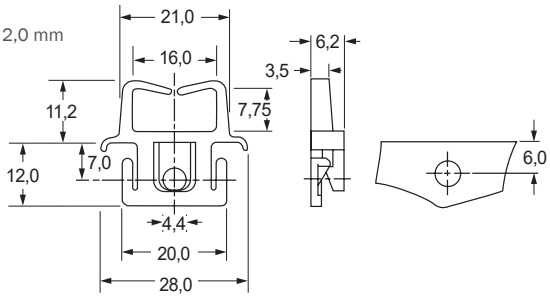


**EDS-17L**



**EHWSE-1-01**

- für Leiterplattenstärke 1,0 - 2,0 mm
- Bohrung-Ø = 5,0 mm (±0,1)




| Art.-Nr. | Typ | Blechstärke (mm) | Farbe | UL-Klasse |
|---|---|---|---|---|
| 240 01 01 | EDS-1 | 0,8 - 1,2 | schwarz | UL94V-2 |
| 240 01 02 | EDS-2 | 1,2 - 1,6 | natur | UL94V-2 |
| 240 01 03 | EDS-3 | 1,6 - 2,0 | grau | UL94V-2 |
| 240 01 04 | EDS-0607M | 0,8 - 1,2 | schwarz | UL94V-0 |
| 240 01 05 | EDS-1208U | 0,8 - 1,6 | natur | UL94V-2 |
| 240 01 06 | EDS-1717U | 0,8 - 2,0 | natur | UL94V-2 |
| 240 01 07 | EDS-2323U | 0,8 - 1,6 | natur | UL94V-2 |
| 240 01 08 | EDS-17L | 0,8 - 2,2 | schwarz | UL94V-0 |
| 240 01 09 | EHWSE-1-01 | 1,0 - 2,0 | natur | UL94V-2 |

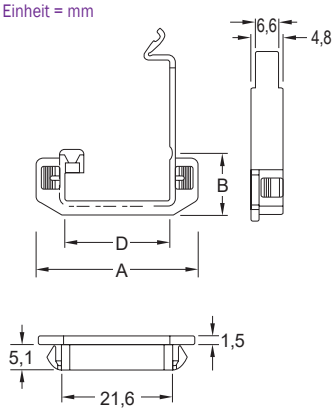
# EQJA KANTENKABELHALTER

## Merkmale

- Material: Nylon 66, UL94V-2
- Farbe: natur

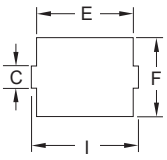
## Abmessungen

► Einheit = mm

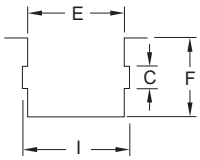



Materialstärke: T

**Durchgangsloch-Installation:**

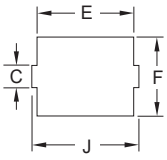



**Kanten-Installation:**

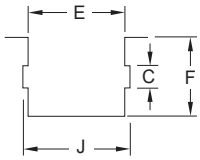



Materialstärke: Z

**Durchgangsloch-Installation:**




**Kanten-Installation:**




| | | | | | | | | | | Materialstärke | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Art.-Nr.** | **Typ** | **A** (mm) | **B** (mm) | **C** (mm) | **D** (mm) | **E** (mm) | **F** (mm) | **I** (mm) | **J** (mm) | **T** (mm) | **Z** (mm) |
| **240 01 10** | EQJA-1 | 30,4 | 11,6 | 4,1 | 19,6 | 21,8 | 10,7 | 25,0 | 26,0 | 0,8 - 1,6 | 2,0 |
| **240 01 11** | EQJA-2 | 31,0 | 18,6 | 5,0 | 19,6 | 22,0 | 18,0 | 25,0 | 26,0 | 0,8 - 1,6 | 2,0 |

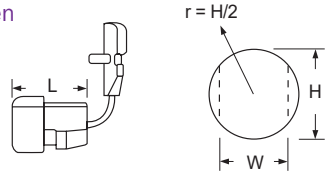
# SR KABELZUGENTLASTUNG

Merkmale

- mit Zugentlastung für runde und flache Kabel
- zuverlässige und günstige Zugentlastung mit Verdrehschutz
- gleichzeitiger Schutz und Isolation der Netzleitung
- Material: Nylon 66, UL94V-2 (bis max. +105°C)
- Farbe: schwarz (andere Farben auf Anfrage möglich)

Abmessungen

► Einheit = mm



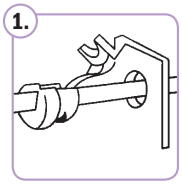

**für Rundkabel**

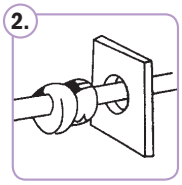
| Art.-Nr. | Typ | für Kabel (mm) | max. Wandstärke (mm) | H (mm) | W = Montagefläche (mm) | L (mm) |
|---|---|---|---|---|---|---|
| 240 06 01 | SR-2M-1 | 3,0 - 4,7 | 1,6 | 9,5 | 8,4 | 10,3 |
| 240 06 13 | SR-5MN-3 | 5,6 - 6,2 | 1,6 | 12,7 - 13,1 | 11,4 | 11,1 |
| 240 06 05 | SR-5M-3 | 5,6 - 6,2 | 2,5 | 12,7 - 13,1 | 11,4 | 11,1 |
| 240 06 08 | SR-5N-4 | 6,4 - 7,4 | 1,6 | 12,7 - 13,1 | 11,4 | 11,1 |
| 240 06 07 | SR-5P-4 | 6,4 - 7,4 | 2,5 | 12,7 - 13,1 | 11,4 | 11,1 |
| 240 06 20 | SR-5L-1 | 6,4 - 7,4 | 4,0 | 12,7 - 13,1 | 11,4 | 11,1 |
| 240 06 16 | SR-6N-4 | 7,6 | 1,6 | 15,9 | 14,0 | 14,7 |
| 240 06 19 | SR-6P-4 | 7,6 | 3,2 | 15,9 | 14,0 | 14,7 |
| 240 06 10 | SR-6N3-4 | 8,3 - 9,1 | 1,6 | 15,9 | 14,0 | 14,7 |
| 240 06 09 | SR-6P3-4 | 8,3 - 9,1 | 3,2 | 15,9 | 14,0 | 14,7 |
| 240 06 15 | SR-6L-1 | 7,6 - 9,1 | 4,0 | 15,9 - 17,4 | 14,0 | 17,5 |
| 240 06 11 | SR-7N-2 | 9,1 - 10,9 | 1,6 | 19,0 - 19,8 | 16,8 | 19,0 |
| 240 06 21 | SR-7P-2 | 9,1 - 10,9 | 3,2 | 19,0 - 19,8 | 16,8 | 19,0 |
| 240 06 12 | SR-8P-2 | 13,5 - 15,3 | 3,2 | 22,2 | 21,3 | 20,8 |

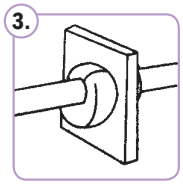
**für Flachkabel**

| Art.-Nr. | Typ | für Kabel (mm) | max. Wandstärke (mm) | H (mm) | W = Montagefläche (mm) | L (mm) |
|---|---|---|---|---|---|---|
| 240 06 00 | SR-2L-1 | 2,8 x 5,3 | 3,2 | 9,5 | 8,8 | 10,3 |
| 240 06 03 | SR-3P-4 | 3,0 x 5,6 | 1,6 | 11,1 | 9,9 | 10,3 |
| 240 06 02 | SR-3W-1 | 3,0 x 5,6 | 2,5 | 11,1 | 9,9 | 10,3 |
| 240 06 06 | SR-4N-4 | 3,8 x 7,6 | 1,6 | 12,7 | 11,8 | 10,3 |
| 240 06 04 | SR-4L-4 | 3,8 x 7,6 | 4,0 | 12,7 | 11,8 | 10,3 |
| 240 06 14 | SR-5KN-4 | 5,0 x 10,4 | 1,6 | 14,3 | 13,5 | 15,5 |

!

1. 
Auf das Kabel setzen.

2. 
Zusammendrücken.

3. 
In das Montageloch drücken.

Zur Montage empfehlen wir unsere Handzange: **Art.-Nr.: 420 24 01**

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# HANDZANGE

Merkmale

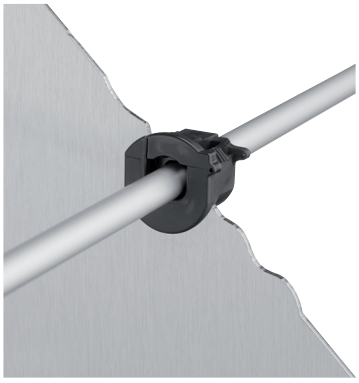
- zur Montage der Kabeldurchführung SR
- bis Montageloch-Ø = 22,0 mm

| Art.-Nr. |
|---|
| 420 24 01 |

# KZ-VR KABELZUGENTLASTUNGEN

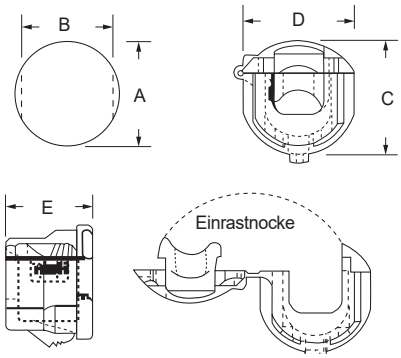
## Merkmale

- zur Vormontage am Rundkabel, sitzt fest, isoliert und schützt
- am Kabel vormontierbar, ideal für die Vorkonfekion
- Fingerdruck-Montage im Gerät möglich
- Doppel-D-Montageloch-Option verhindert Verdrehungen
- temperaturbeständig von -35 °C bis +105 °C
- Material: PA6.6, UL94V-2
- Farbe: schwarz (weiss auf Anfrage möglich)



## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Kabel-Ø (mm) | Wandstärke (mm) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|---|---|---|---|---|---|---|---|---|
| **240 07 01** | KZ-VR-5 | 3,3 - 5,3 | 0,8 - 2,5 | 15,9 | 14,0 | 17,4 | 16,4 | 14,0 |
| **240 07 02** | KZ-VR-7 | 5,6 - 7,4 | 0,8 - 2,5 | 15,9 | 14,0 | 17,4 | 17,0 | 14,0 |
| **240 07 03** | KZ-VR-9 | 7,4 - 9,8 | 2,0 - 3,4 | 22,2 | 19,6 | 24,4 | 23,4 | 18,3 |
| **240 07 04** | KZ-VR-10 | 7,4 - 9,8 | 0,8 - 4,0 | 22,2 | 19,6 | 24,4 | 23,4 | 18,3 |
| **240 07 05** | KZ-VR-11 | 8,6 - 10,9 | 2,0 - 3,4 | 22,2 | 19,6 | 24,4 | 23,4 | 18,3 |
| **240 07 06** | KZ-VR-12 | 8,6 - 10,9 | 0,8 - 4,0 | 22,2 | 19,6 | 24,4 | 23,4 | 18,3 |
| **240 07 07** | KZ-VR-13 | 10,8 - 12,1 | 0,8 - 4,0 | 22,2 | 19,6 | 24,4 | 23,4 | 18,3 |
| **240 07 08** | KZ-VR-15 | 13,5 - 15,2 | 1,6 - 4,8 | 28,2 | 25,4 | 30,5 | 29,2 | 23,4 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

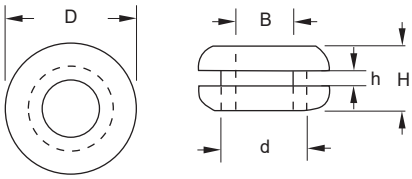
# KDP KABELDURCHFÜHRUNG

Merkmale

- zur einfachen Montage ohne Werkzeug
- Material: Weich-PVC, Gummi, NBR
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | B (mm) | D (mm) | d (mm) | H (mm) | h (mm) | Material |
|---|---|---|---|---|---|---|---|
| 240 05 01 | KDP-01 | 4,0 | 9,0 | 6,0 | 5,0 | 1,5 | Weich-PVC |
| 240 05 05 | KDP-05 | 4,5 | 9,5 | 7,0 | 6,0 | 1,2 | Weich-PVC |
| 240 05 02 | KDP-02 | 6,0 | 12,0 | 8,0 | 5,0 | 1,5 | Weich-PVC |
| 240 05 03 | KDP-03 | 8,0 | 13,0 | 10,0 | 5,0 | 1,5 | Weich-PVC |
| 240 05 04 | KDP-04 | 10,0 | 15,0 | 12,0 | 5,5 | 1,5 | Weich-PVC |
| 240 05 11 | KDP-11 | 10,0 | 17,5 | 12,0 | 6,8 | 2,0 | Gummi |
| 240 05 06 | KDP-06 | 14,0 | 24,0 | 18,0 | 7,0 | 3,0 | NBR |

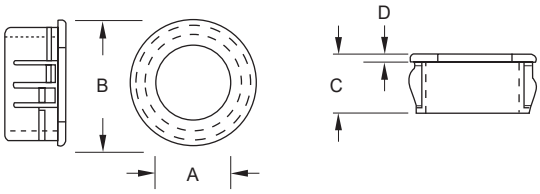
# KDG KABELDURCHFÜHRUNG

Merkmale

- zur einfachen und sicheren Montage ohne Werkzeug einrastbar
- widerstehen einer Ausreißkraft von bis zu 155 N
- Material: PA 6.6, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm



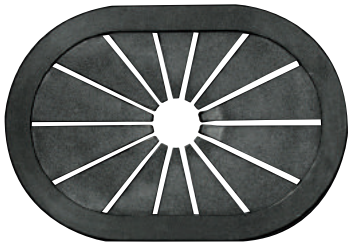

| Art.-Nr. | Typ | Montageloch-Ø (mm) | max. Wandstärke (mm) | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 240 04 06 | KDG-06 | 6,4 | 1,6 | 3,2 | 7,9 | 7,9 | 1,6 |
| 240 04 08 | KDG-08 | 7,9 | 1,6 | 4,8 | 9,5 | 7,9 | 1,6 |
| 240 04 091 | KDG-091 | 9,5 | 3,2 | 4,8 | 11,9 | 10,3 | 1,6 |
| 240 04 09 | KDG-09 | 9,5 | 3,2 | 6,4 | 11,9 | 10,3 | 1,6 |
| 240 04 11 | KDG-11 | 11,1 | 3,2 | 7,9 | 13,5 | 10,3 | 1,6 |
| 240 04 081 | KDG-081 | 12,7 | 3,2 | 7,9 | 14,7 | 10,3 | 1,6 |
| 240 04 10 | KDG-10 | 12,7 | 3,2 | 9,5 | 14,7 | 10,3 | 1,6 |
| 240 04 16 | KDG-16 | 15,9 | 3,2 | 12,7 | 18,2 | 10,3 | 1,6 |
| 240 04 14 | KDG-14 | 17,4 | 3,2 | 14,3 | 19,8 | 10,3 | 1,6 |
| 240 04 19 | KDG-19 | 19,1 | 3,2 | 15,5 | 21,4 | 10,3 | 1,6 |
| 240 04 22 | KDG-22 | 22,2 | 3,2 | 17,4 | 24,2 | 11,5 | 1,6 |
| 240 04 221 | KDG-221 | 22,2 | 1,6 | 19,0 | 24,0 | 6,4 | 1,6 |
| 240 04 27 | KDG-27 | 28,0 | 3,2 | 20,6 | 30,9 | 11,5 | 1,6 |
| 240 04 29 | KDG-29 | 28,0 | 3,2 | 23,8 | 30,9 | 11,5 | 1,6 |
| 240 04 32 | KDG-32 | 31,8 | 3,2 | 25,4 | 34,5 | 11,5 | 1,6 |
| 240 04 50 | KDG-50 | 50,8 | 3,2 | 41,3 | 54,0 | 11,5 | 1,6 |
| 240 04 63 | KDG-63 | 63,5 | 6,4 | 50,0 | 67,5 | 18,3 | 1,6 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# NBR KABELDURCHFÜHRUNG

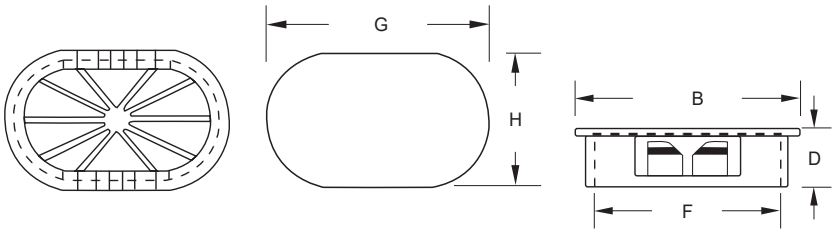
Merkmale

- zur einfachen und sicheren Montage = ohne Werkzeug einrastbar
- universell für Kabel-Ø von 1 x 7 mm bis 2 x 20 mm einsetzbar
- Befestigungsbohrung: Stärke 1,2 ~ 3,0
- absorbiert Vibrationen
- Material: Nylon 6.6, UL94-V2
- Farbe: schwarz



Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | B (mm) | D (mm) | F (mm) | G (mm) | H (mm) |
|---|---|---|---|---|---|---|
| 240 02 17 | NBR-5030 | 54,2 | 14,3 | 44,9 | 50,0 | 30,0 |
| 240 02 18 | NBR-8054 | 84,0 | 14,3 | 71,4 | 80,0 | 54,0 |

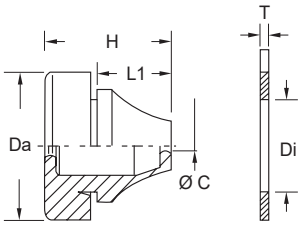
# DIDU-M KABELDURCHFÜHRUNG

Merkmale

- einfache Kabeldurchführung
- montagefreundlich
- Prüfnorm: SEMKO 44:1984
- Schutzart: IP67
- Material: Ethylen-Propylenkautschuk (EPDM)
- Temperaturbereich: -40°C / 100°C
- Farbe: grau (auch schwarz lieferbar, einfach Art.-Nr. mit "S" ergänzen)

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Di (mm) | T (mm) | Ø C (mm) | L1 (mm) | H (mm) | Da (mm) |
|---|---|---|---|---|---|---|---|
| 240 02 10 | DIDU-M 3-5 | 12,5 | 0,5 - 2 | 4,0 - 7,0 | 5,6 | 12,8 | 20,0 |
| 240 02 11 | DIDU-M 5-7 | 16,5 | 1 - 4 | 5,0 - 9,0 | 11,0 | 17,7 | 21,0 |
| 240 02 12 | DIDU-M 7-10 | 20,5 | 1 - 4 | 8,0 - 12,0 | 13,4 | 20,0 | 25,5 |
| 240 02 13 | DIDU-M 10-14 | 25,5 | 1 - 4 | 11,0 - 16,0 | 15,3 | 21,3 | 30,5 |
| 240 02 14 | DIDU-M 14-20 | 32,5 | 1 - 4 | 15,0 - 20,0 | 16,6 | 24,6 | 38,5 |
| 240 02 15 | DIDU-M 20-26 | 40,5 | 1 - 4 | 19,0 - 28,0 | 21,7 | 29,5 | 48,5 |
| 240 02 16 | DIDU-M 26-35 | 50,5 | 1 - 4 | 27,0 - 35,0 | 25,0 | 34,8 | 60,5 |

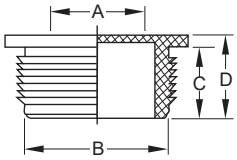
NEU

# DG-MT MEMBRAN-DURCHFÜHRUNGSTÜLLEN

## Merkmale

- zum einfachen Einclipsen in vorhandene Löcher
- für Flachkabel oder mehrere Kabel mit kleinem Durchmesser
- Außen widerstandsfähiger Korpus, innen thermoplastisches Elastomer
- mit durchstoßbarer Membran
- Schutzgrad IP 66
- Temperatureinsatzbereich: -30°C bis +80°C
- Material: Polyethylen / Thermoplastisches Elastomer

## Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Kabel-Ø A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Loch-Ø (mm) |
|---|---|---|---|---|---|---|---|
| 240 03 04 | DG-MT16 | 1,0 - 9,0 | 16,0 | 9,5 | 11,0 | 17,0 | 16,5 |
| 240 03 05 | DG-MT20 | 1,0 - 13,0 | 20,0 | 9,5 | 11,0 | 20,0 | 20,5 |
| 240 03 06 | DG-MT25 | 1,0 - 18,0 | 25,0 | 9,5 | 11,0 | 24,0 | 25,5 |
| 240 03 07 | DG-MT32 | 1,0 - 25,0 | 32,0 | 9,5 | 11,0 | 32,0 | 32,5 |

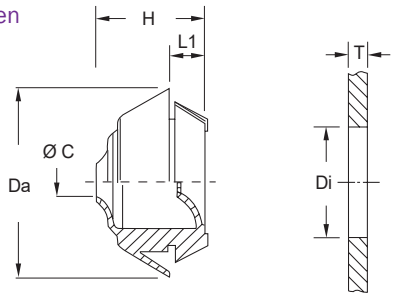
# ZKT KABELDURCHFÜHRUNG

## Merkmale

- aus Zweikomponententechnik
- zeitsparende und einfache Installation
- nach Montage in beide Richtungen fixiert
- mit durchstoßbarer Membran
- großer Dichtbereich
- Kralle mit Elastomerüberzug zum Schutz des Kabelmantels und für den Kabelrückhalt
- platzsparendes Design und geringe Bauhöhe
- auch als Verschlusselement einsetzbar
- Schutzart: IP65 / IP67
- Prüfnorm: EN 50262 / EN 60529
- EMKO-TUI(03-SEC)FI 001/84
- Intertek SEMKO Report: 606620 (geprüft für T=2-5 mm) (in Vorbereitung für T=0,7-3 mm)
- Material: PA66 und TPE, UL94-HB
- Temperaturbereich: -20°C / +70°C (+125°C gemäß Herstellerprüfungen)
- Farbe: lichtgrau (auch in weiß und schwarz lieferbar, einfach Art.-Nr. mit „W“ oder „S“ ergänzen)

## Abmessungen

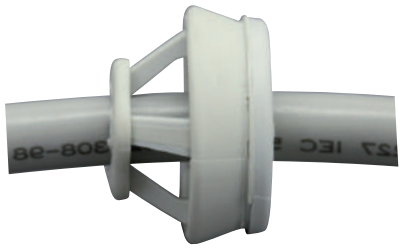
► Einheit = mm




| Art.-Nr. | Typ | Di (mm) | T (mm) | Ø C (IP65 mit Rückhalt) (mm) | Ø C (IP67 + Zugentlastung) (mm) | L1 (mm) | H (mm) | Da (mm) |
|---|---|---|---|---|---|---|---|---|
| **240 02 01** | ZKT-A1 | 20,5 | 2,0 - 5,0 | 6 - 11 | 7 - 11 | 5,5 | 17,0 - 20,0 | 29,3 - 34,5 |
| **240 02 02** | ZKT-A2 | 20,5 | 0,7 - 3,0 | 6 - 11 | 7 - 11 | 5,5 | 17,0 - 20,0 | 34,2 - 37,2 |
| **240 02 03** | ZKT-B1 | 25,5 | 2,0 - 5,0 | 6 - 13 | 7-8/9-13 | 5,7 | 17,0 - 20,0 | 34,3 - 40,0 |
| **240 02 04** | ZKT-B2 | 25,5 | 0,7 - 3,0 | 6 - 13 | 7-8/9-13 | 5,7 | 17,0 - 20,0 | 39,2 - 42,2 |

NEU

# CLIXX MEMBRAN-KABELDURCHFÜHRUNG

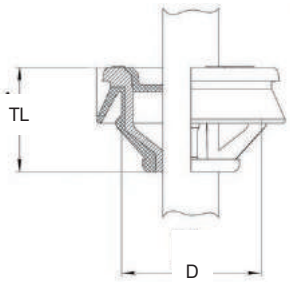


## Merkmale

- solide Konstruktion aus 2 Kunststoffkomponenten
- besonders geeignet bei Anwendungen:
  - wo wenig Platz zur Verfügung steht
  - wo die Optik eine Rolle spielt
  - und Flexibilität gefragt ist (z.B. in der Licht- und Gebäudetechnik, dem Schaltschrankbau und der Solartechnik)
- einfache Einhand-Montage ohne Werkzeuge, erspart 80% der Installationszeit
- IP 68 und 67 durch flexible Dichtlippe und sicheres Einrasten
- Zugentlastung gemäß EN 50 262 Typ A
- für Gehäusewandstärken von 0,8 bis 3,5 mm
- Temperatureinsatzbereich: -40°C bis +65°C
- UV-beständig
- Material: Polypropylen
- Standardfarbe: Grau (RAL 7035)

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | D (mm) | TL (mm) | Gehäuseloch-Ø (m) | Kabelgröße (m) |
|---|---|---|---|---|---|
| 240 03 01 | CLIXX-16 | 16,0 | 15,0 | 16,7 | 4,0 - 10,0 |
| 240 03 02 | CLIXX-20 | 20,0 | 15,0 | 20,7 | 6,0 - 13,0 |
| 240 03 03 | CLIXX-25 | 25,0 | 15,0 | 25,7 | 9,0 - 17,0 |

!

• Weitere lieferbare Farben:

Einfach die jeweilige Artikelnummer mit „S“ (schwarz), „R“ (rot) oder „W“ (weiss) ergänzen.

# SCHRUMPFSCHLÄUCHE

## dünnwandig 2:1

| | | Einsatztemperatur | Schrumpf-temperatur | Schrumpf-Ø in mm | Seite |
|---|---|---|---|---|---|
| TSG 102 | schnellschrumpfend, günstiger Standardschrumpfschlauch, halogenfrei | -30°C bis +105°C | > 90°C | 1,2 bis 50,8 | 275 |
| TSS 102 | flexibler Standardschrumpfschlauch, UL224-MIL-zugelassen | -55 bis +135°C | >90°C | 1,2 bis 50,8 | 276 |
| TST 102 | hochleistungsfähiger Schrumpfschlauch, sehr flexibel, UL224-zugelassen | -55°C bis +135°C | >90°C | 1,2 bis 101,6 | 277 |
| TST 102 GYS | hochleistungsfähiger Schrumpfschlauch, sehr flexibel, UL224-zugelassen, grün/gelb-gestreift | -55°C bis +135°C | > 90°C | 1,2 bis 50,8 | 278 |

## dünnwandig 3:1

| | | | | | |
|---|---|---|---|---|---|
| TST 300 | hohes Schrumpfverhältnis, UL-224-zugelassen | -55°C bis +135°C | > 90°C | 1,6 bis 12,7 | 279 |
| TST 103 | hohes Schrumpfverhältnis, UL-224-zugelassen | -55°C bis +135°C | > 90°C | 1,5 bis 39,0 | 280 |

## dünnwandig 4:1

| | | | | | |
|---|---|---|---|---|---|
| TST 104 | schnell schrumpfend, UL-224-zugelassen | -55°C bis +135°C | > 90°C | 1,6 bis 12,7 | 281 |

## doppelwandig 3:1

| | | | | | |
|---|---|---|---|---|---|
| PLDW 100 | mit schmelzbarer, klebender Innenschicht, hohes Schrumpfverhältnis, UL-224-zugelassen | -55°C bis +110°C | > 100°C | 3,0 bis 39,0 | 282 |

## doppelwandig 4:1

| | | | | | |
|---|---|---|---|---|---|
| PLDW 104 | mit schmelzbarer, klebender Innenschicht, sehr hohes Schrumpfverhältnis | -55°C bis +110°C | > 100°C | 4,0 bis 32,0 | 283 |

## flachgewalzt 2:1

| | | | | | |
|---|---|---|---|---|---|
| PVC 102 | sehr dünnwandiger, flachgewalzter, Schrumpfschlauch (Hart-PVC), besonders geeignet zum Umschrumpfen von Batterien, Kondensatoren, etc. | -20°C bis +105°C | > 80°C | 2,2 bis 160,0 | 284 - 285 |
| TSFP 102 | zur Kabelkennzeichnung, mit Thermotransferdruckern hervorragend bedruckbar | -30°C bis +105°C | > 90°C | 1,2 bis 25,4 | 286 |

## flachgewalzt 3:1

| | | | | | |
|---|---|---|---|---|---|
| TSFP 103 | zur Kabelkennzeichnung, mit Thermotransferdruckern hervorragend bedruckbar, hohe Schrumpfrate | -55°C bis +135°C | > 90°C | 0,8 bis 12,7 | 287 |

## spezial

| | | | | | |
|---|---|---|---|---|---|
| TELS | Aussenschicht bzw. Innen- und Aussenschicht, elektrisch leitend, zur EMV-, RFI- und ESD-Abschirmung | -55°C bis +135°C | > 120°C | 3,0 bis 127,0 | 288 |

## Kleinverpackungen 2:1 und 3:1

| | | | | | |
|---|---|---|---|---|---|
| TSS-BO TST-BO PLDW-BO | Schrumpfschlauchbox mit Abrollmöglichkeit | -55°C bis +135°C | > 90°C | 1,2 bis 101,6 | 289 |

# BESTELL- UND VERARBEITUNGSHINWEISE

## Farben

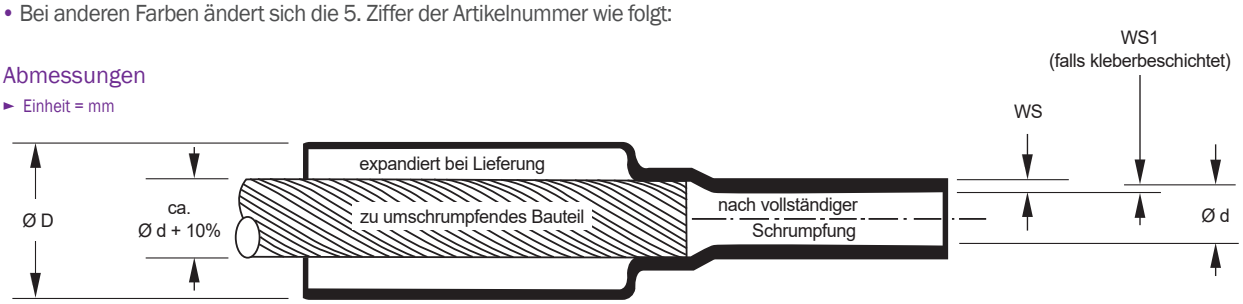
- Alle Artikelnummern sind in Farbe schwarz angegeben!

→ Ausnahme: Typ **TST 102 GYS**

- Bei anderen Farben ändert sich die 5. Ziffer der Artikelnummer wie folgt:

## Abmessungen

► Einheit = mm




| Farbe | | Farbcode (5. Ziffer der Art.-Nr.) |
|---|---|---|
| | schwarz | 1 |
| | weiss | 2 |
| | rot | 3 |
| | blau | 4 |
| | gelb | 5 |
| | transparent | 6 |
| | grün/gelb | 7 |
| | grün | 8 |
| | grau | 9 |
| | orange | X |
| | braun | 0 |
| | violett | V |

## Auswahl

- Es sollte der größtmögliche Lieferdurchmesser D (min.) gewählt werden und somit der Durchmesser d (max.) nur geringfügig kleiner sein als der des zu umschrumpfenden Teiles.
- Bei nicht vollständig durchführbarer Schrumpfung ist die Wanddicke geringer als angegeben.

## Verarbeitung

- Schrumpfschläuche ablängen, dabei auf glatte Schnittkanten achten.
- Zu umschrumpfende Metallteile mit großer Masse sollten vorgewärmt werden.
- Schrumpfschlauch über zu umhüllendes Bauteil positionieren.
- Mit Heissluftgebläse an einer Seite beginnend aufschrumpfen.
- Die dünnwandigen Schläuche schrumpfen bei optimaler Verarbeitungstemperatur so schnell, dass die umschrumpften Teile nur unwesentlich erwärmt werden.
- Bei besonders temperaturempfindlichen Bauteilen wählen Sie bitte einen Schlauch mit niedriger Schrumpftemperatur.
- Bei der Verarbeitung muss genügend Wärme zugeführt werden, um eine vollständige Schrumpfung zu erzielen.
- Je höher die Schrumpftemperatur, desto schneller die Schrumpfung.
- Eine geringe Erwärmung der zu umschrumpfenden Gegenstände ist das Ergebnis.
- Während dieses Vorgangs wird das Heissluftgebläse oder das zu umschrumpfende Teil langsam hin und her bewegt, um örtliche Überhitzung zu vermeiden.
- Bei Überhitzung zeigen wärmeschrumpfende Erzeugnisse Verfärbungen, Blasen und/oder Brandspuren und können beim Schrumpfprozess reißen.

## Auswahl

- Der bei Überhitzung durch inkorrekte Installationstechnik eventuell entstehende Rauch, der durch alle beteiligten Bauelemente hervorgerufen werden kann, sollte nicht eingeatmet werden.
- Die Verarbeitung soll deshalb stets in einem gut belüfteten Raum durchgeführt werden.

**Hinweis: Schrumpfschläuche**

- **Unsere Schrumpfschläuche werden als Rollenware, Meterware beziehungsweise in Kleinverpackungen geliefert.**
- **Auf Wunsch können Schrumpfschläuche auf Länge geschnitten werden.**
- **Kundenspezifische Schrumpfschläuche für besondere Anwendungszwecke bedeuten für uns eine Herausforderung, der wir uns gerne stellen möchten:**

*(z.B. Schrumpfschläuche aus Kynar oder Viton oder Aufteil- bzw. Endkappen)*

# TSG 102 SCHRUMPFSCHLAUCH

Merkmale

- flexibel
- dünnwandig
- halogenfrei
- Schrumpfrate 2:1
- niedrige Schrumpftemperatur: > 90 °C
- schnellschrumpfend
- Einsatztemperatur: -30 °C bis 105 °C
- Entflammbarkeit nach FMVSS 302
- Material Polyolefin
- Farbe: schwarz (1), rot (3), blau (4), gelb (5) und grün/gelb (7), Sonderfarben auf Anfrage

| Art.-Nr. | Größe (mm) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach vollständiger Schrumpfung (mm) | Wandstärke nach vollständiger Schrumpfung (mm) | Rollengröße (m) |
|---|---|---|---|---|---|
| 262 11 00 | 1,2 | 1,2 | 0,6 | 0,41 | 200 |
| 262 11 01 | 1,6 | 1,6 | 0,8 | 0,43 | 200 |
| 262 11 02 | 2,4 | 2,4 | 1,2 | 0,51 | 200 |
| 262 11 03 | 3,2 | 3,2 | 1,6 | 0,51 | 200 |
| 262 11 04 | 4,8 | 4,8 | 2,4 | 0,51 | 200 |
| 262 11 06 | 6,4 | 6,4 | 3,2 | 0,65 | 150 |
| 262 11 09 | 9,5 | 9,5 | 4,7 | 0,65 | 150 |
| 262 11 12 | 12,7 | 12,7 | 6,4 | 0,65 | 100 |
| 262 11 19 | 19,1 | 19,1 | 9,5 | 0,77 | 50 |
| 262 11 25 | 25,4 | 25,4 | 12,7 | 0,89 | 50 |
| 262 11 38 | 38,1 | 38,1 | 19,1 | 1,00 | 25 |
| 262 11 50 | 50,8 | 50,8 | 25,4 | 1,10 | 25 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | TSG 102 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | 10 N/mm² |
| Reißdehnung | ASTM D 638 | 200 % |
| Längenschrumpfung | ASTM D 2671 | -10 % bis +5 % |
| Wasseraufnahme | ASTM D 570 | < 0,5 % |
| Spezifisches Gewicht | ASTM D 792 | 1,20 |

| Chemische Eigenschaften | Testmethode | TSG 102 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |

| Thermische Eigenschaften | Testmethode | TSG 102 |
|---|---|---|
| Hitzebeständigkeit (4h bei 175 °C) | | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175 °C) | ASTM D 638 | Dehnung 100 % |
| Biegsamkeit bei -30 °C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit | FMVSS 302 | zugelassen |

| Elektrische Eigenschaften | Testmethode | TSG 102 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 20 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 257 | $10^{14}$ Ohm.cm |

# TSS 102 SCHRUMPFSCHLAUCH

## Merkmale

- dünnwandiger Standardschrumpfschlauch
- flexibel
- Schrumpfrate 2:1
- flammhemmend gemäß UL224 und MIL Spec. (Farben)
- niedrige Schrumpftemperatur: > 90 °C
- Einsatztemperatur: -55 °C bis 135 °C
- Material: Polyolefin
- Farben: schwarz (1), weiss (2), rot (3), blau (4), gelb (5), transparent (6), gelb/grün (7), grün (8), grau (9) und braun (0)

## Zulassungen

- UL 224, 125 °C, CSA C 22.22
- SAE-AMS-DTL-23053/5 (Klasse 1)

| Art.-Nr. | Farbe | Größe (mm) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | Rollengröße (m) |
|---|---|---|---|---|---|---|
| 262 01 00 | schwarz | 1,2 | 1,2 | 0,6 | 0,41 | 200 |
| 262 01 01 | schwarz | 1,6 | 1,6 | 0,8 | 0,43 | 200 |
| 262 01 02 | schwarz | 2,4 | 2,4 | 1,2 | 0,51 | 200 |
| 262 01 03 | schwarz | 3,2 | 3,2 | 1,6 | 0,51 | 200 |
| 262 01 04 | schwarz | 4,8 | 4,8 | 2,4 | 0,51 | 200 |
| 262 01 06 | schwarz | 6,4 | 6,4 | 3,2 | 0,65 | 150 |
| 262 01 09 | schwarz | 9,5 | 9,5 | 4,7 | 0,65 | 150 |
| 262 01 12 | schwarz | 12,7 | 12,7 | 6,4 | 0,65 | 75 |
| 262 01 19 | schwarz | 19,1 | 19,1 | 9,5 | 0,77 | 50 |
| 262 01 25 | schwarz | 25,4 | 25,4 | 12,7 | 0,89 | 50 |
| 262 01 38 | schwarz | 38,1 | 38,1 | 19,1 | 1,00 | 25 |
| 262 01 50 | schwarz | 50,8 | 50,8 | 25,4 | 1,10 | 25 |

## Technische Daten

| Phys. Eigenschaften | Testmethode | TSS 102 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | 13 N/mm² |
| Reißdehnung | ASTM D 638 | 350 % |
| Längenschrumpfung | ASTM D 2671 | -5 % bis +5 % |
| Wasseraufnahme | ASTM D 570 | 0,20 % |
| Spezifisches Gewicht | ASTM D 792 | 1,45 |

| Chemische Eigenschaften | Testmethode | TSS 102 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |

| Therm. Eigenschaften | Testmethode | TSS 102 |
|---|---|---|
| Hitzebeständigkeit (4h und 250°C) | ASTM D 2671 | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175°C) | ASTM D 638 | Dehnung bei 250 % |
| Biegsamkeit bei -55°C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit (nur die Farben) | UL224 | flammhemmend, gemäß UL 224 |

| Elektrische Eigenschaften | Testmethode | TSS 102 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 20 kV/mm |
| Spez. Durchgangswiderstand | ASTM D 257 | $10^{16}$ Ohm.cm |

**Hinweis:** Bei Anfragen und Bestellungen unbedingt die Farbe angeben!

# TST 102 SCHRUMPFSCHLAUCH

## Merkmale

- flexibel
- dünnwandig
- excellente chemische, physikalische und elektrische Eigenschaften
- sehr flammhemmend gemäß UL224-VW1
- Schrumpfrate 2:1
- Schrumpftemperatur: > 90 °C
- Einsatztemperatur: -55 °C bis +135 °C
- Material: Polyolefin
- Farben: schwarz (1), weiss (2), rot (3), blau (4), gelb (5), transparent (6), grau (9) und braun (0)

## Zulassungen

- UL 224, 125 °C, CSA C 22.22
- SAE-AMS-DTL-23053/5 (Klasse 3)

| Art.-Nr. | Farbe | Größe (mm) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | VPE (m) |
|---|---|---|---|---|---|---|
| 262 21 00 | schwarz | 1,2 | 1,2 | 0,6 | 0,41 | 200 |
| 262 21 01 | schwarz | 1,6 | 1,6 | 0,8 | 0,43 | 200 |
| 262 21 02 | schwarz | 2,4 | 2,4 | 1,2 | 0,51 | 200 |
| 262 21 03 | schwarz | 3,2 | 3,2 | 1,6 | 0,51 | 200 |
| 262 21 04 | schwarz | 4,8 | 4,8 | 2,4 | 0,51 | 200 |
| 262 21 06 | schwarz | 6,4 | 6,4 | 3,2 | 0,64 | 150 |
| 262 21 09 | schwarz | 9,5 | 9,5 | 4,7 | 0,64 | 150 |
| 262 21 12 | schwarz | 12,7 | 12,7 | 6,4 | 0,64 | 100 |
| 262 21 19 | schwarz | 19,1 | 19,1 | 9,5 | 0,77 | 50 |
| 262 21 25 | schwarz | 25,4 | 25,4 | 12,7 | 0,89 | 50 |
| 262 21 38 | schwarz | 38,1 | 38,1 | 19,1 | 1,02 | 25 |
| 262 21 50 | schwarz | 50,8 | 50,8 | 25,4 | 1,14 | 25 |
| 262 21 76 | schwarz | 76,2 | 76,2 | 38,1 | 1,27 | 15 |
| 262 21 101 | schwarz | 101,6 | 101,6 | 50,8 | 1,40 | 15 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | TST 102 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | 13 N/mm² |
| Reißdehnung | ASTM D 638 | 300 % |
| Längenschrumpfung | ASTM D 2671 | -5 % bis +5 % |
| Wasseraufnahme | ASTM D 570 | < 0,15 % |
| Spezifisches Gewicht | ASTM D 792 | 1,45 |

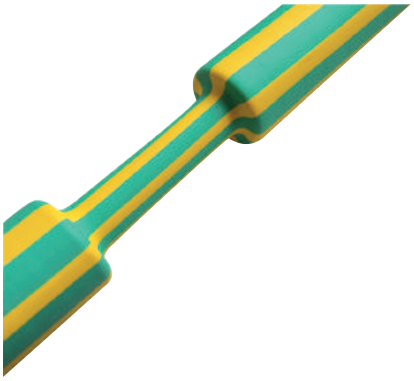
| Chemische Eigenschaften | Testmethode | TST 102 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |

| Thermische Eigenschaften | Testmethode | TST 102 |
|---|---|---|
| Hitzebeständigkeit (4h bei 250 °C) | ASTM D 2671 | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175 °C) | ASTM D 638 | Dehnung bei 250 % |
| Biegsamkeit bei -55 °C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit | UL224 VW-1 | bestanden |

| Elektrische Eigenschaften | Testmethode | TST 102 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 20 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 257 | $10^{16}$ Ohm.cm |

**Hinweis:** Bei Anfragen und Bestellungen unbedingt die Farbe angeben!

# TST 102 GYS SCHRUMPFSCHLAUCH



## Merkmale

- flexibel
- dünnwandig
- excellente chemische, physikalische und elektrische Eigenschaften
- sehr flammhemmend gemäß UL224-VW1
- Schrumpfrate 2:1
- Schrumpftemperatur: > 90 °C
- Einsatztemperatur: -55 °C bis +135 °C
- Material: Polyolefin
- Farbe: grün/gelb

## Zulassungen

- UL 224, 125 °C, CSA C 22.22
- SAE-AMS-DTL-23053/5 (Klasse 3)

| Art.-Nr. | Farbe | Größe (mm)) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | VPE (m) |
|---|---|---|---|---|---|---|
| 262 27 00 | grün / gelb | 1,2 | 1,2 | 0,6 | 0,41 | 200 |
| 262 27 01 | grün / gelb | 1,6 | 1,6 | 0,8 | 0,43 | 200 |
| 262 27 02 | grün / gelb | 2,4 | 2,4 | 1,2 | 0,51 | 200 |
| 262 27 03 | grün / gelb | 3,2 | 3,2 | 1,6 | 0,51 | 200 |
| 262 27 04 | grün / gelb | 4,8 | 4,8 | 2,4 | 0,51 | 200 |
| 262 27 06 | grün / gelb | 6,4 | 6,4 | 3,2 | 0,64 | 150 |
| 262 27 09 | grün / gelb | 9,5 | 9,5 | 4,7 | 0,64 | 150 |
| 262 27 12 | grün / gelb | 12,7 | 12,7 | 6,4 | 0,64 | 100 |
| 262 27 19 | grün / gelb | 19,1 | 19,1 | 9,5 | 0,77 | 50 |
| 262 27 25 | grün / gelb | 25,4 | 25,4 | 12,7 | 0,89 | 50 |
| 262 27 38 | grün / gelb | 38,1 | 38,1 | 19,1 | 1,02 | 25 |
| 262 27 50 | grün / gelb | 50,8 | 50,8 | 25,4 | 1,14 | 25 |
| 262 27 76 | grün / gelb | 76,2 | 76,2 | 38,1 | 1,27 | 15 |
| 262 27 101 | grün / gelb | 101,6 | 101,6 | 50,8 | 1,40 | 15 |

## Technische Daten

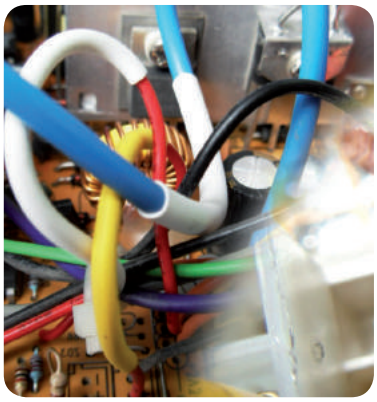
| Physikalische Eigenschaften | Testmethode | TST 102 GYS |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | 13 N/mm² |
| Reißdehnung | ASTM D 638 | 300 % |
| Längenschrumpfung | ASTM D 2671 | -5 % bis +5 % |
| Wasseraufnahme | ASTM D 570 | < 0,15 % |
| Spezifisches Gewicht | ASTM D 792 | 1,45 |

| Chemische Eigenschaften | Testmethode | TST 102 GYS |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |

| Thermische Eigenschaften | Testmethode | TST 102 GYS |
|---|---|---|
| Hitzebeständigkeit (4h bei 250 °C) | ASTM D 2671 | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175 °C) | ASTM D 638 | Dehnung bei 250 % |
| Biegsamkeit bei -55 °C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit | UL224 VW-1 | bestanden |

| Elektrische Eigenschaften | Testmethode | TST 102 GYS |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 20 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 257 | $10^{16}$ Ohm.cm |

# TST 300 SCHRUMPFSCHLAUCH



## Merkmale

- sehr dünnwandiger Standardschrumpfschlauch
- sehr flexibel
- schnell schrumpfend
- hohes Schrumpfverhältnis
- flammhemmend gemäß UL224 und MIL Spec.
- Schrumpfrate 3:1
- Schrumpftemperatur >90 °C
- Schrumpf-Ø: 1,6 bis 12,7 mm
- Einsatztemperatur: -55 °C bis 135 °C
- Material: Polyolefin
- Farbe: schwarz (1), weiß (2), rot (3), blau (4), gelb (5)

## Zulassungen

- UL 224, 125 °C, CSA C 22.22
- MIL-DTL-23053/5 (Klasse 1 und 2)

| Art.-Nr. | Größe (mm) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | Rollengröße (m) |
|---|---|---|---|---|---|
| 262 41 01 | 1,6 | 1,6 | 0,6 | 0,45 | 200 |
| 262 41 03 | 3,2 | 3,2 | 1,2 | 0,55 | 150 |
| 262 41 04 | 4,8 | 4,8 | 1,6 | 0,60 | 200 |
| 262 41 06 | 6,4 | 6,4 | 2,4 | 0,65 | 75 |
| 262 41 09 | 9,5 | 9,5 | 3,2 | 0,75 | 100 |
| 262 41 12 | 12,7 | 12,7 | 4,8 | 0,75 | 50 |
| 262 41 19 | 19,0 | 19,0 | 6,0 | 0,85 | 30 |
| 262 41 25 | 25,4 | 25,4 | 8,0 | 1,00 | 30 |
| 262 41 39 | 39,0 | 39,0 | 13,0 | 1,15 | 30 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | TST 300 |
|---|---|---|
| Zugfestigkeit | IEC 60684-2 | 17 MPa |
| Reißdehnung | IEC 60684-2 | 500 % |
| Längsschrumpf | ASTM-D 2671 | ± 10 % max. |
| Sekantenmodul | ASTM-D 882 | 175 MPa max. |
| Spezifisches Gewicht | ASTM-D 792, A-I | 1,3 g/cm³ |
| Reißdehnung nach Wärmealterung (168h bei 175 °C) | ASTM-D 2671 | 300 % |
| Zugfestigkeit nach Wärmealterung (168h bei 175 °C) | ASTM-D 2671 | 13 Mpa |
| Reißdehnung nach Wärmeschock (4h bei 250 °C) | ASTM-D 2671 | kein Brechen oder Fließen |
| Zugfestigkeit nach Wärmeschock (4h bei 200 °C) | IEC 811-1-3 | 15 MPa |
| Biegsamkeit bei Kälte | ASTM-D 2671 Meth. C | bricht nicht bei -55 °C |
| Entflammbarkeit | UL 224 (farbig) FMVSS 302 (transp.) | flammgeschützt |

| Elektrische Eigenschaften | Testmethode | TST 300 |
|---|---|---|
| Durchschlagsfestigkeit | VDE 0303 Part 2 | 24 kV/mm |
| Durchgangswiderstand | VDE 0303 Part 3 | $10^{16}$ Ω x cm |

| Chemische Eigenschaften | Testmethode | TST 300 |
|---|---|---|
| Korrosionswirkung | ASTM-D 2671 Meth. A | nicht korrosiv |
| Kupferverträglichkeit | ASTM-D 2671 Merth. B | nicht korrosiv |
| Chemikalienbeständigkeit | | gut |
| Wasseraufnahme | VDE 0472 | 0,20 % |

Weitere Farben gibt es auf Anfrage: Telefon: 09852 61079-0

# TST 103 SCHRUMPFSCHLAUCH

## Merkmale

- flexibel
- dünnwandig
- hohes Schrumpfverhältnis
- Schrumpfrate 3:1
- flammhemmend gemäß UL224 und MIL Spec. (Farben)
- Einsatztemperatur: -55 °C bis 135 °C
- Schrumpftemperatur: >90 °C
- Material: Polyolefin
- Farben: schwarz (1), weiss (2), rot (3), blau (4), gelb (5), transparent (6), gelb/grün (7), grün (8), grau (9) und braun (0)

## Zulassungen

- UL 224, 125 °C, CSA C 22.22
- SAE-AMS-DTL-23053/5 (Klasse 1, Farben)
- SAE-AMS-DTL-23053/5 (Klasse 2, transparent)

| Art.-Nr. | Farbe | Größe (mm) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | Rollengröße (m) |
|---|---|---|---|---|---|---|
| 262 31 01 | schwarz | 1,5 / 0,5 | 1,5 | 0,5 | 0,45 | 200 |
| 262 31 03 | schwarz | 3 / 1 | 3,0 | 1,0 | 0,55 | 200 |
| 262 31 04 | schwarz | 4,8 / 1,5 | 4,8 | 1,6 | 0,55 | 150 |
| 262 31 06 | schwarz | 6 / 2 | 6,0 | 2,0 | 0,65 | 150 |
| 262 31 09 | schwarz | 9 / 3 | 9,0 | 3,0 | 0,75 | 100 |
| 262 31 12 | schwarz | 12 / 4 | 12,0 | 4,0 | 0,75 | 100 |
| 262 31 18 | schwarz | 18 / 6 | 18,0 | 6,0 | 0,75 | 50 |
| 262 31 24 | schwarz | 24 / 8 | 24,0 | 8,0 | 1,00 | 50 |
| 262 31 39 | schwarz | 39 / 13 | 39,0 | 13,0 | 1,15 | 25 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | TST 103 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | 13 N/mm² |
| Reißdehnung | ASTM D 638 | 300 % |
| Längenschrumpfung | ASTM D 2671 | -10 % bis 1 %, -10% bis +5% (transparent) |
| Wasseraufnahme | ASTM D 570 | 0,20 % |
| Spezifisches Gewicht | ASTM D 792 | 1,45 |

| Chemische Eigenschaften | Testmethode | TST 103 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |

| Thermische Eigenschaften | Testmethode | TST 103 |
|---|---|---|
| Hitzebeständigkeit (4h bei 250°C) | ASTM D 2671 | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175°C) | ASTM D 638 | Dehnung bei 200 % |
| Biegsamkeit bei -55°C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit (nur die Farben) | UL224 | flammhemmend, gemäß UL 224 |

| Elektrische Eigenschaften | Testmethode | TST 103 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 20 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 257 | $10^{16}$ Ohm.cm |

**Hinweis:** Bei Anfragen und Bestellungen unbedingt die Farbe angeben!

# TST 104 SCHRUMPFSCHLAUCH

NEU

Merkmale

- flexibel
- dünnwandig
- Schrumpfrate 4:1
- schnellschrumpfend
- Einsatztemperatur: -55 °C bis +135 °C
- Entflammbarkeit nach UL224 (VW-1 , 600V, 125 °C)
- Material: Polyolefin
- Farbe: schwarz, Sonderfarben auf Anfrage

| Art.-Nr. | Größe in mm | Innen-Ø bei Lieferung (mm) | Innen-Ø nach vollständiger Schrumpfung (mm) | Wandstärke nach vollständiger Schrumpfung (mm) | Länge (mm) |
|---|---|---|---|---|---|
| **262 91 12** | 12,0/3,0 | 12,0 | 3,0 | 0,96 | 1,2 |
| **262 91 19** | 19,1/4,7 | 19,1 | 4,7 | 0,96 | 1,2 |
| **262 91 25** | 25,4/7,0 | 25,4 | 7,0 | 0,96 | 1,2 |
| **262 91 32** | 32,0/8,0 | 32,0 | 8,0 | 1,50 | 1,2 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | TST 104 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | ≥ 1,1 kgf/mm² |
| Reißdehnung | MIL-I-23053 | 200 % |
| Längenschrumpfung | ASTM D 2671 | ±10 % |

| Chemische Eigenschaften | Testmethode | TST 104 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Kupferverträglichkeit | MIL-I-23053 | keine Korrosion |

| Thermische Eigenschaften | Testmethode | TST104 |
|---|---|---|
| Hitzebeständigkeit (4h bei 250 °C) | MIL-I-23053 | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175 °C) | ASTM D 638 | Dehnung ≥ 100 % |
| Biegsamkeit bei -55 °C | MIL-I-23053 | kein Reißen |
| Entflammbarkeit | UL224-VW1 | zugelassen |

| Elektrische Eigenschaften | Testmethode | TST 104 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | ≥ 19,7 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 876 | ≥ $1x10^{14}$ Ohm.cm |

# PLDW 100 SCHRUMPFSCHLAUCH

## Merkmale

- Doppelwandiger Schrumpfschlauch mit schmelzbarer, klebender Innenschicht (zerfließt bei Erwärmung)
- sehr flexibel
- excellente chemische, physikalische und elektrische Eigenschaften
- Schrumpfrate: 3:1
- flammhemmend gemäß UL224
- hohes Schrumpfverhältnis
- Schrumpftemperatur: > 100 °C
- Einsatztemperatur: -55 °C bis +110 °C
- Material: Polyolefin
- Farben: schwarz (1) und transparent (6)

## Zulassungen

- SAE-AMS-DTL-23053/4 (Klasse 3)

| Art.-Nr. | Farbe | Größe (mm) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | VPE (m) |
|---|---|---|---|---|---|---|
| 262 51 03 | schwarz | 3 / 1 | 3,0 | 1,0 | 1,0 | 200 |
| 262 51 04 | schwarz | 4,8 | 4,8 | 1,6 | 1,0 | 150 |
| 262 51 06 | schwarz | 6 / 2 | 6,0 | 2,0 | 1,1 | 150 |
| 262 51 09 | schwarz | 9 / 3 | 9,0 | 3,0 | 1,3 | 150 |
| 262 51 12 | schwarz | 12 / 4 | 12,0 | 4,0 | 1,7 | 100 |
| 262 51 18 | schwarz | 18 / 6 | 18,0 | 6,0 | 2,0 | 50 |
| 262 51 24 | schwarz | 24 / 8 | 24,0 | 8,0 | 2,5 | 50 |
| 262 51 39 | schwarz | 39 / 13 | 39,0 | 13,0 | 2,5 | 25 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | PLDW 100 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | 11 N/mm² |
| Reißdehnung | ASTM D 638 | 300 % |
| Längenschrumpfung | ASTM D 2671 | -15 % bis +1 % |
| Wasseraufnahme | ASTM D 570 | ≤ 0,5 % |
| Spezifisches Gewicht | ASTM D 792 | 1,45 |

| Chemische Eigenschaften | Testmethode | PLDW 100 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |

| Thermische Eigenschaften | Testmethode | PLDW 100 |
|---|---|---|
| Hitzebeständigkeit (4h bei 250 °C) | ASTM D 2671 | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175 °C) | ASTM D 638 | Dehnung bei 250 % |
| Biegsamkeit bei -55 °C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit | ASTM D 2671 B | bestanden |

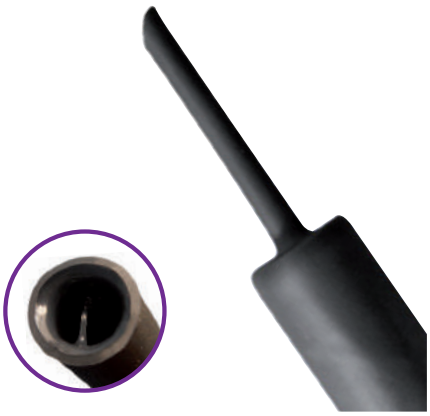
| Elektrische Eigenschaften | Testmethode | PLDW 100 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 15 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 257 | $10^{14}$ Ohm.cm |

**Hinweis:** Bei Anfragen und Bestellungen unbedingt die Farbe angeben!

# PLDW 104 SCHRUMPFSCHLAUCH

## Merkmale

- Doppelwandiger Schrumpfschlauch mit schmelzbarer, klebender Innenschicht (zerfließt bei Erwärmung)
- excellente chemische, physikalische und elektrische Eigenschaften
- sehr hohe Schrumpfrate: 4:1
- flammhemmend gemäß ASTM D 2671 B
- Schrumpftemperatur: > 100 °C
- Einsatztemperatur: -55 °C bis 110 °C
- Material: Polyolefin
- Farben: schwarz (1) und transparent (6)



## Zulassungen

- SAE-AMS-DTL-23053/4 (Klasse 3)

| Art.-Nr. | Farbe | Größe (mm) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | VPE (m) |
|---|---|---|---|---|---|---|
| 262 61 04 | schwarz | 4 / 1 | 4,0 | 1,0 | 1,0 | 200 |
| 262 61 06 | schwarz | 6 / 1,5 | 6,0 | 1,5 | 1,1 | 100 |
| 262 61 08 | schwarz | 8 / 2 | 8,0 | 2,0 | 1,1 | 150 |
| 262 61 12 | schwarz | 12 / 3 | 12,0 | 3,0 | 1,3 | 100 |
| 262 61 16 | schwarz | 16 / 4 | 16,0 | 4,0 | 1,5 | 50 |
| 262 61 24 | schwarz | 24 / 6 | 24,0 | 6,0 | 2,0 | 50 |
| 262 61 32 | schwarz | 32 / 8 | 32,0 | 8,0 | 2,5 | 25 |
| 262 61 52 | schwarz | 52 / 13 | 52,0 | 13,0 | 3,0 | 25 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | PLDW 100 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | 11 N/mm² |
| Reißdehnung | ASTM D 638 | 300 % |
| Längenschrumpfung | ASTM D 2671 | -15 % bis +1 % |
| Wasseraufnahme | ASTM D 570 | ≤ 0,5 % |
| Spezifisches Gewicht | ASTM D 792 | 1,45 |

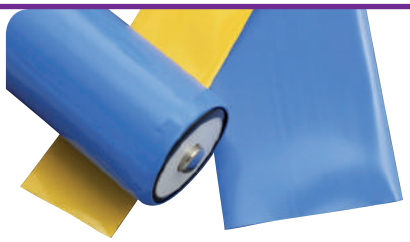
| Chemische Eigenschaften | Testmethode | PLDW 100 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |

| Thermische Eigenschaften | Testmethode | PLDW 100 |
|---|---|---|
| Hitzebeständigkeit (4h bei 250 °C) | ASTM D 2671 | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175 °C) | ASTM D 638 | keine |
| Biegsamkeit bei -55 °C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit | ASTM D 2671 B | bestanden |

| Elektrische Eigenschaften | Testmethode | PLDW 100 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 15 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 257 | $10^{14}$ Ohm.cm |

**Hinweis:** Bei Anfragen und Bestellungen unbedingt die Farbe angeben!

# PVC 102 SCHRUMPFSCHLAUCH



Merkmale

- sehr dünnwandiger, flachgewalzter Schrumpfschlauch
- Schrumpfrate: 2:1
- niedrige Schrumpftemperatur > 80 °C
- flammhemmend gemäß UL224
- besonders geeignet zum Umschrumpfen von Batterien, Kondensatoren und anderen Komponenten
- Einsatztemperatur: -20 °C bis +105 °C
- Material: Polyvinylchlorid (PVC)
- Farben: schwarz (1), weiss (2), rot (3), blau (4), gelb (5), transparent (6)
- Flachmaß = 1,57079 x Ø
- Ø = 0,6366 x Flachmaß

| Art.-Nr. | Flachmaß (mm) | Wandstärke (mm) | Farbe |
|---|---|---|---|
| 260 12 23 | 23,0 | 0,10 | weiss |
| 260 12 24 | 24,0 | 0,10 | weiss |
| 260 22 24 | 24,0 | 0,15 | weiss |
| 260 05 27 | 27,0 | 0,13 | gelb |
| 260 12 28 | 28,0 | 0,10 | weiss |
| 260 22 28 | 28,0 | 0,13 | weiss |
| 260 16 30 | 30,0 | 0,10 | transparent |
| 260 11 37 | 37,0 | 0,10 | schwarz |
| 260 34 37 | 37,0 | 0,20 | blau |
| 260 11 38 | 38,0 | 0,10 | schwarz |
| 260 22 38 | 38,0 | 0,15 | weiss |
| 260 21 40 | 40,0 | 0,15 | schwarz |
| 260 21 41 | 41,0 | 0,13 | schwarz |
| 260 22 43 | 43,0 | 0,15 | weiss |
| 260 11 43,5 | 43,5 | 0,10 | schwarz |
| 260 21 45 | 45,0 | 0,15 | schwarz |
| 260 34 45 | 45,0 | 0,20 | blau |
| 260 22 52 | 52,0 | 0,15 | weiss |
| 260 24 52 | 52,0 | 0,15 | blau |
| 260 25 52 | 52,0 | 0,15 | gelb |
| 260 04 53 | 53,0 | 0,13 | blau |
| 260 21 56 | 56,0 | 0,13 | schwarz |
| 260 22 57 | 57,0 | 0,15 | weiss |
| 260 24 57 | 57,0 | 0,15 | blau |
| 260 34 59,5 | 59,5 | 0,20 | blau |
| 260 11 65 | 65,0 | 0,10 | schwarz |
| 260 21 65 | 65,0 | 0,15 | schwarz |
| 260 22 66 | 66,0 | 0,15 | weiss |
| 260 21 68 | 68,0 | 0,15 | schwarz |
| 260 34 68 | 68,0 | 0,20 | blau |
| 260 21 70 | 70,0 | 0,15 | schwarz |
| 260 31 70 | 70,0 | 0,20 | schwarz |
| 260 21 75 | 75,0 | 0,15 | schwarz |
| 260 14 76 | 76,0 | 0,10 | blau |
| 260 12 80 | 80,0 | 0,10 | weiss |
| 260 13 80 | 80,0 | 0,10 | rot |
| 260 21 82 | 82,0 | 0,15 | schwarz |
| 260 21 85 | 85,0 | 0,15 | schwarz |
| 260 22 85 | 85,0 | 0,15 | weiss |
| 260 25 86 | 86,0 | 0,13 | gelb |
| 260 21 88 | 88,0 | 0,15 | schwarz |
| 260 32 88 | 88,0 | 0,20 | weiss |

# PVC 102 SCHRUMPFSCHLAUCH

| Art.-Nr. | Flachmaß (mm) | Wandstärke (mm) | Farbe |
|---|---|---|---|
| 260 16 95 | 95,0 | 0,10 | transparent |
| 260 21 95 | 95,0 | 0,15 | schwarz |
| 260 31 95 | 95,0 | 0,20 | schwarz |
| 260 16 97 | 97,0 | 0,10 | transparent |
| 260 01 97 | 97,0 | 0,13 | schwarz |
| 260 21 97 | 97,0 | 0,15 | schwarz |
| 260 01 98 | 98,0 | 0,13 | schwarz |
| 260 21 98 | 98,0 | 0,13 | schwarz |
| 260 21 105 | 105,0 | 0,15 | schwarz |
| 260 22 105 | 105,0 | 0,15 | weiss |
| 260 21 110 | 110,0 | 0,15 | schwarz |
| 260 31 112 | 112,0 | 0,20 | schwarz |
| 260 26 113 | 113,0 | 0,15 | transparent |
| 260 21 115 | 115,0 | 0,15 | schwarz |
| 260 22 115 | 115,0 | 0,15 | weiss |
| 260 31 115 | 115,0 | 0,20 | schwarz |
| 260 16 120 | 120,0 | 0,10 | transparent |
| 260 31 124 | 124,0 | 0,20 | schwarz |
| 260 36 124 | 124,0 | 0,20 | transparent |
| 260 32 125 | 125,0 | 0,20 | weiss |
| 260 35 140 | 140,0 | 0,20 | gelb |
| 260 36 152 | 152,0 | 0,20 | transparent |
| 260 31 158 | 158,0 | 0,20 | schwarz |
| 260 31 160 | 160,0 | 0,20 | schwarz |
| 260 26 170 | 170,0 | 0,20 | transparent |
| 260 34 175 | 175,0 | 0,20 | blau |
| 260 31 185 | 185,0 | 0,20 | schwarz |
| 260 31 195 | 195,0 | 0,20 | schwarz |
| 260 12 200 | 200,0 | 0,10 | weiss |
| 260 31 200 | 200,0 | 0,20 | schwarz |
| 260 32 205 | 205,0 | 0,18 | weiss |

## Technische Daten

| Physikalisch Eigenschaften | Testmethode | PVC 102 |
|---|---|---|
| Zugfestigkeit | ASTM D 2671 | 440 kg/cm² |
| Reißdehnung | ASTM D 2671 | 200 % |
| Längenschrumpfung | | 10 % (± 5) |
| Durchmesserschrumpfung | | 45 % (±) |

| Chemische Eigenschaften | Testmethode | PVC 102 |
|---|---|---|
| Wasseraufnahmen | ASTM D 570-A | < 0,5 % |
| Lösungsmittel-beständigkeit | | gut |

| Thermische Eigenschaften | Testmethode | PVC 102 |
|---|---|---|
| Einsatztemperatur | | -20 °C bis +105 °C |
| Schrumpftemperatur | | min. 80 °C |
| Lagertemperatur | | max. 25 °C |
| Biegsamkeit bei -15 °C | ASTM D 2671 | kein Reißen |
| Entflammbarkeit | UL224 | flammhemmend gem. UL 224 VW1 |

| Elektrische Eigenschaften | Testmethode | PVC 102 |
|---|---|---|
| Durchschlagsfestigkeit bei 0,10 mm Wandstärke | | 8 kV |

In vielen Größen, Wandstärken und Farben auf Anfrage erhältlich:
Telefon: 09852 61079-0

# TSFP 102 SCHRUMPFSCHLAUCH

## Merkmale

- flachgewalzter Schrumpfschlauch zur Kabelkennzeichnung
- mit Thermotransferdruckern hervorragend bedruckbar
- Schrumpfrate = 2:1
- Schrumpftemperatur: > 90 °C
- Einsatztemperatur: -30 °C bis +105 °C
- Farben: weiss (2) oder gelb (5)

## Zulassungen

- ASTM D 635-HB
- DIN 5510 (Teil 2) / Anhang C

| Art.-Nr. | Farbe | Größe (mm) | Breite (mm) | max. Innen-Ø (mm) | Wandstärke (mm) | VPE (m) |
|---|---|---|---|---|---|---|
| 263 02 02 | weiss | 2,4 | 4,2 | 1,2 | 0,51 | 100 |
| 263 02 03 | weiss | 3,2 | 5,6 | 1,6 | 0,63 | 100 |
| 263 02 04 | weiss | 4,8 | 7,6 | 2,4 | 0,63 | 100 |
| 263 02 06 | weiss | 6,4 | 10,7 | 3,2 | 0,72 | 100 |
| 263 02 09 | weiss | 9,5 | 15,1 | 4,8 | 0,70 | 100 |
| 263 02 12 | weiss | 12,7 | 20,9 | 6,4 | 0,70 | 100 |
| 263 02 19 | weiss | 19,1 | 30,9 | 9,5 | 0,77 | 50 |
| 263 02 25 | weiss | 25,4 | 40,5 | 12,7 | 0,92 | 50 |
| 263 02 38 | weiss | 38,1 | 60,5 | 19,1 | 0,97 | 25 |
| 263 02 50 | weiss | 50,8 | 79,3 | 25,4 | 0,97 | 25 |

| Art.-Nr. | Farbe | Größe (mm) | Breite (mm) | max. Innen-Ø (mm) | Wandstärke (mm) | VPE (m) |
|---|---|---|---|---|---|---|
| 263 05 02 | gelb | 2,4 | 4,2 | 1,2 | 0,51 | 100 |
| 263 05 03 | gelb | 3,2 | 5,6 | 1,6 | 0,63 | 100 |
| 263 05 04 | gelb | 4,8 | 7,6 | 2,4 | 0,63 | 100 |
| 263 05 06 | gelb | 6,4 | 10,7 | 3,2 | 0,72 | 100 |
| 263 05 09 | gelb | 9,5 | 15,1 | 4,8 | 0,70 | 100 |
| 263 05 12 | gelb | 12,7 | 20,9 | 6,4 | 0,70 | 100 |
| 263 05 19 | gelb | 19,1 | 30,9 | 9,5 | 0,77 | 50 |
| 263 05 25 | gelb | 25,4 | 40,5 | 12,7 | 0,92 | 50 |
| 263 05 38 | gelb | 38,1 | 60,5 | 19,1 | 0,97 | 25 |
| 263 05 50 | gelb | 50,8 | 79,3 | 25,4 | 0,97 | 25 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | TSFP 102 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | > 10 N/mm² |
| Reißdehnung | ASTM D 638 | > 200 % |
| Längenschrumpfung | ASTM D 2671 | -10 % bis +5 % |
| Wasseraufnahme | ASTM D 570 | ≤ 0,15% |
| Spezifisches Gewicht | ASTM D 792 | 1,4 |

| Chemische Eigenschaften | Testmethode | TSFP 102 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |
| Sauerstoffgehalt | EN ISO 4589-2 (1999) | 36 % |

| Thermische Eigenschaften | Testmethode | TSFP 102 |
|---|---|---|
| Hitzebeständigkeit (4h bei 175 °C) | | kein Abtropfen, Fließen oder Reißen |
| Längenänderung nach thermischer Alterung (168h bei 175 °C) | ASTM D 638 | Dehung bei 100 % |
| Biegsamkeit bei -40 °C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit | ASTM D 635-HB | bestanden |
| Rauchdichte | BS6853 | Klasse 2 |

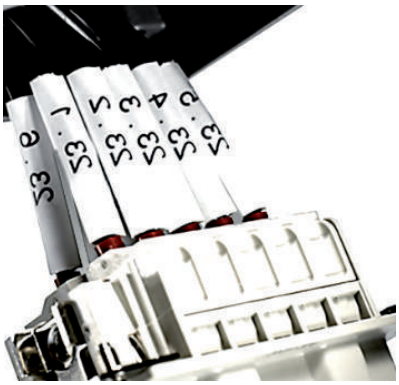
| Elektrische Eigenschaften | Testmethode | TSFP 102 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 20 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 257 | $10^{14}$ Ohm.cm |

Bei Anfrage Lieferung auf Kleinspulen möglich: Telefon: 09852 61079-0

# TSFP 103 SCHRUMPFSCHLAUCH

## Merkmale

- flachgewalzter Schrumpfschlauch zur Kabelkennzeichnung
- mit Thermotransferdruckern hervorragend bedruckbar
- hohe Schrumpfrate = 3:1
- flammhemmend gemäß UL224
- Schrumpftemperatur: > 90 °C
- Einsatztemperatur: -55 °C bis +135 °C
- Farben: weiss (2) oder gelb (5)



## Zulassungen

- UL 224, 125 °C, CSA C 22.22
- SAE-AMS-DTL-23053/5 (Klasse 1)

| Art.-Nr. | Farbe | Größe (mm) | Breite (mm) | max. Innen-Ø (mm) | Wandstärke (mm) | VPE (m) |
|---|---|---|---|---|---|---|
| 263 32 02 | weiss | 2,4 | 4,2 | 0,8 | 0,53 | 100 |
| 263 32 03 | weiss | 3,2 | 5,6 | 1,0 | 0,58 | 100 |
| 263 32 04 | weiss | 4,8 | 7,6 | 1,6 | 0,58 | 100 |
| 263 32 06 | weiss | 6,4 | 10,7 | 2,0 | 0,63 | 100 |
| 263 32 09 | weiss | 9,5 | 15,1 | 3,0 | 0,63 | 100 |
| 262 32 12 | weiss | 12,7 | 20,9 | 4,0 | 0,68 | 100 |
| 262 32 19 | weiss | 19,1 | 30,9 | 6,0 | 0,90 | 50 |
| 262 32 25 | weiss | 25,4 | 40,5 | 8,0 | 1,00 | 50 |
| 262 32 38 | weiss | 38,1 | 60,5 | 12,7 | 1,10 | 25 |

| Art.-Nr. | Farbe | Größe (mm) | Breite (mm) | max. Innen-Ø (mm) | Wandstärke (mm) | VPE (m) |
|---|---|---|---|---|---|---|
| 263 35 02 | gelb | 2,4 | 4,2 | 0,8 | 0,53 | 100 |
| 263 35 03 | gelb | 3,2 | 5,6 | 1,0 | 0,58 | 100 |
| 263 35 04 | gelb | 4,8 | 7,6 | 1,6 | 0,58 | 100 |
| 263 35 06 | gelb | 6,4 | 10,7 | 2,0 | 0,63 | 100 |
| 263 35 09 | gelb | 9,5 | 15,1 | 3,0 | 0,63 | 100 |
| 262 35 12 | gelb | 12,7 | 20,9 | 4,0 | 0,68 | 100 |
| 262 35 19 | gelb | 19,1 | 30,9 | 6,0 | 0,90 | 50 |
| 262 35 25 | gelb | 25,4 | 40,5 | 8,0 | 1,00 | 50 |
| 262 35 38 | gelb | 38,1 | 60,5 | 12,7 | 1,10 | 25 |

## Technische Daten

| Physikalische Eigenschaften | Testmethode | TSFP 103 |
|---|---|---|
| Zugfestigkeit | ASTM D 638 | > 11 N/mm² |
| Reißdehnung | ASTM D 638 | > 300 % |
| Längenschrumpfung | ASTM D 2671 | -10 % bis +5 % |
| Wasseraufnahme | ASTM D 570 | 0,20 % |
| Spezifisches Gewicht | ASTM D 792 | 1,4 |

| Thermische Eigenschaften | Testmethode | TSFP 103 |
|---|---|---|
| Längenänderung nach thermischer Alterung (168h bei 175 °C) | ASTM D 638 | Dehnung bei 200 % |
| Biegsamkeit bei -55 °C | ASTM D2671 C | kein Reißen |
| Entflammbarkeit | UL224 | bestanden |

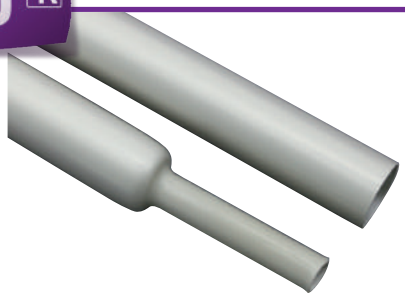
| Chemische Eigenschaften | Testmethode | TSFP 103 |
|---|---|---|
| Schimmelbeständigkeit | ASTM G21 | kein Wachstum |
| Lösungsmittelbeständigkeit | AMS-DTL-23053/5 | gut |
| Kupferverträglichkeit | ASTM D 2671 B | keine Korrosion |

| Elektrische Eigenschaften | Testmethode | TSFP 103 |
|---|---|---|
| Durchschlagfestigkeit | ASTM D 2671 | 20 kV/mm |
| Spezifischer Durchgangswiderstand | ASTM D 257 | $10^{16}$ Ohm.cm |

Bei Anfrage Lieferung auf Kleinspulen möglich: Telefon: 09852 61079-0

NEU

# TELS SCHRUMPFSCHLAUCH



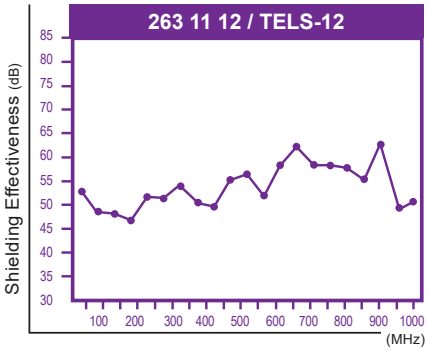
Merkmale

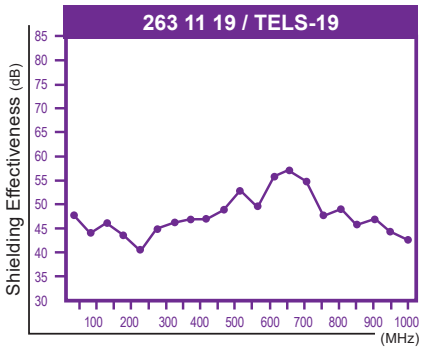
- elektrisch leitende Innenschicht
- Widerstand: 0,4 Ω/cm
- EMV, RFI und ESD Abschirmung
- Längsschrumpfung: 2%
- Durchschlagsfestigkeit: 600V/mm
- Schrumpfrate = 2:1
- Schrumpftemperatur: >120°C
- Einsatztemperatur: -55°C bis +135°C
- Material: Polyolefin
- Aussenfarbe: transparent/silber (standard)

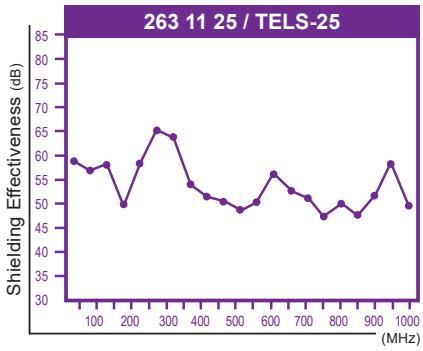
Weitere Optionen:

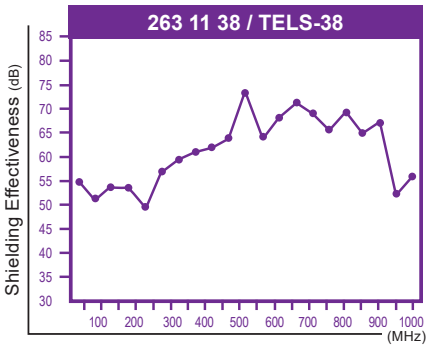
- Aussenschicht bzw. Innen- und Aussenschicht elektrisch leitend

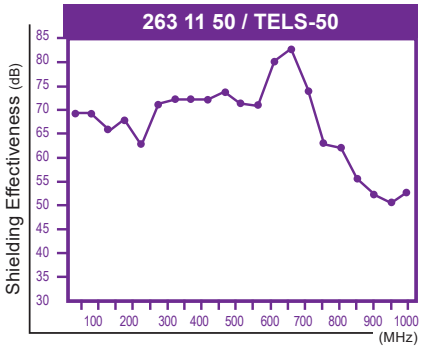
| Art.-Nr. | Typ | Größe (mm) | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Lieferlänge (cm) |
|---|---|---|---|---|---|
| 263 11 03 | TELS-03 | 3,2 | 3,2 | 1,6 | 91,5 |
| 263 11 06 | TELS-06 | 6,3 | 6,3 | 3,2 | 91,5 |
| 263 11 09 | TELS-09 | 9,5 | 9,5 | 4,8 | 91,5 |
| 263 11 12 | TELS-12 | 12,7 | 12,7 | 6,4 | 91,5 |
| 263 11 19 | TELS-19 | 19,0 | 19,0 | 9,5 | 91,5 |
| 263 11 25 | TELS-25 | 25,4 | 25,4 | 12,7 | 91,5 |
| 263 11 32 | TELS-32 | 31,8 | 31,8 | 15,9 | 91,5 |
| 263 11 38 | TELS-38 | 38,1 | 38,1 | 19,0 | 91,5 |
| 263 11 50 | TELS-50 | 50,8 | 50,8 | 25,4 | 91,5 |
| 263 11 76 | TELS-76 | 76,2 | 76,2 | 38,1 | 91,5 |
| 263 11 101 | TELS-101 | 101,6 | 101,6 | 50,8 | 91,5 |
| 263 11 127 | TELS-127 | 127,0 | 127,0 | 63,5 | 91,5 |




Auf Anfrage auch in schwarz erhältlich: Telefon 09852 61079-0

# TSS-BO SCHRUMPFSCHLAUCH-KLEINVERPACKUNGEN

Merkmale

- handliche Schrumpfschlauchbox mit Abrollmöglichkeit
- technische Eigenschaften identisch zu TSS 102
- Schrumpfrate: 2:1
- Farben: schwarz (1), weiss (2), rot (3), blau (4), gelb (5) und transparent (6)

| Art.-Nr. | Farbe | Typ | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | Rollengr. (m) |
|---|---|---|---|---|---|---|
| 261 01 00 | schwarz | TSS-BO-1,2 | 1,2 | 0,6 | 0,41 | 20 |
| 261 01 01 | schwarz | TSS-BO-1,6 | 1,6 | 0,8 | 0,43 | 20 |
| 261 01 02 | schwarz | TSS-BO-2,4 | 2,4 | 1,2 | 0,51 | 15 |
| 261 01 03 | schwarz | TSS-BO-3,2 | 3,2 | 1,6 | 0,51 | 15 |
| 261 01 04 | schwarz | TSS-BO-4,8 | 4,8 | 2,4 | 0,51 | 12 |
| 261 01 06 | schwarz | TSS-BO-6,4 | 6,4 | 3,2 | 0,65 | 12 |
| 261 01 09 | schwarz | TSS-BO-9,5 | 9,5 | 4,7 | 0,65 | 8 |
| 261 01 12 | schwarz | TSS-BO-12,7 | 12,7 | 6,4 | 0,65 | 8 |
| 261 01 19 | schwarz | TSS-BO-19,1 | 19,1 | 9,5 | 0,77 | 5 |
| 261 01 25 | schwarz | TSS-BO-25,4 | 25,4 | 12,7 | 0,89 | 5 |

# TST-BO SCHRUMPFSCHLAUCH-KLEINVERPACKUNGEN

Merkmale

- handliche Schrumpfschlauchbox mit Abrollmöglichkeit • technische Eigenschaften identisch zu TST 102
- Schrumpfrate: 2:1 • Farben: schwarz (1), weiss (2), rot (3), blau (4), gelb (5) und transparent (6)

| Art.-Nr. | Farbe | Typ | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | Rollen-gr. (m) |
|---|---|---|---|---|---|---|
| 261 21 00 | schwarz | TST-BO-1,2 | 1,2 | 0,6 | 0,41 | 20 |
| 261 21 01 | schwarz | TST-BO-1,6 | 1,6 | 0,8 | 0,43 | 20 |
| 261 21 02 | schwarz | TST-BO-2,4 | 2,4 | 1,2 | 0,51 | 15 |
| 261 21 03 | schwarz | TST-BO-3,2 | 3,2 | 1,6 | 0,51 | 15 |
| 261 21 04 | schwarz | TST-BO-4,8 | 4,8 | 2,4 | 0,51 | 12 |
| 261 21 06 | schwarz | TST-BO-6,4 | 6,4 | 3,2 | 0,65 | 12 |
| 261 21 09 | schwarz | TST-BO-9,5 | 9,5 | 4,7 | 0,65 | 8 |
| 261 21 12 | schwarz | TST-BO-12,7 | 12,7 | 6,4 | 0,65 | 8 |
| 261 21 19 | schwarz | TST-BO-19,1 | 19,1 | 9,5 | 0,77 | 5 |
| 261 21 25 | schwarz | TST-BO-25,4 | 25,4 | 12,7 | 0,89 | 5 |

# PLDW-BO SCHRUMPFSCHLAUCH-KLEINVERPACKUNGEN

Merkmale

- handliche Schrumpfschlauchbox mit Abrollmöglichkeit • doppelwandiger Schrumpfschlauch mit schmelzbarer, klebender Innenschicht • technische Eigenschaften identisch zu PLDW 100 • Schrumpfrate: 3:1
- Farben: schwarz (1), weiss (2), rot (3), blau (4), gelb (5) und transparent (6)

| Art.-Nr. | Farbe | Typ | Innen-Ø bei Lieferung (mm) | Innen-Ø nach Schrumpfung (mm) | Wandstärke nach Schrumpfung (mm) | Rollengr. (m) |
|---|---|---|---|---|---|---|
| 261 51 03 | schwarz | PLDW-BO-3 | 3,0 | 1,0 | 1,0 | 5 |
| 261 51 06 | schwarz | PLDW-BO-6 | 6,0 | 2,0 | 1,1 | 3,5 |
| 261 51 09 | schwarz | PLDW-BO-9 | 9,0 | 3,0 | 1,3 | 3 |
| 261 51 12 | schwarz | PLDW-BO-12 | 12,0 | 4,0 | 1,5 | 2,5 |
| 261 51 18 | schwarz | PLDW-BO-18 | 18,0 | 6,0 | 2,0 | 2 |

**Hinweis:** Bei Anfragen und Bestellungen unbedingt die Farbe angeben!

Notizen

# KABELVERSCHRAUBUNGEN

| | |
|---|---|
| Kabelverschraubungen aus Kunststoff, metrisch | Seite 292 |
| EMV-Muttern | Seite 293 |
| EMV-Kabelverschraubungen | Seite 294 |

# KVK KABELVERSCHRAUBUNG

Merkmale

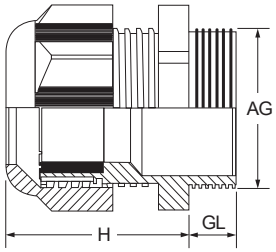
- Schutzart: IP67 (5 bar)
- Temperaturbereich: dauerhaft = -30°C bis +80°C, kurzzeitig = +150°C
- Material Hutmutter und Zwischenstutzen: PA
- Material Dichtring: thermoplastisches vulkanisiertes TPV
- Farbe: hellgrau (RAL 7035 = standard), schwarz (RAL 9005 = Art. + „S“) oder dunkelgrau (RAL 7001 = Art. + G)

Zulassungen

- VDE • CE

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | AG - Gewinde (mm) | Kabel-Ø (mm) | H (mm) | SW | GL (mm) | VPE |
|---|---|---|---|---|---|---|---|
| 241 01 12 | KVK-M12-3-6,5 | M12x1,5 | 3,0 - 6,5 | 24 | 15 | 8 | 100 |
| 241 01 16 | KVK-M16-4-8 | M16x1,5 | 4,0 - 8,0 | 28 | 19 | 8 | 100 |
| 241 01 17 | KVK-M16-2-6 | M16x1,5 | 5,0 - 10,0 | 29 | 22 | 10 | 100 |
| 241 01 20 | KVK-M20-6-12 | M20x1,5 | 6,0 - 12,0 | 29 | 24 | 10 | 100 |
| 241 01 21 | KVK-M20-10-14 | M20x1,5 | 10,0 - 14,0 | 33 | 27 | 10 | 100 |
| 241 01 25 | KVK-M25-13-18 | M25x1,5 | 13,0 - 18,0 | 38 | 33 | 10 | 50 |
| 241 01 32 | KVK-M32-18-25 | M32x1,5 | 18,0 - 25,0 | 41 | 42 | 10 | 25 |
| 241 01 40 | KVK-M40-22-32 | M40x1,5 | 22,0 - 32,0 | 51 | 53 | 10 | 10 |
| 241 01 50 | KVK-M50-32-38 | M50x1,5 | 32,0 - 38,0 | 53 | 60 | 18 | 10 |
| 241 01 63 | KVK-M63-37-44 | M63x1,5 | 37,0 - 44,0 | 55 | 70 | 18 | 10 |

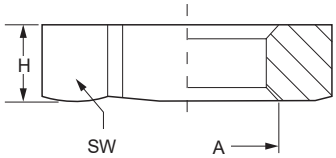
# SECHSKANTMUTTER

Merkmale

- zum sicheren Befestigen von Kabelverschraubungen und Zubehörteilen
- Temperaturbereich: -20°C bis +100°C
- Anschlussgewinde: metrischn nach EN 60423
- Material: Polyamid GF30
- Farbe: hellgrau (RAL 7035 = standard), schwarz (RAL 9005 = Art. + „S“) oder silbergrau (RAL 7001 = Art. + G)

Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) | Schlüsselweite (mm) | H (mm) | VPE |
|---|---|---|---|---|
| 241 04 12 M | M12x1,5 | 17 | 5,0 | 100 |
| 241 04 16 M | M16x1,5 | 22 | 5,0 | 100 |
| 241 04 20 M | M20x1,5 | 27 | 6,0 | 100 |
| 241 04 25 M | M25x1,5 | 32 | 6,0 | 100 |
| 241 04 32 M | M32x1,5 | 41 | 7,0 | 100 |
| 241 04 40 M* | M40x1,5 | 50 | 7,0 | 50 |
| 241 04 50 M* | M50x1,5 | 60 | 8,0 | 50 |
| 241 04 63 M* | M63x1,5 | 75 | 8,0 | 50 |

* nicht glasfaserverstärkt

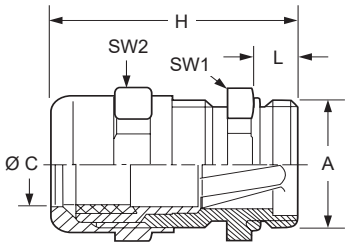
# KV-EMVKF KABELBVERSCHRAUBUNGEN

## Merkmale

- Kabelverschraubung für Kabel und Leitungen mit Schirmung
- schnelle und einfache EMV-Verbindung durch Kontaktfeder
- integrierte Zugentlastung
- großer Dicht- und Klemmbereich
- Anschlussgewinde metrisch, nach EN 60423
- Schutzart: IP68
- UL / CSA zugelassen
- Temperaturbereich: -20°C bis +100°C
- Material Hutmutter: Messing CuZn39Pb3, galv. vernickelt
- Material Lamelleneinsatz: Polyamid PA6 V-2
- Material Dichtring: Polychloropren-Nitrilkautschuk CR/NBR
- Material Kontaktfeder: Edelstahl
- Material Zwischenstutzen: Messing CuZn39Pb3, galv.vernickelt
- Material O-Ring: Nitrilkautschuk NBR

## Abmessungen

► Einheit = mm




| Art.-Nr. | ØC (mm) | SW1 | SW2 | H (mm) | L (mm) | A |
|---|---|---|---|---|---|---|
| 241 70 16 MF | 5,0 - 9,0 | 17 | 17 | 30,0 | 5,0 | M16x1,5 |
| 241 70 20 MF | 9,0 - 13,0 | 22 | 22 | 33,5 | 6,0 | M20x1,5 |
| 241 70 25 MF | 11,0 - 16,0 | 27 | 27 | 36,5 | 7,0 | M25x1,5 |
| 241 70 32 MF | 14,0 - 21,0 | 34 | 24 | 38,0 | 8,0 | M32x1,5 |
| 241 70 40 MF | 19,0 - 27,0 | 43 | 43 | 41,0 | 8,0 | M40x1,5 |
| 241 70 50 MF | 24,0 - 35,0 | 55 | 55 | 49,5 | 9,0 | M50x1,5 |
| 241 70 63 MF | 32,0 - 42,0 | 65 | 65 | 52,5 | 10,0 | M63x1,5 |

- mit langem Anschlußgewinde

| Art.-Nr. | ØC (mm) | SW1 (mm) | SW2 | H (mm) | L (mm) | A |
|---|---|---|---|---|---|---|
| 241 70 16 MLF | 5,0 - 9,0 | 17 | 17 | 35,0 | 10,0 | M16x1,5 |
| 241 70 20 MLF | 9,0 - 13,0 | 22 | 22 | 37,5 | 10,0 | M20x1,5 |
| 241 70 25 MLF | 11,0 - 16,0 | 27 | 27 | 40,5 | 11,0 | M25x1,5 |
| 241 70 32 MLF | 14,0 21,0 | 34 | 34 | 43,0 | 13,0 | M32x1,5 |
| 241 70 40 MLF | 19,0 - 27,0 | 43 | 43 | 46,0 | 13,0 | M40x1,5 |

NEU

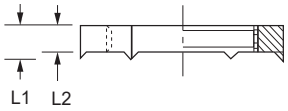
# EMV-KRALLENMUTTER

## Merkmale

- Material: Messing galvanisch vernickelt
- metrisches Gewinde
- Schneidekante zum Durchschneiden von Lackschichten oder Pulverbeschichtungen für optimalen Kontakt
- für Potentialausgleich

## Abmessungen

► Einheit = mm




| Art.-Nr. | Gewinde | Schlüsselweite | L1 (mm) | L2 (mm) |
|---|---|---|---|---|
| 241 17 12 EM | M12x1,5 | 15 | 5,5 | 4,5 |
| 241 17 16 EM | M16x1,5 | 19 | 5,5 | 4,5 |
| 241 17 20 EM | M20x1,5 | 24 | 5,5 | 4,5 |
| 241 17 25 EM | M25x1,5 | 30 | 5,5 | 4,5 |
| 241 17 32 EM | M32x1,5 | 36 | 5,5 | 4,5 |
| 241 17 40 EM | M40x1,5 | 46 | 6,0 | 5,0 |
| 241 17 50 EM | M50x1,5 | 60 | 6,0 | 5,0 |
| 241 17 63 EM | M63x1,5 | 70 | 7,0 | 6,0 |

# SKINTOP® BRUSH ADD-ON EMV-MUTTER

## Merkmale

- innovative EMV-Erweiterung für alle metrischen Kunststoff-Kabelverschraubungen
  - so wird aus jeder Kunststoff-Kabelverschraubung eine EMV-Verschraubung
- optimaler, niederohmiger 360° Schirmkontakt
- Schneidkanten durchschneiden beim Anziehen die isolierende Schicht des Gehäuses oder Schaltschranks und gewährleisten dadurch einen optimalen Kontakt
- Einfache Demontage
- sichtbare, großflächige Schirmkontaktierung
- unkompliziert und sicher
- Temperaturbereich: -70°C bis +200°C
- Material Körper: Messing, vernickelt
- Material EMV-Bürste: Messing

## Anwendungsgebiete

- zur EMV-gerechten Erdung des Cu-Schirmgeflechts, oder bei Leitungen mit Cu-Wellenmantel
- für EMV-Kontaktierung bei Durchgangsbohrungen
- Schaltschrankbau
- Automatisierungssysteme
- Förder- und Transportanlagen

| Art.-Nr. | Typ | Größe (mm) | Mindest.-Ø über Geflecht (mm) | SW (mm) | Gewindelänge innen (mm) | Stück / VPE |
|---|---|---|---|---|---|---|
| 241 17 01 | Skintop® Brush Add-on | M16x1,5 | 5,0 | 24 | 10,0 | 25 |
| 241 17 02 | Skintop® Brush Add-on | M20x1,5 | 5,0 | 24 | 10,0 | 10 |
| 241 17 03 | Skintop® Brush Add-on | M25x1,5 | 5,0 | 30 | 10,0 | 10 |
| 241 17 04 | Skintop® Brush Add-on | M32x1,5 | 8,0 | 39 | 12,0 | 10 |
| 241 17 05 | Skintop® Brush Add-on | M40x1,5 | 10,0 | 47 | 12,0 | 5 |
| 241 17 06 | Skintop® Brush Add-on | M50x1,5 | 14,0 | 56 | 12,0 | 5 |

**Patent**

- Die weltweit erste, patentierte, aktive EMV-Gegenmutter!

# GEHÄUSEZUBHÖR

| | |
|---|---|
| Abdeckkappen / Blindstopfen | Seite 296 - 307 |
| Gehäusefüsse | Seite 308 - 312 |
| Push-Push | Seite 313 |

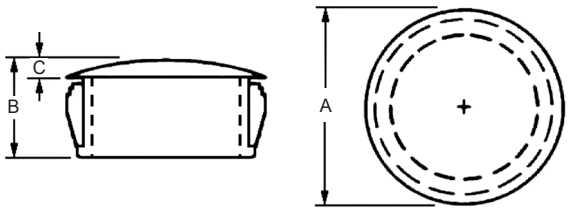
# AD ABDECKKAPPEN

## Merkmale

- einfach, schnell und sicher per Fingerdruck zu montieren
- zum Verschließen von nicht genutzten Bohr- und Montagelöchern
- nicht einfach von außen entfernbar
- konvex, der matt strukturierte Kopf läuft in einen dünnen Rand aus
- Temperaturbereich: -35 °C bis +105 °C
- Material: PA 6.6, UL94V-2
- Farbe: schwarz (weiss auf Anfrage möglich)

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | Montageloch-Ø (mm) | max. Wandstärke (mm) |
|---|---|---|---|---|---|---|
| 242 01 04 | AD-0187 | 6,4 | 5,9 | 1,1 | 4,7 | 1,6 |
| 242 01 06 | AD-0250 | 7,9 | 7,9 | 1,6 | 6,4 | 1,6 |
| 242 01 08 | AD-0312 | 9,5 | 7,9 | 1,6 | 7,9 | 1,6 |
| 242 01 09 | AD-0375 | 11,9 | 10,3 | 1,6 | 9,5 | 3,2 |
| 242 01 11 | AD-0437 | 13,5 | 10,3 | 1,6 | 11,1 | 3,2 |
| 242 01 12 | AD-0500 | 14,7 | 10,3 | 1,6 | 12,7 | 3,2 |
| 242 01 14 | AD-0562 | 16,7 | 10,3 | 1,6 | 14,3 | 3,2 |
| 242 01 15 | AD-0625 | 18,2 | 10,3 | 1,6 | 15,9 | 3,2 |
| 242 01 16 | AD-0687 | 19,8 | 10,3 | 1,6 | 17,4 | 3,2 |
| 242 01 17 | AD-0750 | 23,4 | 10,3 | 1,6 | 19,1 | 3,2 |
| 242 01 18 | AD-0812 | 25,1 | 10,3 | 1,6 | 20,6 | 3,2 |
| 242 01 19 | AD-0875 | 25,8 | 11,5 | 1,6 | 22,2 | 3,2 |
| 242 01 20 | AD-1000 | 30,6 | 11,5 | 1,6 | 25,4 | 3,2 |
| 242 01 21 | AD-1093 | 30,9 | 11,5 | 1,6 | 28,0 | 3,2 |
| 242 01 22 | AD-1187 | 33,3 | 11,5 | 1,6 | 30,1 | 3,2 |
| 242 01 23 | AD-1250 | 34,9 | 11,5 | 1,6 | 31,8 | 3,2 |
| 242 01 24 | AD-1375 | 38,1 | 11,5 | 1,6 | 34,9 | 3,2 |
| 242 01 25 | AD-1500 | 42,4 | 11,5 | 1,6 | 38,1 | 3,2 |
| 242 01 26 | AD-1750 | 48,4 | 11,5 | 1,6 | 44,5 | 3,2 |
| 242 01 27 | AD-2000 | 55,1 | 12,2 | 2,3 | 50,8 | 3,2 |

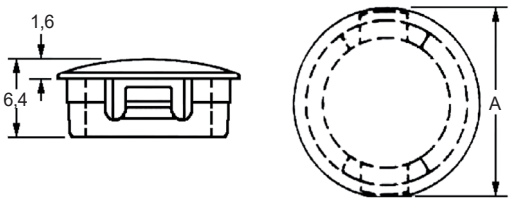
# ADM ABDECKKAPPEN

Merkmale

- einfach, schnell und sicher per Fingerdruck zu montieren
- zum Verschließen von nicht genutzten Bohr- und Montagelöchern
- nicht einfach von außen entfernbar
- konvex, der matt strukturierte Kopf läuft in einen dünnen Rand aus
- für Anwendungen mit geringer Einbauhilfe
- max. Wandstärke 1,6 mm
- Temperaturbereich: -35 °C bis +105 °C
- Material: PA 6.6, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | Montageloch-Ø (mm) |
|---|---|---|---|
| 242 01 40 | ADM-05 | 7,1 | 5,5 |
| 242 01 41 | ADM-06 | 8,7 | 7,1 |
| 242 01 42 | ADM-07 | 9,5 | 7,9 |
| 242 01 43 | ADM-08 | 10,3 | 8,7 |
| 242 01 44 | ADM-09 | 11,9 | 9,5 |
| 242 01 45 | ADM-10 | 11,9 | 10,3 |
| 242 01 46 | ADM-11 | 13,5 | 11,1 |
| 242 01 47 | ADM-12 | 13,5 | 11,9 |
| 242 01 48 | ADM-13 | 14,7 | 12,7 |
| 242 01 49 | ADM-14 | 15,1 | 13,5 |
| 242 01 50 | ADM-15 | 17,5 | 15,1 |
| 242 01 51 | ADM-16 | 18,3 | 15,9 |
| 242 01 52 | ADM-19 | 21,4 | 19,0 |
| 242 01 53 | ADM-20 | 22,6 | 19,8 |
| 242 01 54 | ADM-22 | 24,6 | 22,2 |

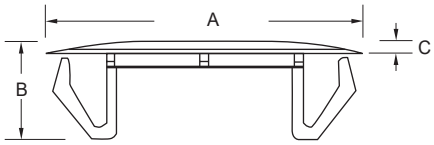
# ADV ABDECKKAPPEN

Merkmale:

- zum Verschließen von ungenutzten Bohr- und Montagelöchern
- für alle Wandstärken zwischen 0,8 und 3,2 mm
- Material: POM, UL94HB

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | Montageloch-Ø (mm) |
|---|---|---|---|---|---|
| 242 01 60 | ADV-9,5 | 16,0 | 12,6 | 1,6 | 9,50 - 11,0 |
| 242 01 61 | ADV-12,7 | 18,5 | 12,0 | 1,6 | 12,7 - 14,3 |
| 242 01 62 | ADV-15 | 21,5 | 12,0 | 1,6 | 15,0 - 17,5 |
| 242 01 63 | ADV-18 | 25,0 | 12,0 | 1,6 | 18,4 - 20,6 |
| 242 01 64 | ADV-30 | 30,0 | 13,5 | 1,9 | 22,0 - 26,0 |
| 242 01 65 | ADV-22 | 32,5 | 13,2 | 1,6 | 22,0 - 25,5 |
| 242 01 66 | ADV-28 | 35,0 | 13,2 | 1,6 | 28,0 - 30,0 |
| 242 01 67 | ADV-35 | 43,0 | 13,2 | 1,6 | 35,0 - 38,0 |
| 242 01 68 | ADV-45 | 52,0 | 13,2 | 1,6 | 45,0 - 47,5 |

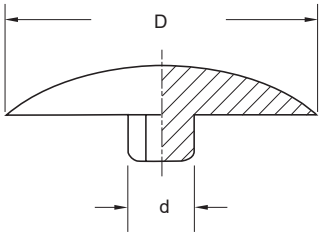
# ATX ABDECKKAPPEN

Merkmale:

- flache Zierkappe zum Abdecken von TORX-Schraubenköpfen
- die Oberfläche der Teile sind werkzeugbedingt unterschiedlich
- Material: PE
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | d (mm) | D (mm) |
|---|---|---|---|
| 242 03 01 | ATX-10 | TX10 | 12,0 |
| 242 03 02 | ATX-15 | TX15 | 12,0 |
| 242 03 03 | ATX-20 | TX20 | 12,0 |
| 242 03 04 | ATX-25 | TX25 | 13,5 |
| 242 03 05 | ATX-25/1 | TX25 | 15,0 |
| 242 03 06 | ATX-25/2 | TX25 | 18,0 |
| 242 03 07 | ATX-30 | TX30 | 16,0 |
| 242 03 08 | ATX-40 | TX40 | 18,0 |

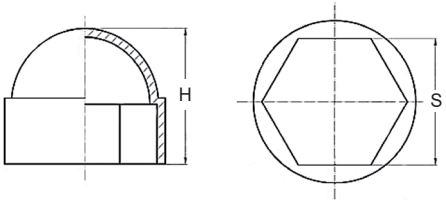
# SCHUTZKAPPEN FÜR AUSSENSECHSKANT

Merkmale

- zur einfachen und sicheren Montage ohne Werkzeug einrastbar
- widerstehen einer Ausreißkraft von bis zu 155 N
- Material: PA 6.6, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm



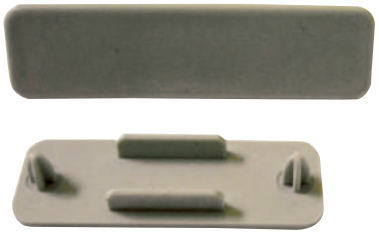

| Art.-Nr. | H (mm) | S (SW) (mm) |
|---|---|---|
| 150 35 04 | 8,8 | 7,0 |
| 150 35 05 | 11,0 | 8,0 |
| 150 35 06 | 12,8 | 10,0 |
| 150 35 08 | 15,8 | 13,0 |
| 150 35 09 | 19,0 | 16,0 |
| 150 35 10 | 20,0 | 17,0 |
| 150 35 11 | 20,0 | 18,0 |
| 150 35 12 | 21,0 | 19,0 |
| 150 35 13 | 23,8 | 22,0 |
| 150 35 16 | 26,5 | 24,0 |
| 150 35 17 | 30,5 | 27,0 |
| 150 35 20 | 31,5 | 30,0 |
| 150 35 24 | 39,0 | 36,0 |
| 150 35 25 | 44,0 | 41,0 |
| 150 35 30 | 47,5 | 46,0 |

Andere Farben auf Anfrage möglich: Telefon: 09852 61079-0

# TDS ABDECKKAPPEN

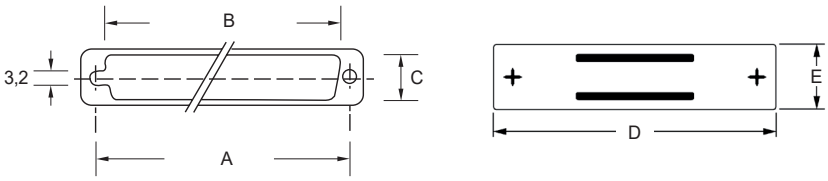
Merkmale:

- für D-SUB Steckerausbrüche
- ohne Werkzeug montierbar
- Material: ABS
- Farbe: grau



Abmessungen

► Einheit = mm

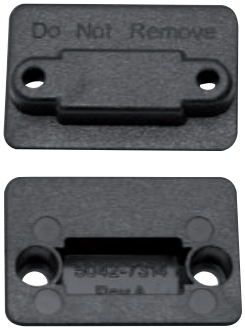



| Art.-Nr. | Typ | A (Steckerausbruch) | B (Steckerausbruch) | C (Steckerausbruch) | D (Abdeckung) | E (Abdeckung) |
|---|---|---|---|---|---|---|
| **242 01 91** | TDS-9 | 25,0 | 20,5 | 11,4 | 32,0 | 14,0 |
| **242 01 92** | TDS-15 | 33,3 | 28,8 | 11,4 | 40,3 | 14,0 |
| **242 01 93** | TDS-25 | 47,0 | 42,5 | 11,4 | 54,0 | 14,0 |
| **242 01 94** | TDS-37 | 63,5 | 59,1 | 11,4 | 70,5 | 14,0 |
| **242 01 95** | TDS-50 | 61,1 | 56,3 | 14,1 | 68,1 | 16,6 |

# AHDS-9 D-SUB ABDECKUNGEN

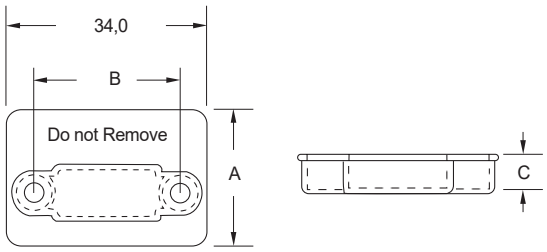
Merkmale:

- für 9-polige D-Sub-Steckverbinder
- Material: ABS, UL94HB
- Farbe: schwarz




Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|
| **242 01 81** | AHDS-9ADNR | 21,5 | 25,0 | 5,8 |
| **242 01 83** | AHDS-9BDNR | 23,0 | 24,8 | 6,0 |

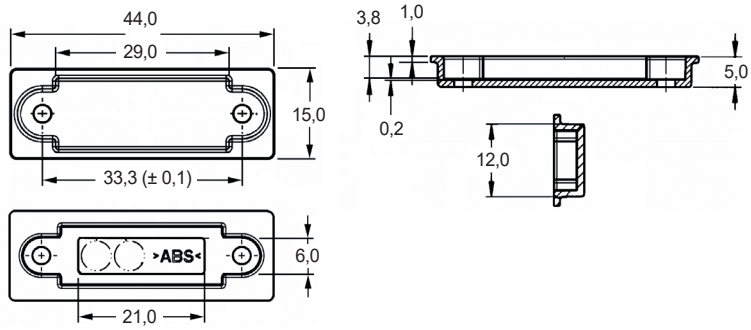
Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# AHDS-15B D-SUB ABDECKUNG

Merkmale

- für 15-polige D-Sub-Steckverbinder
- Material: ABS, UL94V-0
- Farbe: schwarz

Abmessungen
► Einheit = mm



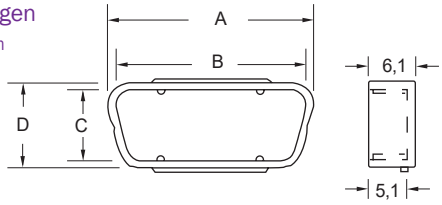

| Art.-Nr. |
|---|
| 242 01 82 |

# DTC ABDECKKAPPEN

Merkmale

- für D-Sub Stift ( = M ) und Buchsenstecker ( = F )
- Material: PP
- Farbe: grau (andere Farben auf Anfrage möglich)

Abmessungen
► Einheit = mm



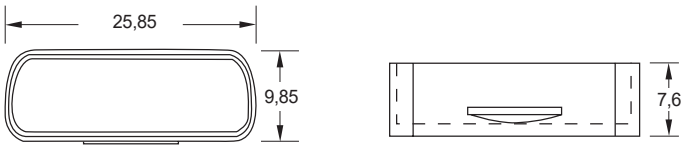

| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 242 02 01 | DTC-9F | 18,5 | 16,5 | 7,8 | 10,2 |
| 242 02 02 | DTC-15F | 26,8 | 24,8 | 7,8 | 10,2 |
| 242 02 03 | DTC-25F | 40,6 | 38,6 | 7,8 | 10,2 |
| 242 02 04 | DTC-9M | 20,0 | 18,0 | 9,4 | 11,8 |
| 242 02 05 | DTC-15M | 28,2 | 26,4 | 9,4 | 11,8 |
| 242 02 06 | DTC-25M | 42,0 | 40,0 | 9,4 | 11,8 |

# DVIC-1 ABDECKKAPPEN

Merkmale

- für D-Sub-Stecker
- Material: PP
- Farbe: blau transparent (schwarz auf Anfrage)

Abmessungen
► Einheit = mm



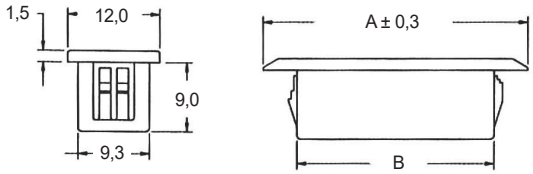

| Art.-Nr. |
|---|
| 242 02 59 |

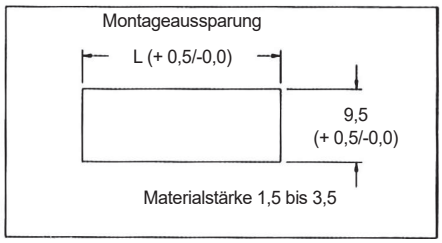
# BPE-SC LWL-BLINDLOCHABDECKUNG

Merkmale:

- LWL-Blindlochabdeckung
- Material: Nylon 6/6, RMS-01
- Farbe: schwarz

Abmessungen
► Einheit = mm



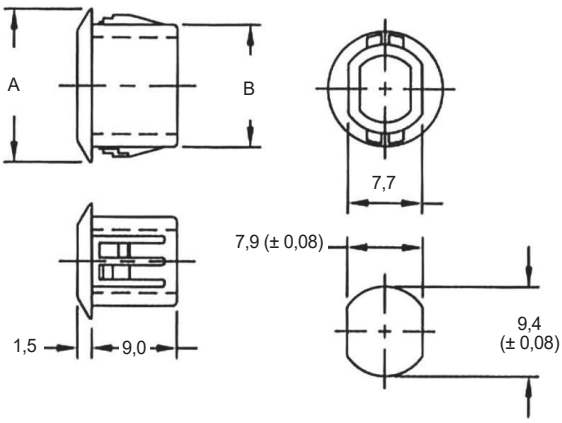

| Art.-Nr. | Typ | A (mm) | B (mm) | L (mm) |
|---|---|---|---|---|
| **242 02 11** | BPE-SC-1-01 | 21,5 | 12,8 | 13,0 |
| **242 02 12** | BPE-SC-2-01 | 16,0 | 12,8 | 13,0 |
| **242 02 13** | BPE-SC-3-01 | 34,7 | 25,8 | 26,0 |

# BPE-ST LWL-BLINDLOCHABDECKUNG

Merkmale:

- LWL-Blindlochabdeckung
- Material: Nylon 6/6, RMS-01
- Farbe: schwarz

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | L (mm) |
|---|---|---|---|---|
| **242 02 14** | BPE-ST-1-01 | 12,0 | 9,2 | 9,4 ± 0,08 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

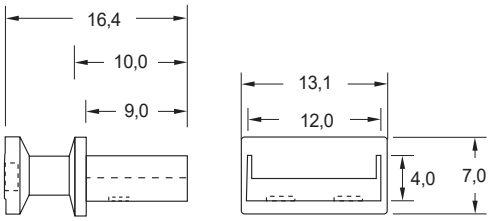
# USBC-2 ABDECKKAPPEN

Mermale

- für USB-Stecker
- Material: ABS, UL94HB
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 61 |

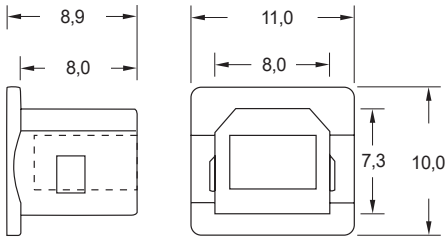
# USBC-3 ABDECKKAPPEN

Merkmale

- für USB-Stecker
- Material: ABS, UL94HB
- Farbe: schwarz

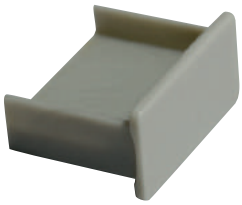
Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 62 |

# USBC-4 ABDECKKAPPEN

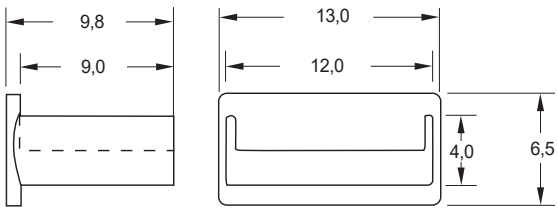


Merkmale

- für USB-Buchse
- Material: PP
- Farbe: computergrau

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 63 |

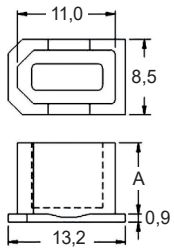
# CVR-1394 ABDECKKAPPEN

Merkmale

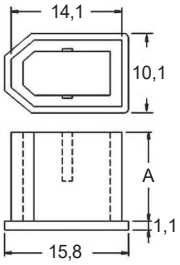
- für Digital Camera Buchse
- Matrial: PE oder PP
- Farbe: schwarz oder grau

Abmessungen ► Einheit = mm

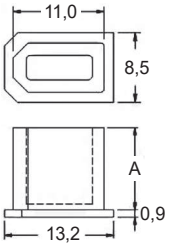
**Art.-Nr.: 242 02 67**



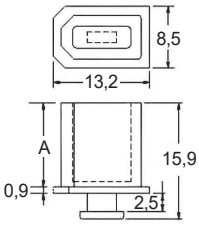

**Art.-Nr.: 242 02 68**




**Art.-Nr.: 242 02 69 + 242 02 70**




**Art.-Nr.: 242 02 71**




| Art.-Nr. | Typ | A (mm) | Material | Farbe |
|---|---|---|---|---|
| 242 02 67 | CVR-1394 | 8,0 | PE | schwarz |
| 242 02 68 | CVR-1394-1 | 11,3 | PP | grau |
| 242 02 69 | CVR-1394-2 | 10,0 | PE | schwarz |
| 242 02 70 | CVR-1394-3 | 11,5 | PE | schwarz |
| 242 02 71 | CVR-1394S | 11,5 | PE | dunkelgrau |

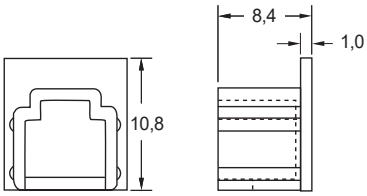
# CRJ-11 ABDECKKAPPEN

Merkmale

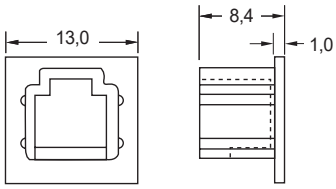
- für RJ-11 Buchse
- Material: PE
- Farbe: schwarz

Abmessungen ► Einheit = mm

**Art.-Nr.: 242 02 72 / CRJ-11**

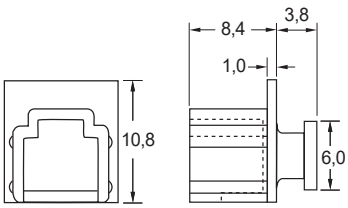



**Art.-Nr.: 242 02 74 / CRJ-11-2**

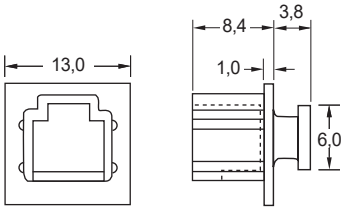


CRJ-11

**Art.-Nr.: 242 02 73 / CRJ-11S**




**Art.-Nr.: 242 02 75 / CRJ-11-2S**



CRJ-11S

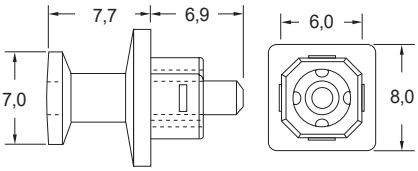
## OPC-1 ABDECKKAPPEN

Merkmale

- für USB-Buchse
- Material: ABS, UL94-HB
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 64 |

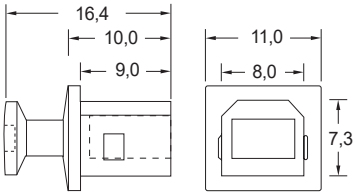
## USBC-1 ABDECKKAPPEN

Merkmale

- für USB-Stecker
- Material: ABS, UL94HB • Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 60 |

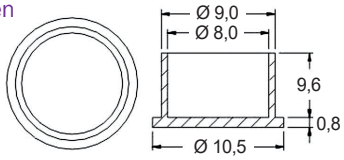
## SVDOC-1 ABDECKKAPPEN

Merkmale

- für S-Buchsen
- Material: PP • Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 77 |

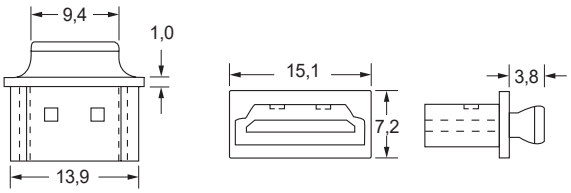
## HDMIC-1 ABDECKKAPPEN

Merkmale

- für HDMI-Buchsen
- Material: PE • Farbe: schwarz

Abmessungen

► Einheit = mm

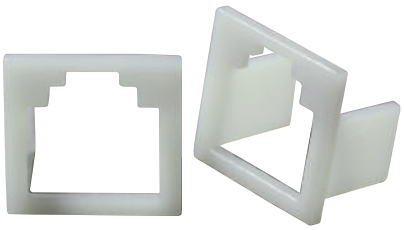



| Art.-Nr. |
|---|
| 242 02 78 |

# ASID-1 REDUZIERUNGEN

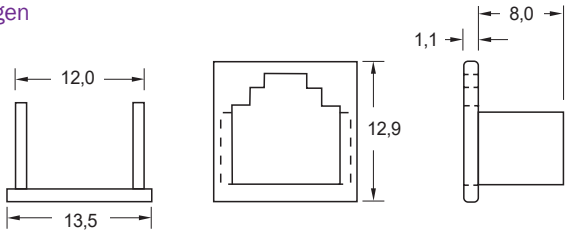
Merkmale

- von RJ45 zu RJ11 Buchsen
- Material: ABS
- Farbe: elfenbeinfarben



Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 76 |

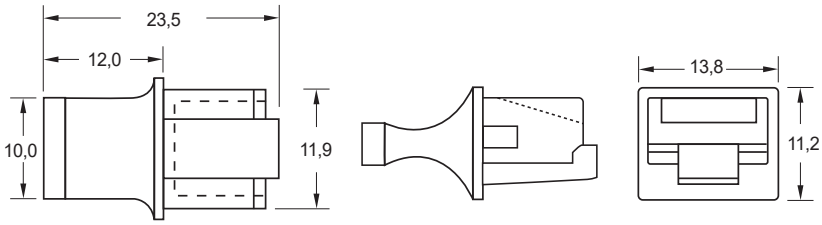
# PJC-45 ABDECKKAPPEN

Merkmale

- für Buchse RJ-45
- Material: ABS, UL94-HB
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 65 |

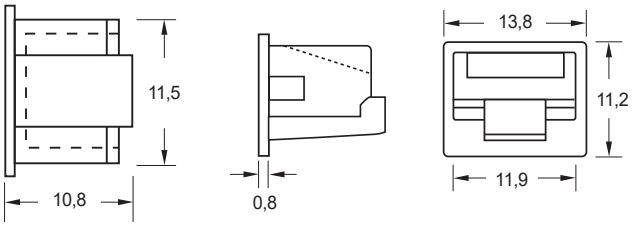
# PJS-45 ABDECKKAPPEN

Merkmale

- für RJ-45 Buchse
- Material: ABS
- Farbe: schwarz

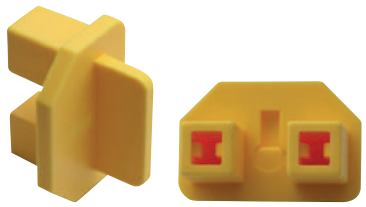
Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 66 |

# PLC-1 ABDECKKAPPEN

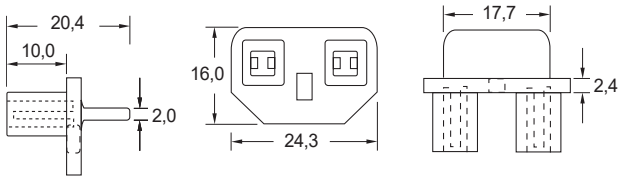


Merkmale

- für Kaltgerätestecker
- Material: PE und EVA
- Farbe: gelb

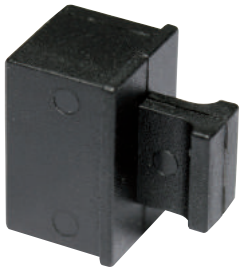
Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 80 |

# SFPC-1 ABDECKKAPPEN

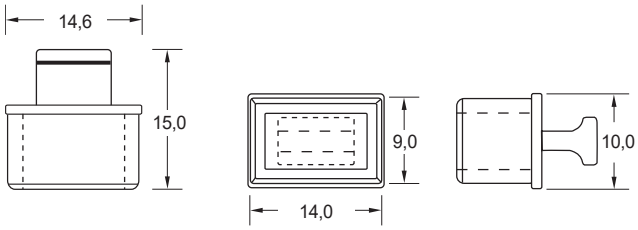


Merkmale

- für SFPC Buchse
- Material: PE
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 242 02 81 |

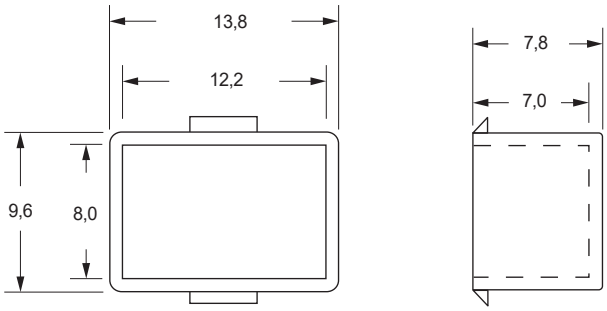
# VGAB-1 ABDECKKAPPEN

Merkmale:

- für VGAB-Buchse
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm



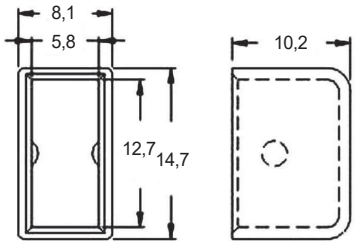

| Art.-Nr. |
|---|
| 242 02 83 |

# FHC-3 ABDECKKAPPEN

Merkmale:

- für FHC Stecker
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen
► Einheit = mm



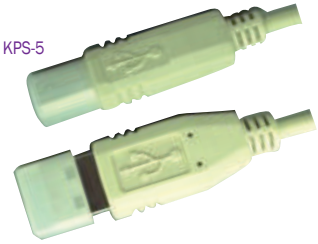
| Art.-Nr. |
|---|
| 242 02 82 |

# KPS SCHUTZKAPPEN

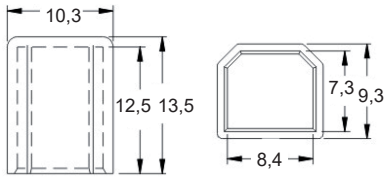
Merkmale:

- für USB-Stecker
- Material: PE
- Farbe: natur

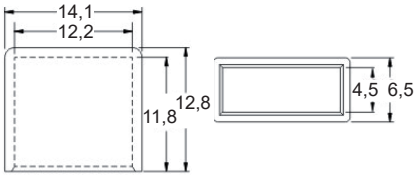
Abmessungen ► Einheit = mm




**KPS-5**




**KPS-6**




| Art.-Nr. | Typ |
|---|---|
| 242 02 84 | KPS-5 |
| 242 02 85 | KPS-6 |

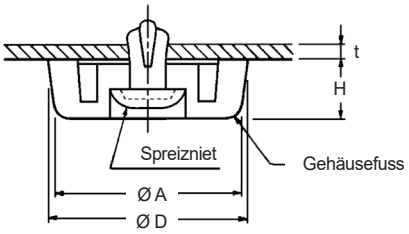
# FF GEHÄUSEFUSS

Merkmale

- einfache Montage mit Spreiz- oder Schraubniet
- Material Gehäusefuss: Everflex UL94V-2, UL94HB
- Material Spreizniet: Nylon 6, UL94V-2
- Material Schraubniet: Polyacetat, UL94HB
- Farbe: schwarz

Abmessungen ► Einheit = mm

**mit Spreizniet**




| Art.-Nr. | Typ | A (mm) | D (mm) | H (mm) | für Loch-Ø (mm) | t = Plattenstärke (mm) | Anzugskraft (kg) |
|---|---|---|---|---|---|---|---|
| **190 01 01** | FF-01-P3545 | 10,0 | 10,8 | 4,0 | 3,6 | 0,6~1,0 | 10-18 |
| **190 01 02** | FF-02-P3555 | 10,0 | 10,8 | 4,0 | 3,6 | 1,0~2,0 | 10-18 |
| **190 01 03** | FF-03-P3055 | 13,5 | 14,2 | 5,5 | 3,1 | 0,8~1,8 | 8-15 |
| **190 01 04** | FF-04-P4080 | 20,0 | 21,0 | 4,2 | 4,1 | 3,8~4,8 | 15-23 |
| **190 01 05** | FF-05-P4050 | 20,0 | 21,0 | 4,2 | 4,1 | 0,8~1,8 | 15-23 |
| **190 01 06** | FF-06-P4060 | 20,0 | 21,0 | 4,2 | 4,1 | 1,8~2,8 | 15-23 |
| **190 01 07** | FF-07-P4070 | 20,0 | 21,0 | 4,2 | 4,1 | 2,9~3,7 | 15-23 |
| **190 01 08** | FF-08-P4060 | 20,0 | 21,0 | 6,0 | 4,1 | 0,8~1,8 | 15-23 |
| **190 01 09** | FF-09-P4070 | 20,0 | 21,0 | 6,0 | 4,1 | 1,9~2,8 | 15-23 |
| **190 01 10** | FF-10-P4080 | 20,0 | 21,0 | 6,0 | 4,1 | 2,9~4,0 | 15-23 |
| **190 01 11** | FF-11-P4060 | 14,0 | 15,0 | 6,0 | 4,1 | 0,6~1,0 | 15-23 |
| **190 01 12** | FF-12-P4070 | 14,0 | 15,0 | 6,0 | 4,1 | 1,0~2,0 | 15-23 |
| **190 01 13** | FF-13-P4060 | 14,0 | 15,0 | 9,0 | 4,1 | 0,6~1,0 | 15-23 |
| **190 01 14** | FF-14-P4070 | 14,0 | 15,0 | 9,0 | 4,1 | 1,0~2,0 | 15-23 |
| **190 01 15** | FF-15-P5065 | 14,0 | 15,0 | 9,0 | 5,1 | 0,8~1,2 | 30-40 |
| **190 01 16** | FF-16-P4070 | 20,0 | 21,0 | 8,0 | 4,1 | 0,8~2,0 | 15-23 |
| **190 01 17** | FF-17-P4080 | 20,0 | 21,0 | 8,0 | 4,1 | 2,1~3,0 | 15-23 |

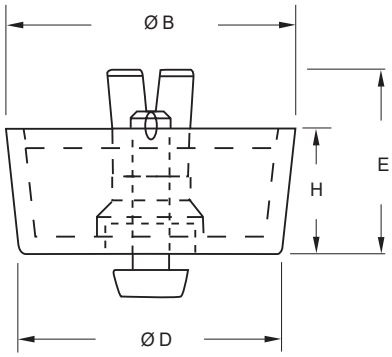
# TFF GEHÄUSEFUSS

## Merkmale

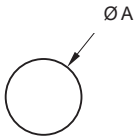
- einfache Montage mit Spreizniet
- Material Gehäusefuss: TPR
- Material Spreizniet: PP
- Farbe: schwarz

## Abmessungen

► Einheit = mm




## Montageloch



| Art.-Nr. | Typ | Ø A (mm) | Ø B (mm) | Ø D (mm) | E (mm) | H (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|---|---|
| 190 01 41 | TFF-1 | 8,0 | 20,8 | 19,8 | 11,8 | 6,4 | 1,0 ~ 2,5 |
| 190 01 42 | TFF-2 | 8,0 | 20,0 | 18,0 | 15,4 | 10,0 | 1,0 ~ 2,5 |
| 190 01 43 | TFF-3 | 8,0 | 23,7 | 19,5 | 19,2 | 13,7 | 1,0 ~ 2,5 |
| 190 01 44 | TFF-4 | 8,0 | 25,0 | 23,5 | 12,5 | 6,5 | 1,0 ~ 2,5 |
| 190 01 45 | TFF-5 | 8,0 | 30,0 | 27,7 | 18,8 | 12,8 | 1,0 ~ 2,5 |
| 190 01 46 | TFF-6 | 10,0 | 28,5 | 26,5 | 14,0 | 8,2 | 1,0 ~ 3,5 |
| 190 01 47 | TFF-7 | 5,0 | 12,7 | 12,0 | 8,5 | 4,4 | 1,0 ~ 2,0 |
| 190 01 48 | TFF-8 | 5,0 | 15,7 | 15,0 | 8,5 | 4,4 | 1,0 ~ 2,0 |
| 190 01 49 | TFF-9 | 8,0 | 20,0 | 18,6 | 7,0 | 4,0 | 1,0 ~ 2,0 |
| 190 01 50 | TFF-10 | 8,0 | 23,8 | 22,0 | 10,0 | 5,0 | 1,0 ~ 2,5 |
| 190 01 51 | TFF-11 | 10,0 | 31,5 | 28,5 | 13,6 | 7,8 | 1,0 ~ 3,5 |
| 190 01 52 | TFF-12 | 8,0 | 20,0 | 18,0 | 20,8 | 15,0 | 1,0 ~ 3,0 |
| 190 01 53 | TFF-13 | 8,0 | 20,0 | 18,0 | 24,3 | 18,0 | 0,8 ~ 1,0 |
| 190 01 54 | TFF-14 | 8,0 | 19,5 | 18,7 | 10,5 | 5,0 | 0,8 ~ 2,0 |
| 190 01 55 | TFF-16 | 10,0 | 29,4 | 26,5 | 23,0 | 15,0 | 1,0 ~ 3,5 |
| 190 01 56 | TFF-21 | 8,0 | 20,0 | 19,3 | 25,6 | 20,5 | 0,8 ~ 2,0 |
| 190 01 57 | TFF-22 | 8,0 | 19,2 | 17,2 | 12,1 | 7,9 | 0,8 ~ 1,2 |
| 190 01 58 | TFF-24 | 8,0 | 23,0 | 21,0 | 13,3 | 8,0 | 0,8 ~ 2,0 |
| 190 01 59 | TFF-25 | 8,0 | 24,0 | 20,0 | 15,8 | 10,5 | 0,8 ~ 2,0 |
| 190 01 60 | TFF-26 | 8,0 | 22,0 | 21,0 | 10,5 | 3,5 | 1,0 ~ 3,0 |
| 190 01 61 | TFF-27 | 8,0 | 26,7 | 24,8 | 21,0 | 16,0 | 1,0 ~ 3,0 |
| 190 01 62 | TFF-28 | 8,0 | 20,0 | 18,0 | 13,5 | 10,0 | 0,8 ~ 2,0 |
| 190 01 63 | TFF-31 | 10,0 | 27,0 | 26,0 | 12,0 | 6,9 | 0,8 ~ 2,0 |
| 190 01 64 | TFF-35 | 6,0 | 14,0 | 12,7 | 10,6 | 5,8 | 1,0 ~ 2,5 |
| 190 01 65 | TFF-36 | 8,0 | 22,0 | 20,0 | 10,5 | 3,5 | 1,0 ~ 3,0 |

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

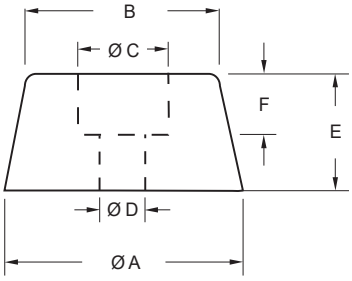
# NF GEHÄUSEFUSS

Merkmale

- einfache Montage mit Spreizniet oder Schraube
- Material: PVC
- Farbe: schwarz (weiss auf Anfrage)

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Ø A (mm) | B (mm) | Ø C (mm) | Ø D (mm) | E (mm) | F (kg) |
|---|---|---|---|---|---|---|---|
| 190 02 02 | NF-2 | 11,5 | 8,7 | 5,6 | 3,2 | 7,4 | 3,3 |
| 190 02 04 | NF-4 | 16,0 | 13,0 | 6,0 | 3,0 | 7,8 | 4,0 |
| 190 02 05 | NF-5 | 17,2 | 16,2 | 9,0 | 4,0 | 7,0 | 3,0 |
| 190 02 18 | NF-18 | 28,0 | 24,0 | 9,7 | 4,2 | 25,0 | 6,0 |

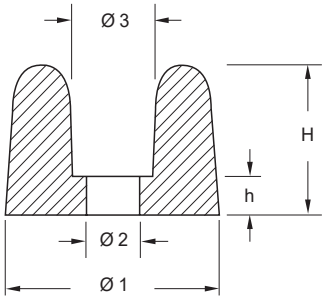
# AP GEHÄUSEFUSS/ANSCHRAUBPUFFER

Merkmale

- einfache Montage mit Spreizniet oder Schraube
- Material: siehe Tabelle
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Gesamt Ø 1 (mm) | h (mm) | Loch Ø 2 (mm) | H (mm) | Innen Ø 3 (mm) | Material | Shore (°) |
|---|---|---|---|---|---|---|---|---|
| 190 02 21 | AP-13-3 | 13,5 | 5,0 | 3,0 | 9,5 | 6,7 | NR-SBR | 75° |
| 190 02 22 | AP-14-5 | 14,6 | 3,0 | 5,2 | 8,5 | 10,0 | NR-SBR | 75° |
| 190 02 23 | AP-18-4 | 18,0 | 4,5 | 4,6 | 11,0 | 9,3 | NR-SBR | 75° |
| 190 02 24 | AP-22-5 | 22,0 | 4,5 | 5,0 | 11,0 | 9,7 | NR-SBR | 75° |
| 190 02 25 | AP-29-4 | 29,5 | 10,0 | 4,0 | 20,0 | 7,8 | EPDM | 62° |

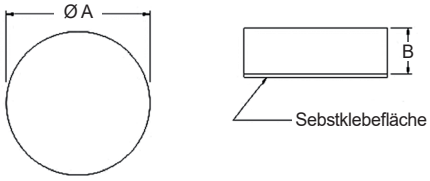
# RF GEHÄUSEFUSS

## Merkmale

- Gehäusefuss einseitig selbstklebend
- Material: Gummi (EPDM, Silikon, etc. auf Anfrage)
- Farbe: schwarz ( grau oder computergrau auf Anfrage)

## Abmessungen

► Einheit = mm




| Art.-Nr. | Ø A (mm) | B (mm) |
|---|---|---|
| 190 03 01 | 3,7 | 2,0 |
| 190 03 02 | 4,0 | 1,5 |
| 190 03 03 | 4,0 | 1,0 |
| 190 03 04 | 4,5 | 1,5 |
| 190 03 05 | 5,0 | 1,5 |
| 190 03 06 | 5,0 | 2,0 |
| 190 03 07 | 5,0 | 2,5 |
| 190 03 08 | 5,3 | 0,7 |
| 190 03 09 | 5,5 | 1,6 |
| 190 03 10 | 6,0 | 0,5 |
| 190 03 11 | 6,0 | 1,0 |
| 190 03 12 | 6,0 | 1,3 |
| 190 03 13 | 6,0 | 1,5 |
| 190 03 14 | 6,0 | 2,0 |
| 190 03 15 | 6,0 | 2,5 |
| 190 03 16 | 6,0 | 3,0 |
| 190 03 17 | 6,4 | 2,6 |
| 190 03 18 | 6,6 | 1,5 |
| 190 03 19 | 6,6 | 1,8 |
| 190 03 20 | 6,6 | 2,0 |
| 190 03 21 | 7,0 | 1,5 |
| 190 03 22 | 7,0 | 0,5 |
| 190 03 23 | 7,0 | 0,9 |
| 190 03 24 | 7,0 | 1,0 |
| 190 03 25 | 7,0 | 2,0 |
| 190 03 26 | 7,0 | 2,5 |
| 190 03 27 | 7,0 | 2,7 |
| 190 03 28 | 7,2 | 1,5 |
| 190 03 29 | 7,5 | 2,0 |
| 190 03 30 | 8,0 | 1,8 |
| 190 03 31 | 8,0 | 0,5 |
| 190 03 32 | 8,0 | 1,0 |
| 190 03 33 | 8,0 | 1,4 |
| 190 03 34 | 8,0 | 1,5 |
| 190 03 35 | 8,0 | 2,0 |
| 190 03 36 | 8,0 | 2,5 |
| 190 03 37 | 8,0 | 3,0 |
| 190 03 38 | 8,5 | 1,5 |
| 190 03 39 | 8,5 | 2,0 |
| 190 03 40 | 9,0 | 1,0 |
| 190 03 41 | 9,0 | 1,2 |
| 190 03 42 | 9,0 | 1,5 |
| 190 03 43 | 9,0 | 2,0 |
| 190 03 44 | 9,0 | 2,5 |
| 190 03 45 | 9,0 | 3,0 |
| 190 03 46 | 9,5 | 0,8 |
| 190 03 47 | 9,5 | 1,5 |
| 190 03 48 | 9,5 | 1,8 |
| 190 03 49 | 9,5 | 2,0 |
| 190 03 50 | 9,5 | 3,0 |
| 190 03 51 | 10,0 | 0,8 |

| Art.-Nr. | Ø A (mm) | B (mm) |
|---|---|---|
| 190 03 52 | 10,0 | 1,0 |
| 190 03 53 | 10,0 | 1,3 |
| 190 03 54 | 10,0 | 1,6 |
| 190 03 55 | 10,0 | 1,8 |
| 190 03 56 | 10,0 | 2,0 |
| 190 03 57 | 10,0 | 3,0 |
| 190 03 58 | 10,5 | 1,0 |
| 190 03 59 | 10,5 | 1,5 |
| 190 03 60 | 10,5 | 2,0 |
| 190 03 61 | 11,6 | 3,2 |
| 190 03 62 | 12,0 | 1,5 |
| 190 03 63 | 12,0 | 1,0 |
| 190 03 64 | 12,0 | 2,7 |
| 190 03 65 | 12,0 | 2,0 |
| 190 03 66 | 12,0 | 3,0 |
| 190 03 67 | 12,0 | 3,6 |
| 190 03 68 | 12,0 | 3,2 |
| 190 03 69 | 12,5 | 2,0 |
| 190 03 70 | 12,7 | 3,2 |
| 190 03 71 | 14,5 | 3,0 |
| 190 03 72 | 14,6 | 3,0 |
| 190 03 73 | 15,0 | 1,0 |
| 190 03 74 | 15,0 | 2,0 |
| 190 03 75 | 15,0 | 3,0 |
| 190 03 76 | 16,5 | 3,0 |
| 190 03 77 | 18,0 | 1,3 |
| 190 03 78 | 18,0 | 1,5 |
| 190 03 79 | 18,0 | 2,5 |
| 190 03 80 | 19,0 | 1,0 |
| 190 03 81 | 19,0 | 2,0 |
| 190 03 82 | 19,0 | 3,0 |
| 190 03 83 | 19,8 | 2,3 |
| 190 03 84 | 20,0 | 1,5 |
| 190 03 85 | 20,0 | 1,8 |
| 190 03 86 | 20,0 | 2,3 |
| 190 03 87 | 20,0 | 3,0 |
| 190 03 88 | 20,0 | 3,0 |
| 190 03 89 | 22,0 | 2,5 |
| 190 03 90 | 22,0 | 2,0 |
| 190 03 91 | 24,6 | 3,0 |
| 190 03 92 | 25,0 | 2,3 |
| 190 03 93 | 27,0 | 3,0 |
| 190 03 94 | 28,0 | 3,2 |
| 190 03 95 | 30,0 | 2,0 |
| 190 03 96 | 40,0 | 1,0 |
| 190 03 97 | 58,0 | 1,5 |
| 190 03 98 | 58,0 | 2,0 |

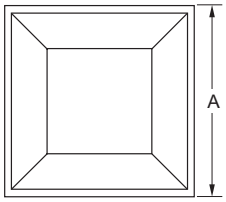
Weitere Abmessungen und Größen auf Anfrage:
Telefon: 09852 61079-0

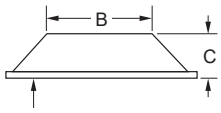
# SF GEHÄUSEFUSS

Merkmale

- Material: Gummi, PU
- Farbe: schwarz (andere Farben z.B. grau auf Anfrage möglich)

Abmessungen
► Einheit = mm




3M oder T4000
doppelseitiges Klebeband

| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) |
|---|---|---|---|---|
| 190 04 01 | SF-004 | 12,7 | 9,0 | 3,5 |
| 190 04 02 | SF-005 | 12,7 | 7,0 | 6,0 |
| 190 04 03 | SF-005I | 12,7 | 7,0 | 5,5 |
| 190 04 04 | SF-006 | 20,0 | 14,0 | 7,6 |
| 190 04 05 | SF-007 | 10,5 | 8,6 | 2,5 |
| 190 04 06 | SF-009 | 12,5 | 9,5 | 4,0 |
| 190 04 07 | SF-016 | 12,7 | 9,8 | 3,0 |
| 190 04 08 | SF-017 | 12,5 | 9,7 | 3,5 |

# PUSH-PUSH

## Mekmale

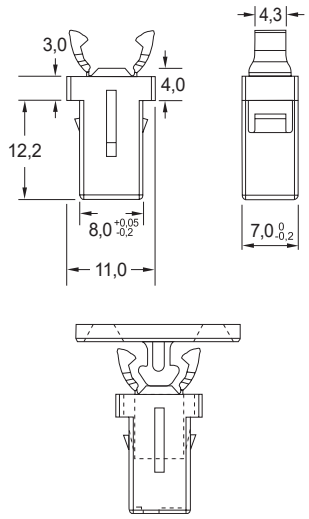
- Schließen und Öffnen erfolgt durch jeweiliges andrücken
- hörbarer Rastverschluss
- Öffnungs-/Schließkraft: 5N
- Farbe: schwarz
- Temperaturbereich: -30°C bis +80°C
- Material Kunststoffteile: POM bzw. PA66
- Material Metallteile: DL = SUS, TDT-4 = PC

## Abmessungen

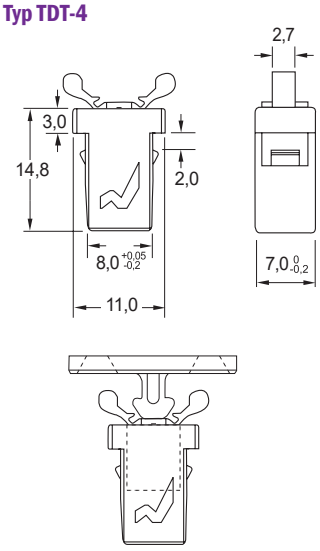
► Einheit = mm

### Offene Position

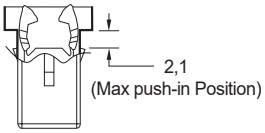
**Typ DL**



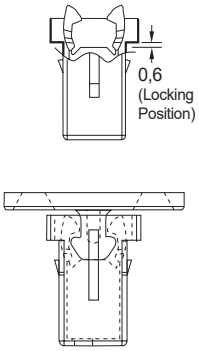

**Typ TDT-4**



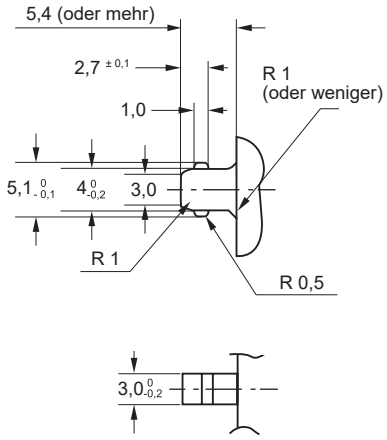

### Zwischenposition



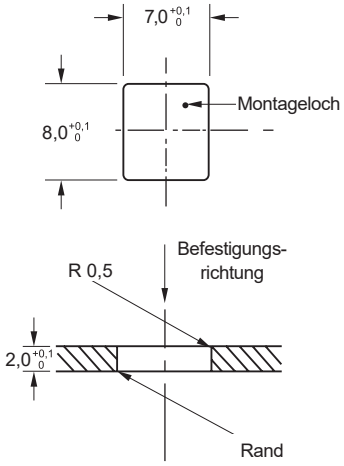

### Geschlossene Position




### Maße für Schließdorn




### Maße für Montageausschnitt




| Art.-Nr. | Typ |
|---|---|
| 170 90 01 | DL |
| 170 90 02 | TDT-4 |

Weitere Abmessungen und Ausführungen auf Anfrage: Telefon: 09852 61079-0

Notizen

# DÄMPFUNGSTECHNIK

| | |
|---|---|
| **Blindmuttern** | Seite 316 |
| **Gummi-Metall-Puffer** | Seite 317 - 319 |
| **Anti-Vibrations-Tülle** | Seite 320 |
| **Rotationsdämpfer** | Seite 321 - 329 |
| **Achsdämpfer** | Seite 330 - 332 |

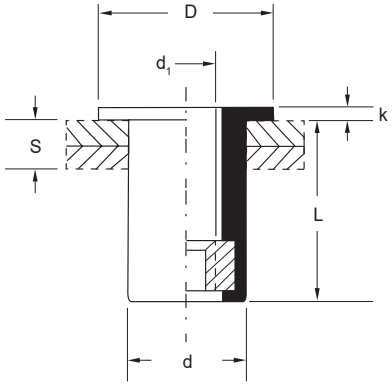
# BM BLINDMUTTER

## Merkmale

- elastische Schraubverbindung für empfindliche Werkstoffe
- schwingungsdämpfend
- elektrisch isolierend
- zuverlässiger Sitz, auch bei problematischen Verschraubungen (z.B. Hart-Weich-Verbindungen)
- auch für Sacklochbohrungen geeignet
- Temperaturbereich: -30 °C bis +80 °C
- Material: Nietkörper: EPDM
- Material Gewindeeinsatz: Edelstahl
- Farbe: schwarz

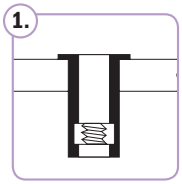
## Abmessungen

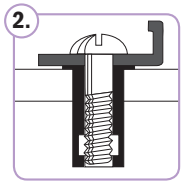
► Einheit = mm

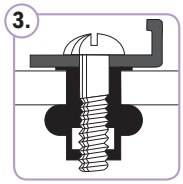



| Art.-Nr. | Typ | $d_1$ (mm) | S = Klemmbereich (mm) | Bohrloch-Ø (mm) | d (mm) | D (mm) | k (mm) | L (mm) | Anziehdrehmoment (Nm) |
|---|---|---|---|---|---|---|---|---|---|
| 170 00 01 | BM-M3 | M3 | 0,4 - 4,0 | 8,0 | 7,9 | 11,0 | 1,4 | 11,2 | 0,5 |
| 170 00 02 | BM-M4 | M4 | 0,4 - 4,0 | 8,0 | 7,9 | 11,0 | 1,4 | 11,2 | 0,4 |
| 170 00 03 | BM-M5 | M5 | 0,4 - 4,9 | 9,7 | 9,6 | 12,7 | 0,9 | 13,2 | 0,6 |
| 170 00 04 | BM-M5/1 | M5 | 0,8 - 5,8 | 9,7 | 9,6 | 19,0 | 2,0 | 16,0 | 0,6 |
| 170 00 05 | BM-M5/2 | M5 | 0,9 - 5,9 | 9,7 | 9,6 | 14,0 | 1,0 | 16,0 | 0,6 |
| 170 00 06 | BM-M6 | M6 | 0,4 - 2,8 | 12,8 | 12,7 | 16,0 | 1,3 | 14,7 | 1,0 |
| 170 00 07 | BM-M6/1 | M6 | 0,8 - 4,7 | 12,8 | 12,7 | 19,0 | 4,8 | 16,3 | 1,0 |
| 170 00 08 | BM-M6/2 | M6 | 6,4 - 11,5 | 12,8 | 12,7 | 16,3 | 2,0 | 24,7 | 1,0 |
| 170 00 09 | BM-M8 | M8 | 0,4 - 4,0 | 16,0 | 15,9 | 22,1 | 3,2 | 15,1 | 1,5 |

**Anleitung:**

1. 
Bohrloch vorbereiten + Blindmutter einstecken.

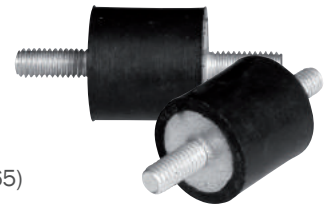
2. 
Bauteil festschrauben.

3. 
Fertig!

Weitere Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# GMP-A GUMMI-METALL-PUFFER

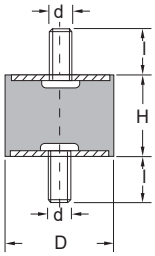
## Merkmale



- mit beiseitigem Aussengewinde
- absorbieren Stöße und Vibrationen
- Dämpfer können auf Druck und Schub und kombiniert belastet werden
- Material Körper: NR, Shorehärte: 55°
  (für andere Shorehärten in der Art.-Nr. mit angeben, wie z.B. für 65° Shorehärte = Art.Nr. + - 65)
- Material Metallteile: Stahl verzinkt

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | D (mm) | H (mm) | d (mm) | l (mm) |
|---|---|---|---|---|---|
| **170 01 00** | GMP-A-M3-06-07 | 6,0 | 7,0 | M3 | 6,0 |
| **170 01 01** | GMP-A-M3-08-06 | 8,0 | 6,0 | M3 | 6,0 |
| **170 01 02** | GMP-A-M3-08-08 | 8,0 | 8,0 | M3 | 6,0 |
| **170 01 03** | GMP-A-M4-10-10 | 10,0 | 10,0 | M4 | 10,0 |
| **170 01 04** | GMP-A-M4-10-15 | 10,0 | 15,0 | M4 | 10,0 |
| **170 01 05** | GMP-A-M4-15-15 | 15,0 | 15,0 | M4 | 10,0 |
| **170 01 15-65** | GMP-A-M6-15-15 | 15,0 | 15,0 | M6 | 10,0 |
| **170 01 06** | GMP-A-M4-15-20 | 15,0 | 20,0 | M4 | 10,0 |
| **170 01 07** | GMP-A-M4-15-25 | 15,0 | 25,0 | M4 | 10,0 |
| **170 01 08** | GMP-A-M6-20-15 | 20,0 | 15,0 | M6 | 18,0 |
| **170 01 09** | GMP-A-M6-20-20 | 20,0 | 20,0 | M6 | 18,0 |
| **170 01 10** | GMP-A-M6-20-25 | 20,0 | 25,0 | M6 | 18,0 |
| **170 01 11** | GMP-A-M6-25-15 | 25,0 | 15,0 | M6 | 18,0 |
| **170 01 12** | GMP-A-M6-25-20 | 25,0 | 20,0 | M6 | 18,0 |
| **170 01 13** | GMP-A-M6-25-25 | 25,0 | 25,0 | M6 | 18,0 |
| **170 01 14** | GMP-A-M8-50-20 | 50,0 | 20,0 | M8 | 30,0 |
| **170 01 16** | GMP-A-M8-40-40 | 40,0 | 40,0 | M8 | 23,0 |

Weitere Abmessungen und Ausführungen auf Anfrage: Telefon: 09852 61079-0

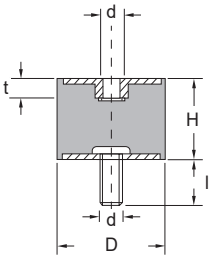
# GMP-B GUMMI-METALL-PUFFER

## Merkmale

- mit Innen- und Aussengewinde
- absorbieren Stöße und Vibrationen
- Dämpfer können auf Druck und Schub und kombiniert belastet werden
- Material Körper: NR, Shorehärte: 55°
- Material Metallteile: Stahl verzinkt

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | D (mm) | H (mm) | d (mm) | l (mm) | t (mm) |
|---|---|---|---|---|---|---|
| 170 02 00 | GMP-B-M3-06-07 | 6,0 | 7,0 | M3 | 6,0 | 3,0 |
| 170 02 01 | GMP-B-M3-08-08 | 8,0 | 8,0 | M3 | 6,0 | 3,0 |
| 170 02 15 | GMP-B-M3-08-08 | 8,0 | 8,0 | M3 | 6,0 | 4,5 |
| 170 02 13 | GMP-B-M4-10-09 | 10,0 | 9,0 | M4 | 6,0 | 3,5 |
| 170 02 02 | GMP-B-M4-10-10 | 10,0 | 10,0 | M4 | 10,0 | 4,0 |
| 170 02 03 | GMP-B-M4-10-15 | 10,0 | 15,0 | M4 | 10,0 | 4,0 |
| 170 02 04 | GMP-B-M4-15-15 | 15,0 | 15,0 | M4 | 10,0 | 4,0 |
| 170 02 05 | GMP-B-M4-15-20 | 15,0 | 20,0 | M4 | 10,0 | 4,0 |
| 170 02 16 | GMP-B-M4-15-25 | 15,0 | 25,0 | M4 | 10,0 | 5,0 |
| 170 02 06 | GMP-B-M4-20-20 | 20,0 | 20,0 | M4 | 10,0 | 4,0 |
| 170 02 07 | GMP-B-M6-20-15 | 20,0 | 15,0 | M6 | 18,0 | 5,0 |
| 170 02 08 | GMP-B-M6-20-20 | 20,0 | 20,0 | M6 | 18,0 | 5,0 |
| 170 02 09 | GMP-B-M6-20-25 | 20,0 | 25,0 | M6 | 18,0 | 5,0 |
| 170 02 10 | GMP-B-M6-25-20 | 25,0 | 20,0 | M6 | 18,0 | 5,0 |
| 170 02 11 | GMP-B-M6-25-25 | 25,0 | 25,0 | M6 | 18,0 | 5,0 |
| 170 02 14 | GMP-B-M6-25-30 | 25,0 | 30,0 | M6 | 18,0 | 6,0 |
| 170 02 12 | GMP-B-M8-30-20 | 30,0 | 20,0 | M8 | 23,0 | 8,0 |

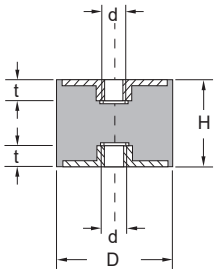
Weitere Abmessungen und Ausführungen auf Anfrage: Telefon: 09852 61079-0

# GMP-C GUMMI-METALL-PUFFER

Merkmale:

- mit beidseitigem Innengewinde
- absorbieren Stöße und Vibrationen
- Dämpfer können auf Druck und Schub und kombiniert belastet werden
- Material Körper: NR, Shorehärte: 55°
- Material Metallteile: Stahl verzinkt

Abmessungen
► Einheit = mm

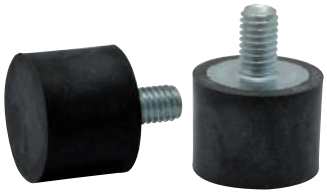



| Art.-Nr. | Typ | D (mm) | H (mm) | d (mm) | t (mm) |
|---|---|---|---|---|---|
| 170 03 00 | GMP-C-M3-06-07 | 6,0 | 7,0 | M3 | 3,0 |
| 170 03 01 | GMP-C-M3-08-08 | 8,0 | 8,0 | M3 | 3,0 |
| 170 03 02 | GMP-C-M4-10-10 | 10,0 | 10,0 | M4 | 4,0 |
| 170 03 03 | GMP-C-M4-10-15 | 10,0 | 15,0 | M4 | 4,0 |
| 170 03 04 | GMP-C-M4-15-15 | 15,0 | 15,0 | M4 | 4,0 |
| 170 03 05 | GMP-C-M4-15-20 | 15,0 | 20,0 | M4 | 4,0 |
| 170 03 06 | GMP-C-M4-20-20 | 20,0 | 20,0 | M4 | 4,0 |
| 170 03 07 | GMP-C-M6-20-15 | 20,0 | 15,0 | M6 | 5,0 |
| 170 03 08 | GMP-C-M6-20-20 | 20,0 | 20,0 | M6 | 5,0 |
| 170 03 09 | GMP-C-M6-20-25 | 20,0 | 25,0 | M6 | 5,0 |
| 170 03 10 | GMP-C-M6-25-20 | 25,0 | 20,0 | M6 | 5,0 |
| 170 03 11 | GMP-C-M6-25-25 | 25,0 | 25,0 | M6 | 5,0 |
| 170 03 14 | GMP-C-M8-30-15 | 30,0 | 15,0 | M8 | 5,0 |
| 170 03 13 | GMP-C-M8-30-20 | 30,0 | 20,0 | M8 | 7,0 |
| 170 03 12 | GMP-C-M8-30-30 | 30,0 | 30,0 | M8 | 7,0 |

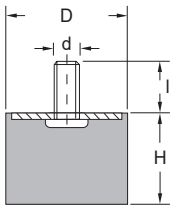
# GMP-D GUMMI-METALL-PUFFER

Merkmale

- mit einseitigem Aussengewinde
- Material Körper: NR
- Material Metallteile: Stahl verzinkt



Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | D (mm) | H (mm) | d (mm) | l (mm) | Shorehärte | Farbe |
|---|---|---|---|---|---|---|---|
| 170 05 03 | GMP-D-M4-20-30 | 20,0 | 30,0 | M4 | 10,0 | 57° | schwarz |
| 170 05 04 | GMP-D-M6-20-15 | 20,0 | 15,0 | M6 | 10,0 | 57° | schwarz |
| 170 05 02 HG75 | GMP-D-M6-20-10HG | 20,0 | 10,0 | M6 | 10,0 | 75° | hellgrau |
| 170 05 06 | GMP-D-M6-25-10 | 30,0 | 10,0 | M6 | 10,0 | 55° | schwarz |
| 170 05 01 HG | GMP-D-M10-50-21HG | 50,0 | 21,0 | M10 | 28,0 | 55° | hellgrau |

Weitere Abmessungen und Ausführungen auf Anfrage: Telefon: 09852 61079-0

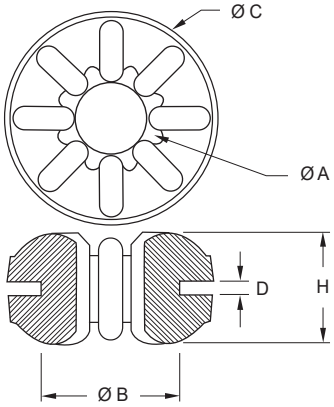
# AVT ANTI-VIBRATIONS-TÜLLE

## Merkmale

- nimmt Vibrationen von Bauteilen und Baugruppen auf
- durch die spezielle Rippenstruktur wird eine optimale Vibrationsdämpfung erzielt
- Farbe: schwarz
- Material: TPE 45° Shore

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | H (mm) |
|---|---|---|---|---|---|---|
| 170 04 24 | AVT-24 | 3,9 | 6,3 | 9,62 | 1,0 | 5,8 |
| 170 04 28 | AVT-28 | 3,9 | 6,3 | 9,62 | 1,2 | 5,8 |
| 170 04 10 | AVT-10 | 3,9 | 6,3 | 9,62 | 1,6 | 5,8 |
| 170 04 22 | AVT-22 | 3,9 | 6,3 | 9,62 | 3,0 | 7,0 |
| 170 04 52 | AVT-52 | 3,9 | 6,35 | 9,62 | 0,8 | 5,8 |
| 170 04 23 | AVT-23 | 4,75 | 7,8 | 11,0 | 1,0 | 8,0 |
| 170 04 13 | AVT-13 | 4,75 | 7,8 | 10,5 | 1,5 | 6,75 |
| 170 04 16 | AVT-16 | 4,85 | 9,5 | 14,0 | 1,0 | 7,5 |
| 170 04 25 | AVT-25 | 4,85 | 9,5 | 14,0 | 1,0 | 8,1 |
| 170 04 29 | AVT-29 | 4,85 | 9,5 | 14,0 | 1,2 | 7,4 |
| 170 04 14 | AVT-14 | 4,85 | 9,5 | 14,0 | 1,6 | 8,1 |
| 170 04 15 | AVT-15 | 4,85 | 11,0 | 14,0 | 1,6 | 8,1 |

Weitere Farben (z.B. weiss, blau, gelb oder violett) und andere Härtegrade (55° Shore, usw.) auf Anfrage möglich: Telefon: 09852 61079-0

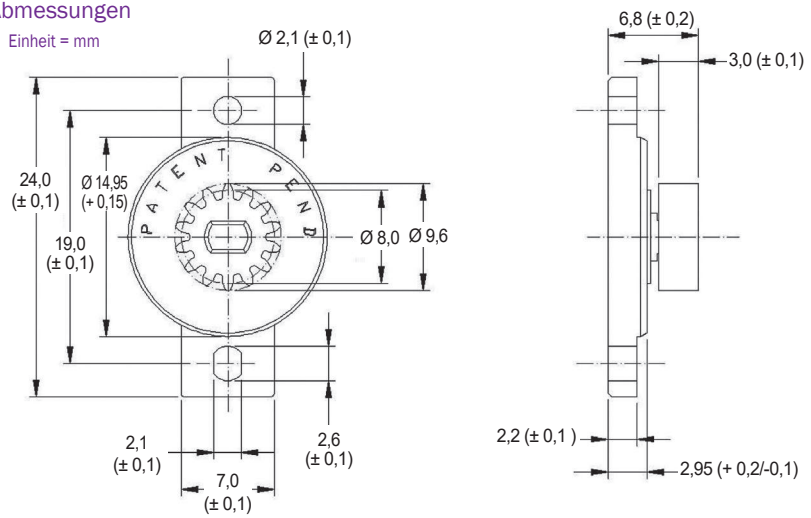
# RD-CA6 ROTATIONSDÄMPFER

## Merkmale

- Rotationsdämpfer mit Ritzel, Modul 0,8 mit 10 Zähnen und 3,5 mm Höhe
- Befestigung mittels Schrauben oder Spreiznieten
- Drehmomente: nach 20 U/min. bei 20 °C = siehe Tabelle
- Gehäuse ultraschallverschweißt
- Lebensdauer: 100.000 Zyklen (1 Zyklus = 1 x vorwärts 150 mm, 1 x rückwärts 150 mm ohne Pause bei 200 U/min.)
- Temperaturbereich: -40 °C bis +90 °C
- Farbe: schwarz
- Material Ritzel und Rotor: POM
- Material Basis: PA66 GF13
- Material Becher: PA66
- Material O-Ring: Silikon
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbkennzeichnung | Drehmoment |
|---|---|---|---|
| **171 19 012** | RD-CA6-012 | beige | 0,12 Ncm ± 0,07 |
| **171 19 025** | RD-CA6-025 | gelb | 0,25 Ncm ± 0,08 |
| **171 19 030** | RD-CA6-030 | grün | 0,30 Ncm ± 0,10 |
| **171 19 045** | RD-CA6-045 | braun | 0,45 Ncm ± 0,12 |
| **171 19 060** | RD-CA6-060 | schwarz | 0,60 Ncm ± 0,17 |
| **171 19 095** | RD-CA6-095 | rot | 0,95 Ncm ± 0,18 |
| **171 19 110** | RD-CA6-110 | grau | 1,10 Ncm ± 0,20 |
| **171 19 120** | RD-CA6-120 | blau | 1,20 Ncm ± 0,20 |
| **171 19 150** | RD-CA6-150 | pink | 1,50 Ncm ± 0,25 |
| **171 19 220** | RD-CA6-220 | orange | 2,20 Ncm ± 0,35 |

Andere Drehmomente, Farben und Ausführungen mit Freilauf erfahren Sie auf Anfrage unter: Telefon: 09852 61079-0

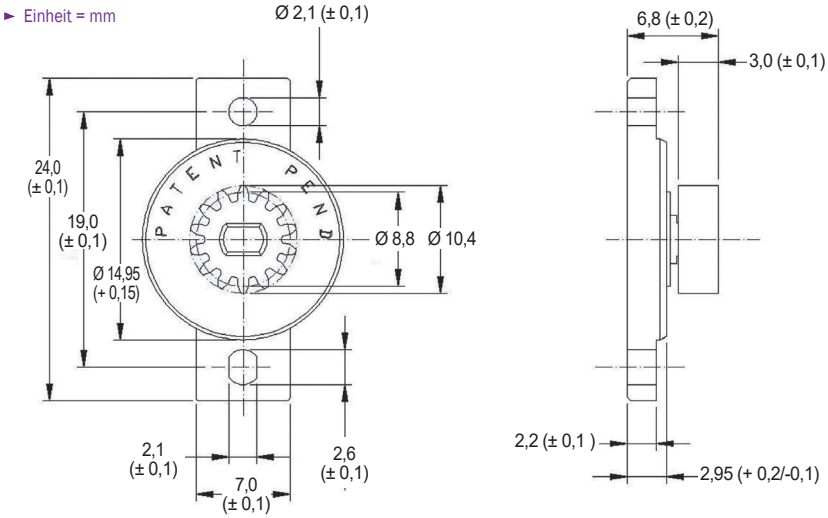
# RD-CA3A ROTATIONSDÄMPFER

## Merkmale

- Rotationsdämpfer mit Ritzel, Modul 0,8 mit 11 Zähnen und 3 mm Höhe
- Befestigung mittels Schrauben oder Spreiznieten
- Drehmomente: nach 20 U/min. bei 20°C = siehe Tabelle
- Gehäuse ultraschallverschweißt
- Lebensdauer: 100.000 Zyklen (1 Zyklus = 1 x vorwärts 150 mm, 1 x rückwärts 150 mm ohne Pause bei 200 U/min.)
- Temperaturbereich: -40°C bis +90°C
- Farbe: schwarz (andere Farben auf Anfrage möglich)
- Material Ritzel und Rotor: POM
- Material Basis: PA66 GF13
- Material Becher: PA66
- Material O-Ring: Silikon
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbkennzeichnung | Drehmoment |
|---|---|---|---|
| **171 11 012** | RD-CA3A-012 | beige | 0,12 Ncm ± 0,07 |
| **171 11 025** | RD-CA3A-025 | gelb | 0,25 Ncm ± 0,08 |
| **171 11 030** | RD-CA3A-030 | grün | 0,30 Ncm ± 0,10 |
| **171 11 045** | RD-CA3A-045 | braun | 0,45 Ncm ± 0,12 |
| **171 11 060** | RD-CA3A-060 | schwarz | 0,60 Ncm ± 0,17 |
| **171 11 095** | RD-CA3A-095 | rot | 0,95 Ncm ± 0,18 |
| **171 11 110** | RD-CA3A-110 | grün | 1,10 Ncm ± 0,20 |
| **171 11 120** | RD-CA3A-120 | blau | 1,20 Ncm ± 0,20 |
| **171 11 150** | RD-CA3A-150 | pink | 1,50 Ncm ± 0,25 |
| **171 11 220** | RD-CA3A-220 | orange | 2,20 Ncm ± 0,35 |

Weitere Ausführungen und Abmessungen auf Anfrage: Telefon 09852 6109-0

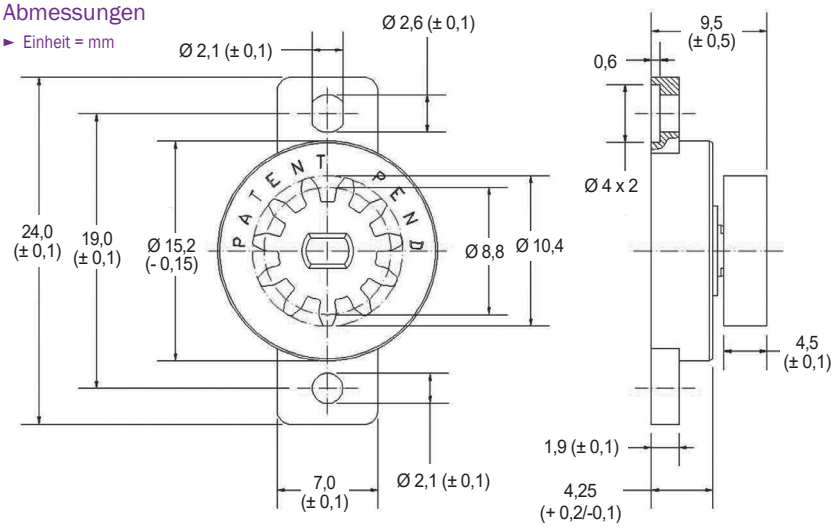
# RD-CB3D ROTATIONSDÄMPFER

## Merkmale

- Rotationsdämpfer mit Ritzel, Modul 0,8 mit 11 Zähnen und 4,5 mm Höhe
- Befestigung mittels Schrauben oder Spreiznieten
- Drehmomente: nach 20 U/min. bei 20 °C = siehe Tabelle
- Gehäuse ultraschallverschweißt
- Lebensdauer: 100.000 Zyklen (1 Zyklus = 1 x vorwärts 150 mm, 1 x rückwärts 150 mm ohne Pause bei 200 U/min.)
- Temperaturbereich: -40 °C bis +90 °C
- Farbe: schwarz (andere Farben auf Anfrage möglich)
- Material Ritzel und Rotor: POM
- Material Basis: PA66 GF13
- Material Becher: PA66
- Material O-Ring: Silikon
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbkennzeichnung | Drehmoment |
|---|---|---|---|
| **171 12 012** | RD-CB3D-012 | beige | 0,12 Ncm ± 0,07 |
| **171 12 025** | RD-CB3D-025 | gelb | 0,25 Ncm ± 0,08 |
| **171 12 030** | RD-CB3D-030 | grün | 0,30 Ncm ± 0,10 |
| **171 12 045** | RD-CB3D-045 | braun | 0,45 Ncm ± 0,12 |
| **171 12 060** | RD-CB3D-060 | schwarz | 0,60 Ncm ± 0,17 |
| **171 12 095** | RD-CB3D-095 | rot | 0,95 Ncm ± 0,18 |
| **171 12 110** | RD-CB3D-110 | grün | 1,10 Ncm ± 0,20 |
| **171 12 120** | RD-CB3D-120 | blau | 1,20 Ncm ± 0,20 |
| **171 12 150** | RD-CB3D-150 | pink | 1,50 Ncm ± 0,25 |
| **171 12 220** | RD-CB3D-220 | orange | 2,20 Ncm ± 0,35 |

Weitere Ausführungen und Abmessungen auf Anfrage: Telefon 09852 6109-0

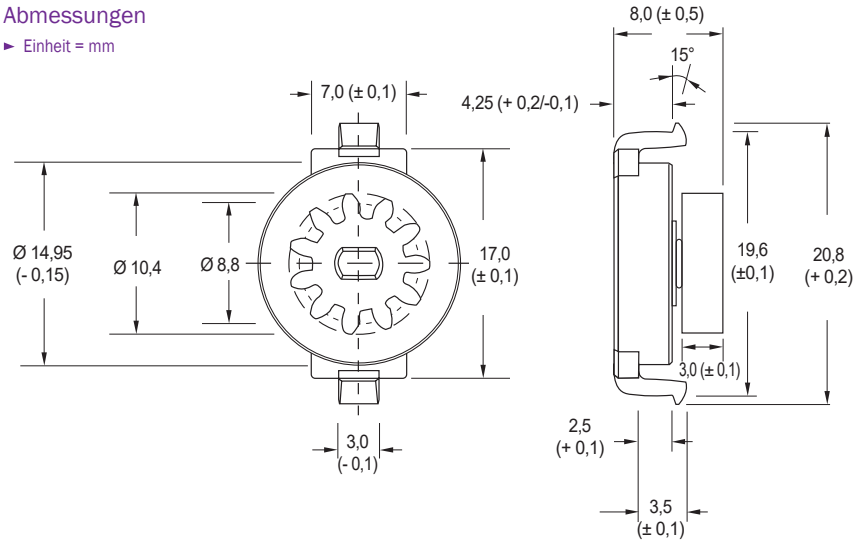
# RD-CD3A ROTATIONSDÄMPFER

## Merkmale

- Rotationsdämpfer mit Ritzel, Modul 0,8 mit 11 Zähnen und 3 mm Höhe
- Clipmontage (frontseitig)
- Drehmomente: nach 20 U/min. bei 20 °C = siehe Tabelle
- Gehäuse ultraschallverschweißt
- Lebensdauer: 100.000 Zyklen (1 Zyklus = 1 x vorwärts 150 mm, 1 x rückwärts 150 mm ohne Pause bei 200 U/min.)
- Temperaturbereich: -40 °C bis +90 °C
- Farbe: schwarz (andere Farben auf Anfrage möglich)
- Material Ritzel und Rotor: POM
- Material Basis: PA66 GF13
- Material Becher: PA66
- Material O-Ring: Silikon
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbkennzeichnung | Drehmoment |
|---|---|---|---|
| **171 13 012** | RD-CD3A-012 | beige | 0,12 Ncm ± 0,07 |
| **171 13 025** | RD-CD3A-025 | gelb | 0,25 Ncm ± 0,08 |
| **171 13 030** | RD-CD3A-030 | grün | 0,30 Ncm ± 0,10 |
| **171 13 045** | RD-CD3A-045 | braun | 0,45 Ncm ± 0,12 |
| **171 13 060** | RD-CD3A-060 | schwarz | 0,60 Ncm ± 0,17 |
| **171 13 095** | RD-CD3A-095 | rot | 0,95 Ncm ± 0,18 |
| **171 13 110** | RD-CD3A-110 | grau | 1,10 Ncm ± 0,20 |
| **171 13 120** | RD-CD3A-120 | blau | 1,20 Ncm ± 0,20 |
| **171 13 150** | RD-CD3A-150 | pink | 1,50 Ncm ± 0,25 |
| **171 13 220** | RD-CD3A-220 | orange | 2,20 Ncm ± 0,35 |

Weitere Ausführungen und Abmessungen auf Anfrage: Telefon 09852 6109-0

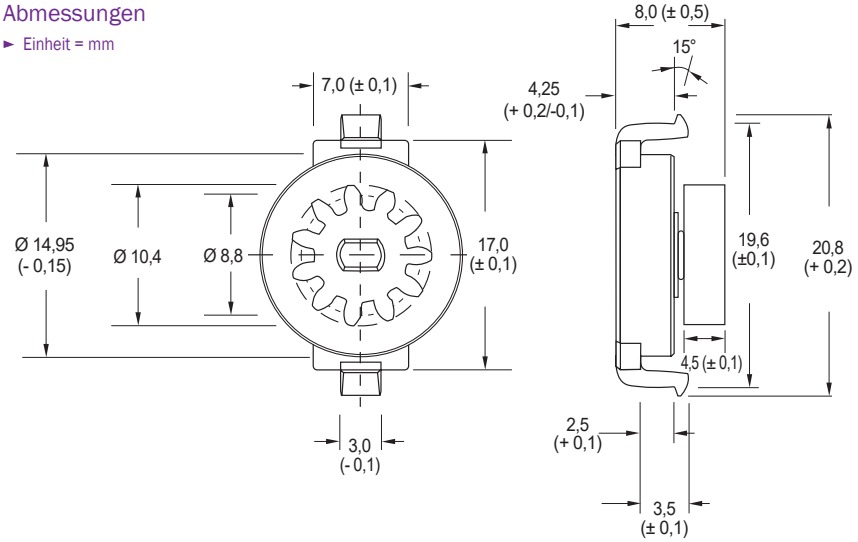
# RD-CD3D ROTATIONSDÄMPFER

## Merkmale

- Rotationsdämpfer mit Ritzel, Modul 0,8 mit 11 Zähnen und 4,5 mm Höhe
- Clipmontage (frontseitig)
- Drehmomente: nach 20 U/min. bei 20 °C = siehe Tabelle
- Gehäuse ultraschallverschweißt
- Lebensdauer: 100.000 Zyklen (1 Zyklus = 1 x vorwärts 150 mm, 1 x rückwärts 150 mm ohne Pause bei 200 U/min.)
- Temperaturbereich: -40 °C bis +90 °C
- Farbe: schwarz (andere Farben auf Anfrage möglich)
- Material Ritzel und Rotor: POM
- Material Basis: PA66 GF13
- Material Becher: PA66
- Material O-Ring: Silikon
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbkennzeichnung | Drehmoment |
|---|---|---|---|
| **171 14 012** | RD-CD3D-012 | beige | 0,12 Ncm ± 0,07 |
| **171 14 025** | RD-CD3D-025 | gelb | 0,25 Ncm ± 0,08 |
| **171 14 030** | RD-CD3D-030 | grün | 0,30 Ncm ± 0,10 |
| **171 14 045** | RD-CD3D-045 | braun | 0,45 Ncm ± 0,12 |
| **171 14 060** | RD-CD3D-060 | schwarz | 0,60 Ncm ± 0,17 |
| **171 14 095** | RD-CD3D-095 | rot | 0,95 Ncm ± 0,18 |
| **171 14 110** | RD-CD3D-110 | grau | 1,10 Ncm ± 0,20 |
| **171 14 120** | RD-CD3D-120 | blau | 1,20 Ncm ± 0,20 |
| **171 14 150** | RD-CD3D-150 | pink | 1,50 Ncm ± 0,25 |
| **171 14 220** | RD-CD3D-220 | orange | 2,20 Ncm ± 0,35 |

Weitere Ausführungen und Abmessungen auf Anfrage: Telefon 09852 6109-0

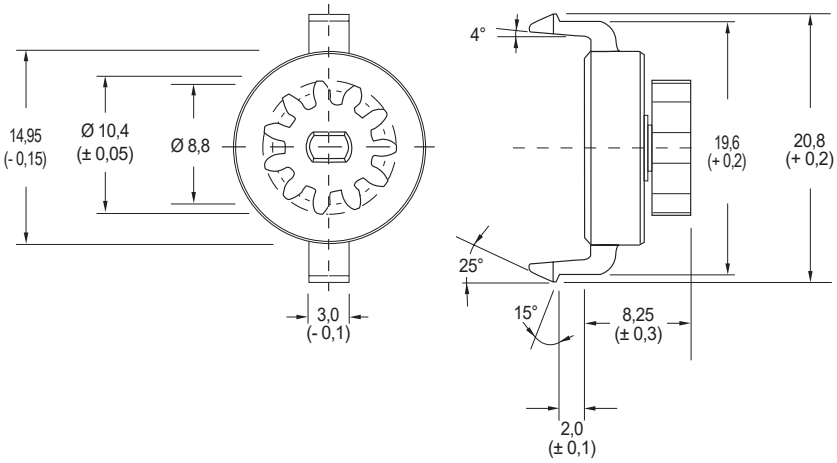
# RD-CF3F ROTATIONSDÄMPFER

## Merkmale

- Rotationsdämpfer mit Ritzel, Modul 0,8 mit 11 Zähnen und 3 mm Höhe
- Clipmontage (rückseitig)
- Drehmomente: nach 20 U/min. bei 20 °C = siehe Tabelle
- Gehäuse ultraschallverschweißt
- Lebensdauer: 100.000 Zyklen (1 Zyklus = 1 x vorwärts 150 mm, 1 x rückwärts 150 mm ohne Pause bei 200 U/min.)
- Temperaturbereich: -40 °C bis +90 °C
- Farbe: schwarz (andere Farben auf Anfrage möglich)
- Material Ritzel und Rotor: POM
- Material Basis: PA66 GF13
- Material Becher: PA66
- Material O-Ring: Silikon
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbkennzeichnung | Drehmoment |
|---|---|---|---|
| **171 15 012** | RD-CF3F-012 | beige | 0,12 Ncm ± 0,07 |
| **171 15 025** | RD-CF3F-025 | gelb | 0,25 Ncm ± 0,08 |
| **171 15 030** | RD-CF3F-030 | grün | 0,30 Ncm ± 0,10 |
| **171 15 045** | RD-CF3F-045 | braun | 0,45 Ncm ± 0,12 |
| **171 15 060** | RD-CF3F-060 | schwarz | 0,60 Ncm ± 0,17 |
| **171 15 095** | RD-CF3F-095 | rot | 0,95 Ncm ± 0,18 |
| **171 15 110** | RD-CF3F-110 | grau | 1,10 Ncm ± 0,20 |
| **171 15 120** | RD-CF3F-120 | blau | 1,20 Ncm ± 0,20 |
| **171 15 150** | RD-CF3F-150 | pink | 1,50 Ncm ± 0,25 |
| **171 15 220** | RD-CF3F-220 | orange | 2,20 Ncm ± 0,35 |

Weitere Ausführungen und Abmessungen auf Anfrage: Telefon 09852 6109-0

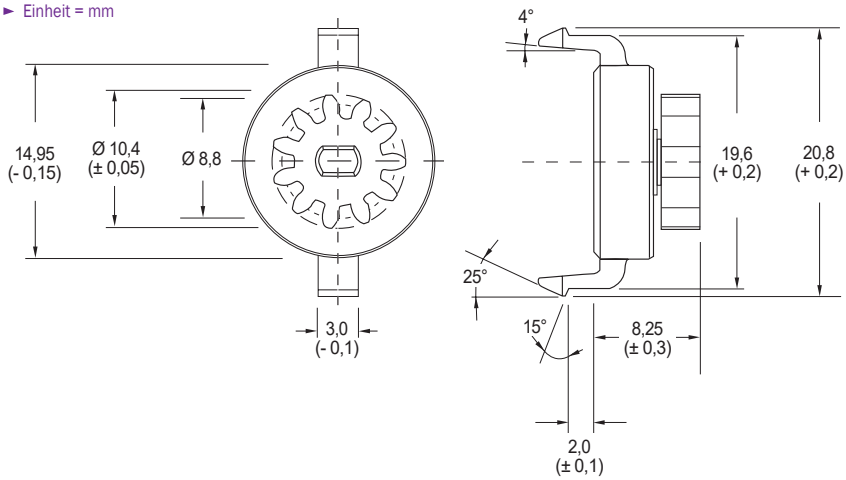
# RD-CF3D ROTATIONSDÄMPFER

## Merkmale

- Rotationsdämpfer mit Ritzel, Modul 0,8 mit 11 Zähnen und 4,5 mm Höhe
- Clipmontage (rückseitig)
- Drehmomente: nach 20 U/min. bei 20 °C = siehe Tabelle
- Gehäuse ultraschallverschweißt
- Lebensdauer: 100.000 Zyklen (1 Zyklus = 1 x vorwärts 150 mm, 1 x rückwärts 150 mm ohne Pause bei 200 U/min.)
- Temperaturbereich: -40 °C bis +90 °C
- Farbe: schwarz (andere Farben auf Anfrage möglich)
- Material Ritzel und Rotor: POM
- Material Basis: PA66 GF13
- Material Becher: PA66
- Material O-Ring: Silikon
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbkennzeichnung | Drehmoment |
|---|---|---|---|
| **171 16 012** | RD-CF3D-012 | beige | 0,12 Ncm ± 0,07 |
| **171 16 025** | RD-CF3D-025 | gelb | 0,25 Ncm ± 0,08 |
| **171 16 030** | RD-CF3D-030 | grün | 0,30 Ncm ± 0,10 |
| **171 16 045** | RD-CF3D-045 | braun | 0,45 Ncm ± 0,12 |
| **171 16 060** | RD-CF3D-060 | schwarz | 0,60 Ncm ± 0,17 |
| **171 16 095** | RD-CF3D-095 | rot | 0,95 Ncm ± 0,18 |
| **171 16 110** | RD-CF3D-110 | grau | 1,10 Ncm ± 0,20 |
| **171 16 120** | RD-CF3D-120 | blau | 1,20 Ncm ± 0,20 |
| **171 16 150** | RD-CF3D-150 | pink | 1,50 Ncm ± 0,25 |
| **171 16 220** | RD-CF3D-220 | orange | 2,20 Ncm ± 0,35 |

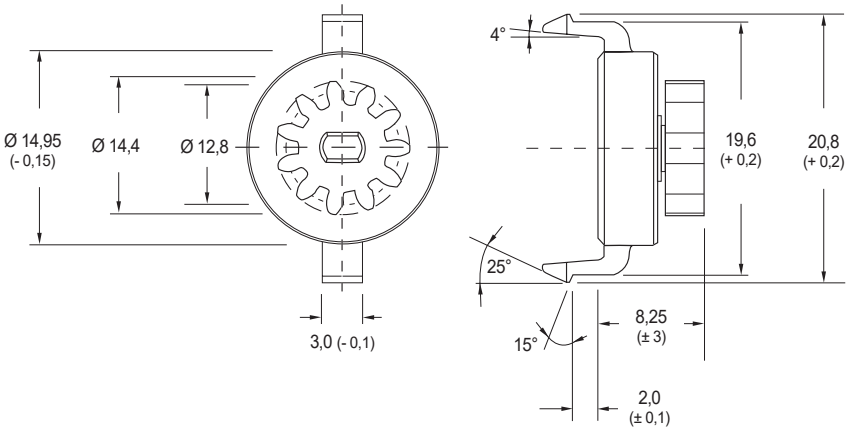
Weitere Ausführungen und Abmessungen auf Anfrage: Telefon 09852 6109-0

# RD-CF5 ROTATIONSDÄMPFER

Merkmale:

- Rotationsdämpfer mit Ritzel, Modul 0,8 mit 16 Zähnen und 3 mm Höhe
- Clipmontage (rückseitig)
- Drehmomente siehe Tabelle
- Gehäuse ultraschallverschweißt
- Lebensdauer: 100.000 Zyklen
  (1 Zyklus = 1 x vorwärts 150 mm, 1 x rückwärts 150 mm ohne Pause bei 200 U/min.)
- Temperaturbereich: -40 °C bis +90 °C nach 20 U/min. bei 20 °C
- Farbe: schwarz
- Material Ritzel und Rotor: POM
- Material Basis: PA66 GF13
- Material Becher: PA66
- Material O-Ring: Silikon
- Flüssigkeit: Silikonöl

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Farbkennzeichnung | Drehmoment |
|---|---|---|---|
| 171 18 012 | RD-CF5-012 | beige | 0,12 Ncm ± 0,07 |
| 171 18 025 | RD-CF5-025 | gelb | 0,25 Ncm ± 0,08 |
| 171 18 030 | RD-CF5-030 | grün | 0,30 Ncm ± 0,10 |
| 171 18 045 | RD-CF5-045 | braun | 0,45 Ncm ± 0,12 |
| 171 18 060 | RD-CF5-060 | schwarz | 0,60 Ncm ± 0,17 |
| 171 18 095 | RD-CF5-095 | rot | 0,95 Ncm ± 0,18 |
| 171 18 110 | RD-CF5-110 | grün | 1,10 Ncm ± 0,20 |
| 171 18 120 | RD-CF5-120 | blau | 1,20 Ncm ± 0,20 |
| 171 18 150 | RD-CF35-150 | pink | 1,50 Ncm ± 0,25 |
| 171 18 220 | RD-CF5-220 | orange | 2,20 Ncm ± 0,35 |

Andere Ausführungen und auch weitere Farben auf Anfrage: Telefon 09852 6109-0

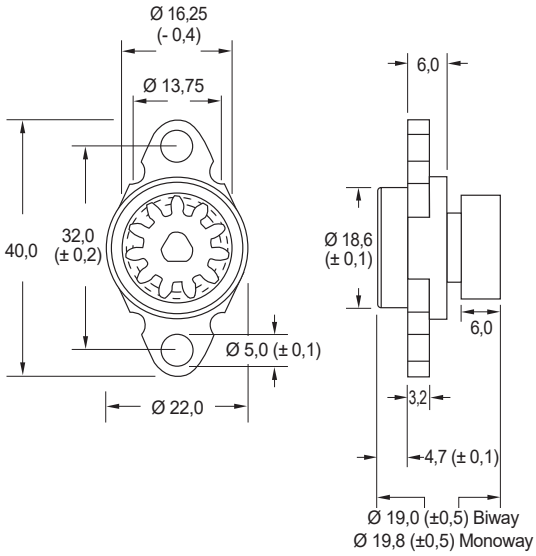
# RD-DA ROTATIONSDÄMPFER

## Merkmale

- großer Rotationsdämpfer
- Schraubmontage
- mit und ohne Freilauf
- Ritzel: Modul 1,25, 11 Zähne
- Einsatztemperatur: -40°C bis +90°C
- Lebensdauer: 15.000 Zyklen
- Material Gehäuse: PA66 GF15
- Material Ritzel: POM
- Farbe ohne Freilauf und Freilauf rechts: Gehäuse: schwarz, Ritzel: natur
- Farbe Freilauf links: Gehäuse und Ritzel schwarz

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Freilauf | Drehmoment | Gehäusedeckelfarbe |
|---|---|---|---|---|
| **171 10 030** | RD-DA-030 | nein | 3Ncm ± 0,7 | grün |
| **171 10 040** | RD-DA-040 | nein | 4Ncm ± 0,7 | braun |
| **171 10 055** | RD-DA-055 | nein | 5,5Ncm ± 0,8 | schwarz |
| **171 10 075** | RD-DA-075 | nein | 7,5Ncm ± 1,3 | weiß |
| **171 10 110** | RD-DA-110 | nein | 11Ncm ± 1,5 | grau |
| **171 10 150** | RD-DA-150 | nein | 15Ncm ± 2 | rosa |
| **171 10 030 R** | RD-DA-030-R | rechts | 3Ncm ± 0,7 | grün |
| **171 10 040 R** | RD-DA-040-R | rechts | 4Ncm ± 0,7 | braun |
| **171 10 055 R** | RD-DA-055-R | rechts | 5,5Ncm ± 0,8 | schwarz |
| **171 10 075 R** | RD-DA-075-R | rechts | 7,5Ncm ± 1,3 | weiß |
| **171 10 095 R** | RD-DA-095-R | rechts | 9,5Ncm ± 1,5 | rot |
| **171 10 110 R** | RD-DA-110-R | rechts | 11Ncm ± 1,5 | grau |
| **171 10 150 R** | RD-DA-150-R | rechts | 15Ncm ± 2 | rosa |
| **171 10 030 L** | RD-DA-030-L | links | 3Ncm ± 0,7 | grün |
| **171 10 040 L** | RD-DA-040-L | links | 4Ncm ± 0,7 | braun |
| **171 10 055 L** | RD-DA-055-L | links | 5,5Ncm ± 0,8 | schwarz |
| **171 10 075 L** | RD-DA-075-L | links | 7,5Ncm ± 1,3 | weiß |
| **171 10 110 L** | RD-DA-110-L | links | 11Ncm ± 1,5 | grau |
| **171 10 150 L** | RD-DA-150-L | links | 15Ncm ± 2 | rosa |

Weitere Ausführungen auf Anfrage: Telefon 09852 6109-0

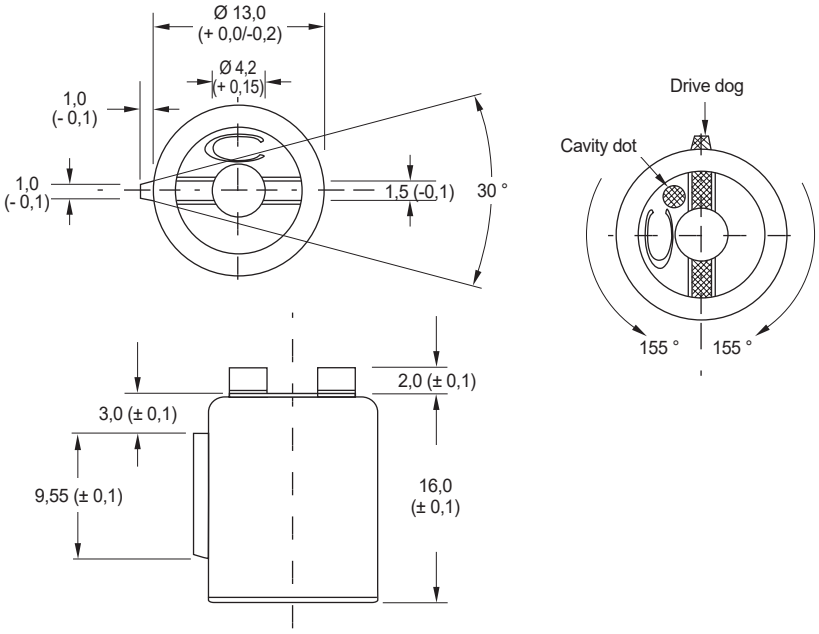
# AD-BA ACHSDÄMPFER

## Merkmale

- Achsendämpfer 2 x 155°, Ø x L = 13,0 x 16,0 mm, und Rippen S x H = 1,5 x 2,0 mm
- Temperaturbereich: -30°C bis +90°C
- Lebensdauer: 50.000 Zyklen (1 Zyklus = 1 Umdrehung im Uhrzeigersinn + 1 Umdrehung gegen den Uhrzeigersinn, danach 2 Sekunden Pause)
- Farbe: weiss
- Material Basis: PA 6 GF15
- Material Rotor: POM
- Material O-Ring: NBR
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Drehmoment |
|---|---|---|
| **170 01 150** | AD-BA-150 | 15 Ncm ± 2,4 |
| **170 01 200** | AD-BA-200 | 20 Ncm ± 3 |

Weitere Farben, Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

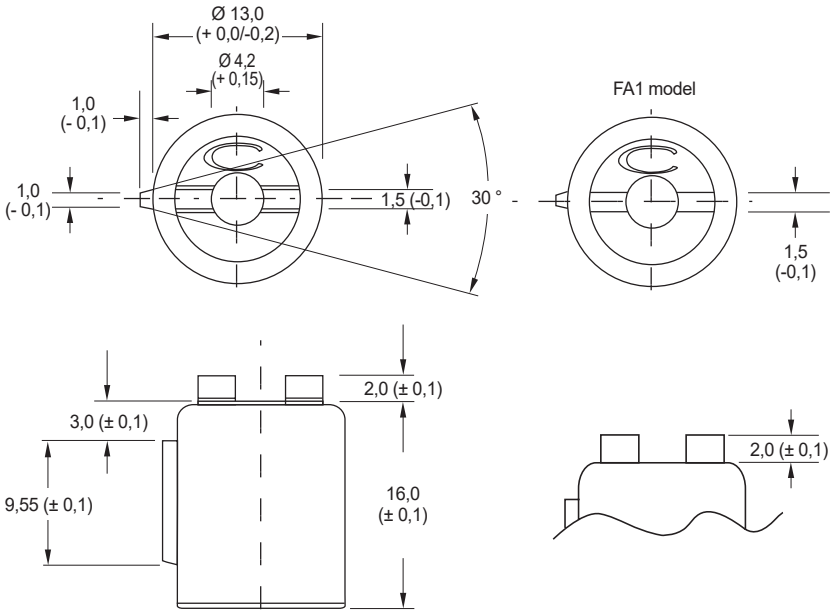
# AD-FA1 ACHSDÄMPFER

## Merkmale

- Achsendämpfer = 360° frei rotierend, Ø x L = 13,0 x 16,0 mm, und Rippen S x H = 1,5 x 2,0 mm
- Drehmomente: nach 20 U/min. bei 20°C = siehe Tabelle → 100% getestet!
- Temperaturbereich: -30°C bis +90°C
- Lebensdauer: 50.000 Zyklen (1 Zyklus = 1 Umdrehung im Uhrzeigersinn + 1 Umdrehung gegen den Uhrzeigersinn)
- Farbe: weiss
- Material Basis: PC
- Material Rotor: POM
- Material O-Ring: NBR
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Drehmoment |
|---|---|---|
| **170 02 050** | AD-FA1-050 | 5 Ncm ± 0,85 |
| **170 02 080** | AD-FA1-080 | 8 Ncm ± 1,1 |
| **170 02 100** | AD-FA1-100 | 10 Ncm ± 1,5 |
| **170 02 110** | AD-FA1-110 | 11 Ncm + 2/-1 |

Weitere Farben, Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

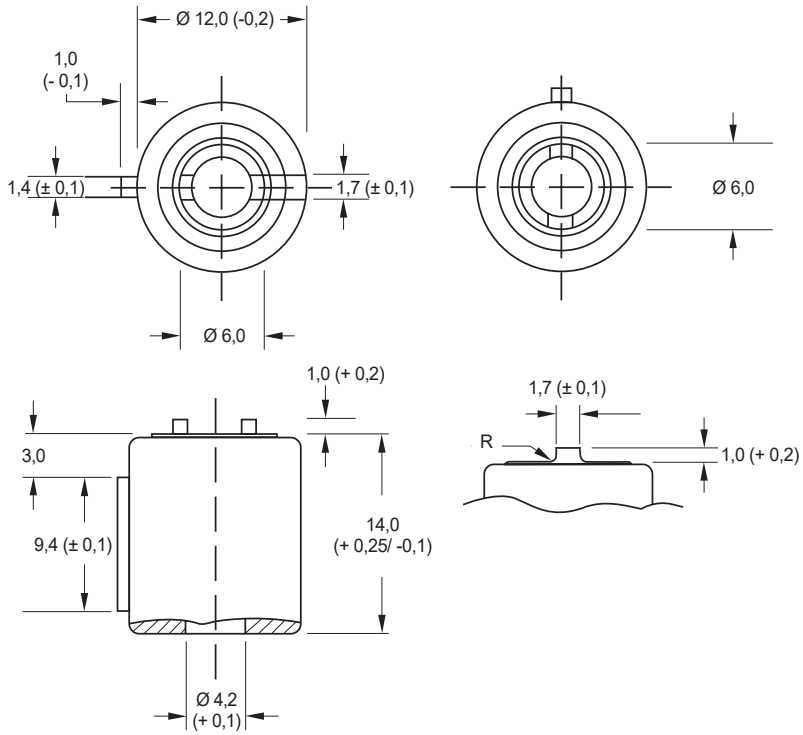
# AD-FB5 ACHSDÄMPFER

## Merkmale

- Achsendämpfer = 360° frei rotierend, Ø x L = 12,0 x 14,0 mm, mit Rippen S x H = 1,7 x 1,0 mm
- Drehmomente: nach 20 U/min. bei 20°C = siehe Tabelle → **100% getestet!**
- Lebensdauer: 50.000 Zyklen (1 Zyklus = 1 Umdrehung im Uhrzeigersinn + 1 Umdrehung gegen den Uhrzeigersinn)
- Temperaturbereich: -30°C bis +90°C
- Farbe: grau
- Material Basis: PC
- Material Rotor: POM
- Material O-Ring: NBR
- Flüssigkeit: Silikonöl

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Drehmoment |
|---|---|---|
| **170 03 034** | AD-FB5-034 | 3,4 Ncm ± 0,5 |
| **170 03 050** | AD-FB5-050 | 5 Ncm ± 0,85 |
| **170 03 062** | AD-FB5-062 | 6,2 Ncm ± 0,85 |

Weitere Farben, Abmessungen und Größen auf Anfrage: Telefon: 09852 61079-0

# ALLGEMEINE MONTAGETEILE

| | |
|---|---|
| Spreiznieten | Seite 334 - 337 |
| Lüfterbefestigung | Seite 338 |
| Kühlkörper-Federpin | Seite 339 |
| Pine Tree Clips / Treibstifte | Seite 340 |
| Flachstecker mit Blindniete | Seite 341 |
| Kombischrauben | Seite 342 - 350 |
| Kunststoffschrauben | Seite 351 - 357 |
| Kunststoffmuttern | Seite 358 - 360 |
| Unterlegscheiben | Seite 361 |
| Blechmuttern | Seite 362 - 363 |
| Montagewinkel | Seite 364 |
| Befestigungselemente | Seite 365 - 366 |

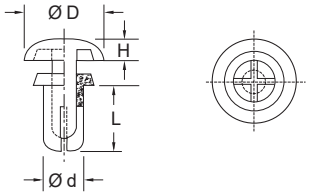
# P SPREIZNIETEN

## Merkmale

- schnelles/dauerhaftes Befestigen durch Einrasten
- Material: Nylon 66, UL94V-2 (UL94V-0 auf Anfrage)
- Farbe: schwarz und weiss ("W" hinter der Art.-Nr. entspricht weiss)

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Ø D (mm) | L (mm) | H (mm) | Ø d (mm) | Loch-Ø (mm) | Materialstärke (mm) | Auszugskraft (kg) |
|---|---|---|---|---|---|---|---|---|
| 180 01 124 | P-2024 | 4,2 | 2,4 | 1,2 | 2,0 | 2,1 | 0,6 ~ 1,2 | 3,0 |
| 180 01 132 | P-2032 | 4,2 | 3,2 | 1,2 | 2,0 | 2,1 | 1,6 ~ 2,0 | 3,0 |
| 180 01 140 | P-2040 | 4,2 | 4,0 | 1,2 | 2,0 | 2,1 | 2,1 ~ 2,8 | 3,0 |
| 180 01 148 | P-2048 | 4,2 | 4,8 | 1,2 | 2,0 | 2,1 | 2,9 ~ 3,6 | 3,0 |
| 180 01 164 | P-2064 | 4,2 | 6,4 | 1,2 | 2,0 | 2,1 | 3,7 ~ 4,4 | 3,0 |
| 180 01 232 | P-2632 | 5,0 | 3,2 | 1,4 | 2,6 | 2,7 | 1,0 ~ 2,0 | 5,0 |
| 180 01 242 | P-2642 | 5,0 | 4,2 | 1,4 | 2,6 | 2,7 | 2,1 ~ 3,0 | 5,0 |
| 180 01 248 | P-2648 | 5,0 | 4,8 | 1,4 | 2,6 | 2,7 | 2,7 ~ 3,6 | 5,0 |
| 180 01 255 | P-2655 | 5,0 | 5,5 | 1,4 | 2,6 | 2,7 | 3,4 ~ 4,3 | 5,0 |
| 180 01 335 | P-3035 | 6,4 | 3,5 | 1,6 | 3,0 | 3,1 | 1,0 ~ 2,0 | 8,0 |
| 180 01 345 | P-3045 | 6,4 | 4,5 | 1,6 | 3,0 | 3,1 | 2,0 ~ 3,0 | 8,0 |
| 180 01 345 W | P-3045 | 6,4 | 4,5 | 1,6 | 3,0 | 3,1 | 2,0 ~ 3,0 | 8,0 |
| 180 01 355 | P-3055 | 6,4 | 5,5 | 1,6 | 3,0 | 3,1 | 3,0 ~ 4,0 | 8,0 |
| 180 01 365 | P-3065 | 6,4 | 6,5 | 1,6 | 3,0 | 3,1 | 4,0 ~ 5,0 | 8,0 |
| 180 01 365 W | P-3065 | 6,4 | 6,5 | 1,6 | 3,0 | 3,1 | 4,0 ~ 5,0 | 8,0 |
| 180 01 375 | P-3075 | 6,4 | 7,5 | 1,6 | 3,0 | 3,1 | 5,0 ~ 6,0 | 8,0 |
| 180 01 380 | P-3080 | 6,4 | 8,0 | 1,6 | 3,0 | 3,1 | 5,5 ~ 6,5 | 8,0 |
| 180 01 390 | P-3090 | 6,4 | 9,0 | 1,6 | 3,0 | 3,1 | 6,5 ~ 7,5 | 8,0 |
| 180 01 399 | P-3100 | 6,4 | 10,0 | 1,6 | 3,0 | 3,1 | 7,5 ~ 8,5 | 8,0 |
| 180 01 3535 | P-3535 | 6,4 | 3,5 | 1,6 | 3,5 | 3,6 | 1,2 ~ 2,1 | 12,0 |
| 180 01 354 | P-3545 | 6,4 | 4,5 | 1,6 | 3,5 | 3,6 | 2,7 ~ 3,1 | 12,0 |
| 180 01 3550 | P-3550 | 6,4 | 5,0 | 1,6 | 3,5 | 3,6 | 2,7 ~ 3,6 | 12,0 |
| 180 01 356 | P-3555 | 6,4 | 5,5 | 1,6 | 3,5 | 3,6 | 3,2 ~ 4,1 | 12,0 |
| 180 01 3560 | P-3560 | 6,4 | 6,0 | 1,6 | 3,5 | 3,6 | 3,7 ~ 4,6 | 12,0 |
| 180 01 357 | P-3570 | 6,4 | 7,0 | 1,6 | 3,5 | 3,6 | 4,7 ~ 5,6 | 12,0 |
| 180 01 358 | P-3580 | 6,4 | 8,0 | 1,6 | 3,5 | 3,6 | 5,7 ~ 6,6 | 12,0 |
| 180 01 450 | P-4050 | 8,0 | 5,0 | 1,8 | 4,0 | 4,1 | 2,5 ~ 3,5 | 20,0 |
| 180 01 450 W | P-4050 | 8,0 | 5,0 | 1,8 | 4,0 | 4,1 | 2,5 ~ 3,5 | 20,0 |
| 180 01 460 | P-4060 | 8,0 | 6,0 | 1,8 | 4,0 | 4,1 | 3,5 ~ 4,5 | 20,0 |
| 180 01 460 W | P-4060 | 8,0 | 6,0 | 1,8 | 4,0 | 4,1 | 3,5 ~ 4,5 | 20,0 |
| 180 01 470 | P-4070 | 8,0 | 7,0 | 1,8 | 4,0 | 4,1 | 4,5 ~ 5,5 | 20,0 |
| 180 01 470 W | P-4070 | 8,0 | 7,0 | 1,8 | 4,0 | 4,1 | 4,5 ~ 5,5 | 20,0 |
| 180 01 480 | P-4080 | 8,0 | 8,0 | 1,8 | 4,0 | 4,1 | 5,5 ~ 6,5 | 20,0 |
| 180 01 480 W | P-4080 | 8,0 | 8,0 | 1,8 | 4,0 | 4,1 | 5,5 ~ 6,5 | 20,0 |
| 180 01 490 | P-4090 | 8,0 | 8,0 | 1,8 | 4,0 | 4,1 | 6,5 ~ 7,5 | 20,0 |
| 180 01 499 | P-4100 | 8,0 | 10,0 | 1,8 | 4,0 | 4,1 | 7,5 ~ 8,5 | 20,0 |
| 180 01 499 W | P-4100 | 8,0 | 10,0 | 1,8 | 4,0 | 4,1 | 7,5 ~ 8,5 | 20,0 |
| 180 01 504 | P-5045 | 9,0 | 4,5 | 2,2 | 5,0 | 5,1 | 1,5 ~ 2,5 | 25,0 |
| 180 01 505 | P-5055 | 9,0 | 5,5 | 2,2 | 5,0 | 5,1 | 2,5 ~ 3,5 | 25,0 |
| 180 01 506 | P-5065 | 9,0 | 6,5 | 2,2 | 5,0 | 5,1 | 3,5 ~ 4,5 | 25,0 |
| 180 01 506 W | P-5065 | 9,0 | 6,5 | 2,2 | 5,0 | 5,1 | 3,5 ~ 4,5 | 25,0 |
| 180 01 507 | P-5075 | 9,0 | 7,5 | 2,2 | 5,0 | 5,1 | 4,5 ~ 5,5 | 25,0 |
| 180 01 508 | P-5085 | 9,0 | 8,5 | 2,2 | 5,0 | 5,1 | 5,5 ~ 6,5 | 25,0 |
| 180 01 509 | P-5095 | 9,0 | 9,5 | 2,2 | 5,0 | 5,1 | 6,5 ~ 7,5 | 25,0 |
| 180 01 509 W | P-5095 | 9,0 | 9,5 | 2,2 | 5,0 | 5,1 | 6,5 ~ 7,5 | 25,0 |
| 180 01 510 | P-5105 | 9,0 | 10,5 | 2,2 | 5,0 | 5,1 | 7,5 ~ 8,5 | 25,0 |
| 180 01 511 | P-5110 | 10,0 | 10,5 | 2,5 | 5,0 | 5,1 | 6,5 ~ 8,5 | 30,0 |
| 180 01 606 | P-6060 | 12,0 | 6,0 | 2,5 | 6,0 | 6,1 | 2,5 ~ 4,0 | 30,0 |
| 180 01 610 | P-6105 | 12,0 | 10,5 | 2,5 | 6,0 | 6,1 | 7,5 ~ 8,5 | 30,0 |

Weitere Farben auf Anfrage: Telefon: 09852 61079-0

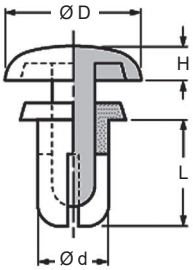
# P-H SPREIZNIETEN HITZESTABIL

## Merkmale

- hitzestabil
- schnelles/dauerhaftes Befestigen durch Einrasten
- Material: Nylon 46, UL94V-2
- temperaturbeständig bis +115 °C
- Farbe: beige

## Abmessungen

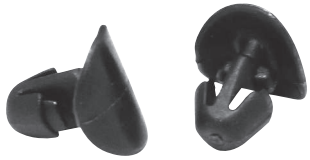
► Einheit = mm




| Art.-Nr. | Typ | Ø D (mm) | L (mm) | H (mm) | Ø d (mm) | Loch-Ø (mm) | Plattenstärke (mm) |
|---|---|---|---|---|---|---|---|
| 180 01 335 H | P-3035H | 6,4 | 3,5 | 1,6 | 3,0 | 3,1 | 1,0 - 2,0 |
| 180 01 345 H | P-3045H | 6,4 | 4,5 | 1,6 | 3,0 | 3,1 | 2,0 - 3,0 |
| 180 01 355 H | P-3055H | 6,4 | 5,5 | 1,6 | 3,0 | 3,1 | 3,0 - 4,0 |
| 180 01 365 H | P-3065H | 6,4 | 6,5 | 1,6 | 3,0 | 3,1 | 4,0 - 5,0 |
| 180 01 380 H | P-3080H | 6,4 | 8,0 | 1,6 | 3,0 | 3,1 | 5,5 - 6,5 |
| 180 01 3535 H | P-3535H | 6,4 | 3,5 | 1,6 | 3,5 | 3,6 | 1,2 - 2,1 |
| 180 01 3545 H | P-3545H | 6,4 | 4,5 | 1,6 | 3,5 | 3,6 | 2,2 - 3,1 |
| 180 01 3555 H | P-3555H | 6,4 | 5,5 | 1,6 | 3,5 | 3,6 | 3,2 - 4,1 |
| 180 01 450 H | P-4050H | 8,0 | 5,0 | 1,8 | 4,0 | 4,1 | 2,5 - 3,5 |
| 180 01 460 H | P-4060H | 8,0 | 6,0 | 1,8 | 4,0 | 4,1 | 3,5 - 4,5 |
| 180 01 470 H | P-4070H | 8,0 | 7,0 | 1,8 | 4,0 | 4,1 | 4,5 - 5,5 |
| 180 01 480 H | P-4080H | 8,0 | 8,0 | 1,8 | 4,0 | 4,1 | 5,5 - 6,5 |
| 180 01 410 H | P-4100H | 8,0 | 10,0 | 2,2 | 4,0 | 4,1 | 7,5 - 8,5 |

Weitere Abmessungen und Farben auf Anfrage: Telefon: 09852 61079-0

# F SPREIZNIETEN

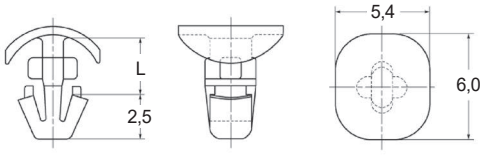


Merkmale

- schnelles/dauerhaftes Befestigen durch Einrasten
- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | Loch-Ø (mm) | Plattenstärke (mm) | Einpressdruck | Ausziehkraft (kg) |
|---|---|---|---|---|---|---|
| 180 01 02 | F-32025 | 2,9 | 3,0 | 2,0 ~ 2,5 | 1,5 - 2,5 | 9,0 kg oder mehr |
| 180 01 03 | F-32530 | 3,4 | 3,0 | 2,5 ~ 3,0 | 1,5 - 2,5 | 9,0 kg oder mehr |

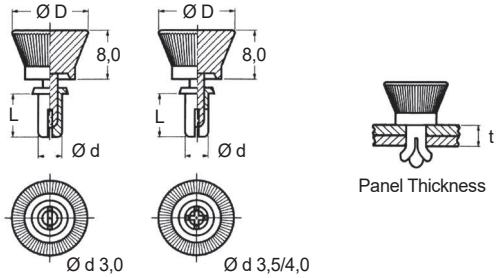
# T SPREIZNIETEN

Merkmale

- großer gerändelter Kopf
- schnelles/dauerhaftes Befestigen durch Einrasten, wiederlösbar
- Material: Nylon 46, UL94V-2
- Farbe: weiss und schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Farbe | Loch-Ø (mm) | t = Plattenstärke (mm) | Ø d (mm) | L (mm) | Ø D (mm) |
|---|---|---|---|---|---|---|---|
| 180 02 335 | T-3035 | schwarz | 3,1 | 1,0 - 2,0 | 3,0 | 3,5 | 10,0 |
| 180 02 335 W | T-3035 | weiß | 3,1 | 1,0 - 2,0 | 3,0 | 3,5 | 10,0 |
| 180 02 345 | T-3045 | schwarz | 3,1 | 2,0 - 3,0 | 3,0 | 4,5 | 10,0 |
| 180 02 345 W | T-3045 | weiß | 3,1 | 2,0 - 3,0 | 3,0 | 4,5 | 10,0 |
| 180 02 355 | T-3055 | schwarz | 3,1 | 3,0 - 4,0 | 3,0 | 5,5 | 10,0 |
| 180 02 355 W | T-3055 | weiß | 3,1 | 3,0 - 4,0 | 3,0 | 5,5 | 10,0 |
| 180 02 365 | T-3065 | schwarz | 3,1 | 4,0 - 5,0 | 3,0 | 6,5 | 10,0 |
| 180 02 365 W | T-3065 | weiß | 3,1 | 4,0 - 5,0 | 3,0 | 6,5 | 10,0 |
| 180 02 380 | T-3080 | schwarz | 3,1 | 5,5 - 6,5 | 3,0 | 8,0 | 10,0 |
| 180 02 380 W | T-3080 | weiß | 3,1 | 5,5 - 6,5 | 3,0 | 8,0 | 10,0 |
| 180 02 354 | T-3545 | schwarz | 3,6 | 2,0 - 3,0 | 3,5 | 4,5 | 10,0 |
| 180 02 354 W | T-3545 | weiß | 3,6 | 2,0 - 3,0 | 3,5 | 4,5 | 10,0 |
| 180 02 356 | T-3555 | schwarz | 3,6 | 3,0 - 3,7 | 3,5 | 5,5 | 10,0 |
| 180 02 356 W | T-3555 | weiß | 3,6 | 3,0 - 3,7 | 3,5 | 5,5 | 10,0 |
| 180 02 357 | T-3570 | schwarz | 3,6 | 3,8 - 5,2 | 3,5 | 7,0 | 10,0 |
| 180 02 357 W | T-3570 | weiß | 3,6 | 3,8 - 5,2 | 3,5 | 7,0 | 10,0 |
| 180 02 450 | T-4050 | schwarz | 4,1 | 2,5 - 3,5 | 4,0 | 5,0 | 12,0 |
| 180 02 450 W | T-4050 | weiß | 4,1 | 2,5 - 3,5 | 4,0 | 5,0 | 12,0 |
| 180 02 460 | T-4060 | schwarz | 4,1 | 3,5 - 4,5 | 4,0 | 6,0 | 12,0 |
| 180 02 460 W | T-4060 | weiß | 4,1 | 3,5 - 4,5 | 4,0 | 6,0 | 12,0 |
| 180 02 470 | T-4070 | schwarz | 4,1 | 4,5 - 5,5 | 4,0 | 7,0 | 12,0 |
| 180 02 470 W | T-4070 | weiß | 4,1 | 4,5 - 5,5 | 4,0 | 7,0 | 12,0 |
| 180 02 480 | T-4080 | schwarz | 4,1 | 5,5 - 6,5 | 4,0 | 8,0 | 12,0 |
| 180 02 480 W | T-4080 | weiß | 4,1 | 5,5 - 6,5 | 4,0 | 8,0 | 12,0 |
| 180 02 499 | T-4100 | schwarz | 4,1 | 7,5 - 8,5 | 4,0 | 10,0 | 12,0 |
| 180 02 499 W | T-4100 | weiß | 4,1 | 7,5 - 8,5 | 4,0 | 10,0 | 12,0 |

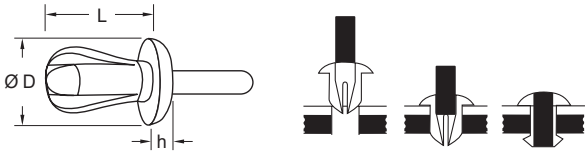
# R SPREIZNIETEN

NEU

Merkmale

- geeignet zur dauerhaften Befestigung
- schnelle und einfache Montage mittels Handwerkzeug
- Material: PA 66 (natur und schwarz), HDPE (grau), PPC (schwarz)

Abmessungen
► Einheit = mm



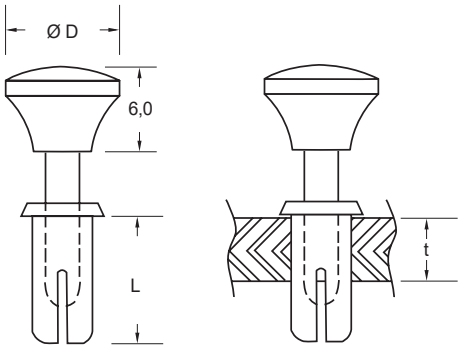

| Art.-Nr. | Typ | Farben | Material | Ø D (mm) | für Loch-Ø (mm) | L (mm) | h (mm) | t = Plattenstärke (mm) |
|---|---|---|---|---|---|---|---|---|
| 180 06 02 | R - 35 | schwarz | PPC | 7,5 | 3,5 | 6,5 | 1,9 | 3,2 - 4,7 |
| 180 06 05 | R - 50 | schwarz | PPC | 9,4 | 5,0 | 10,5 | 1,9 | 1,5 - 6,5 |
| 180 06 07 | R - 60 | schwarz | PPC | 9,4 | 6,0 | 11,0 | 1,9 | 2,0 - 7,0 |
| 180 06 08 | R - 62 | schwarz | PA66 | 11,0 | 6,2 | 10,0 | 2,0 | 2,0 - 7,5 |
| 180 06 11 | R - 65 | schwarz | PPC | 14,9 | 6,5 | 13,3 | 2,9 | 2,0 - 8,0 |
| 180 06 14 | R - 80 | schwarz | PA66 | 16,0 | 8,0 | 13,0 | 2,0 | 3,0 - 6,0 |
| 180 06 16 | R - 65-5 | grau | HDPE | 11,0 | 6,5 | 14,1 | 2,0 | 3,5 - 10,0 |

# SRS4-7P SPREIZNIETEN

Merkmale

- Material: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | L (mm) | Ø D (mm) | Loch-Ø (mm) | t = Plattenstärke (mm) |
|---|---|---|---|---|---|
| 180 01 04 | SRS4-7P | 7,0 | 8,0 | 4,1 | 4,5 ~ 5,5 |

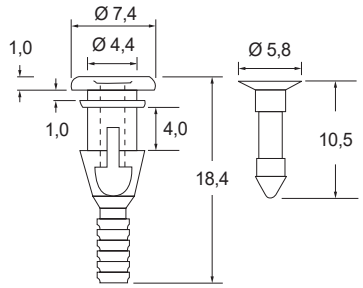
# FSP LÜFTERBEFESTIGUNG

Merkmale

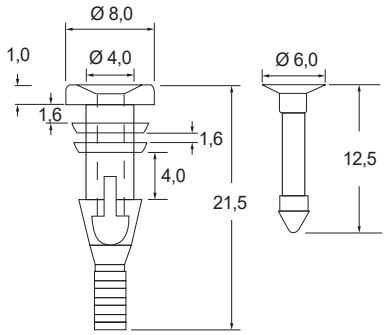
- zur schnellen und dauerhaften Lüfterbefestigung durch einfaches Einrasten
- Material Körper: TPE
- Material Niete: Nylon 66, UL94V-2
- Farbe: schwarz

Abmessungen ► Einheit = mm

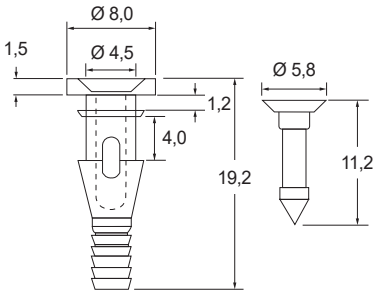
**FSP-1**



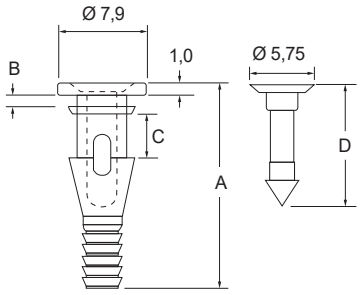

**FSP-2**




**FSP-3**




**FSP-4-6**

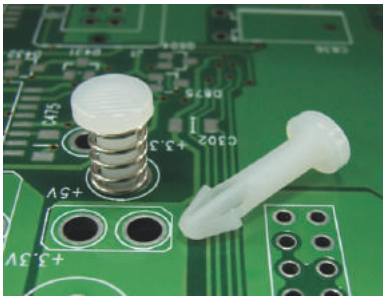



| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | Loch-Ø (mm) |
|---|---|---|---|---|---|---|
| 180 05 01 | FSP-1 | 18,4 | 1,0 | 4,0 | 10,5 | 4,8 - 5,0 |
| 180 05 02 | FSP-2 | 21,5 | 1,0 | 4,0 | 12,7 | 4,8 - 5,0 |
| 180 05 03 | FSP-3 | 19,2 | 1,5 | 4,0 | 11,2 | 4,5 |
| 180 05 04 | FSP-4 | 18,55 | 1,05 | 3,9 | 10,8 | 4,5 - 4,7 |
| 180 05 05 | FSP-5 | 14,30 | 0,90 | 3,9 | 10,8 | 4,5 - 4,7 |
| 180 05 06 | FSP-6 | 20,10 | 1,60 | 5,0 | 12,1 | 4,5 |

# HSR KÜHLKÖRPER-FEDERPIN

## Merkmale

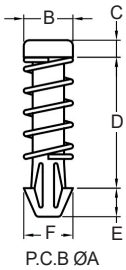
- temperaturbeständig bis +130 °C
- Farbe: schwarz (Standard), weiss bzw. natur auf Anfrage
- Material: Nylon 66 (UL)



- Leiterplatten-Loch-Ø = 3,0 mm → Kühlkörper-Loch-Ø = 3,2 mm
- Leiterplatten-Loch-Ø = 3,5 mm → Kühlkörper-Loch-Ø = 3,7 mm
- Leiterplatten-Loch-Ø = 4,0 mm → Kühlkörper-Loch-Ø = 4,2 bis 4,3 mm

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Ø A (mm) | Ø B (mm) | C (mm) | D (mm) | E (mm) | F (mm) |
|---|---|---|---|---|---|---|---|
| 180 07 00 | HSR-4 | 3,0 | 4,3 | 1,5 | 11,5 | 2,5 | 4,3 |
| 180 07 01 | HSR-6 | 3,0 | 6,4 | 1,5 | 8,7 | 2,5 | 4,3 |
| 180 07 02 | HSR-6S | 3,0 | 6,35 | 1,5 | 8,7 | 2,5 | 4,0 |
| 180 07 03 | HSR-7 | 3,0 | 6,4 | 1,5 | 10,6 | 2,5 | 4,3 |
| 180 07 05 | HSR-9 | 3,0 | 6,4 | 1,5 | 11,5 | 2,5 | 4,4 |
| 180 07 06 | HSR-10 | 3,0 | 5,0 | 1,75 | 8,3 | 2,5 | 4,3 |
| 180 07 07 | HSR-11 | 3,0 | 6,4 | 2,75 | 21,0 | 2,5 | 4,3 |
| 180 07 08 | HSR-12 | 3,0 | 5,5 | 1,5 | 8,7 | 3,6 | 4,0 |
| 180 07 09 | HSR-13 | 3,0 | 6,2 | 1,0 | 7,8 | 2,5 | 4,2 |
| 180 07 10 | HSR-16 | 3,0 | 6,3 | 1,5 | 11,5 | 2,2 | 4,2 |
| 180 07 11 | HSR-23 | 3,0 | 6,4 | 1,5 | 11,4 | 2,6 | 4,3 |
| 180 07 12 | HSR-24 | 3,0 | 5,5 | 1,5 | 14,0 | 2,8 | 4,1 |
| 180 07 13 | HSR-25 | 3,0 | 5,5 | 1,6 | 11,4 | 3,0 | 4,0 |
| 180 07 14 | HSR-26 | 3,5 | 6,4 | 1,5 | 11,5 | 2,5 | 4,8 |
| 180 07 15 | HSR-30 | 3,0 | 5,0 | 1,75 | 12,32 | 2,5 | 4,3 |
| 180 07 16 | HSR-31 | 3,0 | 6,4 | 1,5 | 11,4 | 2,5 | 4,5 |
| 180 07 17 | HSR-32 | 3,0 | 5,5 | 1,5 | 9,0 | 1,9 | 3,6 |
| 180 07 18 | HSR-33 | 3,5 | 6,4 | 1,5 | 11,4 | 2,5 | 4,8 |
| 180 07 19 | HSR-34 | 3,0 | 6,0 | 1,9 | 17,6 | 2,5 | 4,2 |
| 180 07 20 | HSR-35 | 3,0 | 6,2 | 1,0 | 9,0 | 2,5 | 4,3 |
| 180 07 21 | HSR-41 | 3,0 | 5,5 | 1,5 | 10,0 | 2,5 | 4,3 |
| 180 07 22 | HSR-44 | 3,0 | 5,5 | 1,5 | 9,0 | 3,5 | 4,3 |
| 180 07 23 | HSR-45 | 4,0 | 6,5 | 1,5 | 11,1 | 3,5 | 5,4 |
| 180 07 24 | HSR-49 | 3,0 | 6,3 | 0,8 | 5,7 | 2,1 | 4,2 |
| 180 07 25 | HSR-50 | 3,0 | 6,2 | 1,0 | 7,0 | 2,5 | 4,3 |
| 180 07 26 | HSR-51 | 4,0 | 8,0 | 1,6 | 16,5 | 3,3 | 5,5 |
| 180 07 27 | HSR-53 | 3,0 | 5,5 | 1,0 | 7,4 | 2,1 | 4,2 |
| 180 07 28 | HSR-56 | 4,0 | 6,5 | 1,5 | 11,1 | 3,5 | 5,15 |
| 180 07 29 | HSR-57 | 3,0 | 5,5 | 0,8 | 6,6 | 2,1 | 4,2 |
| 180 07 30 | HSR-60 | 3,0 | 6,3 | 0,8 | 5,7 | 2,7 | 4,2 |
| 180 07 31 | HSR-61 | 2,7 | 4,7 | 1,2 | 12,7 | 2,0 | 3,6 |
| 180 07 32 | HSR-62 | 3,0 | 6,3 | 1,5 | 25,5 | 2,7 | 4,0 |
| 180 07 33 | HSR-64 | 3,0 | 6,4 | 1,5 | 10,6 | 2,5 | 4,3 |
| 180 07 34 | HSR-65 | 3,2 | 5,5 | 1,5 | 9,0 | 1,9 | 3,8 |
| 180 07 35 | HSR-66 | 4,0 | 6,5 | 1,5 | 22,7 | 3,85 | 5,35 |
| 180 07 36 | HSR-68 | 3,0 | 6,2 | 1,2 | 11,0 | 1,5 | 4,3 |
| 180 07 37 | HSR-72 | 3,0 | 5,5 | 1,5 | 11,0 | 1,9 | 3,6 |

Weitere Farben auf Anfrage: Telefon: 09852 61079-0

NEU

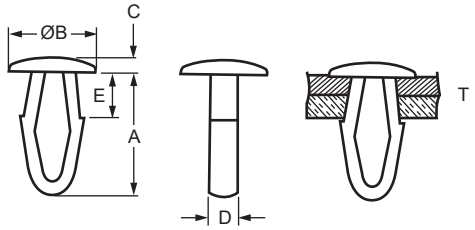
# MB TREIBSTIFT

Merkmale

- Material: Nylon 66 (UL94V-2) = Standard, UL94V-0 oder POM auf Anfrage
- Farbe: natur = Standard, schwarz und blau auf Anfrage

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | G (mm) | T (mm) |
|---|---|---|---|---|---|---|---|---|
| 180 08 00 | MB-30 | 16,8 | 12,0 | 2,0 | 3,9 | 6,2 | 6,4 | 1,5-6,2 |
| 180 08 01 | MB-48 | 15,0 | 11,0 | 2,9 | 3,4 | 5,7 | 4,7 | 1,0-5,5 |

NEU

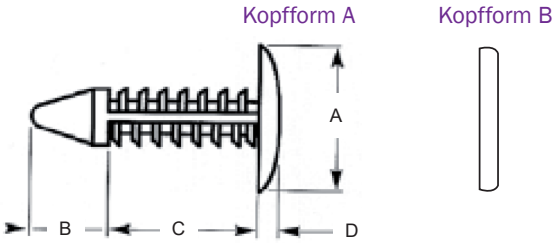
# PTC PINE TREE CLIP

Merkmale

- selbstzentrierender Plattenbefestiger mit patentiertem gerippten Schaft
- zuverlässige Verbindung ohne Schrauben, Muttern etc.
- einfache Fingerdruckmontage
- Wiederlösbarkeit anwendungsabhängig
- für Löcher mit und ohne Gewinde, sowie Sacklöcher
- Einsatztemperatur: max. +105 °C
- Farbe: schwarz
- Material: PA 6.6, UL 94V-2

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | Loch-Ø (mm) | Klemmbereich (mm) | Kopf |
|---|---|---|---|---|---|---|---|---|
| 180 03 01 | PTC-3,0 | 5,5 | 2,3 | 7,5 | 1,5 | 3,0 | 1,8 - 5,0 | B |
| 180 03 04 | PTC-3,0/1 | 5,5 | 2,5 | 14,5 | 1,5 | 3,0 | 4,0 - 12,0 | B |
| 180 03 03 | PTC-5,0 | 11,0 | 3,3 | 14,5 | 1,0 | 5,0 | 3,6 - 10,0 | B |
| 180 03 02 | PTC-6,4 | 15,9 | 2,0 | 14,5 | 1,5 | 6,4 | 3,6 - 10,0 | A |

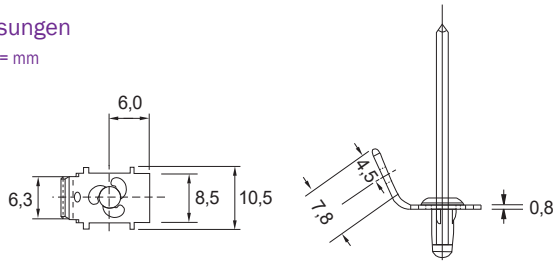
# FMB FLACHSTECKER MIT BLINDNIETE

## Merkmale

- Flachstecker 1 bis 4-polig kombiniert mit Blindniete
- idealer Masse-/Erdanschluss
- verdrehsicher, rüttel- und korrosionsfest durch innenliegende und vom Niet geschützte Kontaktkrallen
- keine Vorbehandlung z.B.von lackierten bzw. oberflächenbehandelten Blechen nötig
- Montage erfolgt von einer Seite mit handelsüblichen Nietwerkzeugen
- bei Aluminiumteilen wird die verzinnte Ausführung empfohlen
- VDE zugelassen
- Material Blindniethülse: Kupfer, bwz. Kupfer verzinnt (= Art. + SN)
- Material Nietdorn: Stahl, verkupfert, bwz. verzinnt (= Art. + SN)
- Material Flachstecker: Messing blank, bwz. Messing verzinnt (= Art. + SN)

## Abmessungen

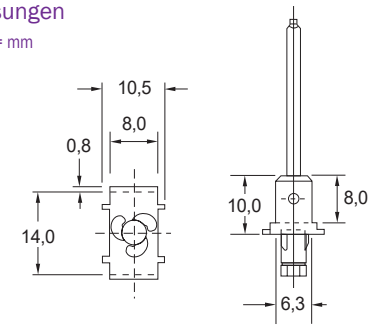
► Einheit = mm



| Art.-Nr. | Typ | Nennmaß | Bohrloch | Klemmlängenbereich | Blindniethülse | Nietdorn | Anzahl Flachstecker | Anzahl Nieten |
|---|---|---|---|---|---|---|---|---|
| 611 07 01 | FMB-1 | 5,2 | 5,15 - 5,20 | 0,6 - 2,0 | 5,2 | 2,3 | 1 | 1 |
| 611 07 01 SN | FMB-1 | 5,2 | 5,15 - 5,20 | 0,6 - 2,0 | 5,2 | 2,3 | 1 | 1 |

## Abmessungen

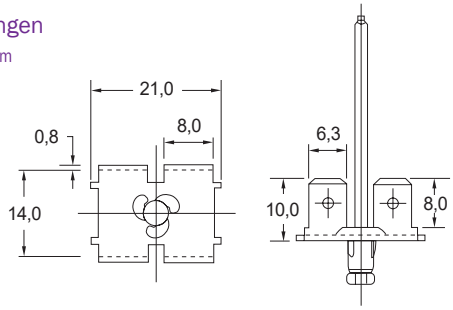
► Einheit = mm

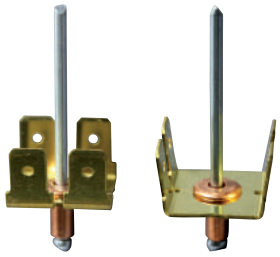


| Art.-Nr. | Typ | Nennmaß | Bohrloch | Klemmlängenbereich | Blindniethülse | Nietdorn | Anzahl Flachstecker | Anzahl Nieten |
|---|---|---|---|---|---|---|---|---|
| 611 07 02 | FMB-2 | 5,2 | 5,15 - 5,20 | 0,6 - 2,0 | 5,2 | 2,3 | 2 | 1 |
| 611 07 02 SN | FMB-2 | 5,2 | 5,15 - 5,20 | 0,6 - 2,0 | 5,2 | 2,3 | 2 | 1 |

## Abmessungen

► Einheit = mm



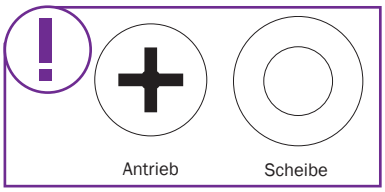
| Art.-Nr. | Typ | Nennmaß | Bohrloch | Klemmlängenbereich | Blindniethülse | Nietdorn | Anzahl Flachstecker | Anzahl Nieten |
|---|---|---|---|---|---|---|---|---|
| 611 07 04 | FMB-4 | 5,2 | 5,15 - 5,20 | 0,6 - 2,0 | 5,2 | 2,3 | 4 | 1 |
| 611 07 04 SN | FMB-4 | 5,2 | 5,15 - 5,20 | 0,6 - 2,0 | 5,2 | 2,3 | 4 | 1 |

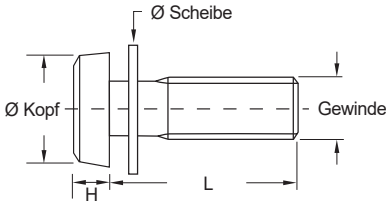
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Kreuzschlitz H • mit Unterlegscheibe ähnlich DIN125
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm



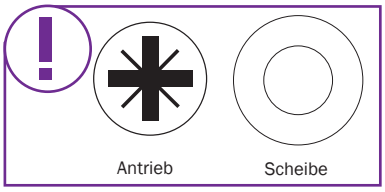

| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|
| 160 03 08 | M3 | 8,0 | 6,0 | 2,4 | 7,0 |
| 160 04 08 | M4 | 8,0 | 8,0 | 2,8 | 9,0 |
| 160 04 12 | M4 | 12,0 | 8,0 | 3,2 | 9,0 |

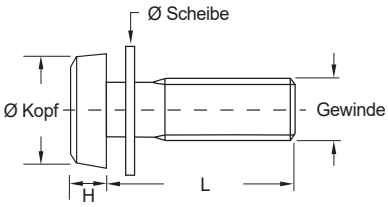
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Kreuzschlitz Z
- mit Unterlegscheibe ähnlich DIN125
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm



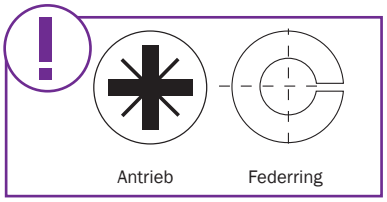

| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|
| 160 03 04 Z | M3 | 4,0 | 6,0 | 2,4 | 6,0 |

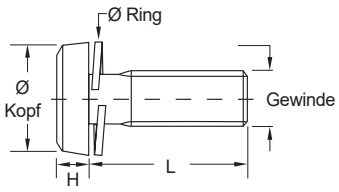
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Kreuzschlitz Z • mit Federring ähnlich DIN127/128
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm



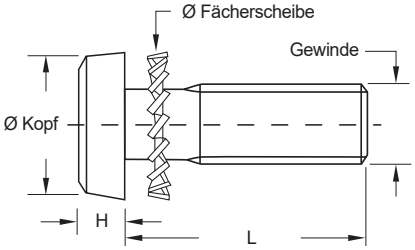

| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Federring (mm) | ähnlich DIN... |
|---|---|---|---|---|---|---|
| 160 21 06 Z | M2,5 | 6,0 | 5,0 | 2,1 | 4,55 | 128 |
| 160 21 08 Z | M2,5 | 8,0 | 5,0 | 2,1 | 4,55 | 128 |
| 160 23 06 Z | M3 | 6,0 | 6,0 | 2,4 | 5,6 | 128 |
| 160 23 08 Z | M3 | 8,0 | 6,0 | 2,4 | 5,6 | 128 |
| 160 23 10 Z | M3 | 10,0 | 6,0 | 2,4 | 5,6 | 128 |

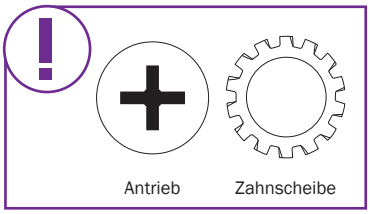
# DIN6900 KOMBISCHRAUBEN

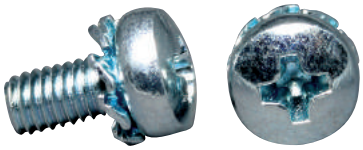
Merkmale

- Kopf DIN7985 mit Kreuzschlitz H • mit Zahnscheibe ähnlich DIN6797 A
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm



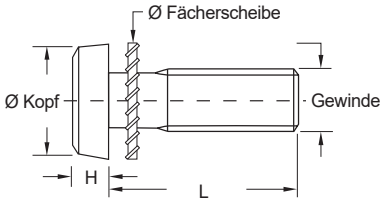
| Art.-Nr. | Gewinde | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|
| 160 54 06 | M4 | 6,0 | 8,0 | 3,2 | 8,0 |

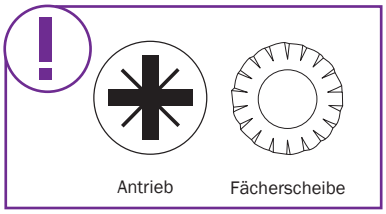
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Kreuzschlitz Z
- mit Fächerscheibe ähnlich DIN6798 A
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm



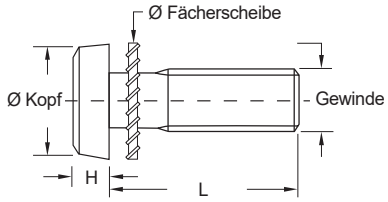
| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|
| 160 33 06 Z | M3 | 6,0 | 6,0 | 2,4 | 6,0 |
| 160 34 06 Z | M4 | 6,0 | 8,0 | 3,2 | 8,0 |

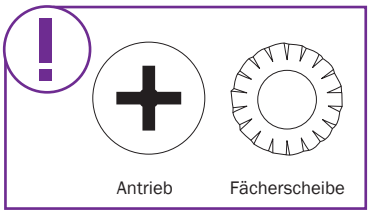
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Kreuzschlitz H
- mit Fächerscheibe ähnlich DIN6798 A
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm



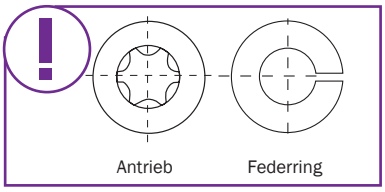
| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|
| 160 33 06 | M3 | 6,0 | 6,0 | 2,4 | 6,0 |

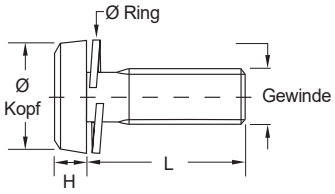
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Torx • mit Federring ähnlich DIN127/128
- Material: Stahl glanzverzinkt 8.8

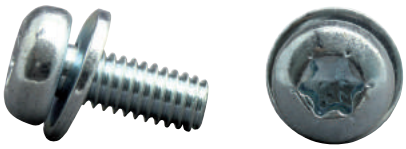
Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Ø Federring (mm) | ähnlich DIN... |
|---|---|---|---|---|---|---|---|
| 160 21 06 T | M2,5 | TX8 | 6,0 | 5,0 | 2,1 | 4,55 | 128 |
| 160 21 08 T | M2,5 | TX8 | 8,0 | 5,0 | 2,1 | 4,55 | 128 |
| 160 23 05 T | M3 | TX10 | 5,0 | 6,0 | 2,4 | 5,6 | 127 |
| 160 23 06 T | M3 | TX10 | 6,0 | 6,0 | 2,4 | 5,6 | 127 |
| 160 23 08 T | M3 | TX10 | 8,0 | 6,0 | 2,4 | 5,6 | 127 |
| 160 23 10 T | M3 | TX10 | 10,0 | 6,0 | 2,4 | 5,6 | 128 |
| 160 23 12 T | M3 | TX10 | 12,0 | 6,0 | 2,4 | 5,6 | 127 |
| 160 23 16 T | M3 | TX10 | 16,0 | 6,0 | 2,4 | 5,6 | 127 |
| 160 24 08 T | M4 | TX20 | 8,0 | 8,0 | 3,1 | 6,95 | 127 |
| 160 24 12 T | M4 | TX20 | 12,0 | 8,0 | 3,1 | 6,95 | 127 |
| 160 25 08 T | M5 | TX25 | 8,0 | 10,0 | 3,8 | 8,6 | 127 |
| 160 26 12 T | M6 | TX30 | 12,0 | 12,0 | 3,8 | 10,5 | 128 |

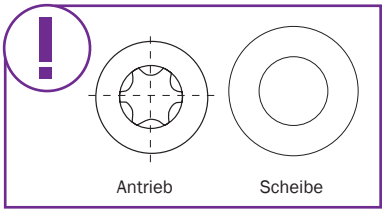
# DIN6900 KOMBISCHRAUBEN

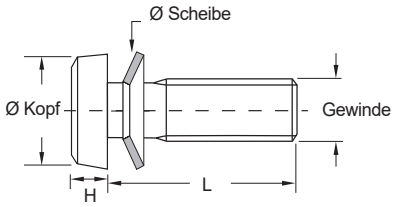


Merkmale

- Kopf DIN7985 mit Torx • mit Spannscheibe ähnlich DIN6908
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|
| 160 73 06 T | M3 | TX10 | 6,0 | 6,0 | 2,4 | 7,0 |
| 160 74 10 T | M4 | TX20 | 10,0 | 8,0 | 3,1 | 9,0 |

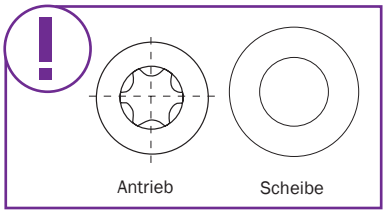
NEU

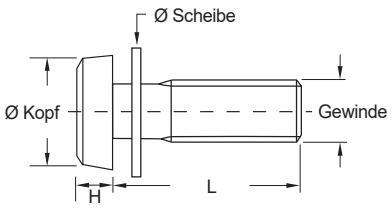
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Torx • mit Unterlegscheibe ähnlich DIN125
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm



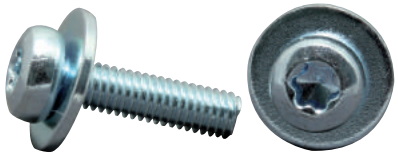




| Art.-Nr. | Gewindegröße | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|
| 160 05 10 T | M5 | TX20 | 20,0 | 10,0 | 3,8 | 10,0 |

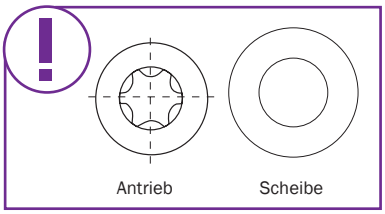
# DIN6900 KOMBISCHRAUBEN

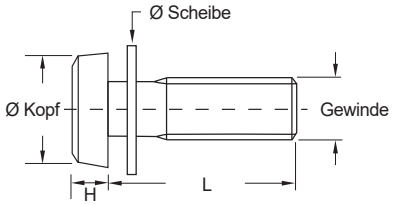
Merkmale

- Kopf DIN7985 mit Torx • mit Unterlegscheibe ähnlich DIN9021
- Material: Stahl glanzverzinkt 8.8



Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|
| 160 83 12 T | M3 | TX10 | 12,0 | 6,0 | 2,4 | 9,0 |

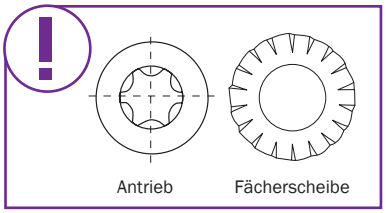
# DIN6900 KOMBISCHRAUBEN

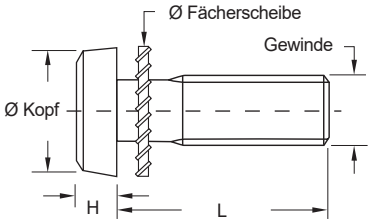
NEU

Merkmale:

- Kopf DIN7985 mit Torx
- mit Fächerscheibe ähnlich DIN6798A
- Material: Stahl verzinkt 8.8

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewinde | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|
| 160 33 06 T | M3 | 6,0 | 6,0 | 2,4 | 6,0 |

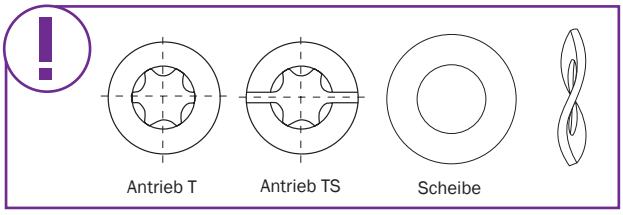
# DIN6900 KOMBISCHRAUBEN

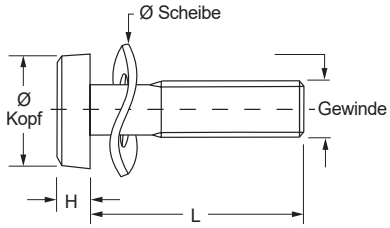
NEU

Merkmale

- Kopf DIN7985 mit Torx
- mit Federscheibe ähnlich DIN6904
- Material: Stahl glanzverzinkt 8.8

Abmessungen
► Einheit = mm




| Art.-Nr. | Gewindegröße | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|
| 160 13 05 T | M3 | TX10 | 5,0 | 6,0 | 2,4 | 8,0 |
| 160 13 06 T | M3 | TX10 | 6,0 | 6,0 | 2,4 | 8,0 |
| 160 13 08 T | M3 | TX10 | 8,0 | 6,0 | 2,4 | 8,0 |
| 160 13 10 T | M3 | TX10 | 10,0 | 6,0 | 2,4 | 8,0 |
| 160 14 06 T | M4 | TX20 | 6,0 | 8,0 | 3,1 | 9,0 |
| 160 14 08 T | M4 | TX20 | 8,0 | 8,0 | 3,1 | 9,0 |
| 160 14 08 TS | M4 | TX20 | 8,0 | 8,0 | 3,1 | 9,0 |
| 160 14 10 T | M4 | TX20 | 10,0 | 8,0 | 3,1 | 9,0 |
| 160 14 12 T | M4 | TX20 | 12,0 | 8,0 | 3,1 | 9,0 |
| 160 14 16 T | M4 | TX20 | 16,0 | 8,0 | 3,1 | 9,0 |
| 160 15 10 T | M5 | TX25 | 10,0 | 10,0 | 3,8 | 11,0 |

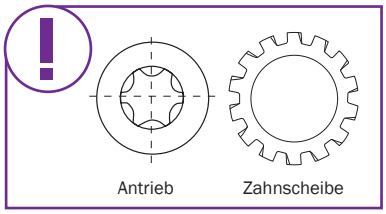
NEU

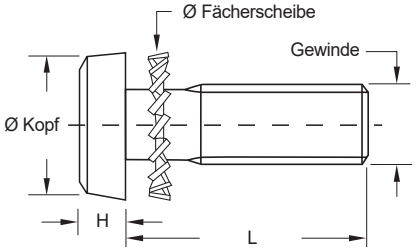
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Torx
- mit Zahnscheibe ähnlich DIN6797 A
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|
| 160 51 04 T | M2,5 | TX8 | 4,0 | 5,0 | 2,0 | 5,8 |
| 160 51 06 T | M2,5 | TX8 | 6,0 | 5,0 | 2,0 | 5,8 |
| 160 51 10 T | M2,5 | TX8 | 10,0 | 5,0 | 2,0 | 5,8 |

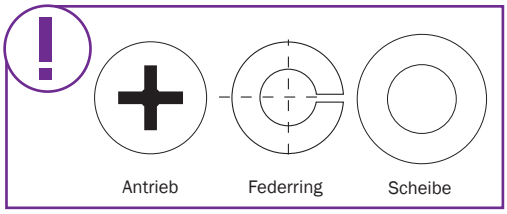
NEU

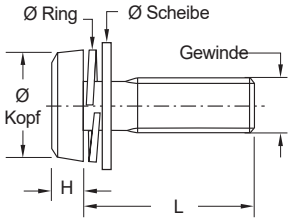
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Kreuzschlitz H
- mit Federring ähnlich DIN127/128
- mit Unterlegscheibe ähnlich DIN125
- Material: Stahl glanzverzinkt 8.8
  * Stahl vernickelt

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Federring (mm) | ähnlich DIN... | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|---|
| 160 43 03 | M3 | 3,0 | 5,6 | 2,0 | 5,60 | 128 | 7,0 |
| 160 43 04 | M3 | 4,0 | 5,6 | 2,0 | 5,60 | 128 | 7,0 |
| 160 43 06 | M3 | 6,0 | 5,6 | 2,0 | 5,60 | 128 | 7,0 |
| 160 43 10 | M3 | 10,0 | 5,6 | 2,0 | 5,60 | 128 | 7,0 |
| 160 43 101 | M3 | 10,0 | 5,6 | 2,0 | 5,60 | 128 | 5,6 |
| 160 43 08 | M3 | 8,0 | 5,6 | 2,0 | 5,60 | 128 | 7,0 |
| 160 44 08 | M4 | 8,0 | 8,0 | 2,8 | 6,95 | 127 | 9,0 |
| 160 44 08 N* | M4 | 8,0 | 8,0 | 2,8 | 6,95 | 127 | 9,0 |
| 160 44 10 | M4 | 10,0 | 8,0 | 2,8 | 6,95 | 128 | 8,0 |
| 160 44 101 | M4 | 10,0 | 8,0 | 2,8 | 6,95 | 128 | 9,0 |
| 160 44 14 | M4 | 14,0 | 8,0 | 2,8 | 6,95 | 128 | 9,0 |
| 160 45 10 | M5 | 10,0 | 10,0 | 3,8 | 8,55 | 128 | 10,0 |
| 160 45 12 | M5 | 12,0 | 9,5 | 3,8 | 8,55 | 127 | 10,0 |
| 160 45 14 | M5 | 14,0 | 9,5 | 3,8 | 8,55 | 128 | 10,0 |
| 160 45 16 | M5 | 16,0 | 10,0 | 3,8 | 8,55 | 128 | 10,0 |
| 160 45 25 | M5 | 25,0 | 10,0 | 3,8 | 8,55 | 128 | 10,0 |
| 160 46 16 | M6 | 16,0 | 12,0 | 3,8 | 11,00 | 127 | 12,0 |

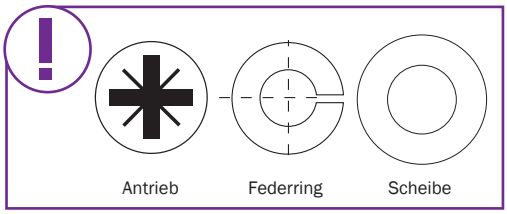
Weitere Abmessungen auf Anfrage: Telefon: 09852 61079-0

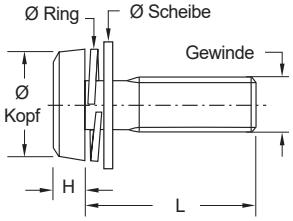
# DIN6900 KOMBISCHRAUBEN

Merkmale:

- Kopf DIN7985 mit Kreuzschlitz Z
- mit Federring ähnlich DIN128
- mit Unterlegscheibe ähnlich DIN125
- Material: Stahl verzinkt 4.8

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Federring (mm) | ähnlich DIN... | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|---|
| 160 43 05 Z | M3 | 5,0 | 5,6 | 2,4 | 5,6 | 128 | 7,0 |
| 160 43 06 Z | M3 | 6,0 | 5,6 | 2,4 | 5,6 | 128 | 7,0 |
| 160 44 16 Z | M4 | 16,0 | 8,0 | 2,8 | 6,95 | 128 | 9,0 |
| 160 44 20 Z | M4 | 20,0 | 8,0 | 2,8 | 6,95 | 128 | 9,0 |
| 160 45 16 Z | M5 | 16,0 | 10,0 | 3,8 | 8,55 | 128 | 10,0 |

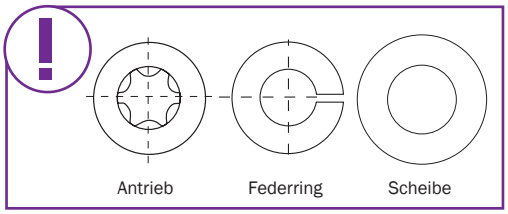
# DIN6900 KOMBISCHRAUBEN

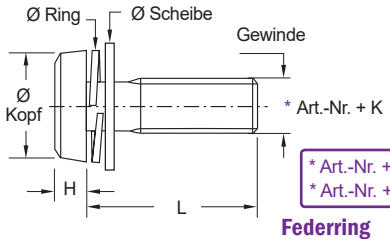
NEU

Merkmale

- Kopf DIN7985 mit Torx
- mit Federring ähnlich DIN127/128
- mit Unterlegscheibe ähnlich DIN125
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm




* Art.-Nr. + K = Gewindeende nach DIN78 Kegelkuppe
* Art.-Nr. + N = Material Stahl vernickelt

| Art.-Nr. | Gewinde | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Federring Ø (mm) | Federring ähnlich DIN... | Ø Unterlegscheibe (mm) |
|---|---|---|---|---|---|---|---|---|
| 160 41 06 T | M2,5 | TX8 | 6,0 | 5,0 | 2,0 | 5,0 | 128 | 6,0 |
| 160 43 06 T | M3 | TX10 | 6,0 | 5,6 | 2,4 | 5,6 | 128 | 7,0 |
| 160 43 08 T | M3 | TX10 | 8,0 | 5,6 | 2,4 | 5,6 | 128 | 7,0 |
| 160 43 08 TK* | M3 | TX10 | 8,0 | 5,6 | 2,4 | 5,6 | 128 | 7,0 |
| 160 43 12 T | M3 | TX10 | 12,0 | 5,6 | 2,4 | 5,6 | 128 | 6,0 |
| 160 43 12 T1 | M3 | TX10 | 12,0 | 5,6 | 2,4 | 5,6 | 128 | 7,0 |
| 160 43 25 T | M3 | TX10 | 25,0 | 5,6 | 2,4 | 5,6 | 128 | 7,0 |
| 160 44 08 T1 | M4 | TX20 | 8,0 | 8,0 | 3,0 | 6,95 | 127 | 8,0 |
| 160 44 08 T | M4 | TX20 | 8,0 | 8,0 | 3,0 | 6,95 | 127 | 9,0 |
| 160 44 08 T1N* | M4 | TX20 | 8,0 | 8,0 | 3,0 | 6,95 | 127 | 8,0 |
| 160 44 10 T1 | M4 | TX20 | 10,0 | 8,0 | 3,0 | 8,0 | 128 | 8,0 |
| 160 44 10 T | M4 | TX20 | 10,0 | 8,0 | 3,0 | 6,95 | 128 | 9,0 |
| 160 44 12 T | M4 | TX20 | 12,0 | 8,0 | 3,1 | 6,95 | 128 | 9,0 |
| 160 44 14 T | M4 | TX20 | 14,0 | 8,0 | 3,0 | 6,95 | 128 | 9,0 |
| 160 44 16 T | M4 | TX20 | 16,0 | 8,0 | 3,0 | 6,95 | 128 | 9,0 |
| 160 45 08 T | M5 | TX25 | 8,0 | 9,5 | 3,8 | 8,55 | 128 | 10,0 |
| 160 45 10 T | M5 | TX25 | 10,0 | 9,5 | 3,8 | 8,55 | 128 | 10,0 |
| 160 45 12 T | M5 | TX25 | 12,0 | 9,5 | 3,8 | 8,55 | 128 | 10,0 |
| 160 45 14 T | M5 | TX25 | 14,0 | 9,5 | 3,8 | 8,55 | 128 | 10,0 |
| 160 45 16 T | M5 | TX25 | 16,0 | 9,5 | 3,8 | 8,55 | 128 | 10,0 |
| 160 46 12 T | M6 | TX30 | 12,0 | 12,0 | 4,6 | 12,00 | 128 | 12,0 |
| 160 46 16 T | M6 | TX30 | 16,0 | 12,0 | 4,6 | 12,00 | 128 | 12,0 |
| 160 46 20 T | M6 | TX30 | 20,0 | 12,0 | 4,6 | 12,00 | 128 | 12,0 |

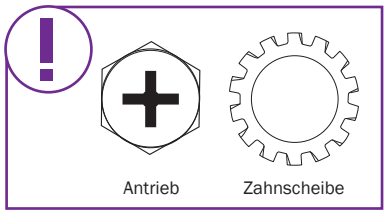
NEU

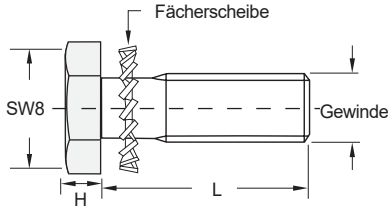
# DIN6900 KOMBISCHRAUBEN

Merkmale:

- Kopf DIN933 mit Kreuzschlitz H
- mit Zahnscheibe ähnlich DIN6797 A
- Material: Stahl glanzverzinkt 4.8

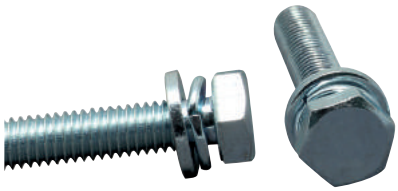
Abmessungen ► Einheit = mm




| Art.-Nr. | Gewinde | L (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|
| 160 55 12 SP2 | M5 | 12,0 | 3,5 | 8,0 |

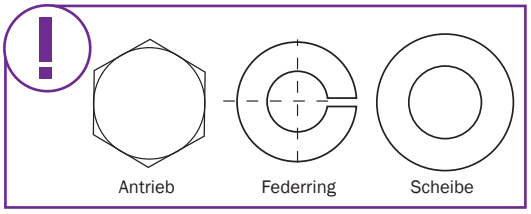
# DIN6900 KOMBISCHRAUBEN

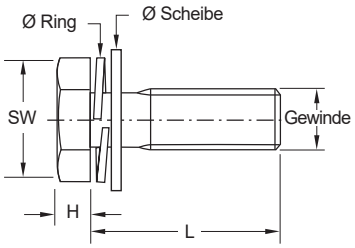


Merkmale

- Kopf DIN933
- mit Federring ähnlich DIN128
- mit Unterlegscheibe ähnlich DIN125
- Material: Stahl glanzverzinkt 8.8

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | L (mm) | SW (mm) | H (mm) | Ø Federring (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|
| 160 46 35 S | M6 | 35,0 | 10,0 | 4,24 | 11,0 | 12,0 |

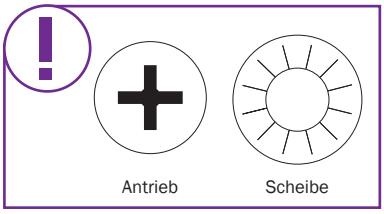
# DIN6900 KOMBISCHRAUBEN

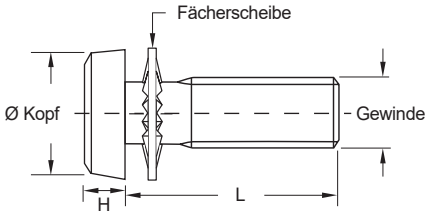
NEU

Merkmale:

- Kopf DIN7985 mit Kreuzschlitz H
- mit Fächerscheibe ähnlich DIN6798 I
- Material: A2 Edelstahl

Abmessungen ► Einheit = mm



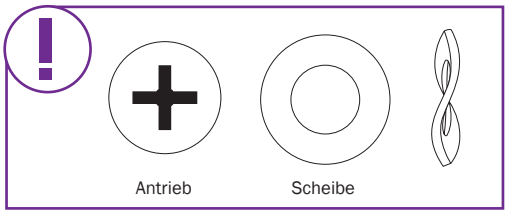

| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|
| 160 63 06 V | M3 | 6,0 | 6,0 | 2,4 | 6,0 |
| 160 64 08 V | M4 | 8,0 | 8,0 | 3,1 | 8,0 |

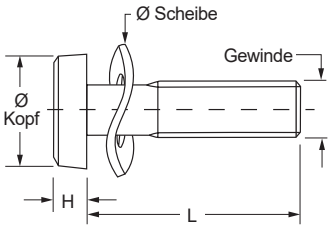
# DIN6900 KOMBISCHRAUBEN

Merkmale:

- Kopf DIN7985 mit Kreuzschlitz H
- mit Federscheibe ähnlich DIN137 B
- Material: A2 Edelstahl

Abmessungen ► Einheit = mm



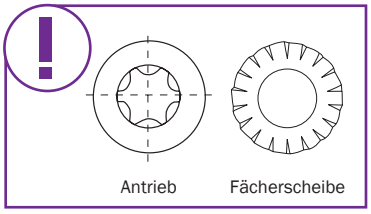

| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Scheibe (mm) |
|---|---|---|---|---|---|
| 160 13 08 V | M3 | 8,0 | 6,0 | 2,4 | 7,8 |

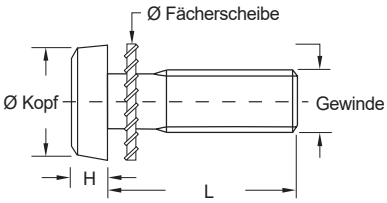
# DIN6900 KOMBISCHRAUBEN

Merkmale:

- Kopf DIN7985 mit Torx
- mit Fächerscheibe ähnlich DIN6798 A
- Material: A2 Edelstahl

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Ø Ring (mm) |
|---|---|---|---|---|---|---|
| 160 35 10 TV | M5 | TX25 | 10,0 | 10,0 | 3,8 | 10,0 |

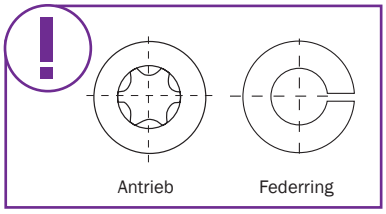
NEU

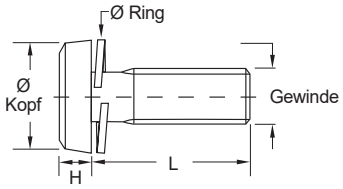
# DIN6900 KOMBISCHRAUBEN

Merkmale

- Kopf DIN7985 mit Torx
- mit Federring ähnlich DIN127/128
- Material: Edelstahl A2

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | Torx-Größe | L (mm) | Ø Kopf (mm) | H (mm) | Ø Federring (mm) | ähnlich DIN... |
|---|---|---|---|---|---|---|---|
| 160 23 08 TV | M3 | TX10 | 8,0 | 6,0 | 2,4 | 5,6 | 127 |
| 160 24 08 TV | M4 | TX20 | 8,0 | 8,0 | 3,1 | 6,95 | 127 |

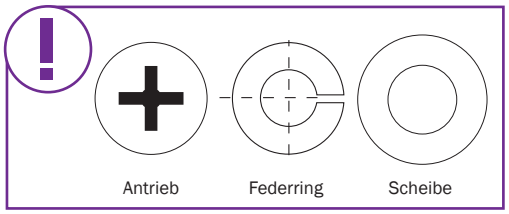
NEU

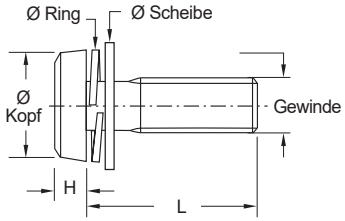
# DIN6900 KOMBISCHRAUBEN

Merkmale:

- Kopf DIN7985 mit Kreuzschlitz H
- mit Federring ähnlich DIN127/128
- mit Unterlegscheibe ähnlich DIN125
- Material: A2 Edelstahl

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Federring (mm) | ähnlich DIN... | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|---|
| 160 44 50 V | M4 | 50,0 | 8,0 | max 3,25 | 6,95 | 128 | 8,0 |

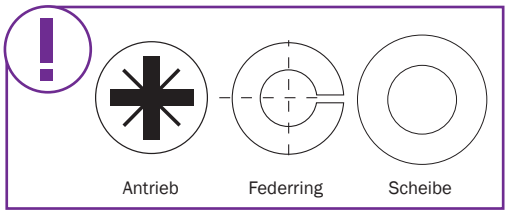
NEU

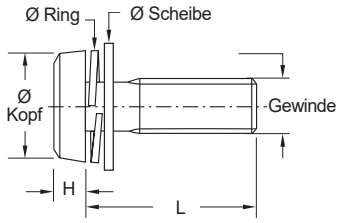
# DIN6900 KOMBISCHRAUBEN

Merkmale:

- Kopf DIN7985 mit Kreuzschlitz Z
- mit Federring ähnlich DIN128
- mit Unterlegscheibe ähnlich DIN125
- Material: A2 Edelstahl

Abmessungen ► Einheit = mm




| Art.-Nr. | Gewindegröße | L (mm) | Ø Kopf (mm) | H (mm) | Ø Federring (mm) | ähnlich DIN... | Ø Scheibe (mm) |
|---|---|---|---|---|---|---|---|
| 160 43 08 ZV | M3 | 8,0 | 5,6 | 2,4 | 5,2 | 128 | 7,0 |

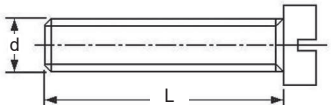
# DIN84 ZYLINDERKOPFSCHRAUBEN

Merkmale

- mit Schlitz ähnlich DIN84
- Material: Polyamid 6.6
- Farbe: natur

Abmessungen

► Einheit = mm

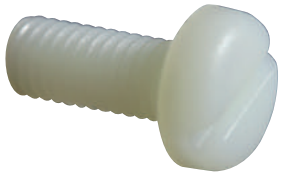



| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 150 02 06 | M2 | 6,0 |
| 150 02 08 | M2 | 8,0 |
| 150 02 10 | M2 | 10,0 |
| 150 02 16 | M2 | 16,0 |
| 150 01 04 | M2,5 | 4,0 |
| 150 01 06 | M2,5 | 6,0 |
| 150 01 08 | M2,5 | 8,0 |
| 150 01 10 | M2,5 | 10,0 |
| 150 01 16 | M2,5 | 16,0 |
| 150 03 04 | M3 | 4,0 |
| 150 03 05 | M3 | 5,0 |
| 150 03 06 | M3 | 6,0 |
| 150 03 08 | M3 | 8,0 |
| 150 03 10 | M3 | 10,0 |
| 150 03 12 | M3 | 12,0 |
| 150 03 16 | M3 | 16,0 |
| 150 03 20 | M3 | 20,0 |
| 150 03 25 | M3 | 25,0 |
| 150 03 30 | M3 | 30,0 |
| 150 03 40 | M3 | 40,0 |
| 150 04 05 | M4 | 5,0 |
| 150 04 06 | M4 | 6,0 |
| 150 04 08 | M4 | 8,0 |
| 150 04 10 | M4 | 10,0 |
| 150 04 12 | M4 | 12,0 |
| 150 04 16 | M4 | 16,0 |
| 150 04 20 | M4 | 20,0 |
| 150 04 25 | M4 | 25,0 |
| 150 04 30 | M4 | 30,0 |
| 150 04 35 | M4 | 35,0 |
| 150 04 40 | M4 | 40,0 |
| 150 04 50 | M4 | 50,0 |
| 150 05 06 | M5 | 6,0 |
| 150 05 08 | M5 | 8,0 |
| 150 05 10 | M5 | 10,0 |
| 150 05 12 | M5 | 12,0 |
| 150 05 16 | M5 | 16,0 |
| 150 05 20 | M5 | 20,0 |
| 150 05 25 | M5 | 25,0 |
| 150 05 30 | M5 | 30,0 |
| 150 05 35 | M5 | 35,0 |
| 150 05 40 | M5 | 40,0 |
| 150 05 45 | M5 | 45,0 |
| 150 05 50 | M5 | 50,0 |

| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 150 06 05 | M6 | 5,0 |
| 150 06 08 | M6 | 8,0 |
| 150 06 10 | M6 | 10,0 |
| 150 06 16 | M6 | 16,0 |
| 150 06 20 | M6 | 20,0 |
| 150 06 25 | M6 | 25,0 |
| 150 06 30 | M6 | 30,0 |
| 150 06 35 | M6 | 35,0 |
| 150 06 40 | M6 | 40,0 |
| 150 06 45 | M6 | 45,0 |
| 150 06 50 | M6 | 50,0 |
| 150 06 55 | M6 | 55,0 |
| 150 06 60 | M6 | 60,0 |
| 150 08 10 | M8 | 10,0 |
| 150 08 16 | M8 | 16,0 |
| 150 08 20 | M8 | 20,0 |
| 150 08 25 | M8 | 25,0 |
| 150 08 30 | M8 | 30,0 |
| 150 08 35 | M8 | 35,0 |
| 150 08 40 | M8 | 40,0 |
| 150 08 45 | M8 | 45,0 |
| 150 08 50 | M8 | 50,0 |
| 150 08 60 | M8 | 60,0 |
| 150 08 70 | M8 | 70,0 |
| 150 10 10 | M10 | 10,0 |
| 150 10 16 | M10 | 16,0 |
| 150 10 20 | M10 | 20,0 |
| 150 10 25 | M10 | 25,0 |
| 150 10 30 | M10 | 30,0 |
| 150 10 35 | M10 | 35,0 |
| 150 10 40 | M10 | 40,0 |
| 150 10 50 | M10 | 50,0 |
| 150 10 60 | M10 | 60,0 |
| 150 10 70 | M10 | 70,0 |
| 150 12 16 | M12 | 16,0 |
| 150 12 20 | M12 | 20,0 |
| 150 12 25 | M12 | 25,0 |
| 150 12 30 | M12 | 30,0 |
| 150 12 35 | M12 | 35,0 |
| 150 12 40 | M12 | 40,0 |
| 150 12 50 | M12 | 50,0 |
| 150 12 60 | M12 | 60,0 |
| 150 12 70 | M12 | 70,0 |

Weitere Abmessungen und Farben auf Anfrage: Telefon: 09852 61079-0

# DIN85 FLACHKOPFSCHRAUBEN

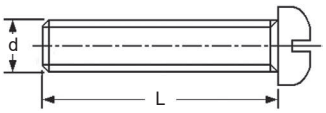


Merkmale

- mit Schlitz ähnlich DIN85
- Material: Polyamid 6.6
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 151 02 06 | M2 | 6,0 |
| 151 02 08 | M2 | 8,0 |
| 151 02 10 | M2 | 10,0 |
| 151 02 16 | M2 | 16,0 |
| 151 01 04 | M2,5 | 4,0 |
| 151 01 06 | M2,5 | 6,0 |
| 151 01 08 | M2,5 | 8,0 |
| 151 01 10 | M2,5 | 10,0 |
| 151 01 16 | M2,5 | 16,0 |
| 151 03 06 | M3 | 6,0 |
| 151 03 08 | M3 | 8,0 |
| 151 03 10 | M3 | 10,0 |
| 151 03 12 | M3 | 12,0 |
| 151 03 16 | M3 | 16,0 |
| 151 03 20 | M3 | 20,0 |
| 151 04 06 | M4 | 6,0 |
| 151 04 08 | M4 | 8,0 |
| 151 04 10 | M4 | 10,0 |
| 151 04 20 | M4 | 20,0 |
| 151 04 30 | M4 | 30,0 |
| 151 04 40 | M4 | 40,0 |
| 151 05 08 | M5 | 8,0 |
| 151 05 10 | M5 | 10,0 |
| 151 05 12 | M5 | 12,0 |
| 151 05 16 | M5 | 16,0 |

| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 151 05 20 | M5 | 20,0 |
| 151 05 30 | M5 | 30,0 |
| 151 05 40 | M5 | 40,0 |
| 151 05 50 | M5 | 50,0 |
| 151 06 05 | M6 | 5,0 |
| 151 06 10 | M6 | 10,0 |
| 151 06 16 | M6 | 16,0 |
| 151 06 20 | M6 | 20,0 |
| 151 06 30 | M6 | 30,0 |
| 151 08 16 | M8 | 16,0 |
| 151 08 20 | M8 | 20,0 |
| 151 08 30 | M8 | 30,0 |
| 151 08 40 | M8 | 40,0 |
| 151 10 40 | M10 | 40,0 |
| 151 10 50 | M10 | 50,0 |
| 151 10 70 | M10 | 70,0 |
| 151 12 16 | M12 | 16,0 |
| 151 12 20 | M12 | 20,0 |
| 151 12 25 | M12 | 25,0 |
| 151 12 30 | M12 | 30,0 |
| 151 12 35 | M12 | 35,0 |
| 151 12 40 | M12 | 40,0 |
| 151 12 50 | M12 | 50,0 |
| 151 12 60 | M12 | 60,0 |
| 151 12 70 | M12 | 70,0 |

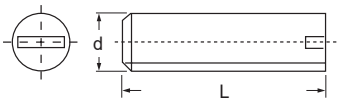
# DIN551 GEWINDESTIFTE

Merkmale

- mit Schlitz ähnlich DIN 551
- Material: Polyamid 6.6
- Farbe: natur

Abmessungen

► Einheit = mm



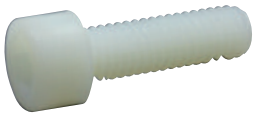

| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 145 83 03,5 | M3 | 3,5 |
| 145 83 08 | M3 | 8,0 |
| 145 83 10 | M3 | 10,0 |
| 145 84 04 | M4 | 4,0 |
| 145 84 06 | M4 | 6,0 |
| 145 84 08 | M4 | 8,0 |
| 145 84 10 | M4 | 10,0 |
| 145 85 05 | M5 | 5,0 |
| 145 85 06 | M5 | 6,0 |
| 145 85 08 | M5 | 8,0 |
| 145 85 10 | M5 | 10,0 |
| 145 86 06 | M6 | 6,0 |
| 145 86 08 | M6 | 8,0 |
| 145 86 10 | M6 | 10,0 |
| 145 86 12 | M6 | 12,0 |
| 145 86 16 | M6 | 16,0 |

| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 145 86 20 | M6 | 20,0 |
| 145 88 05 | M8 | 5,0 |
| 145 88 06 | M8 | 6,0 |
| 145 88 08 | M8 | 8,0 |
| 145 88 10 | M8 | 10,0 |
| 145 88 12 | M8 | 12,0 |
| 145 88 14 | M8 | 14,0 |
| 145 88 16 | M8 | 16,0 |
| 145 88 20 | M8 | 20,0 |
| 145 90 16 | M10 | 16,0 |
| 145 90 20 | M10 | 20,0 |
| 145 90 25 | M10 | 25,0 |
| 145 90 30 | M10 | 30,0 |
| 145 92 10 | M12 | 10,0 |
| 145 92 16 | M12 | 16,0 |
| 145 92 20 | M12 | 20,0 |

# DIN912 ZYLINDERSCHRAUBEN

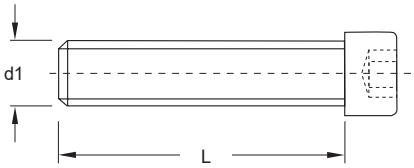
Merkmale

- mit Innensechskant ähnlich DIN 912
- Material: Polyamid 6.6
- Farbe: natur
- weitere Gewindegrößen (M5 - M16) auf Anfrage lieferbar



Abmessungen

► Einheit = mm




| Art.-Nr. | d1 (mm) | L (mm) |
|---|---|---|
| 146 03 04 PA | M3 | 4,0 |
| 146 03 05 PA | M3 | 5,0 |
| 146 03 06 PA | M3 | 6,0 |
| 146 03 08 PA | M3 | 8,0 |
| 146 03 10 PA | M3 | 10,0 |
| 146 03 12 PA | M3 | 12,0 |
| 146 03 14 PA | M3 | 14,0 |
| 146 03 15 PA | M3 | 15,0 |
| 146 03 16 PA | M3 | 16,0 |
| 146 03 18 PA | M3 | 18,0 |
| 146 03 20 PA | M3 | 20,0 |
| 146 03 22 PA | M3 | 22,0 |
| 146 03 25 PA | M3 | 25,0 |
| 146 03 28 PA | M3 | 28,0 |
| 146 03 30 PA | M3 | 30,0 |
| 146 03 33 PA | M3 | 33,0 |
| 146 03 35 PA | M3 | 35,0 |
| 146 03 40 PA | M3 | 40,0 |
| 146 03 45 PA | M3 | 45,0 |

| Art.-Nr. | d1 (mm) | L (mm) |
|---|---|---|
| 146 04 04 PA | M4 | 4,0 |
| 146 04 05 PA | M4 | 5,0 |
| 146 04 06 PA | M4 | 6,0 |
| 146 04 08 PA | M4 | 8,0 |
| 146 04 10 PA | M4 | 10,0 |
| 146 04 12 PA | M4 | 12,0 |
| 146 04 13 PA | M4 | 13,0 |
| 146 04 14 PA | M4 | 14,0 |
| 146 04 15 PA | M4 | 15,0 |
| 146 04 16 PA | M4 | 16,0 |
| 146 04 18 PA | M4 | 18,0 |
| 146 04 20 PA | M4 | 20,0 |
| 146 04 23 PA | M4 | 23,0 |
| 146 04 25 PA | M4 | 25,0 |
| 146 04 28 PA | M4 | 28,0 |
| 146 04 30 PA | M4 | 30,0 |
| 146 04 35 PA | M4 | 35,0 |
| 146 04 40 PA | M4 | 40,0 |
| 146 04 45 PA | M4 | 45,0 |
| 146 04 50 PA | M4 | 50,0 |
| 146 04 55 PA | M4 | 55,0 |
| 146 04 60 PA | M4 | 60,0 |
| 146 04 70 PA | M4 | 70,0 |

Andere Materialien, wie z.B. PP, PE, PVDF oder PTFE,
sowie weitere Gewindegrößen (M5 - M16) auf Anfrage lieferbar.
Weitere Farben auf Anfrage möglich.

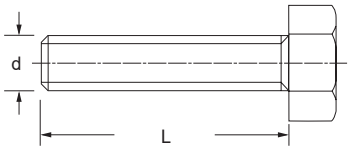
# DIN933 SECHSKANTSCHRAUBEN

## Merkmale

- Aussensechskantschrauben ähnlich DIN933
- Material: Polyamid 6.6
- Farbe: natur

## Abmessungen

► Einheit = mm




| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 143 03 04 | M3 | 4,0 |
| 143 03 05 | M3 | 5,0 |
| 143 03 06 | M3 | 6,0 |
| 143 03 08 | M3 | 8,0 |
| 143 03 10 | M3 | 10,0 |
| 143 03 12 | M3 | 12,0 |
| 143 03 16 | M3 | 16,0 |
| 143 03 20 | M3 | 20,0 |
| 143 03 25 | M3 | 25,0 |
| 143 04 05 | M4 | 5,0 |
| 143 04 06 | M4 | 6,0 |
| 143 04 08 | M4 | 8,0 |
| 143 04 10 | M4 | 10,0 |
| 143 04 12 | M4 | 12,0 |
| 143 04 16 | M4 | 16,0 |
| 143 04 20 | M4 | 20,0 |
| 143 04 25 | M4 | 25,0 |
| 143 04 30 | M4 | 30,0 |
| 143 04 40 | M4 | 40,0 |
| 143 05 06 | M5 | 6,0 |
| 143 05 08 | M5 | 8,0 |
| 143 05 10 | M5 | 10,0 |
| 143 05 12 | M5 | 12,0 |
| 143 05 16 | M5 | 16,0 |
| 143 05 20 | M5 | 20,0 |
| 143 05 25 | M5 | 25,0 |
| 143 05 30 | M5 | 30,0 |
| 143 05 35 | M5 | 35,0 |
| 143 05 40 | M5 | 40,0 |
| 143 05 45 | M5 | 45,0 |
| 143 05 50 | M5 | 50,0 |
| 143 06 05 | M6 | 5,0 |
| 143 06 10 | M6 | 10,0 |
| 143 06 12 | M6 | 12,0 |
| 143 06 16 | M6 | 16,0 |
| 143 06 20 | M6 | 20,0 |
| 143 06 25 | M6 | 25,0 |
| 143 06 30 | M6 | 30,0 |
| 143 06 35 | M6 | 35,0 |
| 143 06 40 | M6 | 40,0 |

| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 143 06 45 | M6 | 45,0 |
| 143 06 50 | M6 | 50,0 |
| 143 06 60 | M6 | 60,0 |
| 143 06 70 | M6 | 70,0 |
| 143 08 10 | M8 | 10,0 |
| 143 08 16 | M8 | 16,0 |
| 143 08 20 | M8 | 20,0 |
| 143 08 25 | M8 | 25,0 |
| 143 08 30 | M8 | 30,0 |
| 143 08 35 | M8 | 35,0 |
| 143 08 40 | M8 | 40,0 |
| 143 08 45 | M8 | 45,0 |
| 143 08 50 | M8 | 50,0 |
| 143 08 60 | M8 | 60,0 |
| 143 08 70 | M8 | 70,0 |
| 143 08 80 | M8 | 80,0 |
| 143 10 10 | M10 | 10,0 |
| 143 10 16 | M10 | 16,0 |
| 143 10 20 | M10 | 20,0 |
| 143 10 25 | M10 | 25,0 |
| 143 10 30 | M10 | 30,0 |
| 143 10 35 | M10 | 35,0 |
| 143 10 40 | M10 | 40,0 |
| 143 10 45 | M10 | 45,0 |
| 143 10 50 | M10 | 50,0 |
| 143 10 60 | M10 | 60,0 |
| 143 10 70 | M10 | 70,0 |
| 143 10 80 | M10 | 80,0 |
| 143 12 10 | M12 | 10,0 |
| 143 12 16 | M12 | 16,0 |
| 143 12 20 | M12 | 20,0 |
| 143 12 25 | M12 | 25,0 |
| 143 12 30 | M12 | 30,0 |
| 143 12 35 | M12 | 35,0 |
| 143 12 40 | M12 | 40,0 |
| 143 12 45 | M12 | 45,0 |
| 143 12 50 | M12 | 50,0 |
| 143 12 60 | M12 | 60,0 |
| 143 12 70 | M12 | 70,0 |
| 143 12 80 | M12 | 80,0 |

Weitere Abmessungen und Farben auf Anfrage: Telefon: 09852 61079-0

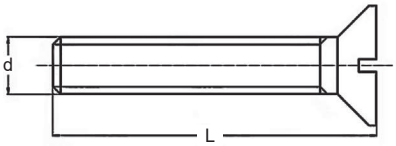
# DIN963 SENKKOPFSCHRAUBEN

Merkmale

- Senkkopf mit Schlitz ähnlich DIN963
- Material: Polyamid 6.6
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 145 03 05 PA | M3 | 5,0 |
| 145 03 06 PA | M3 | 6,0 |
| 145 03 08 PA | M3 | 8,0 |
| 145 03 10 PA | M3 | 10,0 |
| 145 03 12 PA | M3 | 12,0 |
| 145 03 16 PA | M3 | 16,0 |
| 145 03 20 PA | M3 | 20,0 |
| 145 03 25 PA | M3 | 25,0 |
| 145 03 30 PA | M3 | 30,0 |
| 145 04 06 PA | M4 | 6,0 |
| 145 04 08 PA | M4 | 8,0 |
| 145 04 10 PA | M4 | 10,0 |
| 145 04 12 PA | M4 | 12,0 |
| 145 04 16 PA | M4 | 16,0 |
| 145 04 20 PA | M4 | 20,0 |
| 145 04 25 PA | M4 | 25,0 |
| 145 04 30 PA | M4 | 30,0 |
| 145 04 35 PA | M4 | 35,0 |
| 145 04 40 PA | M4 | 40,0 |
| 145 05 08 PA | M5 | 8,0 |
| 145 05 10 PA | M5 | 10,0 |
| 145 05 12 PA | M5 | 12,0 |
| 145 05 16 PA | M5 | 16,0 |
| 145 05 20 PA | M5 | 20,0 |
| 145 05 25 PA | M5 | 25,0 |
| 145 05 30 PA | M5 | 30,0 |
| 145 05 35 PA | M5 | 35,0 |
| 145 05 40 PA | M5 | 40,0 |
| 145 05 50 PA | M5 | 50,0 |

| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 145 06 10 PA | M6 | 10,0 |
| 145 06 16 PA | M6 | 16,0 |
| 145 06 20 PA | M6 | 20,0 |
| 145 06 25 PA | M6 | 25,0 |
| 145 06 30 PA | M6 | 30,0 |
| 145 06 35 PA | M6 | 35,0 |
| 145 06 40 PA | M6 | 40,0 |
| 145 06 50 PA | M6 | 50,0 |
| 145 06 60 PA | M6 | 60,0 |
| 145 08 10 PA | M8 | 10,0 |
| 145 08 16 PA | M8 | 16,0 |
| 145 08 20 PA | M8 | 20,0 |
| 145 08 25 PA | M8 | 25,0 |
| 145 08 30 PA | M8 | 30,0 |
| 145 08 35 PA | M8 | 35,0 |
| 145 08 40 PA | M8 | 40,0 |
| 145 08 50 PA | M8 | 50,0 |
| 145 08 60 PA | M8 | 60,0 |
| 145 08 70 PA | M8 | 70,0 |
| 145 10 16 PA | M10 | 16,0 |
| 145 10 20 PA | M10 | 20,0 |
| 145 10 25 PA | M10 | 25,0 |
| 145 10 30 PA | M10 | 30,0 |
| 145 10 35 PA | M10 | 35,0 |
| 145 10 40 PA | M10 | 40,0 |
| 145 10 50 PA | M10 | 50,0 |

Weitere Abmessungen und Farben auf Anfrage: Telefon: 09852 61079-0

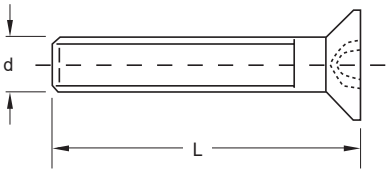
# DIN965 SENKKOPFSCHRAUBEN

Merkmale

- mit Kreuzschlitz ähnlich DIN965
- Material: Polyamid 6.6
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 141 03 06 PA | M3 | 6,0 |
| 141 03 08 PA | M3 | 8,0 |
| 141 03 10 PA | M3 | 10,0 |
| 141 03 12 PA | M3 | 12,0 |
| 141 03 16 PA | M3 | 16,0 |
| 141 03 20 PA | M3 | 20,0 |
| 141 03 25 PA | M3 | 25,0 |
| 141 03 30 PA | M3 | 30,0 |
| 141 03 35 PA | M3 | 35,0 |
| 141 04 06 PA | M4 | 6,0 |
| 141 04 08 PA | M4 | 8,0 |
| 141 04 10 PA | M4 | 10,0 |
| 141 04 12 PA | M4 | 12,0 |
| 141 04 16 PA | M4 | 16,0 |
| 141 04 20 PA | M4 | 20,0 |
| 141 04 25 PA | M4 | 25,0 |
| 141 04 30 PA | M4 | 30,0 |
| 141 04 35 PA | M4 | 35,0 |
| 141 04 40 PA | M4 | 40,0 |
| 141 05 08 PA | M5 | 8,0 |
| 141 05 10 PA | M5 | 10,0 |
| 141 05 12 PA | M5 | 12,0 |
| 141 05 16 PA | M5 | 16,0 |

| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 141 05 20 PA | M5 | 20,0 |
| 141 05 25 PA | M5 | 25,0 |
| 141 05 30 PA | M5 | 30,0 |
| 141 05 35 PA | M5 | 35,0 |
| 141 05 40 PA | M5 | 40,0 |
| 141 05 45 PA | M5 | 45,0 |
| 141 05 50 PA | M5 | 50,0 |
| 141 06 10 PA | M6 | 10,0 |
| 141 06 12 PA | M6 | 12,0 |
| 141 06 16 PA | M6 | 16,0 |
| 141 06 20 PA | M6 | 20,0 |
| 141 06 25 PA | M6 | 25,0 |
| 141 06 30 PA | M6 | 30,0 |
| 141 06 35 PA | M6 | 35,0 |
| 141 06 40 PA | M6 | 40,0 |
| 141 06 45 PA | M6 | 45,0 |
| 141 06 50 PA | M6 | 50,0 |
| 141 06 55 PA | M6 | 55,0 |
| 141 06 65 PA | M6 | 65,0 |
| 141 06 75 PA | M6 | 75,0 |
| 141 06 85 PA | M6 | 85,0 |

Weitere Abmessungen und Farben auf Anfrage: Telefon: 09852 61079-0

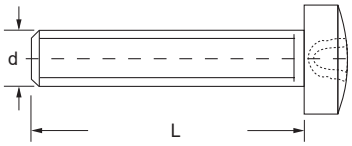
# DIN7985 LINSENKOPFSCHRAUBEN

Merkmale

- mit Kreuzschlitz nach DIN7985
- Material: Polyamid 6.6
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 140 02 04 PA | M2 | 4,0 |
| 140 02 05 PA | M2 | 5,0 |
| 140 02 06 PA | M2 | 6,0 |
| 140 02 08 PA | M2 | 8,0 |
| 140 02 10 PA | M2 | 10,0 |
| 140 02 12 PA | M2 | 12,0 |
| 140 02 16 PA | M2 | 16,0 |
| 140 02 20 PA | M2 | 20,0 |
| 140 02 25 PA | M2 | 25,0 |
| 140 01 04 PA | M2,5 | 4,0 |
| 140 01 05 PA | M2,5 | 5,0 |
| 140 01 06 PA | M2,5 | 6,0 |
| 140 01 08 PA | M2,5 | 8,0 |
| 140 01 10 PA | M2,5 | 10,0 |
| 140 01 12 PA | M2,5 | 12,0 |
| 140 01 16 PA | M2,5 | 16,0 |
| 140 01 20 PA | M2,5 | 20,0 |
| 140 01 25 PA | M2,5 | 25,0 |
| 140 03 05 PA | M3 | 5,0 |
| 140 03 06 PA | M3 | 6,0 |
| 140 03 08 PA | M3 | 8,0 |
| 140 03 10 PA | M3 | 10,0 |
| 140 03 12 PA | M3 | 12,0 |
| 140 03 16 PA | M3 | 16,0 |
| 140 03 20 PA | M3 | 20,0 |
| 140 03 25 PA | M3 | 25,0 |
| 140 03 30 PA | M3 | 30,0 |
| 140 03 35 PA | M3 | 35,0 |
| 140 03 40 PA | M3 | 40,0 |
| 140 03 45 PA | M3 | 45,0 |
| 140 04 05 PA | M4 | 5,0 |
| 140 04 06 PA | M4 | 6,0 |
| 140 04 08 PA | M4 | 8,0 |
| 140 04 10 PA | M4 | 10,0 |
| 140 04 12 PA | M4 | 12,0 |
| 140 04 16 PA | M4 | 16,0 |
| 140 04 20 PA | M4 | 20,0 |
| 140 04 25 PA | M4 | 25,0 |
| 140 04 30 PA | M4 | 30,0 |
| 140 04 35 PA | M4 | 35,0 |
| 140 04 40 PA | M4 | 40,0 |

| Art.-Nr. | d (mm) | L (mm) |
|---|---|---|
| 140 04 45 PA | M4 | 45,0 |
| 140 04 50 PA | M4 | 50,0 |
| 140 04 55 PA | M4 | 55,0 |
| 140 04 60 PA | M4 | 60,0 |
| 140 05 06 PA | M5 | 6,0 |
| 140 05 08 PA | M5 | 8,0 |
| 140 05 10 PA | M5 | 10,0 |
| 140 05 12 PA | M5 | 12,0 |
| 140 05 16 PA | M5 | 16,0 |
| 140 05 20 PA | M5 | 20,0 |
| 140 05 25 PA | M5 | 25,0 |
| 140 05 30 PA | M5 | 30,0 |
| 140 05 35 PA | M5 | 35,0 |
| 140 05 40 PA | M5 | 40,0 |
| 140 05 45 PA | M5 | 45,0 |
| 140 05 50 PA | M5 | 50,0 |
| 140 05 60 PA | M5 | 60,0 |
| 140 05 70 PA | M5 | 70,0 |
| 140 06 06 PA | M6 | 6,0 |
| 140 06 08 PA | M6 | 8,0 |
| 140 06 10 PA | M6 | 10,0 |
| 140 06 12 PA | M6 | 12,0 |
| 140 06 16 PA | M6 | 16,0 |
| 140 06 20 PA | M6 | 20,0 |
| 140 06 25 PA | M6 | 25,0 |
| 140 06 30 PA | M6 | 30,0 |
| 140 06 35 PA | M6 | 35,0 |
| 140 06 40 PA | M6 | 40,0 |
| 140 06 45 PA | M6 | 45,0 |
| 140 06 50 PA | M6 | 50,0 |
| 140 06 60 PA | M6 | 60,0 |
| 140 06 70 PA | M6 | 70,0 |
| 140 06 75 PA | M6 | 75,0 |
| 140 06 80 PA | M6 | 80,0 |
| 140 06 85 PA | M6 | 85,0 |
| 140 06 90 PA | M6 | 90,0 |
| 140 06 95 PA | M6 | 95,0 |
| 140 06 100 PA | M6 | 100,0 |
| 140 06 110 PA | M6 | 110,0 |
| 140 06 120 PA | M6 | 120,0 |
| 140 06 130 PA | M6 | 130,0 |

Weitere Abmessungen und andere Materialien auf Anfrage: Telefon: 09852 61079-0

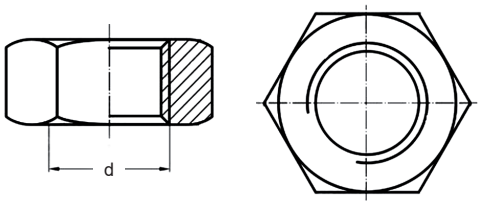
# DIN934 MUTTER

Merkmale

- Mutter ähnlich DIN934
- Material: Polyamid 6.6, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | d = Gewindegröße |
|---|---|
| 150 00 02 | M2 |
| 150 00 01 | M2,5 |
| 150 00 03 | M3 |
| 150 00 04 | M4 |
| 150 00 05 | M5 |
| 150 00 06 | M6 |
| 150 00 08 | M8 |
| 150 00 10 | M10 |
| 150 00 12 | M12 |
| 150 00 14 | M14 |
| 150 00 16 | M16 |
| 150 00 20 | M20 |
| 150 00 24 | M24 |
| 150 00 30 | M30 |

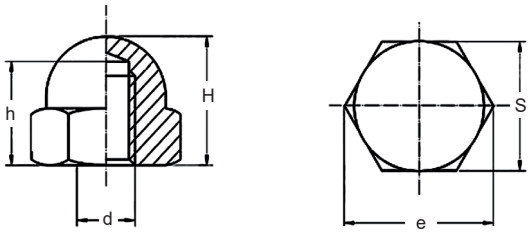
# DIN1587 HUTMUTTER

Merkmale

- Hutmutter ähnlich DIN1587
- Material: Polyamid 6.6, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | d = Gewindegröße | H (mm) | h (mm) | S (mm) | e (mm) |
|---|---|---|---|---|---|
| 150 00 73 | M3 | 6,3 | 5,0 | 5,5 | 6,2 |
| 150 00 74 | M4 | 8,0 | 5,5 | 7,0 | 7,7 |
| 150 00 75 | M5 | 10,0 | 7,5 | 8,0 | 8,8 |
| 150 00 76 | M6 | 12,0 | 8,0 | 10,0 | 11,0 |
| 150 00 78 | M8 | 15,0 | 11,0 | 13,0 | 14,3 |
| 150 00 80 | M10 | 18,0 | 13,0 | 17,0 | 18,9 |
| 150 00 82 | M12 | 22,0 | 16,0 | 19,0 | 21,1 |
| 150 00 86 | M16 | 28,0 | 21,0 | 24,0 | 26,7 |

Andere Farben auf Anfrage: Telefon: 09852 61079-0

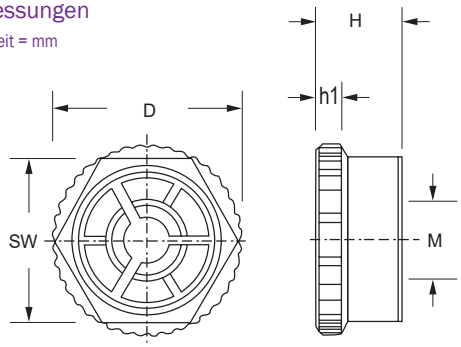
# STECKMUTTERN

Merkmale:

- leicht montier- und demontierbar
- sicherer Halt auch bei Vibrationen
- Material: Polyamid 6.6
- temperaturbeständig bis +100 °C
- Farbe: schwarz

Abmessungen

► Einheit = mm




| Art.-Nr. | M = Gewindegröße | SW (mm) | D (mm) | H (mm) | h1 (mm) |
|---|---|---|---|---|---|
| 150 90 03 | M3 | 7,0 | 8,2 | 4,0 | 1,5 |
| 150 90 04 | M4 | 8,0 | 9,4 | 4,7 | 1,5 |
| 150 90 05 | M5 | 10,0 | 11,7 | 5,8 | 2,0 |
| 150 90 06 | M6 | 13,0 | 15,2 | 7,0 | 2,5 |

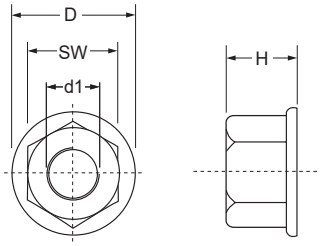
# SECHSKANTMUTTERN MIT FLANSCH

Merkmale:

- Material: Polyamid 6.6, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | D (mm) | H (mm) | SW (mm) | d1 (mm) |
|---|---|---|---|---|
| 150 00 60 | 7,0 | 3,2 | 5,5 | M3 |
| 150 00 61 | 9,4 | 4,1 | 7,0 | M4 |
| 150 00 62 | 11,0 | 5,1 | 8,0 | M5 |
| 150 00 63 | 13,0 | 6,0 | 10,0 | M6 |
| 150 00 64 | 17,0 | 8,0 | 13,0 | M8 |
| 150 00 65 | 22,0 | 9,5 | 16,0 | M10 |
| 150 00 66 | 28,0 | 14,4 | 18,7 | M12 |
| 150 00 67 | 36,0 | 15,8 | 23,7 | M16 |

Andere Farben und Materialien auf Anfrage: Telefon: 09852 61079-0

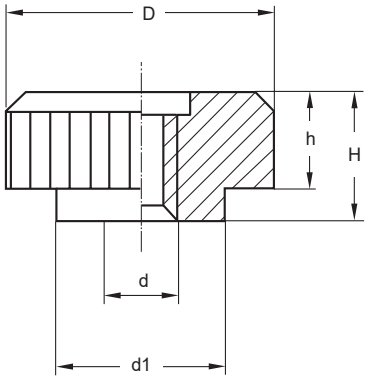
# RMU RÄNDELMUTTER

Merkmale:

- Form A = feine Rändelung
- leicht und rostfrei
- gute mechanische Eigenschaften
- Temperaturbeständig von -30 °C bis +100 °C
- Material: Polyamid 6.6, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm




| Art.-Nr. | d = Gewindegröße | H (mm) | h (mm) | D (mm) | d1 (mm) |
|---|---|---|---|---|---|
| 150 20 01 | M3 | 5,0 | 3,5 | 12,0 | 8,5 |
| 150 20 02 | M3 | 7,0 | 3,5 | 12,0 | 7,0 |
| 150 20 03 | M4 | 7,0 | 3,5 | 12,0 | 7,0 |
| 150 20 04 | M4 | 5,0 | 3,5 | 14,0 | 8,5 |
| 150 20 05 | M4 | 6,0 | 4,5 | 16,0 | 10,0 |
| 150 20 06 | M4 | 8,0 | 4,5 | 16,0 | 9,5 |
| 150 20 07 | M4 | 7,5 | 6,0 | 20,0 | 10,0 |
| 150 20 08 | M5 | 7,0 | 3,5 | 14,0 | 8,8 |
| 150 20 09 | M5 | 6,0 | 4,5 | 16,0 | 10,0 |
| 150 20 10 | M5 | 8,0 | 4,5 | 16,0 | 9,5 |
| 150 20 11 | M5 | 7,5 | 6,0 | 19,0 | 10,0 |
| 150 20 12 | M5 | 11,0 | 6,0 | 20,0 | 13,0 |
| 150 20 13 | M6 | 6,0 | 4,5 | 16,0 | 10,0 |
| 150 20 14 | M6 | 8,0 | 4,5 | 16,0 | 9,5 |
| 150 20 15 | M6 | 7,5 | 6,0 | 19,0 | 10,0 |
| 150 20 16 | M6 | 11,0 | 6,0 | 20,0 | 13,0 |
| 150 20 17 | M8 | 7,5 | 6,0 | 24,0 | 6,0 |

Andere Farben auf Anfrage möglich: Telefon: 09852 61079-0

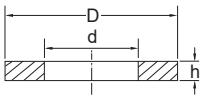
# DIN125 UNTERLEGSCHEIBEN

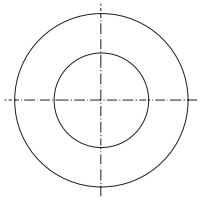
Merkmale

- Unterlegescheibe DIN125
- Material: Polyamid 6.6, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm



| Art.-Nr. | Gewindegröße | d (mm) | D (mm) | h (mm) |
|---|---|---|---|---|
| 150 31 02 | M2 | 2,2 | 5,5 | 0,5 |
| 150 31 01 | M2,5 | 2,7 | 6,0 | 0,5 |
| 150 31 03 | M3 | 3,2 | 7,0 | 0,5 |
| 150 31 03,5 | M3,5 | 3,7 | 8,0 | 0,5 |
| 150 31 04 | M4 | 4,3 | 9,0 | 0,8 |
| 150 31 05 | M5 | 5,3 | 10,0 | 1,0 |
| 150 31 06 | M6 | 6,4 | 12,0 | 1,6 |
| 150 31 08 | M8 | 8,4 | 17,0 | 1,6 |
| 150 31 10 | M10 | 10,5 | 21,0 | 2,0 |
| 150 31 12 | M12 | 13,0 | 24,0 | 2,5 |
| 150 31 14 | M14 | 15,0 | 30,0 | 2,5 |
| 150 31 16 | M16 | 17,0 | 30,0 | 3,0 |
| 150 31 18 | M18 | 19,0 | 34,0 | 3,0 |
| 150 31 20 | M20 | 21,0 | 38,0 | 3,0 |
| 150 31 22 | M22 | 23,0 | 39,0 | 3,0 |
| 150 31 24 | M24 | 25,0 | 44,0 | 4,0 |

| Art.-Nr. | Gewindegröße | d (mm) | D (mm) | h (mm) |
|---|---|---|---|---|
| 150 31 26 | M26 | 27,0 | 50,0 | 4,0 |
| 150 31 27 | M27 | 28,0 | 50,0 | 4,0 |
| 150 31 28 | M28 | 29,0 | 50,0 | 4,0 |
| 150 31 30 | M30 | 31,0 | 56,0 | 4,0 |
| 150 31 32 | M32 | 33,0 | 60,0 | 5,0 |
| 150 31 33 | M33 | 34,0 | 60,0 | 5,0 |
| 150 31 35 | M35 | 36,0 | 66,0 | 5,0 |
| 150 31 36 | M36 | 37,0 | 66,0 | 5,0 |
| 150 31 38 | M38 | 39,0 | 72,0 | 6,0 |
| 150 31 39 | M39 | 40,0 | 72,0 | 6,0 |
| 150 31 40 | M40 | 41,0 | 72,0 | 6,0 |
| 150 31 42 | M42 | 43,0 | 78,0 | 7,0 |
| 150 31 45 | M45 | 46,0 | 85,0 | 7,0 |
| 150 31 48 | M48 | 50,0 | 92,0 | 8,0 |
| 150 31 50 | M50 | 52,0 | 92,0 | 8,0 |

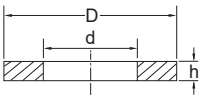
# DIN9021 UNTERLEGSCHEIBEN

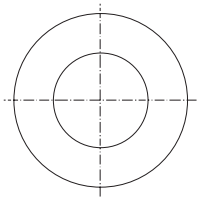
Merkmale

- Unterlegscheibe DIN9021
- Material: Polyamid 6.6, UL94V-2
- Farbe: natur

Abmessungen

► Einheit = mm



| Art.-Nr. | Gewindegröße | d (mm) | D (mm) | h (mm) |
|---|---|---|---|---|
| 150 37 03 | M3 | 3,2 | 9,0 | 0,8 |
| 150 37 04 | M4 | 4,3 | 12,0 | 1,0 |
| 150 37 05 | M5 | 5,3 | 15,0 | 1,5 |
| 150 37 06 | M6 | 6,4 | 18,0 | 1,5 |
| 150 37 08 | M8 | 8,4 | 25,0 | 2,0 |
| 150 37 10 | M10 | 10,5 | 30,0 | 2,5 |
| 150 37 12 | M12 | 13,0 | 40,0 | 3,0 |
| 150 37 16 | M16 | 17,0 | 50,0 | 3,0 |
| 150 37 18 | M18 | 19,0 | 56,0 | 4,0 |
| 150 37 20 | M20 | 21,0 | 60,0 | 4,0 |

Weitere Farben auf Anfrage möglich: Telefon: 09852 61079-0

NEU

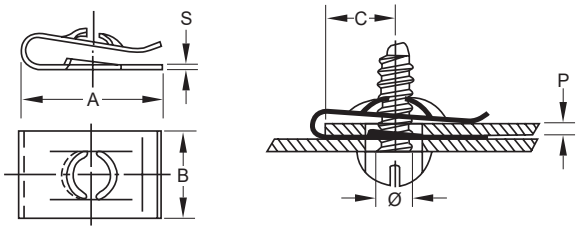
# BMSF BLECHMUTTERN

## Merkmale

- Material: Stahl verzinkt, andere Oberflächen möglich

## Abmessungen

► Einheit = mm




| Art.-Nr. | Ø Schraube (mm) | P (mm) | A (mm) | B (mm) | C (mm) | S (mm) |
|---|---|---|---|---|---|---|
| 147 29 01 | 2,9 | 0,3-1,5 | 11,0 | 8,0 | 4,0 | 0,5 |
| 147 29 02 | 2,9 | 1,7 | 10,5 | 10,0 | 4,0 | 0,4 |
| 147 29 03 | 2,9 | 1,2-2,5 | 12,0 | 11,0 | 5,8 | 0,5 |
| 147 29 04 | 2,9 | 3,5-4,0 | 10,5 | 7,5 | 4,0 | 0,5 |
| 147 35 01 | 3,5 | 1,0-2,0 | 15,0 | 12,0 | 6,5 | 0,6 |
| 147 35 02 | 3,5 | 2,0-3,0 | 16,5 | 10,0 | 9,0 | 0,5 |
| 147 35 03 | 3,5 | 2,5 | 11,2 | 9,0 | 5,7 | 0,5 |
| 147 35 04 | 3,5 | 0,3-1,5 | 11,2 | 9,0 | 5,7 | 0,5 |
| 147 35 05 | 3,5 | 0,3-2,0 | 14,8 | 12,0 | 7,3 | 0,5 |
| 147 35 06 | 3,5 | 0,3-2,0 | 16,0 | 11,0 | 7,5 | 0,6 |
| 147 35 07 | 3,5 | 0,5-1,5 | 15,0 | 12,0 | 8,0 | 0,5 |
| 147 35 08 | 3,5 | 0,5-1,8 | 16,0 | 11,0 | 8,5 | 0,5 |
| 147 35 09 | 3,5 | 1,0-2,0 | 12,0 | 12,0 | 5,0 | 0,6 |
| 147 35 10 | 3,5 | 2,0 | 11,8 | 9,0 | 5,5 | 0,6 |
| 147 35 11 | 3,5 | 1,5-2,5 | 15,0 | 12,0 | 6,5 | 0,6 |
| 147 35 12 | 3,5 | 1,5-2,5 | 15,0 | 9,0 | 7,0 | 0,5 |
| 147 35 13 | 3,5 | 1,8-2,8 | 11,8 | 9,0 | 5,5 | 0,6 |
| 147 35 14 | 3,5 | 2,5-3,5 | 16,5 | 10,0 | 8,0 | 0,6 |
| 147 39 01 | 3,9 | 0,7-1,0 | 10,5 | 9,0 | 6,5 | 0,6 |
| 147 39 02 | 3,9 | 1,1-1,5 | 12,0 | 9,0 | 6,0 | 0,6 |
| 147 42 01 | 4,2 | 0,3-1,5 | 11,2 | 9,0 | 6,0 | 0,5 |
| 147 42 02 | 4,2 | 0,3-1,5 | 15,0 | 12,0 | 8,0 | 0,5 |
| 147 42 03 | 4,2 | 0,3-2,0 | 16,0 | 11,0 | 8,4 | 0,5 |
| 147 42 04 | 4,2 | 0,6-2,0 | 15,0 | 12,0 | 7,0 | 0,6 |
| 147 42 05 | 4,2 | 0,3-2,2 | 20,0 | 12,0 | 5,5 | 0,7 |
| 147 42 06 | 4,2 | 0,3-2,5 | 24,3 | 11,0 | 16,0 | 0,6 |
| 147 42 07 | 4,2 | 0,3-2,0 | 16,0 | 11,0 | 7,9 | 0,6 |
| 147 42 08 | 4,2 | 0,6-1,4 | 16,0 | 12,0 | 8,5 | 0,6 |
| 147 42 09 | 4,2 | 1,0-2,0 | 16,5 | 12,0 | 7,0 | 0,7 |
| 147 42 10 | 4,2 | 1,0-2,0 | 16,0 | 11,0 | 7,8 | 0,6 |
| 147 42 11 | 4,2 | 1,5-2,0 | 17,5 | 11,0 | 7,0 | 0,6 |
| 147 42 12 | 4,2 | 1,8 | 10,5 | 9,0 | 4,5 | 0,6 |
| 147 42 13 | 4,2 | 1,8-3,0 | 16,5 | 10,0 | 8,2 | 0,6 |
| 147 42 14 | 4,2 | 2,0-3,0 | 17,0 | 11,0 | 7,0 | 0,6 |
| 147 42 15 | 4,2 | 2,5-3,0 | 13,0 | 11,0 | 6,5 | 0,5 |
| 147 42 16 | 4,2 | 2,5-3,0 | 11,8 | 9,0 | 6,2 | 0,6 |
| 147 42 17 | 4,2 | 2,5-3,2 | 15,5 | 12,0 | 7,0 | 0,6 |
| 147 42 18 | 4,2 | 2,5-3,2 | 16,0 | 10,0 | 8,5 | 0,6 |
| 147 42 19 | 4,2 | 2,5-3,5 | 16,5 | 10,0 | 8,0 | 0,6 |
| 147 42 20 | 4,2 | 2,5-3,8 | 20,5 | 12,0 | 8,0 | 0,6 |

Weitere Abmessungen und Ausführungen auf Anfrage: Telefon: 09852 61079-0

# BMSF BLECHMUTTERN

NEU

| Art.-Nr. | Ø Schraube (mm) | P (mm) | A (mm) | B (mm) | C (mm) | S (mm) |
|---|---|---|---|---|---|---|
| 147 42 21 | 4,2 | 2,5-4,0 | 23,5 | 11,0 | 15,0 | 0,7 |
| 147 42 22 | 4,2 | 3,0 | 12,0 | 9,0 | 5,5 | 0,6 |
| 147 42 23 | 4,2 | 3,6-4,2 | 13,6 | 9,0 | 6,0 | 0,6 |
| 147 42 24 | 4,2 | 4,0 | 16,0 | 11,0 | 8,4 | 0,6 |
| 147 42 25 | 4,2 | 4,0-6,0 | 21,0 | 10,0 | 9,0 | 0,6 |
| 147 48 01 | 4,8 | 0,3-1,5 | 17,0 | 16,0 | 8,5 | 0,5 |
| 147 48 02 | 4,8 | 0,3-2,0 | 15,0 | 12,0 | 7,8 | 0,7 |
| 147 48 03 | 4,8 | 0,3-2,0 | 19,5 | 12,0 | 8,2 | 0,7 |
| 147 48 04 | 4,8 | 0,3-2,8 | 29,5 | 12,0 | 21,0 | 0,6 |
| 147 48 05 | 4,8 | 1,3-1,5 | 15,0 | 12,0 | 7,5 | 0,7 |
| 147 48 06 | 4,8 | 1,0-2,2 | 12,5 | 16,0 | 4,5 | 0,7 |
| 147 48 07 | 4,8 | 1,0-3,0 | 17,8 | 11,0 | 8,2 | 0,5 |
| 147 48 08 | 4,8 | 2,0 | 10,5 | 9,0 | 4,5 | 0,5 |
| 147 48 09 | 4,8 | 2,5-3,2 | 16,0 | 12,0 | 7,0 | 0,7 |
| 147 48 10 | 4,8 | 2,5-3,8 | 21,0 | 12,0 | 9,0 | 0,8 |
| 147 48 11 | 4,8 | 2,8-3,8 | 15,5 | 12,0 | 7,0 | 0,7 |
| 147 48 12 | 4,8 | 3,5 | 16,5 | 16,0 | 9,0 | 0,5 |
| 147 48 13 | 4,8 | 3,6 | 17,2 | 11,0 | 9,0 | 0,7 |
| 147 55 01 | 5,5 | 0,8-1,5 | 15,0 | 16,0 | 8,0 | 0,8 |
| 147 55 02 | 5,5 | 0,3-3,2 | 26,0 | 15,0 | 11,5 | 0,8 |
| 147 55 03 | 5,5 | 1,6-2,1 | 16,0 | 16,0 | 8,0 | 0,6 |
| 147 63 01 | 6,3 | 0,3-1,5 | 16,5 | 16,0 | 8,0 | 0,5 |
| 147 63 02 | 6,3 | 1,5-2,5 | 25,4 | 14,0 | 11,5 | 0,5 |
| 147 63 03 | 6,3 | 5,5 | 27,0 | 16,0 | 13,0 | 0,6 |

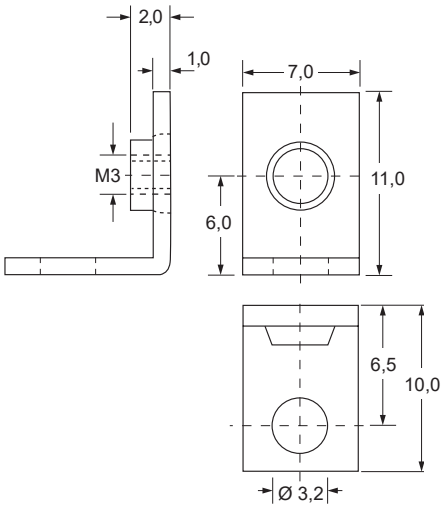
# MONTAGEWINKEL

Merkmale

- mit Loch und/oder Gewinde
- Material: Stahl vernickelt

Abmessungen

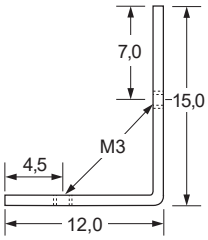
► Einheit = mm




| Art.-Nr. | Schenkellänge (mm) | Breite (mm) | Materialstärke (mm) | Loch-Ø (mm) | Gewindegröße |
|---|---|---|---|---|---|
| 169 01 01 | 10,0 x 11,0 | 7,0 | 1,0 | 3,2 | M3 |

Abmessungen

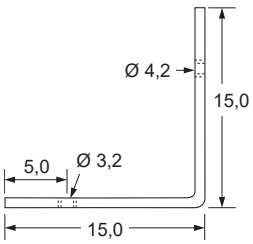
► Einheit = mm




| Art.-Nr. | Schenkellänge (mm) | Breite (mm) | Materialstärke (mm) | Gewindegröße |
|---|---|---|---|---|
| 169 01 02 | 12,0 x 15,0 | 10,0 | 1,5 | 2 x M3 |

Abmessungen

► Einheit = mm



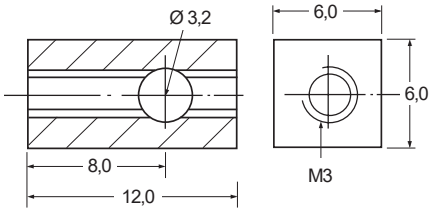

| Art.-Nr. | Schenkellänge (mm) | Breite (mm) | Materialstärke (mm) | Loch-Ø (mm) |
|---|---|---|---|---|
| 169 01 03 | 15,0 x 15,0 | 10,0 | 1,0 | 3,2 / 4,2 |

# BEFESTIGUNGSELEMENTE

Merkmale

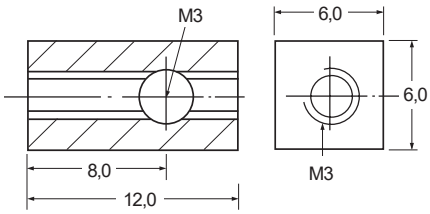
- Befestigungselemente
- 4-Kant mit Querbohrungen und/oder Innengewinde
- Material: Messing, vernickelt

Abmessungen
► Einheit = mm



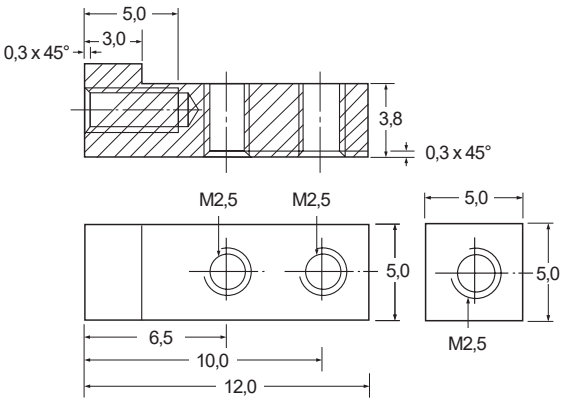
| Art.-Nr. | Gesamtlänge (mm) | Kantenlänge (mm) | Querbohrung-Ø (mm) | Gewindegröße |
|---|---|---|---|---|
| 169 01 04 | 12,0 | 6,0 | 3,2 | 2 x M3 |

Abmessungen
► Einheit = mm



| Art.-Nr. | Gesamtlänge (mm) | Kantenlänge (mm) | Gewindegröße |
|---|---|---|---|
| 169 01 05 | 12,0 | 6,0 | 2 x M3 |

Abmessungen
► Einheit = mm

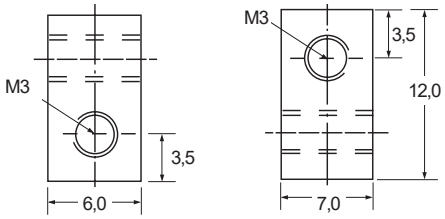


| Art.-Nr. | Gesamtlänge (mm) | Kantenlänge (mm) | Gewindegröße |
|---|---|---|---|
| 169 01 06 | 12,0 | 5,0 | 3 x M2,5 |

Merkmale

- Befestigungselement
- 4-Kant mit Querbohrungen und Innengewinde • Material: Messing, vernickelt

Abmessungen
► Einheit = mm



| Art.-Nr. | Gesamtlänge (mm) | Breite (mm) | Höhe (mm) | Gewindegröße | Ausführung (°) |
|---|---|---|---|---|---|
| 169 01 07 | 12,0 | 7,0 | 6,0 | 2 x M3 | 90 |

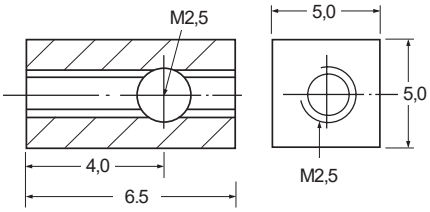
# BEFESTIGUNGSELEMENTE

## Merkmale

- Befestigungselemente
- 4-Kant mit und Innengewinde
- Material: Messing, vernickelt

## Abmessungen

► Einheit = mm




| Art.-Nr. | Gesamtlänge (mm) | Kantenlänge (mm) | Gewindegröße |
|---|---|---|---|
| 169 01 09 | 6,5 | 5,0 | 2 x M2,5 |

# ADERENDHÜLSEN

## Aderendhülsen


| | |
|---|---|
| unisoliert | Seite 368 |
| isoliert | Seite 369 |
| Twin isoliert | Seite 370 |

## Steckverbinder


| | |
|---|---|
| ICD Steckverbinder | Seite 371 |

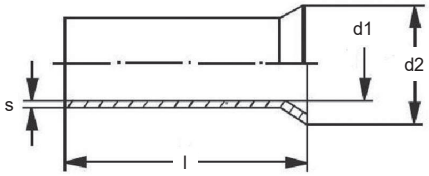
# UNISOLIERTE ADERENDHÜLSEN

Merkmale:

- unisolierte Aderendhülsen nach DIN46228/1
- Material: E-Cu, galvanisch verzinnt (min. 3µm)

Abmessungen

► Einheit = mm

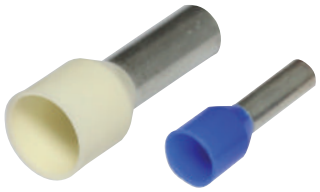



| Art.-Nr. | Querschnitt (mm²) | l (mm) | d1 (mm) | d2 (mm) | s (mm) |
|---|---|---|---|---|---|
| 300 04 019 | 0,14 mm² | 7,0 | 0,65 | 1,60 | 0,15 |
| 300 04 020 | 0,25 mm² | 5,0 | 0,75 | 1,70 | 0,15 |
| 300 04 029 | 0,25 mm² | 7,0 | 0,75 | 1,70 | 0,15 |
| 300 04 039 | 0,34 mm² | 7,0 | 0,85 | 1,80 | 0,15 |
| 300 04 050 | 0,50 mm² | 6,0 | 1,00 | 2,10 | 0,15 |
| 300 04 051 | 0,50 mm² | 8,0 | 1,00 | 2,10 | 0,15 |
| 300 04 070 | 0,75 mm² | 6,0 | 1,20 | 2,30 | 0,15 |
| 300 04 071 | 0,75 mm² | 8,0 | 1,20 | 2,30 | 0,15 |
| 300 04 072 | 0,75 mm² | 10,0 | 1,20 | 2,30 | 0,15 |
| 300 04 073 | 0,75 mm² | 12,0 | 1,20 | 2,30 | 0,15 |
| 300 04 076 | 0,75 mm² | 20,0 | 1,20 | 2,30 | 0,15 |
| 300 04 100 | 1,00 mm² | 6,0 | 1,40 | 2,50 | 0,15 |
| 300 04 109 | 1,00 mm² | 7,0 | 1,40 | 2,50 | 0,15 |
| 300 04 101 | 1,00 mm² | 8,0 | 1,40 | 2,50 | 0,15 |
| 300 04 102 | 1,00 mm² | 10,0 | 1,40 | 2,50 | 0,15 |
| 300 04 159 | 1,50 mm² | 7,0 | 1,70 | 2,80 | 0,15 |
| 300 04 152 | 1,50 mm² | 10,0 | 1,70 | 2,80 | 0,15 |
| 300 04 153 | 1,50 mm² | 12,0 | 1,70 | 2,80 | 0,15 |
| 300 04 259 | 2,50 mm² | 7,0 | 2,20 | 3,40 | 0,15 |
| 300 04 252 | 2,50 mm² | 10,0 | 2,20 | 3,40 | 0,15 |
| 300 04 253 | 2,50 mm² | 12,0 | 2,20 | 3,40 | 0,15 |
| 300 04 264 | 2,50 mm² | 18,0 | 2,20 | 3,40 | 0,15 |
| 300 04 401 | 4,00 mm² | 9,0 | 2,80 | 4,00 | 0,20 |
| 300 04 403 | 4,00 mm² | 12,0 | 2,80 | 4,00 | 0,20 |
| 300 04 602 | 6,00 mm² | 10,0 | 3,50 | 4,70 | 0,20 |
| 300 04 603 | 6,00 mm² | 12,0 | 3,50 | 4,70 | 0,20 |
| 300 04 113 | 10,00 mm² | 12,0 | 4,50 | 5,80 | 0,20 |
| 300 04 114 | 10,00 mm² | 15,0 | 4,50 | 5,80 | 0,20 |
| 300 04 116 | 10,00 mm² | 20,0 | 4,50 | 5,80 | 0,20 |
| 300 04 163 | 16,00 mm² | 12,0 | 5,80 | 7,50 | 0,20 |
| 300 04 164 | 16,00 mm² | 15,0 | 5,80 | 7,50 | 0,20 |
| 300 04 166 | 16,00 mm² | 20,0 | 5,80 | 7,50 | 0,20 |
| 300 04 355 | 35,00 mm² | 18,0 | 8,30 | 11,00 | 0,20 |
| 300 04 506 | 50,00 mm² | 22,0 | 10,30 | 13,00 | 0,30 |

# ISOLIERTE ADERENDHÜLSEN

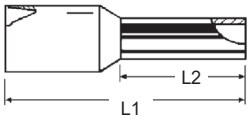
Merkmale:

- isolierte Aderendhülsen mit Kunststoffkragen
- Einführungstrichter aus Polypropylen
- wärmebeständig bis +105 °C
- Material: E-Cu, galvanisch verzinnt (min. 3µm)



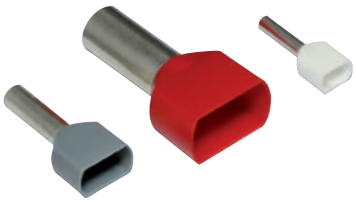
Abmessungen

► Einheit = mm




| Größe (mm²) | L2 (mm) | L1 (mm) | nach DIN46228/4 | | Farbreihe 1 | | Farbreihe 2 | |
|---|---|---|---|---|---|---|---|---|
| | | | Farbe | Art.-Nr. | Farbe | Art.-Nr. | Farbe | Art.-Nr. |
| 0,14 | 6,0 N | 10,0 | - | - | braun | 300 02 011 | grau | 300 03 011 |
| 0,14 | 8,0 L | 12,0 | - | - | braun | 300 02 013 | grau | 300 03 013 |
| 0,25 | 6,0 N | 10,0 | - | - | violett | 300 02 021 | hellblau | 300 03 021 |
| 0,25 | 6,0 N | 10,0 | - | - | hellgelb | 300 01 021 | - | - |
| 0,25 | 8,0 L | 12,0 | - | - | violett | 300 02 023 | hellblau | 300 03 023 |
| 0,25 | 8,0 L | 12,0 | - | - | hellgelb | 300 01 023 | - | - |
| 0,34 | 6,0 N | 10,0 | - | - | rosa | 300 02 031 | türkis | 300 03 031 |
| 0,34 | 6,0 N | 10,0 | - | - | hellgrün | 300 00 031 | - | - |
| 0,34 | 6,0 N | 10,0 | - | - | hellgelb | 300 01 031 | - | - |
| 0,34 | 8,0 L | 12,0 | - | - | rosa | 300 02 033 | türkis | 300 03 033 |
| 0,34 | 8,0 L | 12,0 | - | - | hellgrün | 300 00 033 | - | - |
| 0,34 | 8,0 L | 12,0 | - | - | hellgelb | 300 01 033 | - | - |
| 0,50 | 6,0 K | 12,0 | weiß | 300 02 050 | weiß | 300 02 050 | orange | 300 03 050 |
| 0,50 | 8,0 N | 14,0 | weiß | 300 02 051 | weiß | 300 02 051 | orange | 300 03 051 |
| 0,50 | 10,0 HL | 16,0 | weiß | 300 02 052 | weiß | 300 02 052 | orange | 300 03 052 |
| 0,75 | 6,0 K | 12,0 | grau | 300 01 070 | hellblau | 300 02 070 | weiß | 300 03 070 |
| 0,75 | 8,0 N | 14,0 | grau | 300 01 071 | hellblau | 300 02 071 | weiß | 300 03 071 |
| 0,75 | 10,0 HL | 16,0 | grau | 300 01 072 | hellblau | 300 02 072 | weiß | 300 03 072 |
| 0,75 | 12,0 L | 18,0 | grau | 300 01 073 | hellblau | 300 02 073 | weiß | 300 03 073 |
| 1,00 | 6,0 K | 12,0 | rot | 300 02 100 | rot | 300 02 100 | gelb | 300 03 100 |
| 1,00 | 8,0 N | 14,0 | rot | 300 02 101 | rot | 300 02 101 | gelb | 300 03 101 |
| 1,00 | 10,0 HL | 16,0 | rot | 300 02 102 | rot | 300 02 102 | gelb | 300 03 102 |
| 1,00 | 12,0 L | 18,0 | rot | 300 02 103 | rot | 300 02 103 | gelb | 300 03 103 |
| 1,50 | 6,0 K | 12,0 | schwarz | 300 02 150 | schwarz | 300 02 150 | dunkelrot | 300 03 150 |
| 1,50 | 8,0 N | 14,0 | schwarz | 300 02 151 | schwarz | 300 02 151 | dunkelrot | 300 03 151 |
| 1,50 | 10,0 HL | 16,0 | schwarz | 300 02 152 | schwarz | 300 02 152 | dunkelrot | 300 03 152 |
| 1,50 | 12,0 HLS | 18,0 | schwarz | 300 01 154 | schwarz | 300 01 154 | dunkelrot | 300 03 154 |
| 1,50 | 18,0 L | 24,0 | schwarz | 300 01 153 | schwarz | 300 01 153 | dunkelrot | 300 03 153 |
| 2,50 | 8,0 N | 14,0 | blau | 300 01 251 | grau | 300 02 251 | blau | 300 03 251 |
| 2,50 | 10,0 HLS | 16,0 | blau | 300 01 254 | grau | 300 02 254 | blau | 300 03 254 |
| 2,50 | 12,0 HL | 18,0 | blau | 300 01 252 | grau | 300 02 252 | blau | 300 03 252 |
| 2,50 | 18,0 L | 24,0 | blau | 300 01 253 | grau | 300 02 253 | blau | 300 03 253 |
| 4,00 | 10,0 N | 17,0 | grau | 300 01 401 | orange | 300 02 401 | grau | 300 03 401 |
| 4,00 | 12,0 HL | 20,0 | grau | 300 01 402 | orange | 300 02 402 | grau | 300 03 402 |
| 4,00 | 18,0 L | 26,0 | grau | 300 01 403 | orange | 300 02 403 | grau | 300 03 403 |
| 6,00 | 12,0 N | 20,0 | gelb | 300 01 601 | grün | 300 02 601 | schwarz | 300 03 601 |
| 6,00 | 18,0 L | 26,0 | gelb | 300 01 603 | grün | 300 02 603 | schwarz | 300 03 603 |
| 10,00 | 12,0 N | 22,0 | rot | 300 01 111 | braun | 300 02 111 | elfenbein | 300 03 111 |
| 10,00 | 18,0 L | 28,0 | rot | 300 01 113 | braun | 300 02 113 | elfenbein | 300 03 113 |
| 16,00 | 12,0 N | 24,0 | blau | 300 01 171 | elfenbein | 300 02 171 | grün | 300 03 171 |
| 16,00 | 18,0 L | 28,0 | blau | 300 01 173 | elfenbein | 300 02 173 | grün | 300 03 173 |
| 25,00 | 16,0 N | 30,0 | gelb | 300 01 261 | schwarz | 300 02 261 | braun | 300 03 261 |
| 25,00 | 18,0 HL | 30,0 | gelb | 300 01 262 | schwarz | 300 02 262 | braun | 300 03 262 |
| 25,00 | 22,0 L | 36,0 | gelb | 300 01 263 | schwarz | 300 02 263 | braun | 300 03 263 |
| 35,00 | 16,0 N | 30,0 | rot | 300 02 361 | rot | 300 02 361 | beige | 300 03 361 |
| 35,00 | 18,0 HL | 30,0 | rot | 300 01 362 | rot | 300 01 362 | beige | 300 03 362 |
| 35,00 | 25,0 L | 39,0 | rot | 300 02 363 | rot | 300 02 363 | beige | 300 03 363 |
| 50,00 | 20,0 N | 36,0 | blau | 300 01 511 | blau | 300 02 511 | oliv | 300 03 511 |
| 50,00 | 25,0 L | 40,0 | blau | 300 01 513 | blau | 300 02 513 | oliv | 300 03 513 |
| 70,00 | 21,0 N | 37,0 | gelb | 300 02 701 | gelb | 300 02 701 | gelb | 300 02 701 |
| 95,00 | 25,0 N | 44,0 | rot | 300 02 951 | rot | 300 02 951 | rot | 300 02 951 |
| 120,00 | 27,0 N | 48,0 | blau | 300 02 1201 | blau | 300 02 1201 | blau | 300 02 1201 |
| 150,00 | 32,0 N | 58,0 | gelb | 300 02 1501 | gelb | 300 02 1501 | gelb | 300 02 1501 |

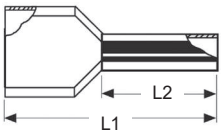
# TWIN ADERENDHÜLSEN ISOLIERT



Merkmale:

- isolierte Aderendhülsen
- Einführungstrichter aus Polypropylen
- wärmebeständig bis +105 °C
- Material: E-Cu, galvanisch verzinnt (min. 3µm)

Abmessungen ► Einheit = mm




• **DIN46228/4**

| Art.-Nr. | Farbe | Größe (mm²) | L1 (mm) | L2 (mm) |
|---|---|---|---|---|
| 300 05 051 | weiss | 2 x 0,50 | 15,0 | 8,0 N |
| 300 05 071 | grau | 2 x 0,75 | 15,0 | 8,0 N |
| 300 05 072 | grau | 2 x 0,75 | 17,0 | 10,0 L |
| 300 05 101 | rot | 2 x 1,00 | 15,0 | 8,0 N |
| 300 05 102 | rot | 2 x 1,00 | 17,0 | 10,0 L |
| 300 05 103 | rot | 2 x 1,00 | 19,0 | 12,0 XL |
| 300 05 104 | rot | 2 x 1,00 | 25,0 | 18,0 XXL |
| 300 05 151 | schwarz | 2 x 1,50 | 16,0 | 8,0 N |
| 300 05 152 | schwarz | 2 x 1,50 | 20,0 | 12,0 L |
| 300 05 153 | schwarz | 2 x 1,50 | 26,0 | 18,0 XL |
| 300 05 251 | blau | 2 x 2,50 | 18,5 | 10,0 N |
| 300 05 252 | blau | 2 x 2,50 | 21,5 | 13,0 L |
| 300 05 401 | grau | 2 x 4,00 | 23,0 | 12,0 N |
| 300 05 601 | gelb | 2 x 6,00 | 26,0 | 14,0 N |
| 300 05 111 | rot | 2 x 10,00 | 26,0 | 14,0 N |
| 300 05 171 | blau | 2 x 16,00 | 30,0 | 14,0 N |

• **Farbreihe 1**

| Art.-Nr. | Farbe | Größe (mm²) | L1 (mm) | L2 (mm) |
|---|---|---|---|---|
| 300 07 021 | violett | 2 x 0,25 | 15,0 | 8,0 N |
| 300 05 051 | weiss | 2 x 0,50 | 15,0 | 8,0 N |
| 300 07 071 | hellblau | 2 x 0,75 | 15,0 | 8,0 N |
| 300 07 072 | hellblau | 2 x 0,75 | 17,0 | 10,0 L |
| 300 05 101 | rot | 2 x 1,00 | 15,0 | 8,0 N |
| 300 05 102 | rot | 2 x 1,00 | 17,0 | 10,0 L |
| 300 05 103 | rot | 2 x 1,00 | 19,0 | 12,0 XL |
| 300 05 104 | rot | 2 x 1,00 | 25,0 | 18,0 XXL |
| 300 05 151 | schwarz | 2 x 1,50 | 16,0 | 8,0 N |
| 300 05 152 | schwarz | 2 x 1,50 | 20,0 | 12,0 L |
| 300 05 153 | schwarz | 2 x 1,50 | 26,0 | 18,0 XL |
| 300 07 251 | grau | 2 x 2,50 | 18,5 | 10,0 N |
| 300 07 252 | grau | 2 x 2,50 | 21,5 | 13,0 L |
| 300 07 401 | orange | 2 x 4,00 | 23,0 | 12,0 N |
| 300 07 601 | grün | 2 x 6,00 | 26,0 | 14,0 N |
| 300 07 111 | braun | 2 x 10,00 | 26,0 | 14,0 N |
| 300 07 171 | elfenbein | 2 x 16,00 | 30,0 | 14,0 N |

• **Farbreihe 2**

| Art.-Nr. | Farbe | Größe (mm²) | L1 (mm) | L2 (mm) |
|---|---|---|---|---|
| 300 06 021 | hellblau | 2 x 0,25 | 15,0 | 8,0 N |
| 300 06 031 | türkis | 2 x 0,34 | 15,0 | 8,0 N |
| 300 06 051 | orange | 2 x 0,50 | 15,0 | 8,0 N |
| 300 06 071 | weiss | 2 x 0,75 | 15,0 | 8,0 N |
| 300 06 072 | weiss | 2 x 0,75 | 17,0 | 10,0 L |
| 300 06 101 | gelb | 2 x 1,00 | 15,0 | 8,0 N |
| 300 06 102 | gelb | 2 x 1,00 | 17,0 | 10,0 L |
| 300 06 103 | gelb | 2 x 1,00 | 19,0 | 12,0 XL |
| 300 06 104 | gelb | 2 x 1,00 | 25,0 | 18,0 XXL |
| 300 06 151 | dunkelrot | 2 x 1,50 | 16,0 | 8,0 N |
| 300 06 152 | dunkelrot | 2 x 1,50 | 20,0 | 12,0 L |
| 300 06 153 | dunkelrot | 2 x 1,50 | 26,0 | 18,0 XL |
| 300 05 251 | blau | 2 x 2,50 | 18,5 | 10,0 N |
| 300 05 252 | blau | 2 x 2,50 | 21,5 | 13,0 L |
| 300 05 401 | grau | 2 x 4,00 | 23,0 | 12,0 N |
| 300 06 601 | schwarz | 2 x 6,00 | 26,0 | 14,0 N |
| 300 06 111 | elfenbein | 2 x 10,00 | 26,0 | 14,0 N |
| 300 06 171 | grün | 2 x 16,00 | 30,0 | 14,0 N |

# IDC STECKVERBINDER

NEU

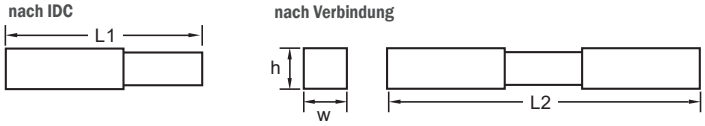
Merkmale

- Die Schneidklemmtechnik ermöglicht eine einfache Verbindung ohne Spezialwerkzeug. Abisolieren, löten oder schrauben ist nicht notwendig.
- Leiterquerschnitt: Typ IDC-3924G: 0,2 - 0,5 mm² • max. Isolations-Ø: 2,1 mm,
  Typ IDC-3928B: 0,08 - 0,2 mm² • max. Isolations-Ø: 1,6 mm
  Typ IDC-3926W: 0,05 - 0,13 mm² • max. Isolations-Ø: 1,3 mm
  Typ IDC-3918GR: 0,5 - 0,75 mm² • max. Isolations-Ø: 2,8 mm
- Nennspannung: Typ IDC-3924G: 100 V • Belastbarkeit: 2 A (0,2 mm²), 3 A (0,5 mm²),
  Typ IDC-3928B: 100 V • Belastbarkeit: 1 A (0,08 mm²), 2 A (0,2 mm²)
  Typ IDC-3926W: 100 V • Belastbarkeit: 2 A (0,05 mm²), 3 A (0,13 mm²)
  Typ IDC-3918GR: 300 V • Belastbarkeit: 6 A (0,5 mm²), 8 A (0,75 mm²)
- Temperaturbeständigkeit: -20 °C bis +75 °C
- Verarbeitungstemperatur: 0 °C bis +40 °C
- Material Gehäuse: Polycarbonat (Typ IDC-3924G + IDC-3918GR schwarz, Typ IDC-3928B weiss), Nylon (IDC-3926W)
- Material Abdeckung: Polycarbonat (transparent gelb oder transparent blau), IDC-3926W ohne Cover
- Material Kontakt: Bronze verzinnt, IDC-3918GR verzinnte Kupferlegierung

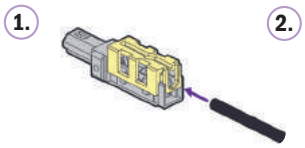
| Art.-Nr. | Typ | Farbe | h (mm) | w (mm) | L1 (mm) | L2 (mm) |
|---|---|---|---|---|---|---|
| **401 01 00** | IDC-3926W | milchweiß | 3,0 | 3,2 | 16,5 | 27,7 |
| **401 01 01** | IDC-3924G | transparent gelb | 6,4 | 5,8 | 25,9 | 44,0 |
| **401 01 02** | IDC-3928B | transparent blau | 6,4 | 5,8 | 25,9 | 44,0 |
| **401 01 03** | IDC-3918GR | transparent grün | 8,5 | 7,8 | 26,0 | 43,2 |

Abmessungen

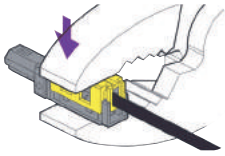
► Einheit = mm



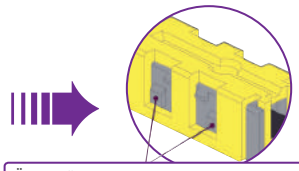

**Gebrauchsanweisung:**



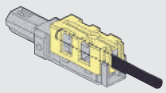
1. Das Kabel bis zum Anschlag einführen...



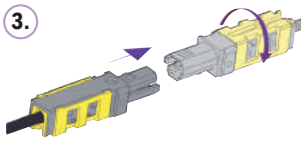
2. ... und den Stecker mit einer herkömmlichen Zange zusammendrücken.



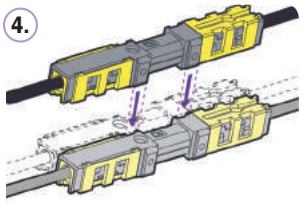
Überprüfen Sie danach, ob alle Haken richtig eingerastet sind.



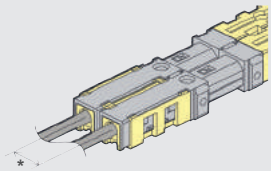
Abisolieren, Löten oder Schrauben ist nicht mehr notwendig.



3. Einen Steckverbinder um 180° drehen und die beiden zusammenführen.



4. Für Mehrfachleitungen die Steckverbinder mittels Führungsleiste miteinander verbinden.



* Der Abstand zwischen 2 Kabel bei Mehrfachleitungen beträgt 5,6 mm

Als Sicherung empfehlen wir die Verbindungsplatte: **Art.-Nr.: 401 01 00**

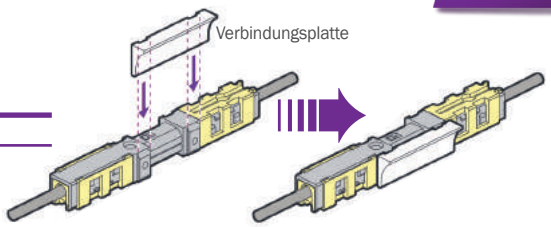
# VERBINDUNGSPLATTE

NEU

Merkmale

- Material: Polycarbonat (weiss)

| Art.-Nr. | Typ |
|---|---|
| **401 01 00** | 3924n.1 |



Notizen

# THERMAL MANAGEMENT

## Thermal Management


| | |
|---|---|
| heat-release LED Spacer | Seite 374 |
| Thermal Pads | Seite 375 - 387 |
| Wärmeleitpaste / Thermal Conductive Gel | Seite 388 |
| Wärmeleitfolie | Seite 389 - 390 |
| Wärmeleitende(r) Graphitfolie / Graphitfilm | Seite 391 - 392 |
| Magnetic Absorber | Seite 393 |
| Thermal Foam Gasket | Seite 394 - 395 |

NEW

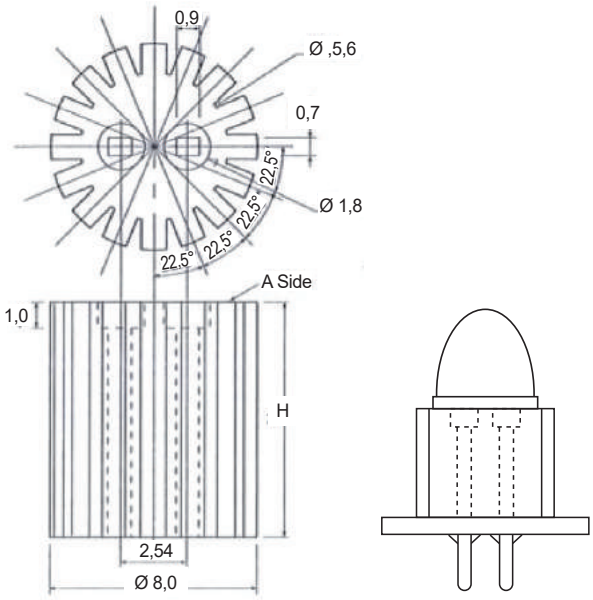
# LMC HEAT-RELEASE LED SPACER

## Merkmale / features

- Can lower peak heat-temperature of LED (down 7-20%)
- Can extend LED lifetime
- Heat Conductivity: 5W/m • k
- Reflow: possible
- Adaptive LED: Ø 3,0, Ø 5,0 LED
  = Pitch: 2,54 mm, 2,5 mm
  = Diameter Ø: 0,5; 0,5; 0,6 and below,
  0,6 and below
- Operating Temperature: -40°C to +125°C
- Material: Special PPS Black (UL94V-0)

## Dimensions

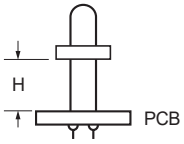
► unit = mm




• Notice: please insert LED from A side and make LED contact with the spacer

| Type | H (mm) |
|---|---|
| LMC-7 | 7,0 |
| LMC-8 | 8,0 |
| LMC-9 | 9,0 |
| LMC-10 | 10,0 |
| LMC-11 | 11,0 |
| LMC-12 | 12,0 |
| LMC-13 | 13,0 |
| LMC-14 | 14,0 |
| LMC-15 | 15,0 |
| LMC-20 | 20,0 |

**Heat-Release Test Data:**




| H (mm) | No Spacer (°C) | with LMC (°C) | Difference (°C) |
|---|---|---|---|
| 7,0 | 76 | 67 | -9 |
| 10,0 | 75 | 65 | -10 |
| 15,0 | 79 | 65 | -14 |
| 20,0 | 82 | 65 | -17 |

# H100 THERMAL PAD

## Features

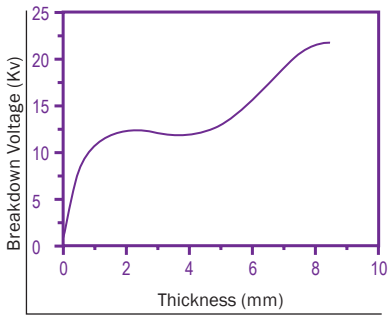
- soft, excellent compression rate
- 1,0 W/m.k Thermal conductivity
- UL94 V-0 recognized

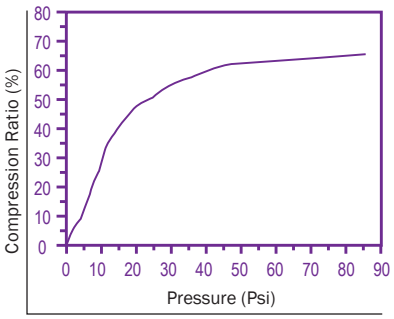
## Typical Applications:

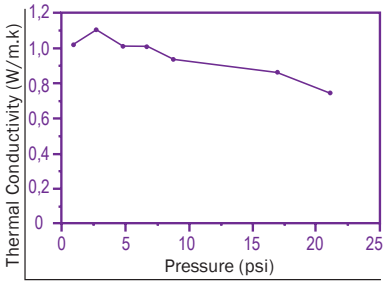
- between cooler and chassis or frame, high speed disk storage drive, Flate-panel display, LED Lighting, Power conversion equipment, swift conversion equipment, Engine control unit, Memory module

## Specifications

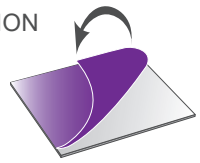
| H100 Series Thermal Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Typical Properties | Ceramics filled with Silicone Resin | - | - |
| Color | Light Gray | N/A | Visual |
| Thickness (mm) | 0,2 - 14,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 2,32 ±0,2 | BS-H Electronic Balance & Digital Caliper | ASTM D792 |
| Hardness Shore C | 8 - 60 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 1,0 | Hot-Disk Thermal Conductivity Teser | ISO 22007-2 |
| Thermal Resistance@20psi&1mm°C in $^2$/W | 2,20 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage KV (1,0 mm) | 11,2 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | $4{,}5 \times 10^{10}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio % @ 50psi | 62,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 0,55 | Tension Tester | ASTM D412-1998A |
| Elongation % | 56,4 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant @1MHz | 6,79 | WY2851 D Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,0057 | WY2851 D Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Thermal Gravimetry % (120°C, 7d) | 0,29 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperature (°C) | -50 to +200°C | Programmable Thermal Shock Tester | - |






APPLICATION



**Remark:** Tolerance of Hardness: ± 5, Dimension: 360 mm x 360 mm, 200 mm x 400 mm, can be custom-made by required. Thickness: Various of thickness for option, from 0,2 mm to 14,0 mm are available.

# H100 THERMAL PAD - SOFT

Features

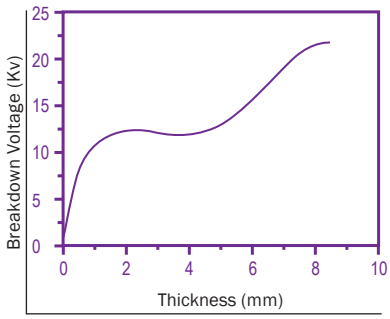
- soft, excellent compression rate
- 1,0 W/m.k Thermal conductivity, low thermal impedance
- UL94 V-0 recognized
- surface with viscous

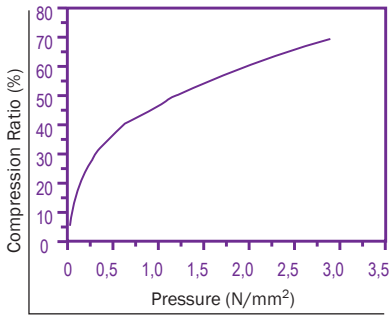
Typical Applications:

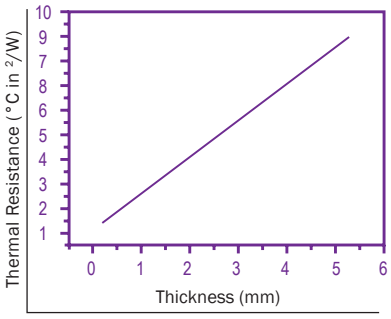
- between cooler and chassis or frame,
  high speed disk storage drive, Hat-panel display, LED lighting, Power conversion equipment and swift conversion equipment, Engine control unit, Memory module

## Specifications

| H100 soft Thermal Series Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Color | White | N/A | Visual |
| Carrier | Insulators | - | - |
| Thickness (mm) | 0,5 - 3,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 2,30 ±0,2 | BS-H Electronic Balance | ASTM D792 |
| Hardness Shore C | 10 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 1,0 ±0,1 | Hot-Disk Thermal Conductivity Tester | ISO 22007-2 |
| Tack (no Insulators) | 10 | PH-520 Tack Tester | GB/T 4852-2002 |
| Thermal Resistance@20psi°C in $^2$/W | 3,0 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage KV | 13,0 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | $1{,}5 \times 10^{11}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio % @ 50psi | 32,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 1,5 | Tension Tester | ASTM D412-1998A |
| Elongation % | 5,0 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant @1MHz | 5,0 | WY2851 D Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,013 | WY2851 D Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Thermal Gravimetric % (120°C, 7d) | 0,4 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperature (°C) | -50 to +200°C | Programmable Thermal Shock Tester | - |



**Remark:** Tolerance of Hardness: ± 5, Dimension: 360 mm x 360 mm, 200 mm x 400 mm, can be custom-made by required. Thickness: Various of thickness for option, from 0,2 mm to 14,0 mm are available.

# H150 THERMAL PAD

## Features

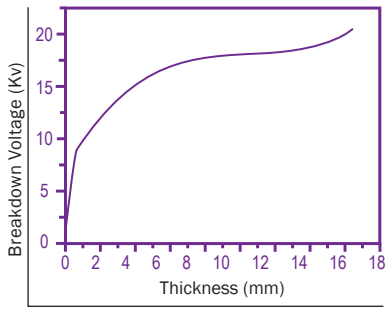
- soft, excellent compression rate
- 1,5 W/m.k Thermal conductivity
- UL94 V-0 recognized

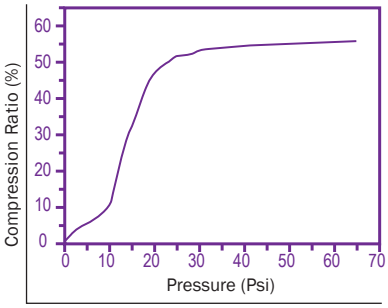
## Typical Applications:

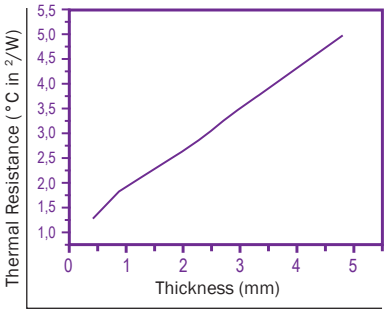
- between cooler and chassis or frame, swift conversion equipment, Flate-panel display, LED Lighting, Power conversion equipment

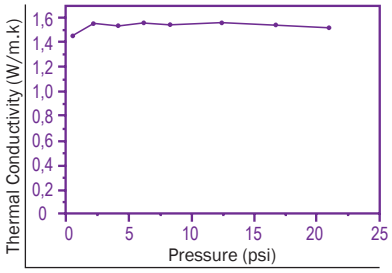
## Specifications

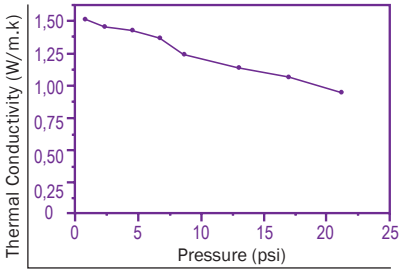
| H150 Series Thermal Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Typical Properties | Ceramics filled with Silicone Resin | - | - |
| Color | Pink | N/A | Visual |
| Thickness (mm) | 0,2 - 14,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 2,62 ±0,2 | BS-H Electronic Balance & Digital Caliper | ASTM D792 |
| Hardness Shore C | 10 - 55 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 1,50 | Hot-Disk Thermal Conductivity Tester | ISO-22007-2 |
| Thermal Resistance@20psi & 1 mm °C in ²/W | 1,85 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage kV /1,0 mm) | 8,3 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | 6,7 x $10^{10}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio %@ 50psi | 56,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 0,52 | Tension Tester | ASTM D412-1998A |
| Elongation % | 97,3 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant@1MHz | 6,54 | WY2851 Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,0121 | WY2851 Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Thermal Gravimetry % (120°C, 7d) | 0,85 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperature (°C) | -50 to +200°C | Programmable Thermal Shock Tester | - |



**Remark:** Tolerance of Hardness: ± 5, Dimension: 360 mm x 360 mm, 200 mm x 400 mm, can be custom-made by required. Thickness: Various of thickness for option, from 0,2 mm to 14,0 mm are available.

# H200 THERMAL PAD

## Features

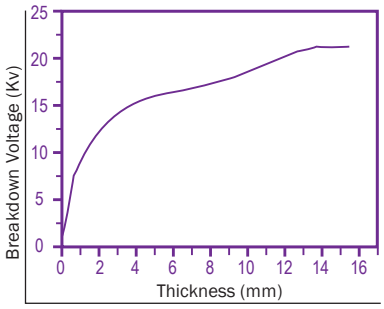
- working under low pressure
- excellent dielectric protecties and heat resistance
- UL94 V-0 recognized

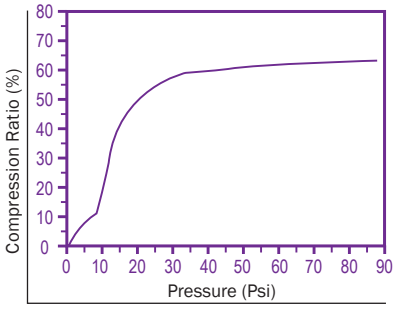
## Typical Applications:

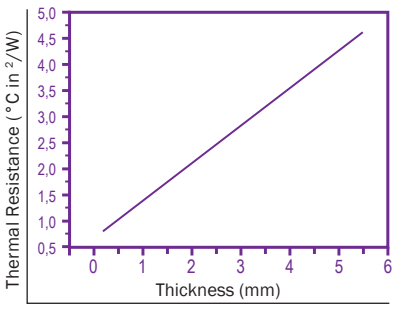
- between cooler and chassis or frame,
  LCD Back Light Unit, Memory module, HDD, DVD, Laptop, desktop and netbook, Telecom hardware, Power conversion equipment,
  Engine control unit, high speed disk storage drive

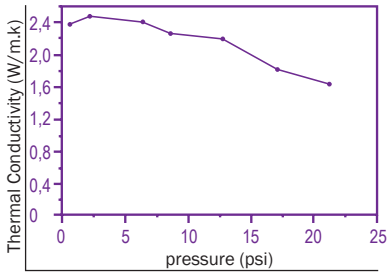
## Specifications

| H200 Series Thermal Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Typical Properties | Ceramics filled with Silicone Resin | - | - |
| Color | Light Blue | N/A | Visual |
| Thickness (mm) | 0,3 - 14,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 2,8 ±0,2 | BS-H Electronic Balance & Digital Caliper | ASTM D792 |
| Hardness Shore C | 10 - 55 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 2,0 | Hot-Diskthermal Conductivity Tester | ISO 22007-2 |
| Thermal Resistance@20psi & 1mm °C in $^2$/W | 1,43 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage kV (1mm) | 8,8 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | 1,1 x $10^{11}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio %@50psi | 61,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 0,43 | Tension Tester | ASTM D412-1998A |
| Elongation % | 104,5 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant@1MHz | 7,22 | WY2851 Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,0011 | WY2851 Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Thermal Gravimetry % (120°C, 7d) | 0,71 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperature (°C) | -50 to +160°C | Programmable Thermal Shock Tester | - |



**Remark:** Tolerance of Hardness: ± 5, Dimension: 360 mm x 360 mm, 200 mm x 400 mm, can be custom-made by required. Thickness: Various of thickness for option, from 0,2 mm to 14,0 mm are available.

# H250 THERMAL PAD

## Features

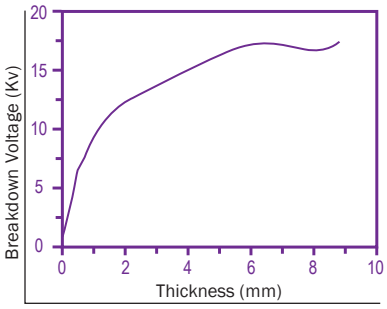
- low compression, low heat resistance • High heat dispersion
- 2,5 W/m.k Thermal Conductivity, Low Thermal Impedance
- UL94 V-0 recognized

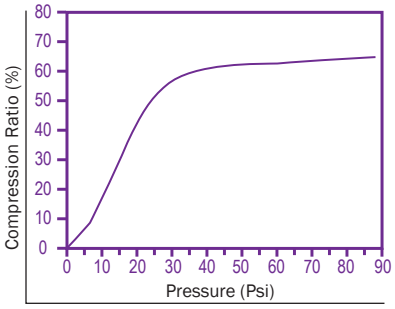
## Typical Applications:

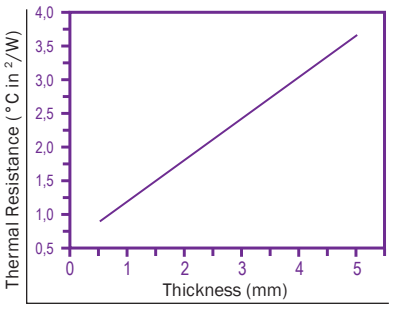
- between cooler and chassis or frame, Engine control unit, Power conversion equipment, High speed disk storage drive, LCD, Back Light Unit, Excellent dielectric protecties and heat resistance, Memory module, HDD, DVD, Telecom hardware, Laptop, desktop and netbook

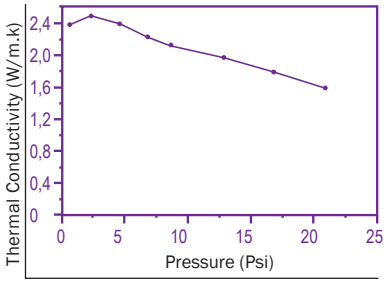
## Specifications

| H250 Series Thermal Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Typical Properties | Ceramics filled with Silicone Resin | - | - |
| Color | Yellow | N/A | Visual |
| Thickness (mm) | 0,3 - 14,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 2,95 ±0,2 | BS-H Electronic Balance | ASTM D792 |
| Hardness Shore C | 15 - 55 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 2,5 | Hot-Diskthermal Conductivity Tester | ISO 22007-2 |
| Thermal Resistance@20psi & 1mm °C in $^2$/W | 1,17 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage kV (1mm) | 6,7 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | 1,4 x $10^{11}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio %@50psi | 63,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 0,32 | Tension Tester | ASTM D412-1998A |
| Elongation % | 125,4 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant@1MHz | 6,34 | WY2851 Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,0016 | WY2851 Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Thermal Gravimetry % (120°C, 7d) | 0,73 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperature (°C) | -50 to +160°C | Programmable Thermal Shock Tester | - |



**Remark:** Tolerance of Hardness: ± 5, Dimension: 360 mm x 360 mm, 200 mm x 400 mm, can be custom-made by required. Thickness: Various of thickness for option, from 0,2 mm to 14,0 mm are available.

# H300 THERMAL PAD

## Features

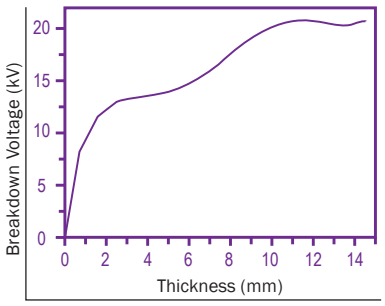
- working under low pressure • High heat dispersion
- 3,0 W/m.k Thermal Conductivity, Low Thermal Impedance
- UL94 V-0 recognized
- excellent dielectric protecties and heat resistance

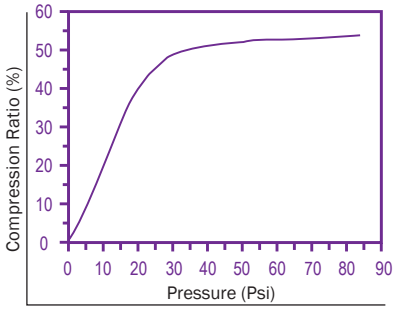
## Typical Applications:

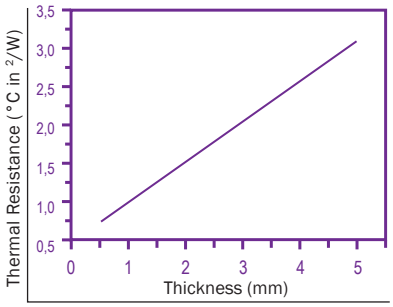
- Power conversion equipment, High speed disk storage drive, Hardware DVD driver, Laptop, desktop, netbook, Telecom hardware

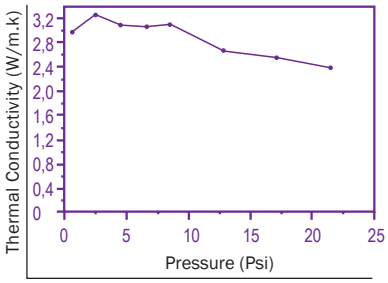
## Specifications

| H300 Series Thermal Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Typical Properties | Ceramics filled with Silicone Resin | - | - |
| Color | Ski Blue | N/A | Visual |
| Thickness (mm) | 0,5 - 14,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 3,0 ±0,2 | BS-H Electronic Balance | ASTM D792 |
| Hardness Shore C | 15 - 55 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 3,0 | Hot-Diskthermal Conductivity Tester | ISO 22007-2 |
| Thermal Resistance@20psi & 1mm°C in²/W | 0,99 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage kV (1mm) | 7,5 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | 2,3 x $10^{11}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio % @ 50psi | 52,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 0,30 | Tension Tester | ASTM D412-1998A |
| Elongation % | 86,5 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant@1MHz | 6,33 | WY2851 Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,0021 | WY2851 Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Thermal Gravimetry % (120, 7d) | 0,68 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperture (°C) | -50 to +160°C | Programmable Thermal Shock tester | - |



**Remark:** Tolerance of Hardness: ± 5, Dimension: 360 mm x 360 mm, 200 mm x 400 mm, can be custom-made by required. Thickness: Various of thickness for option, from 0,2 mm to 14,0 mm are available.

# H300-SF THERMAL PAD SILIKONFREI

NEW

## Features

- without silicon components
- 3,0 W/m.k. thermal conductivity
- low product hardness
- good flexibility, strength, high elastic resilience

## Typical Applications:

- Mobile electronic equipment, MPU, IC, Engine Control Unit, Laptop, Wireless Telecom hardware

## Specifications

| H300-SF Series Silicon Free Thermal Pad | | Test Instrument | Test Method |
|---|---|---|---|
| Color | Gray | N/A | Visual |
| Thickness (mm) | 1,0 - 5,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 2,85 | BS-H Electronic Balance | ASTM D792 |
| Hardness Shore C | 15 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 3,0 | Hot-Disk Thermal Conductivity Tester | ISO 22007-2 |
| Thermal Resistance@20psi&1mm°C in $^2$/W | 0,50 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage KV (1,0 mm) | 7,5 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | 2,3 x $10^{11}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio % @ 50psi | 35,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 0,35 | Tension Tester | ASTM D412-1998A |
| Elongation % | 120 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant @1MHz | 6,33 | WY2851 D Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,0021 | WY2851 D Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Volatile matter | 0 | - | - |
| Operating Temperature (°C) | -50 to +100°C | Programmable Thermal Shock Tester | - |

**Remark:** Tolerance of Hardness: ± 5, Dimension: 200 mm x 400 mm, can be custom-made by required.
Thickness: Various of thickness for option, from 1,0 mm to 5,0 mm are available.

# H350 THERMAL PAD

## Features

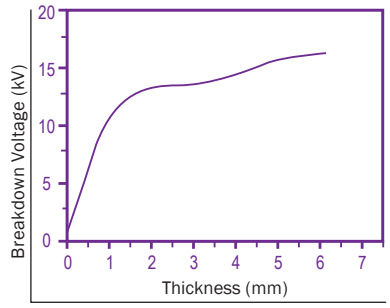
- working under low pressure
- High heat dispersion
- 3,5 W/m.k Thermal Conductivity, Low Thermal Impedance
- UL94 V-0 recognized
- excellent dielectric protecties and heat resistance

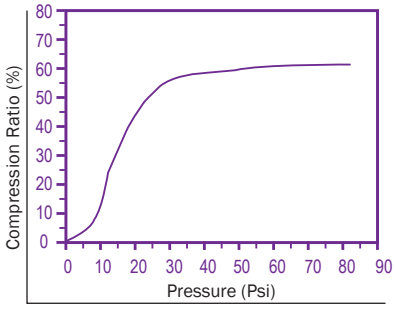
## Typical Applications:

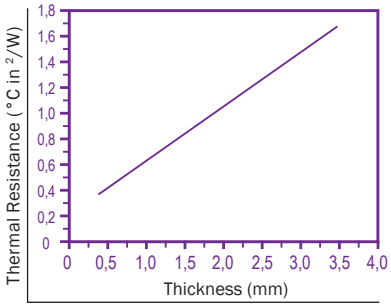
- Power conversion equipment, High speed disk storage drive, Hardware, DVD driver, Laptop, desktop and netbook, Telecom hardware

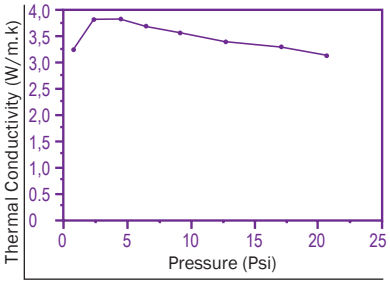
## Specifications

| H350 Series Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Typical Properties | Ceramics filled with Silicone Resin | - | - |
| Color | Green | N/A | Visual |
| Thickness (mm) | 0,5 - 8,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 3,05 ±0,2 | BS-H Electronic Balance | ASTM D792 |
| Hardness Shore C | 25 - 55 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 3,5 | Hot-Diskthermal Conductivity Tester | ISO-22007-2 |
| Thermal Resistance@20psi & 1mm °C in $^2$/W | 0,76 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage kV (1mm) | 9,0 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | 8,0 x $10^{11}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio %@50psi | 58,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 0,28 | Tension Tester | ASTM D412-1998A |
| Elongation % | 58,8 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant@1MHz | 5,25 | WY2851 Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,0089 | WY2851 Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Thermal Gravimetry % (120°C, 7d) | 0,49 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperature (°C) | -50 to +160°C | Programmable Thermal Shock Tester | - |



**Remark:** Tolerance of Hardness: ± 5, Dimension: 360 mm x 360 mm, 200 mm x 400 mm, can be custom-made by required. Thickness: Various of thickness for option, from 0,2 mm to 14,0 mm are available.

# H400 THERMAL PAD

## Features

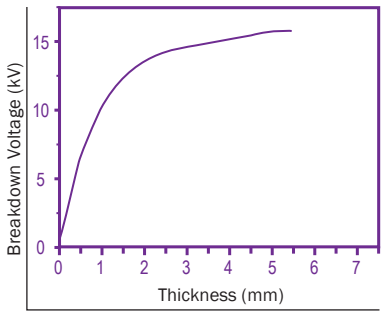
- working under low pressure • High heat dispersion
- 4,0 W/m.k Thermal Conductivity, Low Thermal Impedance
- UL94 V-0 recognized
- Excellent dielectric protecties and heat resistance

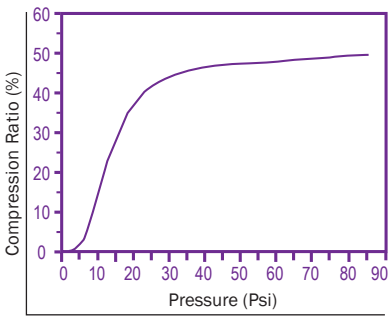
## Typical Applications:

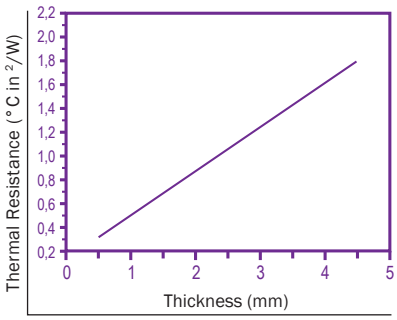
- Mobile electronic equipment, MPU, IC, Engine Control Unit, Laptop, Wireless Telecom hardware

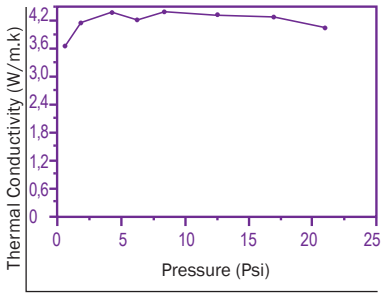
## Specifications

| H400 Series Thermal Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Typical Properties | Ceramics filled with Silicone Resin | - | - |
| Color | Purplish Red | N/A | Visual |
| Thickness (mm) | 0,5 - 8,0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 3,1 ±0,2 | BS-H Electronic Balance | ASTM D792 |
| Hardness Shore C | 30 - 55 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 4,0 | Hot-Diskthermal Conductivity Tester | ISO 22007-2 |
| Thermal Resistance@20psi & 1mm°C in $^2$/W | 0,52 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage kV (1mm) | 9,8 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | 4,5 x $10^{10}$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio %@50psi | 47,0 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | 0,25 | Tension Tester | ASTM D412-1998A |
| Elongation % | 84,7 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant@1MHz | 7,06 | WY2851 Digital Q Meter | ASTM D150 |
| Dielectirc Loss | 0,0190 | WY2851 Digital Q Meter | ASTM D150 |
| UL Certify | UL94V0 | Flame Rating Tester | UL 94 |
| Thermal Gravimetry % (120°C, 7d) | 0,47 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperature (°C) | -50 to +160°C | Programmable Thermal Shock Tester | - |

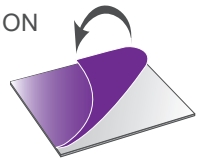



APPLICATION



**Remark:** Tolerance of Hardness: ± 5, Dimension: 360 mm x 360 mm, 200 mm x 400 mm, can be custom-made by required. Thickness: Various of thickness for option, from 0,2 mm to 14,0 mm are available.

NEW

# H500 THERMAL PAD

## Features

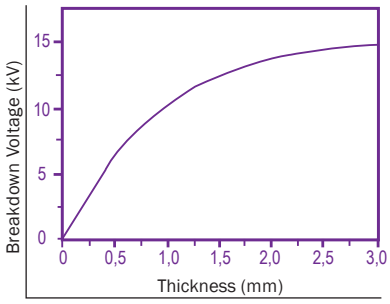
- soft, excellent compression rate
- 5.0 W/m.K Thermal conductivity
- low thermal impedance
- surface with viscous
- working under low pressure
- excellent electrical insulation performance and heat resistance
- UL94-V0

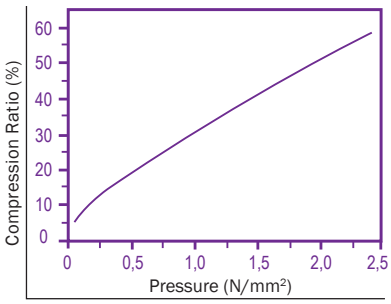
## Typical Applications:

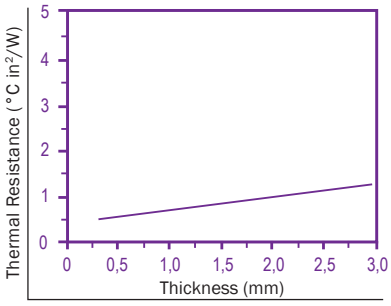
- between chip and heat-dissipation modules, optoelectronic industry, netcom products, new energy battery and vehicles industry, household appliances, wearable equipment

## Properties

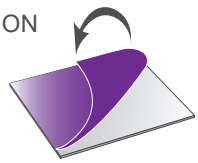
| H500 Series Thermal Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Color | White | N/A | Visual |
| Thickness (mm) | 0.5 - 3.0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 3.2 (±0.5) | BS-H Electronic Balance | ASTM D792 |
| Hardness Shore C | 35 - 50 (±5) | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 5.0 (±0.5) | Long-Win9389 Thermal Conductivity Tester | ASTM D5470 |
| Thermal Resistance@20psi&1mm°C in $^2$/W | ≤ 0.7 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage KV (1,0 mm) | ≥ 7 | MS2676 A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | ≥ $10^8$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio % @ 50psi | ≥ 20 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | ≥ 0.15 | Tension Tester | ASTM D412-1998A |
| Elongation % | ≥ 60 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant @1MHz | ≥ 5 | WY2851 D Digital Q Meter | ASTM D150 |
| Dielectric Loss | ≤ 0.1 | WY2851 D Digital Q Meter | ASTM D150 |
| UL Certify | UL94V-0, 5V | Flame Rating Tester | UL 94 |
| Thermal Gravimetry % (120°C, 7d) | ≤0.2 | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |
| Operating Temperature (°C) | -50 to +180°C | Programmable Thermal Shock Tester | - |




APPLICATION



**Remark:** Tolerance of Hardness: ± 5, Dimension: 200 mm x 400 mm, can be custom-made by required.
Thickness: Various of thickness for option, from 0.5 mm to 3.0 mm are available.

# H600 THERMAL PAD

NEW

## Features

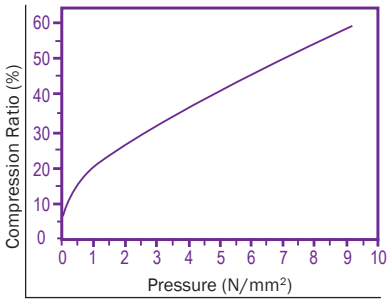
- soft, excellent compression rate
- 6.0 W/m.K Thermal conductivity
- low thermal impedance
- surface with viscous
- working under low pressure
- excellent electrical insulation performance and heat resistance
- UL94-V0

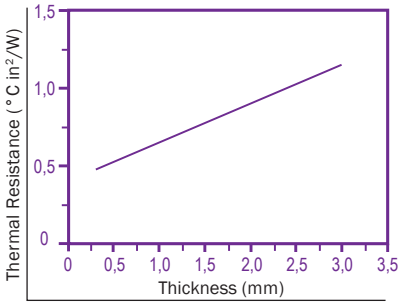
## Typical Applications:

- between chip and heat-dissipation modules, optoelectronic industry, netcom products, new energy battery and vehicles industry, household appliances, wearable equipment

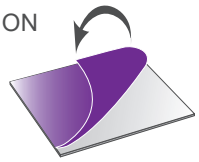
## Properties

| H600 Series Thermal Silicone Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Color | Grey | N/A | Visual |
| Thickness (mm) | 0.5 - 3.0 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density g/cc | 2.4 | BS-H Electronic Balance | ASTM D792 |
| Hardness Shore C | 50 | LX-C Cellular Material Durometer | ASTM D2240 |
| Thermal Conductivity W/m.K | 6.0 | Long-Win9389 Thermal Conductivity Tester | ASTM D5470 |
| Thermal Resistance@20psi&1mm °C in $^2$/W | ≤ 0.5 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Volume Resistivity Ω.cm | ≥ $10^8$ | ZC-36 High Dielectric Resistance Tester | ASTM D257 |
| Compression Ratio % @ 50psi | ≥ 12.8 | Compressive Force Tester | ASTM D575-1991 |
| Tensile Strength (Mpa) | ≥ 0.356 | Tension Tester | ASTM D412-1998A |
| Elongation % | ≥ 32.4 | Tension Tester | ASTM D412-1998A |
| Dielectric Constant @1MHz | ≥ 30 | WY2851 D Digital Q Meter | ASTM D150 |
| Dielectric Loss | ≤ 0.1 | WY2851 D Digital Q Meter | ASTM D150 |
| UL Certify | UL94V-0 | Flame Rating Tester | UL 94 |
| Operating Temperature (°C) | -50 to +180°C | Programmable Thermal Shock Tester | - |




APPLICATION



**Remark:** Tolerance of Hardness: ± 5, Dimension: 200 mm x 400 mm, can be custom-made by required.
Thickness: Various of thickness for option, from 0.5 mm to 3.0 mm are available.

NEW

# TC-PCM
# THERMAL CONDUCTIVE PHASE CHANGE MATERIAL

Phase Change Sheets is a new type of non-silicone-based Thermal Interface Material. It will change from solid to flow dynamic when the work temperature rise to transformation point. Used to till the gap between interface. It has lower thermal resistance and excellent thermal conductive performance.

## Features

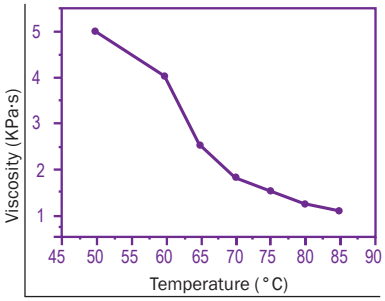
- High thermal conductivity
- Excellent thermal transfer properties, and easy to use
- Heating and applying pressure further thins the sheet, resulting in extremeley low thermal resistance
- Exhibits stable thermal properties over long-term use

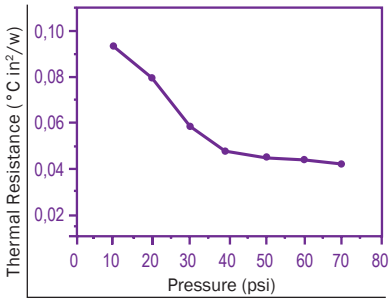
## Typical Applications:

- computer industry, integrated circuit market, mobile phone industry, network, communication equipment, automative electronics, LED lighting, aerospace

## Properties

| TC-PCM Series Phase Change Thermal Sheet | | Test Instrument | Test Method |
|---|---|---|---|
| Color | Gray | N/A | Visual |
| Thickness (mm) | 0.25 / 0.5 | PEACOCK Thickness Meter | ASTM D374 |
| Specification | Can be Custom-made | - | ASTM D1204 |
| Density AT 23°C g/cc | 2.4 (±0.5) | BS-H Electronic Balance | ASTM D792 |
| Phase Change Temperature | 50°C (±5) | - | ASTM D3418 |
| Thermal Conductivity W/m.K | 3.0 (±0,25) | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Thermal Resistance@20psi&1mm°C in $^2$/W | 0.001847 | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Applicable temperature range | -40 to +125°C | - | |
| Cold and hot shock resistance cycle (Times) | ≥2000 | - | GB2423.22 |
| Shelf Life (23°C, 55% RH) (Month) | 12 | - | - |

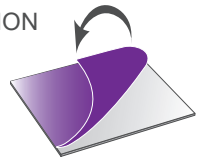



### The Structure of HCM300

Carrier Liner
Phase change material
release paper

APPLICATION



**Remark:** Tolerance of Hardness: ± 5, Dimension: 300 mm x 400 mm, can be custom-made by required.
Thickness: Various of thickness for option, 1,0 mm or 0,5 mm are available.

# H1500-R THERMAL GAP PAD

NEW

H1500-R is a new type of thermal pad with ultrahigh thermal conductivity and ultra-low thermal resistance. It is manufactured by an advanced arrangement technology that the high thermal conductivity fillers are uniformly and vertically aligned distributed in the polymer matrix, which can greatly increase the heat tranfer efficiency. Meanwhile, the low filler loading also makes the material possess good mechanical properties and exellent thermal stability.

## Features

- Softness, excellent compression rate
- low thermal resistance
- lightweight
- being able to work under low pressure
- excellent thermal stability property

## Typical Applications:

- Military industry, radar, large server, GPU and image processor, high frequency netcom equipment

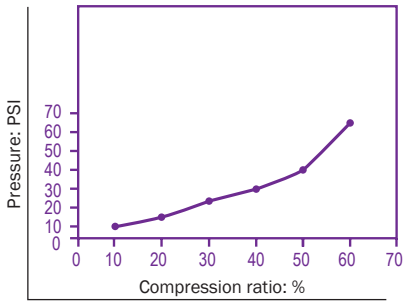
## Application method:

Thermal Gap Filler must be compressed to make up for device tolerances and to remove air from the interface when it is used, so our interface material can have good contact with both the heat dissipating component and the heat generating component. In general, there are three kinds of compression for the interface mateial:

- When the hardness is less than Shore C 20, it is recommended to use 30% to 40% of compression.
- When the hardness is between Shore C 20 to Shore C 40, it is recommended to use 25% to 30% of the compression.
- When the hardness is more than Shore A 40, it is recommended to use 20% of the compression.

## Specifications

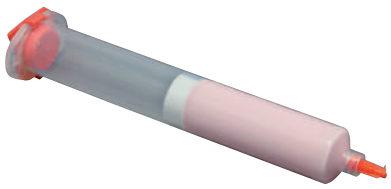
| H1500-R Series Thermal Sheet | | Item | Test Method |
|---|---|---|---|
| Color | black | - | Visual |
| Thickness | 0.5 ~ 2.0 | mm | ASTM D374 |
| Hardness | 45.0 | Shore 00 | ASTM D2240 |
| Density | 1.3 ±0.2 | g/cc | ASTM D792 |
| UL Certifiction | V-0 | - | UL94 |
| Elongation | 100 | % | ASTM D412 |
| Operating temperature | -50 to +180 | °C | IEC 60068-2-14 |
| Thermal conductivity | 15.0 | W/m•K | ASTM D5470 |
| Thermal resistance | ≤0.15 @20Psi/1mm | °Cin²/W | ASTMD5470 |
| Breakdown voltage | ≥1.5 @1mm | KV | ASTMD149 |
| Volume resistivity | $\geq 10^8$ | Ω•cm | ASTMD257 |




**Remark:** Tolerance of Hardness: ± 5, Dimension: 200 mm x 400 mm, can be custom-made by required.
Thickness: Various of thickness for option, from 1,0 mm to 5,0 mm are available.

NEW

# TCG THERMAL CONDUCTIVE GEL



## Benefits

- the material is a highly conformable, pre-cured, single-component.
- this unique material results in much lower mechanical stress on delicate component than even the softest gap-filling sheets, can auomatic glue coating.
- it´s best materials solution for mult chips or component parts supplied on one heat sink.
- high thermal conductivity, low thermal resistance
- small young modulus
- no oil and pollution
- good machinability
- available in 50 ml and 300 ml neddle tubes

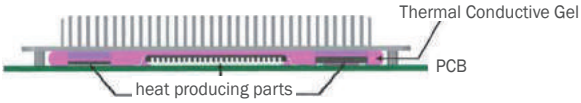
## Typical Applications:

- Semiconductor cases and heat sink
- Power resistor and chasis
- Temperature regulator and fabrications
- Thermoelectric cooling devices
- CPU`s and GPU`s

## Specifications

| Items | | Value | | | | Test Method |
|---|---|---|---|---|---|---|
| | | TCG-100 | TCG-200 | TCG-300 | TCG-500 | |
| Appearance | | Light blue pasty substance | Light green pasty substance | pink pasty substance | Dark grey substance | visual |
| Density (g/cm$^3$) | | 2,4 ± 0,2 | 2,8 ± 0,2 | 3,2 ± 0,2 | 3,1 ± 0,2 | ASTM D792 |
| Thermal Resistance (°C in $^2$/W)@20psi) | | 0,25 | 0,12 | 0,08 | 0,04 | ASTM D5470 |
| Volatilize point (200°C, 24h), ppm | | ≤ 300 | ≤ 200 | ≤ 200 | ≤ 200 | GB269-85 |
| Solubility in water (200°C, 24h), % | | ≤ 0,3 | ≤ 0,2 | ≤ 0,2 | ≤ 0,2 | SH/T0324-92 |
| Thermal conductivity, W/m.k | | 1,0 ± 0,2 | 2,0 ± 0,2 | 3,0 ± 0,3 | 5,0 ± 0,4 | ASTM-5470 |
| Volume resistivity, Ω.cm | | ≥ 1,0 x $10^{14}$ | ≥ 1,0 x $10^{14}$ | ≥ 1,0 x $10^{14}$ | ≥ 1,0 x $10^{12}$ | Q/SC004-06 GB1410-89 |
| Breakdown voltage, KV @ 1mm | | ≥ 8,0 | ≥ 8,0 | ≥ 8,0 | ≥ 2,5 | Q/SC004-06 GB/T1408.1-99 |
| Curing temperature (°C) | | 130 | 130 | 130 | 130 | - |
| Curing time (min.) | | 60 | 60 | 60 | 60 | - |
| Temperature Range (°C) | | -50 to +200 | -50 to +200 | -50 to +200 | -50 to +200 | |
| Storage Temperature (°C) | | 25 (6 months) 4 (12 months) | 25 (6 months) 4 (12 months) | 25 (6 months) 4 (12 months) | 25 (6 months) 4 (12 months) | - |
| Coverage Area per Gramm (cm$^2$/g) | @ 1 mil thickness | 16 | 14 | 12,7 | 13 | - |
| | @ 2 mil thickness | 8 | 7 | 6,35 | 6,5 | - |
| | @ 5 mil thickness | 3,2 | 4,4 | 2,54 | 2,6 | - |
| | @ 10 mil thickness | 1,6 | 1,4 | 1,27 | 1,3 | - |

## application example




## Storage Conditions:

- Keep in room temperature with dry and sealed environment or container.
- During the storage period, make sure that the container ist sealed to protect electrical performance from affecting by external contaminants.

# WLFI WÄRMELEITFOLIE

WLFI series thermal conductive insulators is to glass fiber as a substrate for reinforcement of organosilicon polymer elastomer, also called thermal silica fiber can effectively reduce the thermal resistance between the electonic compoment and the radiator, and electrical insulation, high dielectric strength, good thermal conductivity, high resistance to chemical properties, worth a short circuit caused by high voltage and metal piercing is instead of the traditional mica and grease a excellent thermal insuation materials.

## Features

- superior tensile and wear resistance
- superinsulation performance, and the surface is not adhesive, with the thickness is thinner
- It is suitable for all power components of the insulation and heat conduction
- product is easy to process, can be cut into any shape
- the product is non-toxic tasteless, and not easy to break down, and the castoff is easy to be disposed
- highly compliant surface characteristic with high thermal conductivity
- high thermal conductive and high dielectric strength
- low thermal resistance with high voltage isolation

## Typical Applications:

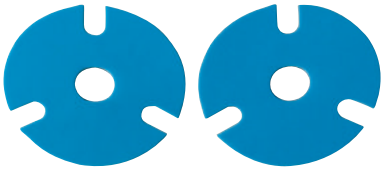
- Power conversion equipment
- Power semiconductors:TO packages,MOSFETs & IGBTs
- Audio and Video components
- Motor controllers
- General high pressure interface
- Resistant to tears and punctures

## Specifications

| Physical Properties | WLFI-4008 | WLFI-4005 | WLFI-4003 | WLFI-4014 | WLFI-4004 |
|---|---|---|---|---|---|
| Color | Grey | | | | |
| Base material | glass fiber | | | | |
| Thickness (mm) | 0.18 ±0.03 | 0.23 ±0.05 | 0.3 ±0.05 | 0.45 | 0.5 ±0.05 |
| Voltage Breakdown Vac (KV) | ≥3.5 | ≥5 | ≥5 | ≥5 | ≥8 |
| Hardness (shoreA) | 70 ±5 | | | | |
| Specific Gravity g/cm³ | 1.8-2.0 | | | | |
| Volume Resistivity Ω.cm | $\geq 10^{10}$ | | | | |
| Dielectic Constant (MHZ) | 5.5 | | | | |
| Thermal Conductivity (W/m.k) | 1.0 | | | | |
| Thermal Impedance@50psi | ≤3 | | | | |
| Heat resistance (°C) | (Day/Week): -50 to +180 | | | | |

| Physical Properties | WLFI-4011 | WLFI-4006 | WLFI-4009 | WLFI-4010 | WLFI-4013 |
|---|---|---|---|---|---|
| Color | Grey | Rose | | Carmine | Rose Pink |
| Base material | glass fibre | | | | |
| Thickness (mm) | 0.6 ±0.05 | 0.18 ±0.03 | 0.23 ±0.05 | 0.23 ±0.05 | 0.2 ±0.05 |
| Voltage Breakdown Vac (KV) | ≥8 | ≥3.5 | ≥5 | ≥5 | ≥8 |
| Hardness (shoreA) | 70 ±5 | | | | |
| Specific Gravity g/cm³ | 1.8-2.0 | | | | |
| Volume Resistivity Ω.cm | $\geq 10^{10}$ | | | | |
| Dielectic Constant (MHZ) | 5.5 | | | | |
| Thermal Conductivity (W/m.k) | 1.0 | | | | |
| Thermal Impedance@50psi | ≤3 | | | | |
| Heat resistance (°C) | (Day/Week): -50 to +180 | | | | |

# WLF-2S WÄRMELEITFOLIE



Merkmale / Features

- beidseitig selbsklebend, verstärkt sich bei Temperatur
- thermische Leitfähigkeit: 0,6 W/m.K

Anwendung / Typical Applications:

- LED Lighting
- High power supply
- Notebook

## Specifications

| WLF-2S Series Thermally Double Sided Tape | | Test Instrument | Test Method |
|---|---|---|---|
| Appearance | OK | N/A | Visual |
| Typical Properties | Acrylic Resin | - | - |
| Color | Light Gray | N/A | Visual |
| Thickness (mm) | 0,05 | Peacock Thickness Gage | ASTM D374 |
| Specification | Can be custom made | - | ASTM D1204 |
| Conductivity (W/m.K) | 0,6 W | DRL-III Thermal Conductivity Tester | ASTM D5470 |
| Breakdown Voltage k.V | 1,5 | MS2676A Withstand Voltage Tester | ASTM D149 |
| Volume Resistivity Ω.cm | $1 \times 10^{10}$ | ZC-36 High Dielectric Resistance Tester | ASTM 257 |
| Dielectrics Strength@ 1MHz | 6,79 | WY2851D Digital Q Meter | ASTM D150 |
| Dielectric Loss | 0,0057 | | |
| Long Term Service Temperature °C | 100 °C | Programmable Constant Temperature and Humidity Testing Machine | ASTM E595-2006 |

**Remark:** Dimension: Rolls with wideth of 360 mm. Thickness: 0,05 mm. Can be custom-made by request.

# WLG WÄRMELEITENDE GRAPHITFOLIE

Features

- high thermal conductivity: Maximum heat conductivity can be 1.500 W/m.k for horizontal plane and 3-dimensional heat conduction
- light weight: 25% lighter than aluminum, 75% lighter than copper
- soft,flexible to operate: can be easily pasted on both flat and curved surfaces
- work temperature: -40°C to +400°C

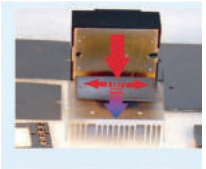
Typical Applications:

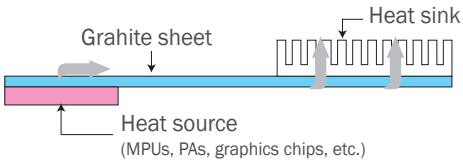
- Mainly used in IC, CPU, MOS, LED, heat sink, LCD-TV, laptop computers, communications equipment, wireless switches, DVD, handheld devices, video camera/digital cameras, mobile phones.

## Properties

| Type | Graphite Thermally Conductive sheet (WLG Series) | Test Method |
|---|---|---|
| Item | WLG0505/150/200 | - |
| Construction & Composition | Graphite | - |
| Color | Black | - |
| Thickness (mm) | 0,1 - 1,0 | ASTM D374 |
| Density at 23°C (g/cm³) | 1,5 - 2,0 | ASTM D792 |
| Hardness (Sc) | ≥ 50 | ASTM D2240 |
| Thermal Conductivity (vertical) | 5,0/15,0/20,0 | ASTM D5470 |
| Operating temperature range (°C) | -40°C to +400°C | - |
| Shelf Life (23°C, 55% RH)/Month | 12 | - |

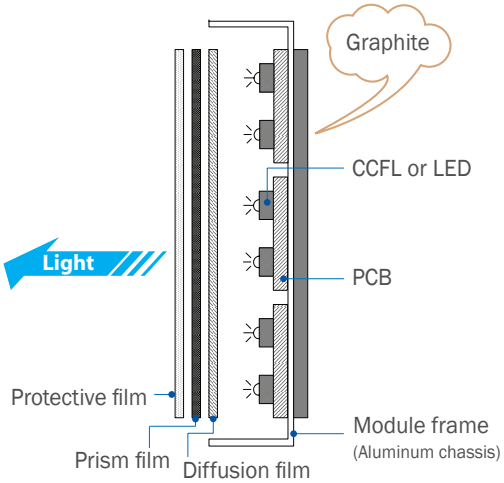
## Application





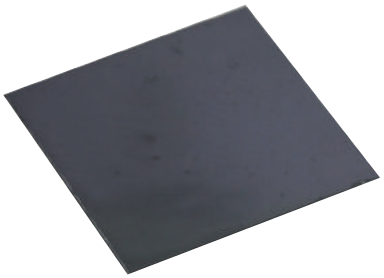

Graphite sheet carries heat to a heatsink when space does not allow the heatsink to be placed on top of the heat source with its thermal conductivity of 300W/mK in plane.

## Application examples




CPU, SMPS, Power AMP, LCD/PDP TV, etc.

# WGF WÄRMELEITENDER GRAPHITFILM



## Features

- the WGF Graphite film has good workability and can be trimmed or die cut to any shapes according to user's application
- it has excellent flexibility and can be bended for 1000 times
- it's perfect solution of rapid heat dissipation for conversion from point heat source to face heat source
- high thermal conductivity: Maximum heat conductivity can be 1900 W/m.k for horizontal plane and 3-dimensional heat conduction
- ultra-thin: the minimum thickness is 12 microns
- soft, flexible to operated: can be easily pasted on both flat and curved surfaces
- work temperature: -40°C to +400°C,

## Typical Applications:

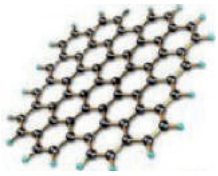
- High-power LED lighting, Smart mobile-phones, LCD panel, Tablet PC, Notebook PC, etc.

## Properties

| Type | Graphitfolie (WGF Series) | | | Test Method |
|---|---|---|---|---|
| Item | WGF12 | WGF25 | WGF70 | - |
| Construction & Composition | Graphite | Graphite | Graphite | - |
| Color | Black | Black | Black | - |
| Thickness (mm) | 0,012 | 0,025 | 0,070 | ASTM D374 |
| Density at 23°C (g/cm³) | 2,2 | 2,1 | 1,2 | ASTM D792 |
| Electric Conductive, S/cm | 20000 | 20000 | 96000 | ASTM D257 |
| Thermal Conductivity (vertical) W/m·K | 15,0 | 15,0 | 15,0 | ASTM D5470 |
| Thermal Conductivity (horizontal) W/m·K | 1800 - 1900 | 1500 - 1600 | 700 - 900 | ASTM D5470 |
| Applicable temperature range (°C) | -40°C to +400°C | | | - |
| Shelf Life (23°C, 55% RH)/Month | 12 | | | - |

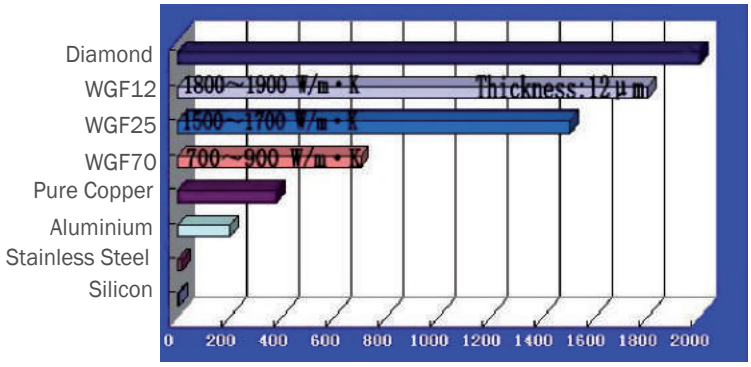
## Structure

PET Film
WGF
Tape Layer
Release paper



WGF Microcosmic Structure

## Thermal conductivity of materials (direction x-y) compare with other Materials



# MA MAGNETIC ABSORBER

NEW

Smaller and thin are required with the development of electronic products, it is more important to RFID anti-metal reader and tag, EMI component, Wireless charge products and Electro Magnetic Screen technology etc. Absorber material appeared to solve this problem. It has ultra-thin, soft, easily to roll up and cut performances, it can be custom-made, and also available for laminate with shielding materials like metal foil and fabrics as a mult-layers construction.

## Features

- Soft and ultra-thin
- Insulation properties
- Available in very narrow spaces
- Flexible to cut various shapes
- Excellent performances of absorb electromagnetic radiation noise
- high stickness guaranteed install reliability

## Typical Applications:

- EMI component, RFID anti-metal electronic tags and NFC, wireless charge products, magnetic screen technology

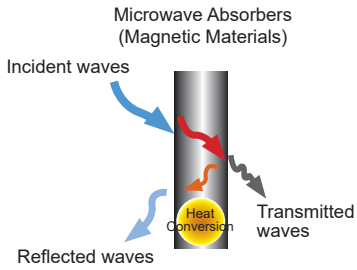
## Properties

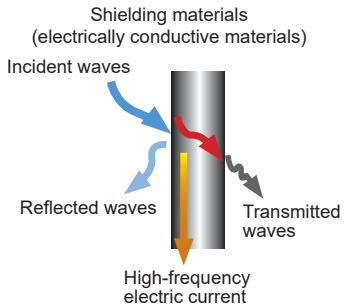
| Type | Magnetic Absorber | | | |
|---|---|---|---|---|
| Item | MA-A1000 | MA-A2000 | MA-A5000 | MA-A12000 |
| Permeability (μ'@13.56MHz) | 10 | 20 | 50 | 120 |
| Thickness (mm) | 0.1~1.0 | 0.1~1.0 | 0.05~1.0 | 0.05~0.5 |
| Operating Temperature (°C) | -25°C to +85°C | | | |
| Surface resistance (Ω/inch²) | ≥10⁶ | | | ≥10³ |
| Frequency range (Hz) | RFID: 125KHz/134KHz/13.56MHz | | EMI: 10MHz~8GHz | |
| Adhesion strenght (kgf/inch) | ≥1.0 | | | |
| UL certify | UL94V0 | | | |

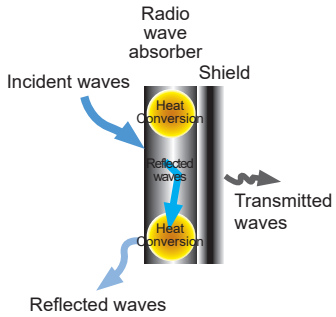
**The Structure of MA**

## Principles

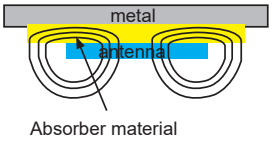
**The principle of HFC-A series applyto EMI/EMC**



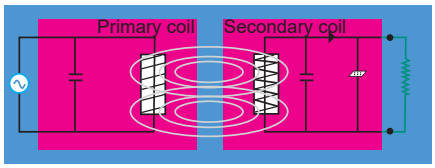



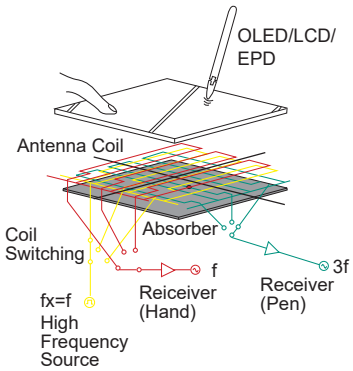

**To RFID/NFC:**




**To RFID/NFC:**




**To RFID/NFC:**



NEW

# TFG THERMAL FOAM GASKET

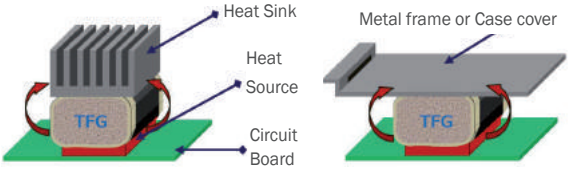
## Features

- Thermal solutions of the new method - holds a number of patents
- using a graphite sheet has excellent horizontal thermal conductivity, it drops the heat of heat source by spreading the heat quickly from the heat source
- Graphite-particle does not occur by coating all surfaces of graphite with a thin film
- a wide utilization without thickness of constraint that is the disadvantage of silicone thermal pad - example ( in 10 mm, 20 mm, 30 mm or more thickness, thermal performance shows)
- the excellent compression resilience by using the heat polyurethane sponge
- no problem with bending of the circuit board due to the excellent elastic polyurethane sponge core
- easy to manufacture gaskets of various sizes
- available for rapid development because there is no special tooling required
- according to the needs of users, thermal conductivity and compressive strength can be adjusted simply

## Specifications

| Item | Value | Specification |
|---|---|---|
| Thermal conductivity | 3W/mK | ASTM C518 |
| Strength of stability | 98 % | ESQ-517-26 |
| Surface Resistance | Nonconductor | ESQ-517-26 |
| Operating Temperature | 130 °C | - |
| Adhesive power | > 1000gf/25mm | ASTM D333 |
| Flame Retardance | UL94V-0 Certified | - |
| Environmental Issue | RoHS Compliant / Halogen free | - |

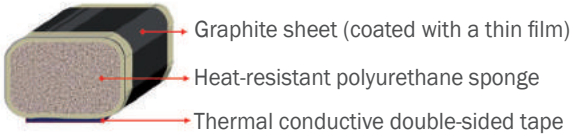
## Anwendungsbeispiel / application example




How to apply:

- TFG deliver the heat of heat source to the heat sink or metal frame
- It uses to drop the temperature of circuits by dispersing the heat of heat source widely.
- Overall height of 10 to 15% is appropriate for pressure conditions of TFG.
- Application Equipments: Electronic devices such as Display Module (LCD, LED, OLED TV, MONITOR) Computer, MOBILE

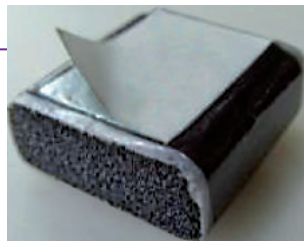
## Aufbau / structure



# TFG THERMAL FOAM GASKET

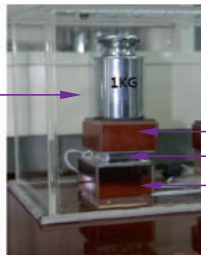
NEW

## Thermal conductivity comparison test



### Test method (ESQ-517-22)

| |
|---|
| TFG samples, Size28(W) x 32(L) x 10.5(T) |
| Comparison test (silicone thermal pad), Size(28(W) x 32(L) x 10.5T) |
| Heat plate heated to 120°C |
| Attached TFG samples and then, measuring time of the thermal sensor that rises from 40°C to 80°C |
| See the following results table for the thermal conductivity test result (VS silicone thermal pad) |




Heat plate
TFG
Thermal sensor board

Acrylic bock with the outside air

| Produkt | Lavel | Time of Arrival | | Produkt | Lavel | Time of Arrival |
|---|---|---|---|---|---|---|
| Silicone thermal pad | 2,3 W/mk grade | 18 min. 36 sec. | VS | TFG | - | 3 min. 11 sec. |
| | 3,0 W/mk grade | 9 min. 29 sec. | | | | |
| | 5,0 W/mk grade | 7 min. 35 sec. | | | | |

The advantage of TFG compared to the Silicone thermal pad

- Silicone thermal pad used for a long time causes a siloxane but, TFG doesn't cause it
- Silicone thermal pad that is not good compression resilience has poor adhesion. However, TFG can be a thermal effect continuously with excellent adhesion.
- Silicone thermal pad can be hardened if used for a long time. It is a principal cause of failure such as bending of the circuit board due to continued pressure. But, TFG has high elasticity does not put pressure on a circuit board
- the more silicone thermal pad is thicker, the more heat transfer capability is reduced. However, TFG is excellent horizontal thermal conductivity (>400W/km) of graphite can be a thermal effect regardless of any thickness

Notizen

# EMV-Abschirmprodukte

## EMV-Abschirmprodukte

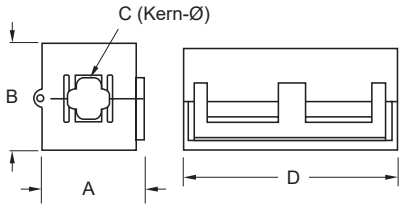

| | |
|---|---|
| Klappferrite | Seite 398 - 401 |
| Ferrit-Ringkerne | Seite 402 - 403 |
| Ferritperlen | Seite 404 |
| Ferrit-Doppellochkerne | Seite 405 |
| Ferrite für Flachbandkabel | Seite 406 - 409 |
| Befestigungsteile für Ferritkerne | Seite 410 |
| Ferrite für flexible Leiterbahnen | Seite 411 |
| Ferrit-Lochkerne | Seite 412 |
| Stabferrite | Seite 413 |
| Ferritlochplättchen | Seite 414 |
| Ferritkacheln | Seite 415 |
| Leiterplattenkontakte | Seite 416 - 419 |
| Kontaktfedern | Seite 420 - 441 |
| Lochschaum | Seite 442 |
| Leitschaum | Seite 443 |
| Abschirmgehäuse und Zubehör | Seite 444 - 453 |
| Erdungsschellen | Seite 454 - 455 |
| Kabelabschirmung | Seite 456 - 457 |

# TF KLAPPFERRITE

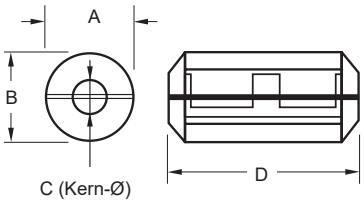
Merkmale

- einfaches Anbringen des geteilten Ferritkernes auf installierten oder mit Steckverbindungen versehenen Leitungen
- durch patentierten Schnappverschluss lässt sich der Kern einfach öffnen, somit auch ideal für Labor- und Testzwecke
- hilfreich bei hochfrequenten Störungen zwischen 1 und 300 MHz, um den Anforderungen von FCC, VCCI, VDE und CE gerecht zu werden
- Material: Polyamid 6, UL94V-0
- Farbe: schwarz

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | Ø C (mm) | D (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Impedanz Ω max. Ω/MHz | für max. Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|---|
| **600 03 21** | TF-50/1 | 15,0 | 14,0 | 5,2 | 23,0 | 90 | 200 | 340/400 | 5,0 |
| **600 03 24** | TF-65 | 20,5 | 20,0 | 6,5 | 33,0 | 180 | 275 | 315/175 | 6,5 |
| **600 03 27** | TF-100 | 25,5 | 23,5 | 10,0 | 33,0 | 130 | 240 | 343/330 | 10,0 |
| **600 03 28** | TF-135 | 31,5 | 30,0 | 13,0 | 33,0 | 150 | 250 | 320/300 | 13,0 |




| Art.-Nr. | Typ | A (mm) | B (mm) | Ø C (mm) | D (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Impedanz Ω max. Ω/MHz | für max. Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|---|
| **600 03 22** | TF-35 | 15,0 | 15,0 | 4,0 | 25,2 | 67 | 151 | 430/385 | 4,0 |
| **600 03 23** | TF-50 | 16,5 | 16,5 | 5,2 | 29,5 | 98 | 160 | 315/350 | 5,2 |
| **600 03 25** | TF-75 | 21,0 | 21,0 | 7,5 | 39,0 | 125 | 245 | 285/300 | 7,5 |

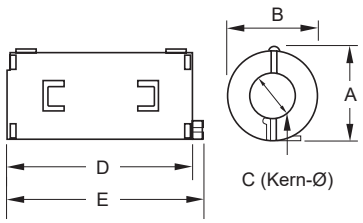
In den Farben grau oder weiss auf Anfrage lieferbar:
Telefon: 09852 61079-0

# TF KLAPPFERRITE

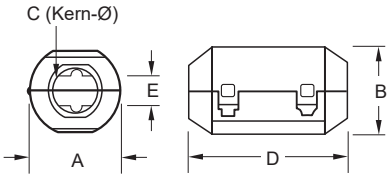
Merkmale

- einfaches Anbringen des geteilten Ferritkernes auf installierten oder mit Steckverbindungen versehenen Leitungen
- durch patentierten Schnappverschluss lässt sich der Kern einfach öffnen, somit auch ideal für Labor- und Testzwecke
- hilfreich bei hochfrequenten Störungen zwischen 1 und 300 MHz, um den Anforderungen von FCC, VCCI, VDE und CE gerecht zu werden
- Material: Polyamid 6, UL94V-0
- Farbe: schwarz

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | Ø C (mm) | D (mm) | E (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Impedanz Ω max. Ω/MHz | für max. Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| **600 03 67** | TF-715 | 15,5 | 14,0 | 7,0 | 18,0 | 22,0 | 55 | 109 | 530/400 | 7,0 |
| **600 03 69** | TF-930 | 20,5 | 19,5 | 9,0 | 31,5 | 35,5 | 80 | 130 | 810/700 | 9,0 |
| **600 03 71** | TF-1130 | 20,5 | 21,0 | 11,0 | 32,0 | 36,0 | 60 | 110 | 1.183/690 | 11,0 |
| **600 03 73** | TF-2629 | 31,5 | 30,5 | 13,0 | 34,0 | 39,5 | 43 | 205 | 335/340 | 13,0 |




| Art.-Nr. | Typ | A (mm) | B (mm) | Ø C (mm) | D (mm) | E (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Impedanz Ω max. Ω/MHz | für max. Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| **600 03 85** | TF-53 | 13,0 | 11,8 | 5,0 | 25,5 | 2,5 | 105 | 135 | 380/500 | 5,0 |
| **600 03 89** | TF-93 | 19,5 | 18,0 | 9,0 | 35,0 | 5,5 | 80 | 130 | 835/745 | 9,0 |
| **600 03 26** | TF-90 | 20,6 | 20,0 | 9,5 | 42,0 | 9,5 | 140 | 215 | 300/300 | 9,0 |
| **600 03 93** | TF-133 | 23,5 | 22,5 | 13,0 | 36,0 | 8,5 | 70 | 120 | 120/620 | 13,0 |

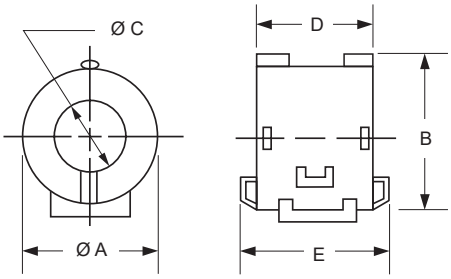
# TFC KLAPPFERRITE

## Merkmale

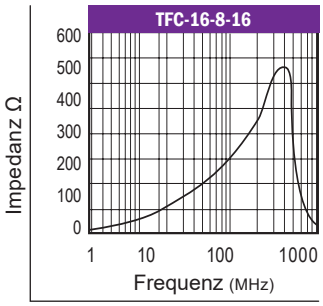
- durch die geteilte Ausführung ist ein einfaches Anbringen des Ferrits auf installierten oder mit Steckverbindern versehenen Leitungen mühelos möglich
- das Kunsstoffgehäuse schützt vor Bruch oder Splittern des Kernes
- Gehäusefarbe: computergrau

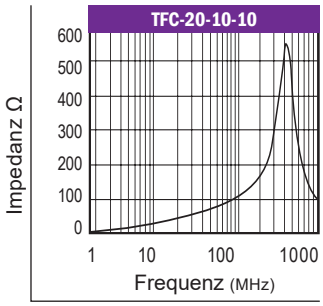
## Abmessungen

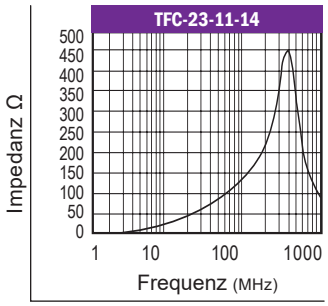
► Einheit = mm

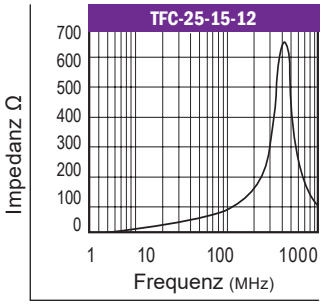



| Art.-Nr. | Typ | Ø A (mm) | B (mm) | Ø C (mm) | D (mm) | E (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|---|
| **600 01 19** | TFC-16-8-16 | 16,4 | 8,2 | 16,0 | 26,1 | 25,9 | 73 | 139 | 7,2 |
| **600 01 20** | TFC-20-10-10 | 20,6 | 10,4 | 10,0 | 30,1 | 20,0 | 47 | 92 | 8,5 |
| **600 01 21** | TFC-23-11-14 | 23,8 | 11,4 | 14,0 | 33,9 | 23,9 | 72 | 132 | 10,5 |
| **600 01 25** | TFC-25-15-12 | 25,0 | 15,0 | 12,0 | 35,2 | 21,8 | 41 | 88 | 13,0 |




Auch in schwarz lieferbar, dann Art.-Nr. durch Zusatz „S“ ergänzen:
Telefon: 09852 61079-0

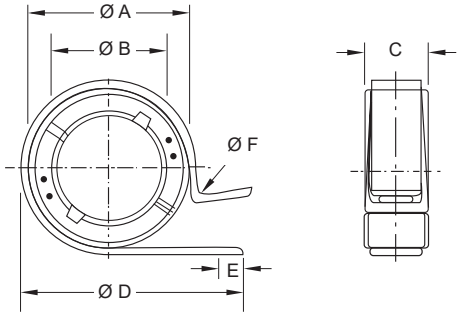
# TRCN KLAPPFERRITE

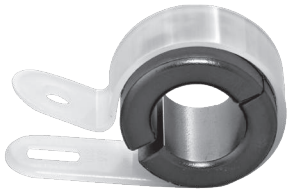
## Merkmale

- durch die geteilte Ausführung ist ein einfaches Anbringen des Kernes, auf installierten oder mit Steckverbindern versehenen Leitungen, mühelos möglich
- einfache Montage der Nylonschelle mittels Schrauben oder Nieten

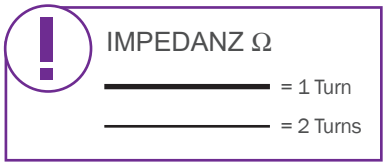
## Abmessungen

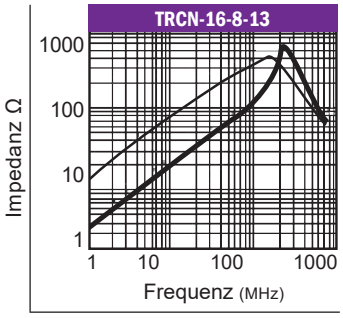
► Einheit = mm

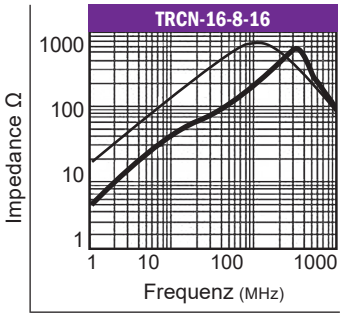


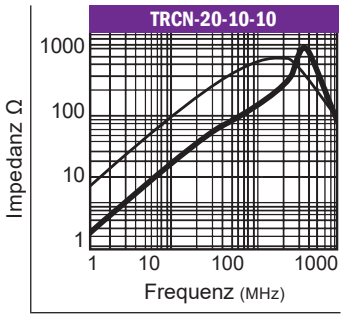



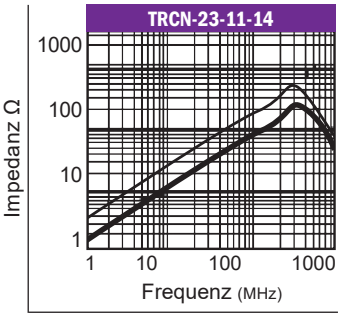
| Art.-Nr. | Typ | Ø A (mm) | Ø B (mm) | C (mm) | D (mm) | E (mm) | Ø F (mm) | ≤ Kabel-Ø (mm) | Impedanz Ω 1 Turn 25 MHz | Impedanz Ω 1 Turn 100 MHz | Impedanz Ω 2 Turns 25 MHz | Impedanz Ω 2 Turns 100 MHz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 600 04 08 | TRCN-16-8-13 | 19,4 | 8,2 | 13,0 | 30,2 | 4,8 | 4,3 | ≤ 8,0 | 45 | 110 | 160 | 370 |
| 600 04 09 | TRCN-16-8-16 | 19,4 | 8,2 | 16,0 | 30,0 | 4,8 | 4,3 | ≤ 8,0 | 50 | 150 | 180 | 500 |
| 600 04 10 | TRCN-20-10-10 | 25,7 | 10,4 | 10,0 | 38,2 | 6,3 | 5,1 | ≤ 10,0 | 45 | 80 | 140 | 280 |
| 600 04 11 | TRCN-23-11-14 | 26,8 | 11,4 | 14,0 | 39,4 | 6,3 | 5,1 | ≤ 11,0 | 40 | 100 | 140 | 350 |
| 600 04 16 | TRCN-28-16-13 | 32,8 | 16,4 | 13,0 | 45,0 | 6,3 | 5,1 | ≤ 16,0 | 45 | 105 | 160 | 325 |
| 600 04 17 | TRCN-28-16-20 | 32,8 | 16,4 | 20,0 | 45,0 | 6,3 | 5,1 | ≤ 16,0 | 60 | 130 | 250 | 500 |
| 600 04 27 | TRCN-40-27-15 | 44,6 | 27,4 | 15,0 | 57,3 | 6,3 | 5,1 | ≤ 27,0 | 40 | 100 | 140 | 350 |

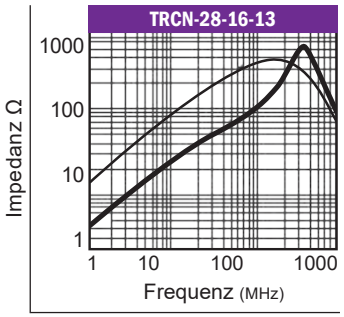


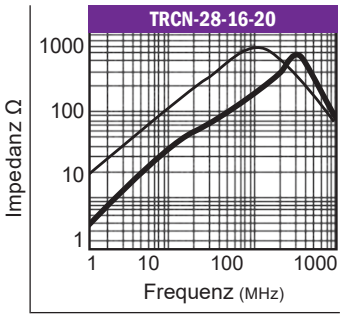



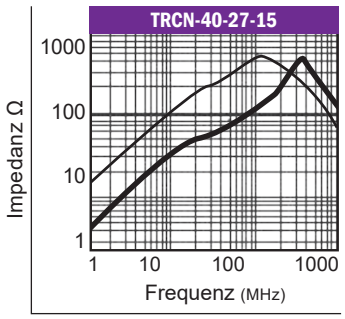



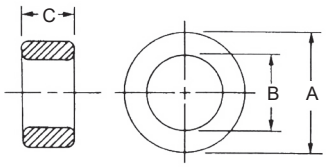




Ausführliche Datenblätter auf Anfrage:
Telefon: 09852 61079-0

# TR FERRIT-RINGKERNE (NiZn)

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | Material | Impedanz in Ω 25 MHz | Impedanz in Ω 100 MHz |
|---|---|---|---|---|---|---|---|
| 600 05 070 | TR-7,52-2,39-7,54-T2 | 7,52 | 2,39 | 7,54 | T2 | 70 | 145 |
| 600 05 071 | TR-7,62-3,18-4,78-T1 | 7,62 | 3,18 | 4,78 | T2 | 25 | 50 |
| 600 05 07 | TR-7,3-3,3-4,3-T1 | 7,3 | 3,3 | 4,3 | T1 | 30 | 48 |
| 600 05 08 | TR-8-4-4 | 8,0 | 4,0 | 4,0 | T2 | 20 | 45 |
| 600 05 09 | TR-9-4,9-8-T1 | 9,0 | 4,9 | 8,0 | T1 | 38 | 64 |
| 600 05 091 | TR-9-5-3-T1 | 9,0 | 5,0 | 3,0 | T1 | 16 | 45 |
| 600 05 10 | TR-10-5-5-T1 | 10,0 | 5,0 | 5,0 | T1 | 55 | 98 |
| 600 05 11 | TR-11-5-9-T1 | 11,0 | 5,0 | 9,0 | T1 | 60 | 107 |
| 600 05 093 | TR-9,65-5-4,83-T2 | 9,65 | 5,0 | 4,8 | T2 | 10 | 30 |
| 600 05 092 | TR-9,5-5,1-10-T1 | 9,5 | 5,1 | 10,0 | T1 | 48 | 74 |
| 600 05 100 | TR-10-6-6,2-T1 | 10,0 | 6,0 | 6,2 | T1 | 25 | 49 |
| 600 05 01 | TR-12-6-4-T1 | 12,0 | 6,0 | 4,0 | T1 | 26 | 45 |
| 600 05 131 | TR-13-7-5-T1 | 13,0 | 7,0 | 5,0 | T3 | 33 | 62 |
| 600 05 13 | TR-13-7-12,7-T1 | 13,0 | 7,0 | 12,7 | T1 | 60 | 106 |
| 600 05 02 | TR-14-5,5-9-T1 | 14,0 | 5,5 | 9,0 | T1 | 20 | 65 |
| 600 05 06 | TR-13-7,1-6,3-T2 | 13,0 | 7,1 | 6,3 | T2 | 31 | 43 |
| 600 05 133 | TR-12,7-7,9-12,7-T1 | 12,8 | 7,9 | 12,7 | T3 | 50 | 95 |
| 600 05 124 | TR-12,7-7,9-6,35-T1 | 12,7 | 7,9 | 6,35 | T3 | 39 | 68 |
| 600 05 12 | TR-12,5-8-12-T1 | 12,5 | 8,0 | 12,0 | T1 | 42 | 72 |
| 600 05 141 | TR-14-8-7-T1 | 14,0 | 8,0 | 7,0 | T2 | 28 | 50 |
| 600 05 160 | TR-16-8-13-T1 | 16,0 | 8,0 | 13,0 | T3 | 64 | 118 |
| 600 05 17 | TR-16-8,2-16-T1 | 16,3 | 8,2 | 16,0 | T1 | 83 | 140 |
| 600 05 16 | TR-16,3-8,2-13-T1 | 16,3 | 8,2 | 13,0 | T1 | 70 | 125 |
| 600 05 175 | TR-17,5-9,5-12,7-T1 | 17,5 | 9,5 | 12,7 | T1 | 69 | 167 |
| 600 05 05 | TR-16-10-7-T1 | 16,0 | 10,0 | 7,0 | T1 | 29 | 41 |
| 600 05 04 | TR-16-10-10-T1 | 16,0 | 10,0 | 10,0 | T1 | 43 | 85 |
| 600 05 19 | TR-16-10-14-T1 | 16,0 | 10,0 | 14,0 | T1 | 53 | 85 |
| 600 05 18 | TR-18-10-6-T1 | 18,0 | 10,0 | 6,0 | T1 | 36 | 66 |
| 600 05 182 | TR-18-10-10-T1 | 18,0 | 10,0 | 10,0 | T3 | 30 | 80 |
| 600 05 14 | TR-14,5-10,2-8-T1 | 14,5 | 10,2 | 8,0 | T1 | 36 | 91 |
| 600 05 20 | TR-20,4-10,2-5-T1 | 20,4 | 10,2 | 5,0 | T1 | 29 | 43 |
| 600 05 21 | TR-20,5-10,2-10-T1 | 20,5 | 10,25 | 10,0 | T1 | 53 | 86 |
| 600 05 15 | TR-17,5-10,7-18-T1 | 17,5 | 10,7 | 18,0 | T1 | 70 | 110 |
| 600 05 23 | TR-23-11-14-T1 | 23,0 | 11,0 | 14,0 | T1 | 80 | 133 |
| 600 05 161 | TR-16-12-8-T1 | 16,0 | 12,0 | 8,0 | T3 | 74 | 99 |
| 600 05 24 | TR-21,2-12,7-6-T1 | 21,2 | 12,7 | 6,0 | T1 | 38 | 126 |
| 600 05 22 | TR-22-14-8-T1 | 22,0 | 14,0 | 8,0 | T3 | 30 | 60 |
| 600 05 250 | TR-25-15-5-T2 | 25,0 | 15,0 | 5,0 | T2 | 15 | 45 |
| 600 05 25 | TR-25-15-12-T1 | 25,0 | 15,0 | 12,0 | T1 | 54 | 102 |
| 600 05 28 | TR-28-16-13-T1 | 28,0 | 16,0 | 13,0 | T3 | 58 | 114 |
| 600 05 29 | TR-28-16-20-T1 | 28,0 | 16,0 | 20,0 | T3 | 99 | 186 |
| 600 05 32 | TR-31-19-16-T1 | 31,0 | 19,0 | 16,0 | T1 | 78 | 163 |
| 600 05 311 | TR-31,7-19-13-T1 | 31,7 | 19,0 | 13,0 | T3 | 64 | 132 |
| 600 05 31 | TR-31,7-19,3-8-T1 | 31,7 | 19,3 | 8,0 | T1 | 34 | 55 |
| 600 05 37 | TR-35,6-23-12,7-T1 | 35,6 | 23,0 | 12,7 | T3 | 25 | 90 |
| 600 05 36 | TR-36-23-15-T1 | 36,0 | 23,0 | 15,0 | T1 | 39 | 112 |
| 600 05 38 | TR-35,6-25,4-7,5-T1 | 35,6 | 25,4 | 7,5 | T3 | 34 | 114 |
| 600 05 40 | TR-40,6-27,2-15-T1 | 40,6 | 27,2 | 15,0 | T1 | 55 | 98 |
| 600 05 46 | TR-46-31-12 | 46,0 | 31,0 | 12,0 | T1 | 53 | 108 |
| 600 05 61 | TR-61,4-36-12,8-T1 | 61,4 | 36,0 | 12,8 | T1 | 58 | 104 |

Andere Abmessungen und Materialien auf Anfrage: Telefon: 09852 61079-0

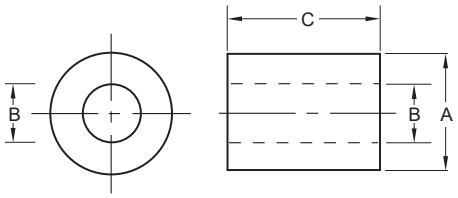
# RI FERRIT-RINGKERNE

## Merkmale

- Material: NiZn.

## Abmessungen

► Einheit = mm



| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Ω Impedanz max. Ω/MHz |
|---|---|---|---|---|---|---|---|
| 600 06 27 | RI-6,35-3,2-15,6-T30 | 6,35 | 3,2 | 15,6 | 76 | 125 | 980/700 |
| 600 06 15 | RI-7,8-4-13-T1 | 7,8 | 4,0 | 13,0 | 70 | 112 | 901/870 |
| 600 06 47 | RI-7,8-4-18-T1 | 7,8 | 4,0 | 18,0 | 75 | 160 | 980/800 |
| 600 06 44 | RI-9,3-4,5-9,5-T1 | 9,3 | 4,5 | 9,5 | 53 | 124 | 505/400 |
| 600 06 37 | RI-9,5-4,8-14,5-T1 | 9,5 | 4,8 | 14,5 | 75 | 121 | 972/691 |
| 600 06 06 | RI-11-5-18,5-T1 | 11,0 | 5,0 | 18,5 | 113 | 178 | 790/730 |
| 600 06 08 | RI-11-5-25-T1 | 11,0 | 5,0 | 25,0 | 145 | 230 | 320/310 |
| 600 06 18 | RI-9,5-5,2-9,5-T1 | 9,5 | 5,2 | 9,5 | 45 | 105 | 500/1.000 |
| 600 06 57 | RI-10,5-5,5-28,5-T1 | 10,5 | 5,5 | 28,5 | 147 | 242 | 470/500 |
| 600 06 19 | RI-12-5,6-20-T1 | 12,0 | 5,6 | 20,0 | 114 | 214 | 345/350 |
| 600 06 26 | RI-12-5,6-30-T1 | 12,0 | 5,6 | 30,0 | 180 | 260 | 610/705 |
| 600 06 02 | RI-14,1-6,28-28,6-T1 | 14,1 | 6,28 | 28,6 | 186 | 300 | 308/112 |
| 600 06 09 | RI-14,3-6,3-18-T1 | 14,3 | 6,3 | 18,0 | 124 | 194 | 804/710 |
| 600 06 04 | RI-14,2-6,35-28,5-T1 | 14,2 | 6,35 | 28,5 | 164 | 291 | 800/740 |
| 600 06 43 | RI-9,8-6,7-13,5-T1 | 9,8 | 6,7 | 13,5 | 43 | 91 | 880/812 |
| 600 06 45 | RI-16-7-28,5-T1 | 15,65 | 6,99 | 28,57 | 164 | 258 | 540/710 |
| 600 06 10 | RI-15,5-7-20-T1 | 15,5 | 7,0 | 20,0 | 173 | 275 | 830/760 |
| 600 06 11 | RI-15,5-7,2-28-T1 | 15,5 | 7,2 | 28,0 | 90 | 180 | 621/790 |
| 600 06 17 | RI-11,8-7,3-15-T1 | 11,8 | 7,3 | 15,0 | 53 | 95 | 635/402 |
| 600 06 62 | RI-14x7,8x15-T1 | 14,0 | 7,8 | 15,0 | 52 | 96 | 1.250/700 |
| 600 06 61 | RI-15,9x7,9x14,3-T1 | 15,9 | 7,9 | 14,3 | 77 | 125 | 1.074/810 |
| 600 06 58 | RI-15,85x7,9x50,8-T1 | 15,85 | 7,9 | 50,8 | 298 | 475 | 475/100 |
| 600 06 24 | RI-14,2-8-28,5-T1 | 14,2 | 8,0 | 28,5 | 124 | 212 | 375/343 |
| 600 06 03 | RI-16-8-28,5-T1 | 15,9 | 8,0 | 28,5 | 103 | 195 | 742/690 |
| 600 06 28 | RI-17,1-8,75-25,4-T1 | 17,1 | 8,75 | 25,4 | 125 | 200 | 790/780 |
| 600 06 49 | RI-16-9-17-T1 | 16,0 | 9,0 | 17,0 | 79 | 134 | 1.100/790 |
| 600 06 05 | RI-16-9-28-T1 | 16,0 | 9,0 | 28,0 | 124 | 198 | 360/466 |
| 600 06 30 | RI-17,2-9,2-28,3-T1 | 17,2 | 9,2 | 28,3 | 115 | 170 | 340/465 |
| 600 06 12 | RI-17,5-9,5-28,5-T1 | 17,5 | 9,4 | 28,6 | 146 | 239 | 276/200 |
| 600 06 50 | RI-17,5-9,5-35-T1 | 17,5 | 9,5 | 35,0 | 152 | 253 | 355/360 |
| 600 06 31 | RI-17,2-10-28,4-T1 | 17,2 | 10,0 | 28,4 | 100 | 240 | 948/690 |
| 600 06 52 | RI-18-10-29-T1 | 18,0 | 10,0 | 29,0 | 128 | 210 | 700/710 |
| 600 06 32 | RI-18,7-10,2-28,5-T1 | 18,7 | 10,2 | 28,5 | 124 | 254 | 415/240 |
| 600 06 41 | RI-17,3-10,5-28,4-T1 | 17,3 | 10,5 | 28,4 | 124 | 176 | 398/310 |
| 600 06 60 | RI-19x11,5x50,8-T1 | 19,0 | 11,5 | 50,8 | 203 | 348 | 435/300 |
| 600 06 34 | RI-19-13-29-T1 | 19,0 | 13,0 | 29,0 | 82 | 162 | 420/380 |
| 600 06 13 | RI-26-13-28,5-T1 | 26,0 | 13,0 | 28,5 | 155 | 236 | 211/276 |
| 600 06 54 | RI-28-16-28,5-T1 | 28,0 | 16,0 | 28,5 | 110 | 120 | 315/240 |
| 600 06 59 | RI-28,0-18,0x28,5-T1 | 28,0 | 18,0 | 28,5 | 100 | 176 | 391/340 |

Weitere Größen und andere Dämpfungswerte auf Anfrage: Telefon: 09852 61079-0

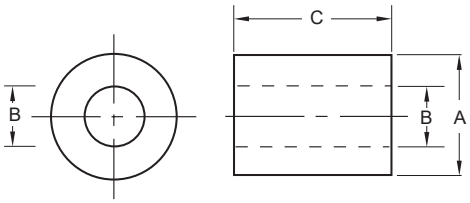
# RI FERRITPERLEN

## Merkmale

- Ausführung unbedrahtet, lose geschüttet
- geeignet um betrahtete Bauteile, Steckverbinder sowie Litzen und Leitungen mit kleinem Durchmesser bestmöglich zu entstören

## Abmessungen

► Einheit = mm



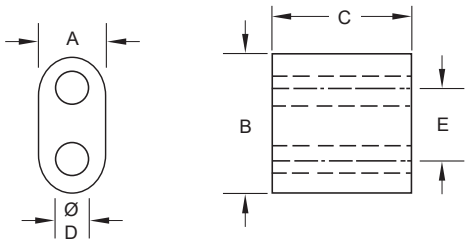

| Art.-Nr. | Typ | Ø A (mm) | Ø B (mm) | Ø C (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz |
|---|---|---|---|---|---|---|
| 603 01 21 T20 | RI-1,6-0,7-1,5-T20 | 1,6 | 0,7 | 1,5 | 13 | 30 |
| 603 01 85 T20 | RI-1,6-0,7-3,3-T20 | 1,6 | 0,7 | 3,3 | 18 | 30 |
| 603 01 27 T30 | RI-2,5-0,8-1,5-T30 | 2,5 | 0,8 | 1,5 | 15 | 32 |
| 603 01 40 T30 | RI-2,5-0,8-2-T30 | 2,5 | 0,8 | 2,0 | 15 | 34 |
| 603 01 35 T3 | RI-3,5-0,8-4,7-T3 | 3,5 | 0,8 | 4,7 | 48 | 78 |
| 603 01 05 T20 | RI-1,85-0,9-3,5-T20 | 1,85 | 0,9 | 3,5 | 24 | 28 |
| 603 01 06 T2 | RI-2,5-1-1,5-T2 | 2,5 | 1,0 | 1,5 | 10 | 25 |
| 603 01 06 T7 | RI-2,5-1-1,5-T7 | 2,5 | 1,0 | 1,5 | 16 | 19 |
| 603 01 09 T2 | RI-3-1-3-T2 | 3,0 | 1,0 | 3,0 | 25 | 47 |
| 603 01 01 T2 | RI-3-1-4-T2 | 3,0 | 1,0 | 4,0 | 37 | 44 |
| 603 01 04 T2 | RI-3,5-1-3-T2 | 3,5 | 1,0 | 3,0 | 29 | 38 |
| 603 01 11 T21 | RI-3,5-1-6-T21 | 3,5 | 1,0 | 6,0 | 59 | 70 |
| 603 01 08 T20 | RI-2,8-1,1-2,9-T20 | 2,8 | 1,1 | 2,9 | 24 | 30 |
| 603 01 20 T1 | RI-3,0-1,2-6-T1 | 3,0 | 1,2 | 6,0 | 40 | 58 |
| 603 01 03 T2 | RI-3,5-1,2-3,5-T2 | 3,5 | 1,2 | 3,5 | 25 | 32 |
| 603 01 10 T1 | RI-3,5-1,2-5-T1 | 3,5 | 1,2 | 5,0 | 42 | 60 |
| 603 01 02 T2 | RI-3,5-1,2-7-T2 | 3,5 | 1,2 | 7,0 | 54 | 84 |
| 603 01 46 T3 | TR-2,4-1,3-2,5-T3 | 2,4 | 1,3 | 2,5 | 11 | 33 |
| 603 01 42 T1 | TR-2,5-1,3-2,5-T1 | 2,5 | 1,3 | 2,5 | 18 | 43 |
| 603 01 18 T1 | RI-2,5-1,7-6-T1 | 2,5 | 1,7 | 6,0 | 15 | 30 |
| 603 01 19 T1 | RI-3,5-1,3-6-T1 | 3,5 | 1,3 | 6,0 | 42 | 68 |
| 603 01 12 T2 | RI-3,7-1,4-5,1-T2 | 3,7 | 1,4 | 5,1 | 38 | 49 |
| 603 01 23 T1 | RI-2,5-1,3-12-T1 | 2,5 | 1,3 | 12,0 | 41 | 69 |
| 603 01 60 T1 | RI-4-2-5-T1 | 4,0 | 2,0 | 5,0 | 28 | 51 |
| 603 01 24 T2 | RI-4-2-10-T2 | 4,0 | 2,0 | 10,0 | 53 | 80 |
| 603 01 28 T2 | RI-4,1-2-6-T2 | 4,1 | 2,0 | 6,0 | 20 | 30 |
| 603 01 29 T1 | RI-4,1-2-15-T1 | 4,1 | 2,0 | 15,0 | 40 | 75 |
| 603 01 71 T1 | RI-4,83-2,29-6,35-T1 | 4,83 | 2,29 | 6,35 | 43 | 80 |
| 603 01 14 T2 | RI-5-2,5-6-T2 | 5,0 | 2,5 | 6,0 | 34 | 43 |
| 603 01 68 T1 | RI-4,5-2,6-12-T1 | 4,5 | 2,6 | 12,0 | 37 | 59 |
| 603 01 83 T1 | RI-6-3-2-T1 | 6,0 | 3,0 | 2,0 | 15 | 35 |
| 603 01 84 T1 | RI-6-4-3-T1 | 6,0 | 4,0 | 3,0 | 22 | 43 |

Ausführlichere Datenblätter auf Anfrage: Tel.: 09852 61079-0

# RIB FERRIT-DOPPELLOCHKERNE

Abmessungen

► Einheit = mm



| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|---|---|---|---|---|---|---|
| **603 02 12 T1** | RIB-3-5-2-T1 | 3,0 | 5,0 | 2,0 | 1,25 | 2,5 |
| **603 02 03 T1** | RIB-3-5-3-T1 | 3,0 | 5,0 | 3,0 | 1,25 | 2,5 |
| **603 02 01 T1** | RIB-3-5-5-T1 | 3,0 | 5,0 | 5,0 | 1,0 | 2,5 |
| **603 02 02 T2** | RIB-3.5-7-7-T2 | 3,5 | 7,0 | 7,0 | 1,5 | 3,5 |
| **603 02 24 T1** | RIB-3.5-8-7.4-T1 | 3,5 | 8,0 | 7,4 | 1,8 | 4,0 |
| **603 02 06 T2** | RIB-4-7-5-T2 | 4,0 | 7,0 | 5,0 | 2,0 | 2,9 |
| **603 02 25 T1** | RIB-4.1-7-3.2-T1 | 4,1 | 7,0 | 3,2 | 1,8 | 2,9 |
| **603 02 25 T2** | RIB-4.1-7-3.2-T2 | 4,1 | 7,0 | 3,2 | 1,8 | 2,9 |
| **603 02 26 T1** | RIB-4.1-7-6.3-T1 | 4,1 | 7,0 | 6,3 | 1,8 | 2,9 |
| **603 02 15 T1** | RIB-4.1-7-6.6-7-T1 | 4,1 | 7,0 | 6,6 | 1,8 | 2,9 |
| **603 02 19 T2** | RIB-6.5-12-4-T2 | 6,5 | 12,0 | 4,0 | 3,8 | 6,0 |
| **603 02 16 T1** | RIB-7.4-13.4-7-T1 | 7,5 | 13,4 | 7,0 | 3,8 | 5,8 |
| **603 02 16 T2** | RIB-7.4-13,4-7-T | 7,4 | 13,4 | 7,0 | 3,8 | 5,8 |
| **603 02 17 T1** | RIB-7.5-13-13-T1 | 7,5 | 13,0 | 13,0 | 3,8 | 5,8 |
| **603 02 07 T2** | RIB-7,6-13,5-6,5T2 | 7,6 | 13,0 | 6,5 | 3,9 | 5,8 |

Andere Oberflächen auf Anfrage: Telefon: 09852 61079-0

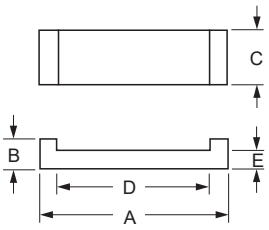
# FKG FLACHBANDKABELFERRITE

Merkmale

- die beiden Ferritkernhälften werden mit Hilfe von Metallklammern zusammengehalten (im Lieferumfang enthalten)

Abmessungen ► Einheit = mm

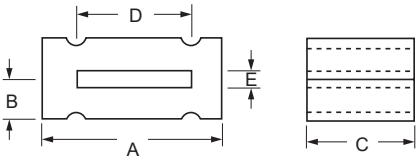
Figur 1



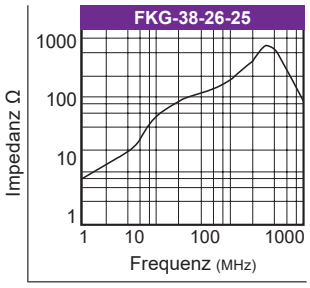

| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Impedanz Ω max. Ω/MHz |
|---|---|---|---|---|---|---|---|---|---|
| 601 03 12 | FKG-17-12,5-15 | 17,0 | 3,4 | 15,0 | 12,5 | 2,8 | 51 | 94 | 135/300 |
| 601 03 83 | FKG-110-83-28 | 110,0 | 7,65 | 28,6 | 83,4 | 1,2 | 50 | 135 | 520/300 |

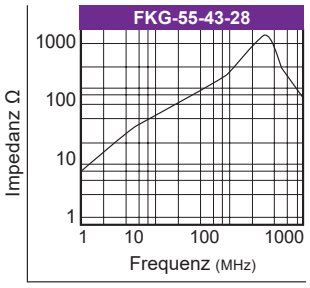
Abmessungen ► Einheit = mm

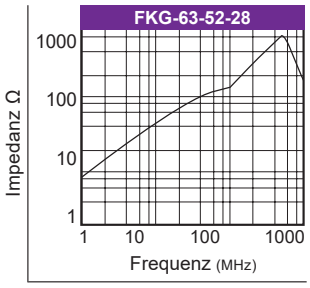
Figur 2

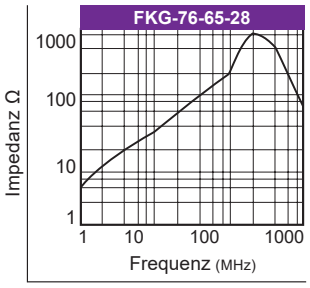



| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Impedanz Ω max. Ω/MHz |
|---|---|---|---|---|---|---|---|---|---|
| 601 05 01 | FKG-38-26-10 | 38,0 | 6,35 | 10,0 | 26,6 | 1,6 | 45 | 107 | 730/495 |
| 601 05 02 | FKG-38-26-25 | 38,0 | 6,35 | 25,4 | 26,6 | 1,6 | 105 | 175 | 480/285 |
| 601 05 03 | FKG-45-34-10 | 45,0 | 6,35 | 10,0 | 34,4 | 1,6 | 41 | 98 | |
| 601 05 05 | FKG-45-34-28 | 45,0 | 6,35 | 28,5 | 34,4 | 1,6 | 102 | 189 | |
| 601 05 06 | FKG-55-43-28 | 55,1 | 6,35 | 28,5 | 43,7 | 1,6 | 80 | 181 | 510/315 |
| 601 05 09 | FKG-63-52-28 | 63,5 | 6,35 | 28,5 | 52,0 | 1,6 | 77 | 172 | 570/225 |
| 601 05 10 | FKG-76-65-28 | 76,2 | 6,35 | 28,5 | 65,3 | 1,6 | 70 | 200 | 600/193 |
| 601 05 11 | FKG-88-78-12 | 88,9 | 6,50 | 12,7 | 78,2 | 1,8 | 33 | 95 | |



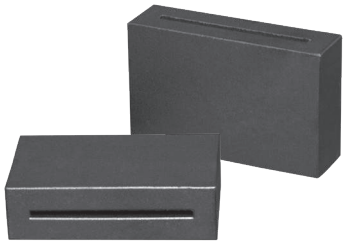




Ausführliche Datenblätter auf Anfrage: Telefon: 09852 61079-0

# RP FLACHBANDKABELFERRIT

## Merkmale

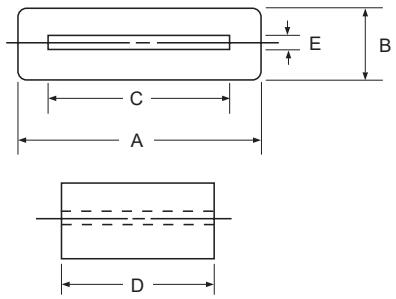
- geschlossene Ausführung mit großem Volumen, dadurch besonders hohe Schirmdämpfungswerte



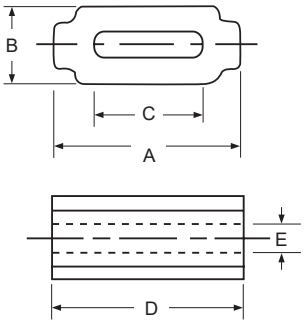
## Abmessungen

► Einheit = mm

**Figur 1**




**Figur 2**

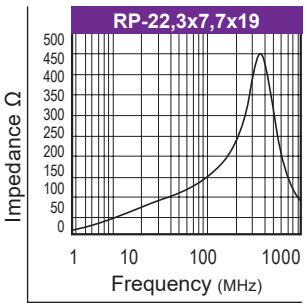


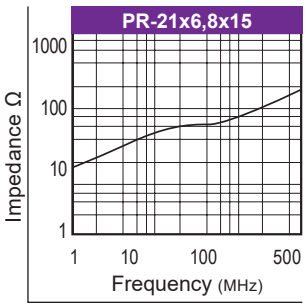

**Figur 1**

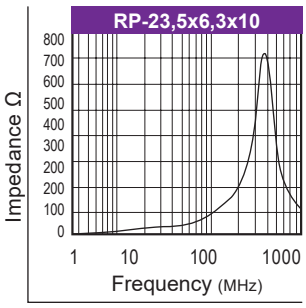
| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | max. Polzahl |
|---|---|---|---|---|---|---|---|---|---|
| 601 02 65 | RP-22,3x7,7x19 | 22,3 | 7,7 | 14,0 | 19,0 | 1,5 | 68 | 120 | 11 |
| 601 02 64 | RP-21x6,8x15 | 21,0 | 6,8 | 15,0 | 15,0 | 1,3 | 60 | 75 | 11 |
| 601 02 60 | RP-23,5x6,3x10 | 23,5 | 6,3 | 18,4 | 10,0 | 1,1 | 32 | 75 | 14 |
| 601 02 62 | RP-45,1x12,5x28,6 | 45,1 | 12,5 | 34,5 | 28,6 | 1,5 | 80 | 165 | 27 |

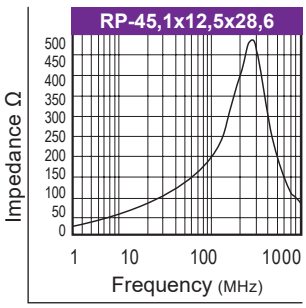
**Figur 2**

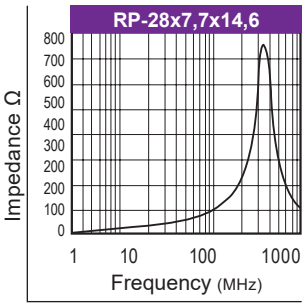
| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | max. Polzahl |
|---|---|---|---|---|---|---|---|---|---|
| 601 02 59 | RP-28x7,7x14,6 | 28,0 | 7,7 | 23,0 | 14,6 | 1,4 | 38 | 85 | 18 |
| 601 02 67 | RP-28x7,7x22 | 28,0 | 7,7 | 23,0 | 22,0 | 1,4 | 52 | 110 | 18 |

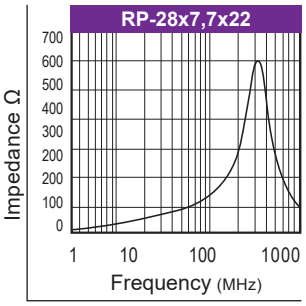



**Mehr Infos:**

Ausführliche Datenblätter auf Anfrage:

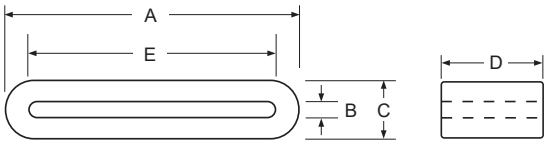
Telefon: 09852 61079-0

# SSC FLACHBANDKABELFERRITE

Merkmale

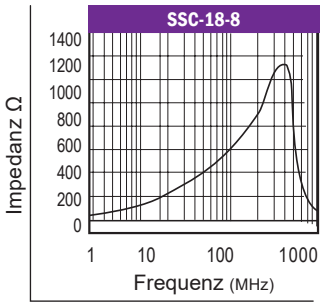
- geeignet bei hochfrequenten Störungen auf Flachbandleitungen

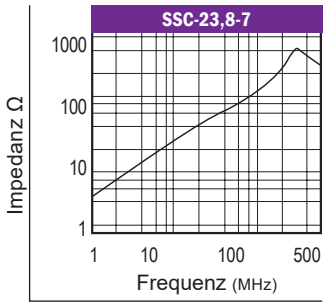
Abmessungen ► Einheit = mm

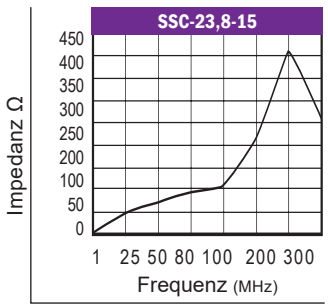


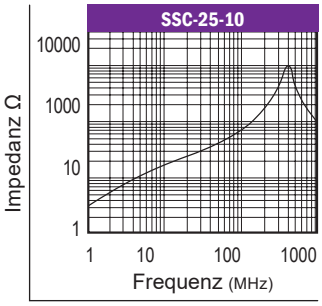

| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | max. Polzahl | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Impedanz Ω max. Ω/MHz |
|---|---|---|---|---|---|---|---|---|---|---|
| 601 02 10 | SSC-18-8 | 18,0 | 1,0 | 5,0 | 8,0 | 14,0 | 11 | 28 | 70 | 1120/400 |
| 601 02 11 | SSC-23,8-7 | 23,8 | 1,1 | 6,3 | 7,0 | 18,8 | 14 | 27 | 51 | 305/253 |
| 601 02 14 | SSC-23,8-15 | 23,8 | 1,1 | 6,3 | 15,0 | 18,8 | 14 | 46 | 106 | 418/300 |
| 601 02 16 | SSC-25-10 | 25,0 | 1,2 | 5,0 | 10,0 | 21,0 | 16 | 24 | 60 | 1031/390 |
| 601 02 15 | SSC-25-12 | 25,0 | 1,1 | 5,0 | 12,0 | 21,0 | 16 | 32 | 86 | 830/400 |
| 601 02 18 | SSC-28,6-25 | 28,6 | 1,8 | 7,7 | 25,0 | 23,6 | 18 | 45 | 95 | 1061/710 |
| 601 02 30 | SSC-33,5-7 | 33,5 | 1,4 | 6,5 | 7,0 | 27,0 | 21 | 20 | 57 | 1120/410 |
| 601 02 04 | SSC-33,5-10-2 | 33,5 | 2,2 | 7,4 | 10,0 | 27,0 | 21 | 27 | 50 | 713/305 |
| 601 02 01 | SSC-33,5-8 | 33,5 | 1,3 | 6,5 | 8,0 | 27,0 | 21 | 21 | 44 | 1289/800 |
| 601 02 02 | SSC-33,5-10 | 33,5 | 1,3 | 6,5 | 10,0 | 27,0 | 21 | 26 | 51 | 1028/750 |
| 601 02 03 | SSC-33,5-12 | 33,5 | 1,3 | 6,5 | 12,0 | 27,0 | 21 | 31 | 101 | 540/500 |
| 601 02 05 | SSC-33,5-20 | 33,5 | 1,3 | 6,5 | 20,0 | 27,0 | 21 | 50 | 90 | 961/600 |
| 601 02 21 | SSC-40-10 | 40,0 | 1,3 | 6,5 | 10,0 | 35,0 | 27 | 23 | 54 | 678/390 |
| 601 02 22 | SSC-40-12 | 40,0 | 1,3 | 6,5 | 12,0 | 35,0 | 27 | 32 | 93 | 760/380 |
| 601 02 42 | SSC-40-22 | 40,0 | 1,4 | 6,5 | 22,0 | 35,0 | 27 | 37 | 95 | 586/315 |
| 601 02 32 | SSC-45-12 | 45,2 | 1,3 | 6,5 | 12,0 | 40,0 | 31 | 26 | 61 | 890/375 |
| 601 02 50 | SSC-50-12 | 49,6 | 1,3 | 6,5 | 12,0 | 44,0 | 34 | 30 | 92 | 674/400 |
| 601 02 58 | SSC-58-12 | 57,6 | 1,3 | 6,5 | 12,0 | 52,0 | 40 | 25 | 75 | 440/420 |

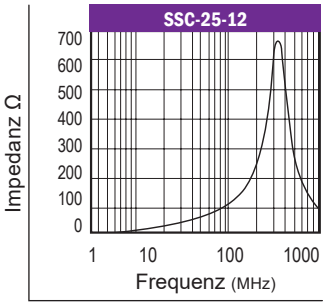
- Auf Wunsch können die Flachkerne mit Klebeband ausgerüstet werden (einfach Montage) oder mit Epoxidharz beschichtet werden (Erhöhung der Bruchsicherheit).

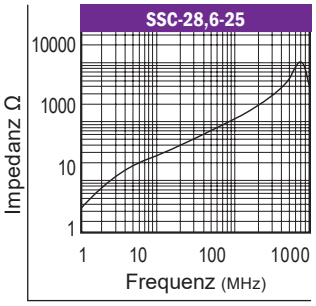


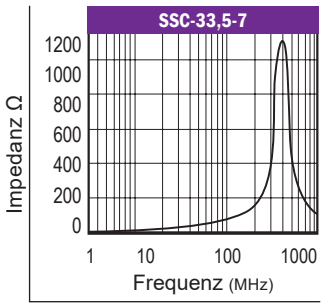



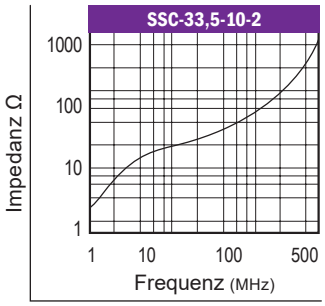



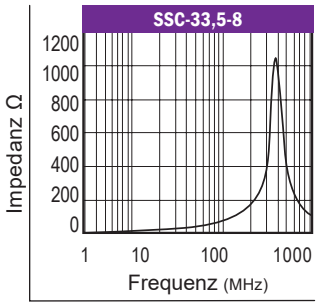



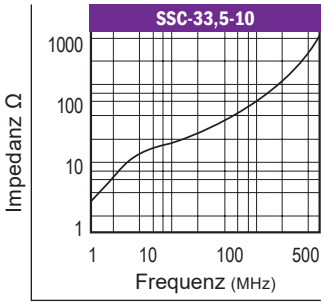



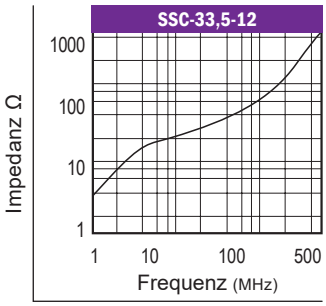
# SSC FLACHBANDKABELFERRITE

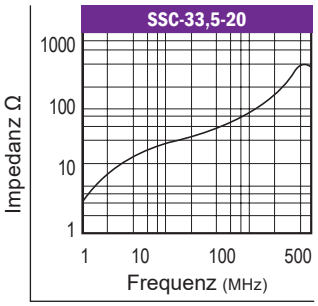


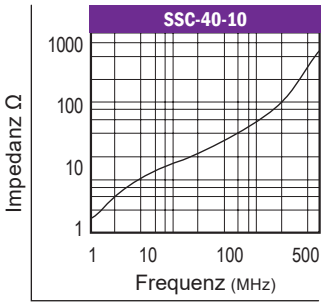



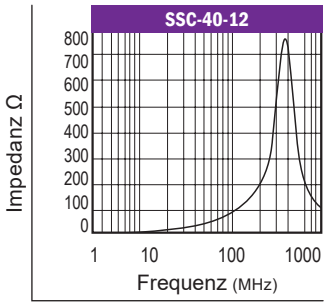



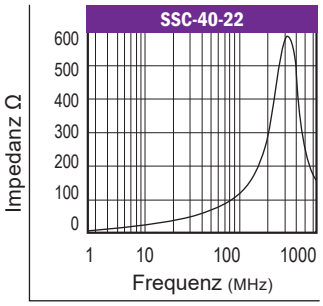



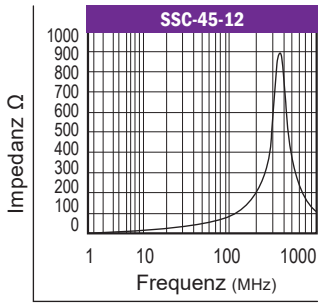



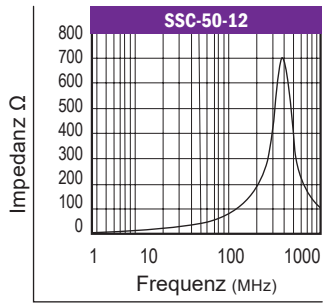



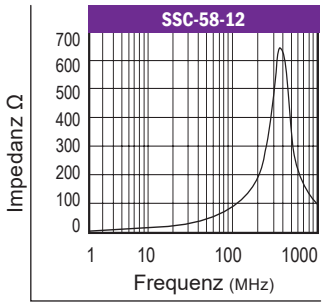




Ausführliche Datenblätter und
Befestigungsteile auf Anfrage:
Telefon: 09852 61079-0

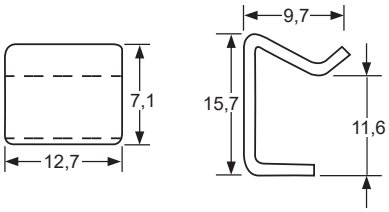
# M BEFESTIGUNGSTEILE FÜR FERRITKERNE

Merkmale

- geeignet für Flachbandkabelferrite Typen RPG und FKG

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | |
|---|---|---|
| 601 99 06 | M | Metallklammer für Ferritkerne mit Gesamtstärke = 13 mm (B = 6,5 mm) |

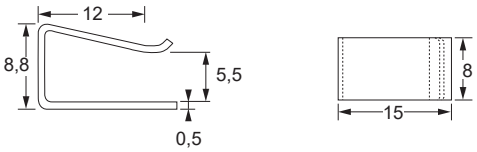
# TRMC-7 BEFESTIGUNGSKLAMMER

Merkmale

- geeignet für Flachbandkabelferrite Typ FKG-17-12,5-15
- Art.-Nr.: 601 99 13

Abmessungen

► Einheit = mm




# FRH, FRC, FRHL BEFESTIGUNGSTEILE FÜR FERRITKERNE

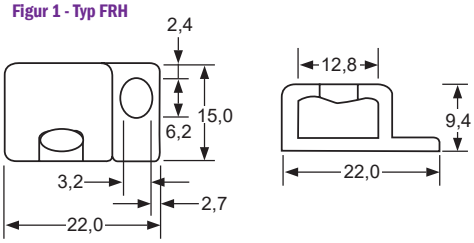
Merkmale

- geeignet für Flachbandkabelferrite Typen SSC und SSH
- Material: PA66, UL94V-0

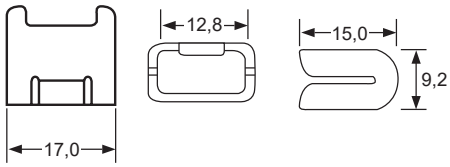
Abmessungen

► Einheit = mm

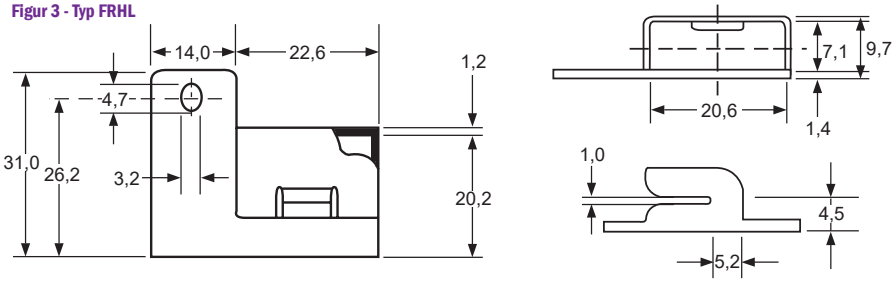
Figur 1 - Typ FRH




Figur 2 - Typ FRC




Figur 3 - Typ FRHL




| Art.-Nr. | Typ | | geeignet für Ferritkern-Typ | Figur |
|---|---|---|---|---|
| 601 99 01 | FRH-12 | Schraubbefestigung, ohne Klebefolie | SSH-33,5-12, SSH-40-12, | 1 |
| 601 99 02 | FRH-12-T | Schraubbefestigung, mit Klebefolie | SSH-45-12 und für alle Typen | |
| 601 99 03 | FRC-12-CP | Schraubbefestigung, ohne Klebefolie | SSC mit Maß D=12 mm | 2 |
| 601 99 07 | FRHL-20 | Schraubbefestigung, ohne Klebefolie | SSH-33,5-20, SSC-33,5-20 und SSC-40-20 | 3 |

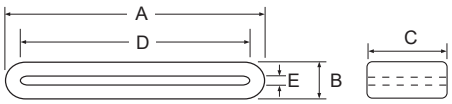
# FPC FERRIT FÜR FLEXIBLE LEITERBAHNEN

- speziell für flexible Leiterbahnen geeignet

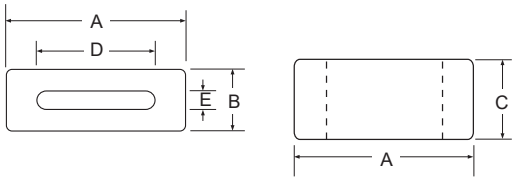
Abmessungen

► Einheit = mm

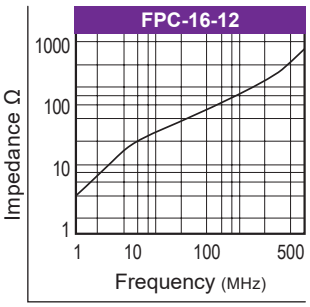
Figur 1

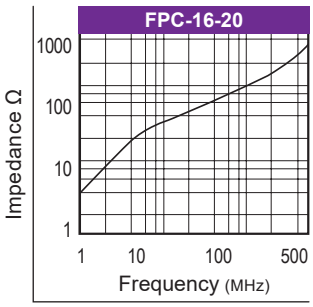


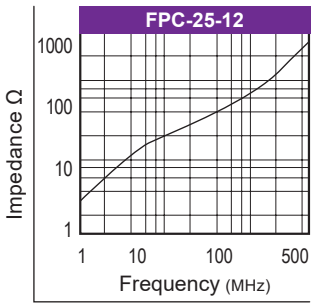

Figur 2

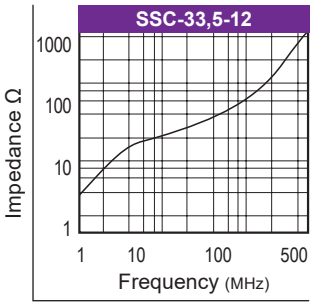


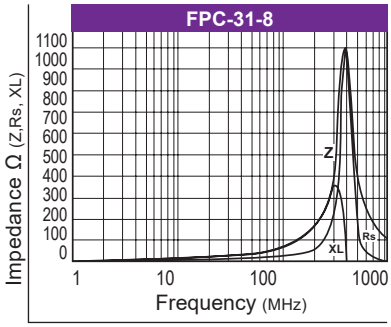

| Art.-Nr. | Typ | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Impedanz Ω 25 MHz | Impedanz Ω 100 MHz | Figur |
|---|---|---|---|---|---|---|---|---|---|
| 601 04 08 | FPC-16-8 | 16,0 | 5,0 | 8,0 | 11,5 | 0,5 | 29 | 72 | 1 |
| 601 04 16 | FPC-16-12 | 16,0 | 5,0 | 12,0 | 11,5 | 0,5 | 42 | 79 | |
| 601 04 15 | FPC-16-15 | 16,0 | 5,0 | 15,0 | 11,5 | 0,5 | 50 | 110 | |
| 601 04 17 | FPC-16-20 | 16,0 | 5,0 | 20,0 | 11,5 | 0,5 | 71 | 127 | |
| 601 04 21 | FPC-21-15 | 20,5 | 3,5 | 15,0 | 16,5 | 0,5 | 34 | 88 | 2 |
| 601 04 27 | FPC-23-7 | 23,3 | 3,0 | 7,0 | 20,0 | 0,9 | 20 | 60 | |
| 601 04 24 | FPC-25-12 | 24,5 | 5,0 | 12,0 | 20,0 | 0,5 | 30 | 65 | 1 |
| 601 04 20 | FPC-25-20 | 24,5 | 5,0 | 20,0 | 20,0 | 0,5 | 50 | 103 | |
| 601 04 31 | FPC-25-10-3 | 25,0 | 3,0 | 10,0 | 21,0 | 0,8 | 18 | 39 | 2 |
| 601 04 30 | FPC-28-18 | 28,5 | 6,5 | 18,0 | 23,5 | 1,0 | 40 | 95 | 1 |
| 601 04 34 | FPC-31-8 | 31,0 | 5,0 | 8,0 | 27,0 | 0,5 | 21 | 60 | |
| 601 04 35 | FPC-31-9 | 31,0 | 5,0 | 9,0 | 27,0 | 0,5 | 25 | 75 | |
| 601 04 56 | FPC-31-12-3 | 30,5 | 3,0 | 12,0 | 27,2 | 0,7 | 17 | 42 | |
| 601 04 25 | FPC-31-12 | 31,0 | 5,0 | 12,0 | 27,0 | 0,5 | 26 | 66 | |
| 601 04 46 | FPC-46-12 | 46,0 | 5,0 | 12,0 | 41,5 | 0,5 | 23 | 65 | |

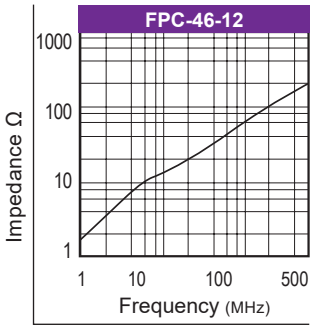


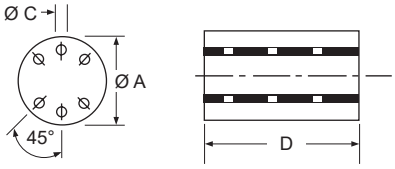




Ausführliche Datenblätter auf Anfrage:
Telefon: 09852 61079-0

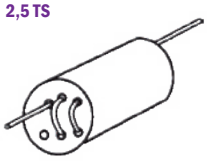
# UKW-DROSSEL

Abmessungen

► Einheit = mm

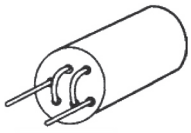



2,5 TS

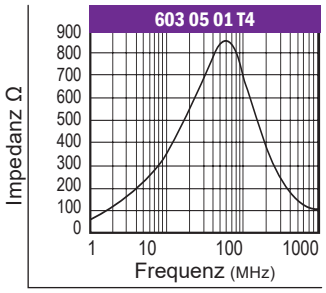


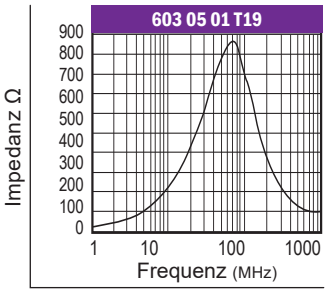
| Art.-Nr. | Draht-wicklungen | Ø A (mm) | D (mm) | Ø C (mm) | Impedanz Ω 10 MHz | 25 MHz | 100 MHz | 200 MHz | Impedanz Ω max. Ω/MHz |
|---|---|---|---|---|---|---|---|---|---|
| **603 05 01 T4** | 2,5 TS | 6,0 | 10,0 | 0,8 | 280 | 495 | 540 | 355 | 845/62 |
| **603 05 01 T19** | 2,5 TS | 6,0 | 10,0 | 0,8 | 220 | 600 | 782 | 295 | 1013/50 |

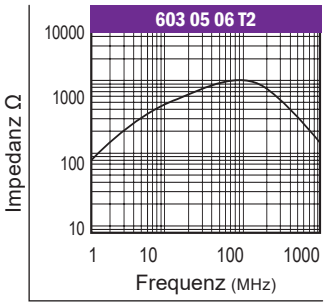
3 TS

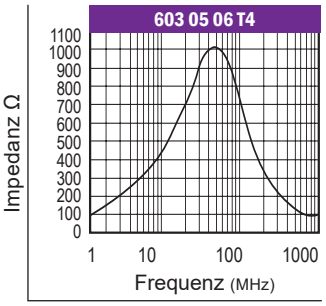


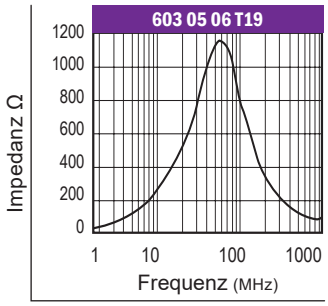
| Art.-Nr. | Draht-wicklungen | Ø A (mm) | D (mm) | Ø C (mm) | Impedanz Ω 10 MHz | 25 MHz | 100 MHz | 200 MHz | Impedanz Ω max. Ω/MHz |
|---|---|---|---|---|---|---|---|---|---|
| **603 05 06 T2** | 3 TS | 6,0 | 10,0 | 0,8 | 667 | 811 | 454 | 236 | 817/30 |
| **603 05 06 T4** | 3 TS | 6,0 | 10,0 | 0,8 | 355 | 800 | 700 | 320 | 900/45 |
| **603 05 06 T19** | 3 TS | 6,0 | 10,0 | 0,8 | 280 | 515 | 630 | 275 | 1165/55 |



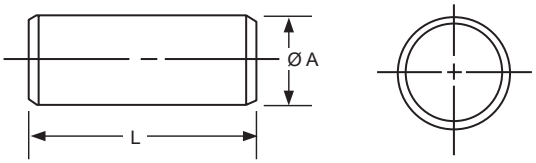



# R STABFERRITE

Merkmale

- Typische Anwendung von Stabferrien ist die Herstellung von Stabkerndrosseln.
- Standardmaterialien siehe Spalte „Material“ in Tabelle. Andere Materialien auf Anfrage erhältlich.
- Bestellnummer = Art.-Nr. + Material (Beispiel 603 50 04 T40)

Abmessungen ► Einheit = mm




| Art.-Nr. | Material | Typ | Ø A (mm) | L (mm) |
|---|---|---|---|---|
| 603 50 41 | T39 | R1,0x6,5 | 1,00 | 6,50 |
| 603 50 42 | T29 | R1,0x10,00 | 1,00 | 10,00 |
| 603 50 01 | T2 | R1,65x14,00 | 1,65 | 14,00 |
| 603 50 04 | T40 | R1,9x6,5 | 1,90 | 6,50 |
| 603 50 40 | T39 | R3,3x16,00 | 3,30 $^{-0,20}$ | 16,00 $^{\pm 0,30}$ |
| 603 50 02 | T19 | R4,00x15,00 | 4,00 | 15,00 |
| 603 50 27 | T39 | R4,00x20,00 | 4,00 $^{-0,30}$ | 20,00 $^{\pm 0,50}$ |
| 603 50 34 | T39 | R4,90x20,00 | 4,90 $^{-0,20}$ | 20,00 $^{-0,90}$ |
| 603 05 12 | T29 | R5,0x15,0 | 5,00 | 15,00 |
| 603 50 14 | T30 | R5,00x25,00 | 5,00 | 25,00 |
| 603 50 43 | T39 | R5,50x29,00 | 5,50 $^{-0,20}$ | 29,00 $^{-0,50}$ |
| 603 50 17 | T39 | R6,00x25,00 | 6,00 | 25,00 |
| 603 50 19 | T30 | R6,00x38,00 | 6,00 | 38,00 |

| Eigenschaft | Frequenz (REF) | Anfangs-permeabilität | Curie-Temperatur | spez. Gewicht | Verlustfaktor @MHz | Temperaturkoeffizient der Anf.permeabilität |
|---|---|---|---|---|---|---|
| Einheit | MHz | ±25% | °C | g/gm³ | x10$^{-6}$ MHz | x10$^{-6}$/C° |
| Symbol | F | µiac | T.C | d | tan δ/µiac | αµiγ |
| T 2 | 0,01 - 0,5 | 1.500 | > 100 | 4,7 | < 75 0,5 | 0,0 - 3,0 |
| T 1 | 0,10 - 1,0 | 700 | > 140 | 4,8 | < 250 1,0 | 0,0 - 70,0 |
| T 19 | 0,30 - 7,0 | 200 | > 250 | 4,7 | < 350 7,0 | 19,0 - 32,0 |
| T 24 | 3,00 - 80,0 | 25 | > 350 | 4,7 | < 400 80,0 | 50,0 - 70,0 |
| T 29 | 0,10 - 1,1 | 850 | > 140 | 4,8 | < 270 1,0 | 2,0 - 5,0 |
| T 30 | 0,10 - 1,0 | 1.000 | > 130 | 4,8 | < 280 1,0 | 2,0 - 5,0 |
| T 36 | 0,50 - 20,0 | 55 | > 300 | 4,5 | < 100 20,0 | 5,5 - 15,0 |
| T 39 | 0,10 - 2,0 | 250 | > 200 | 4,7 | < 110 2,0 | 3,0 - 10,0 |
| T 40 | 0,50 - 30,0 | 50 | > 300 | 4,8 | < 280 30,0 | 25,0 - 65,0 |

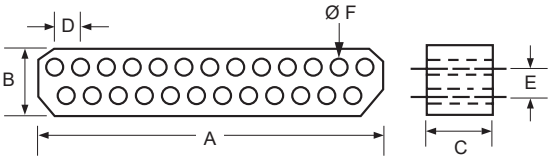
# FSV FERRITPLÄTTCHEN FÜR STECKVERBINDER

- wirksame Möglichkeit herkömmliche Steckverbinder nachträglich gegen elektromagnetische Störein-/abstrahlung abzuschirmen
- Schirmdämpfung: 25-40 Ω (25 MHz), 50-80 Ω (100MHz)

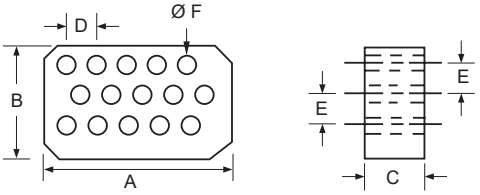
Abmessungen

► Einheit = mm

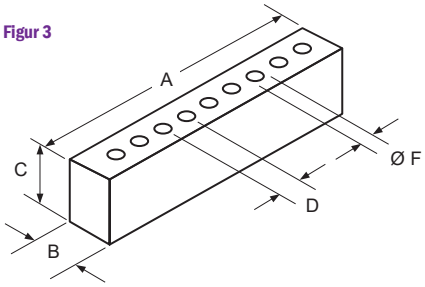
Figur 1




Figur 2




Figur 3



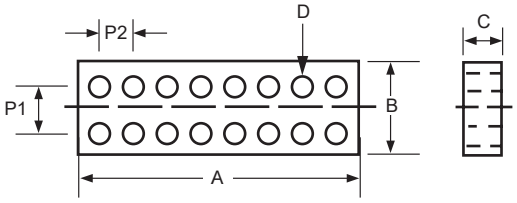

| Art.-Nr. | Typ | Anzahl der Löcher | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Ø F (mm) | Figur |
|---|---|---|---|---|---|---|---|---|---|
| 603 08 08 | FSV8-20,3x4x5,75 | 8 | 20,3 | 4,0 | 5,75 | 2,54 | - | 1,2 | 3 |
| 603 08 36 | FSV9-14,4x7,6x3,4 | 9 | 14,4 | 7,6 | 3,4 | 2,74 | 2,84 | 1,57 | 1 |
| 603 08 42 | FSV9-14,5x7,6x2,6 | 9 | 14,5 | 7,6 | 2,6 | 2,74 | 2,84 | 1,57 | |
| 603 08 34 | FSV9-14,5x7,6x2,8 | 9 | 14,5 | 7,6 | 2,8 | 2,74 | 2,84 | 1,57 | |
| 603 08 37 | FSV9-24,1x4x7 | 9 | 24,1 | 4,0 | 7,0 | 2,54 | - | 1,20 | 3 |
| 603 08 30 | FSV9-14,5x7,6x1,6 | 9 | 14,5 | 7,6 | 1,6 | 2,77 | 2,84 | 1,57 | 1 |
| 603 08 31 | FSV15-13,6x9,5x2,2 | 15 | 13,6 | 9,5 | 2,2 | 2,29 | 2,54 | 1,00 | 2 |
| 603 08 41 | FSV15-22,5x7,6x5,4 | 15 | 22,5 | 7,6 | 5,4 | 2,77 | 2,84 | 1,65 | 1 |
| 603 08 35 | FSV15-22,6x7,6x2,8 | 15 | 22,6 | 7,6 | 2,8 | 2,77 | 2,84 | 1,57 | |
| 603 08 51 | FSV15-22,6x7,6x1,6 | 15 | 22,6 | 7,6 | 1,6 | 2,77 | 2,84 | 1,57 | |
| 603 08 45 | FSV25-36,3x7,6x1,8 | 25 | 36,3 | 7,6 | 1,8 | 2,77 | 2,84 | 1,65 | 1 |
| 603 08 33 | FSV25-36,4x7,6x2,8 | 25 | 36,4 | 7,6 | 2,8 | 2,77 | 2,84 | 1,57 | |
| 603 08 40 | FSV37-53,1x7,6x2,8 | 37 | 53,1 | 7,6 | 2,8 | 2,77 | 2,84 | 1,50 | 1 |

# MHP FERRITLOCHPLÄTTCHEN

- unterdrückt elektromagnetische Störungen durch einfaches Aufstecken des Ferritplättchens auf die Pins
- platzsparende Ausführung

Abmessungen

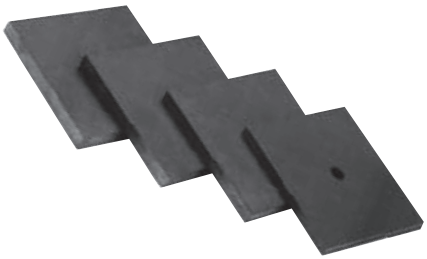
► Einheit = mm




| Art.-Nr. | Typ | Anzahl der Löcher | A (mm) | B (mm) | C (mm) | D (mm) | P1 (mm) | P2 (mm) |
|---|---|---|---|---|---|---|---|---|
| 603 08 10 | MHP8-10/11.5/1.5 | 8 | 10,0 | 11,5 | 1,5 | 1,0 | 7,6 | 2,54 |
| 603 08 16 | MHP16-20.3/10/3.2 | 16 | 20,3 | 10,0 | 3,2 | 1,22 | 2,54 | 2,54 |

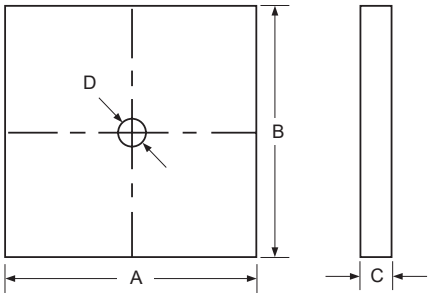
# FERRITKACHELN

- hergestestellt aus hochabsorbierendem Ferritwerkstoff mit hoher Verlustleistung
- ideal zum Auskleiden geschirmter Testräume und für Gebäude zur elektromagnetischen Abschirmung



## Abmessungen

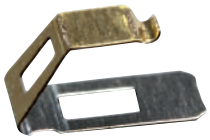
► Einheit = mm




| Art.-Nr. | A (mm) | B (mm) | C (mm) | A (mm) | Gewicht (g) |
|---|---|---|---|---|---|
| 604 99 10 | 100,0 ± 0,13 | 100,0 ± 0,13 | 5,5 ± 0,13 | 10,0 ± 0,3 | 277,0 |
| 604 99 20 | 100,0 ± 0,13 | 100,0 ± 0,13 | 6,7 ± 0,2 | 10,0 ± 0,3 | 337,0 |

NEU

# LKS LEITERPLATTENKONTAKTE

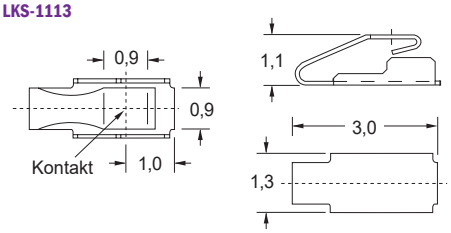


## Merkmale

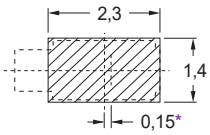
- Leiterplattenkontakte zur Masse- / Erdungs- / ESD-Anbindung
- für SMT-Bestückung
- Materialstärke (t): siehe Tabelle
- Material: Titan-Kupfer-Legierung
- komplette Operfläche: 0,5 - 1,0 µm vernickelt
- Kontakt- & Lötflächen: 0,03 µm versilbert

## Abmessungen ► Einheit = mm

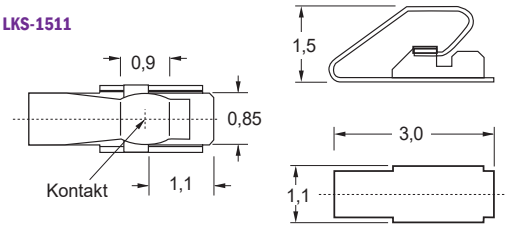
**LKS-1113**



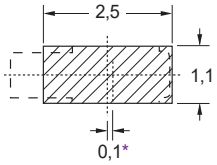

Lötpadempfehlung



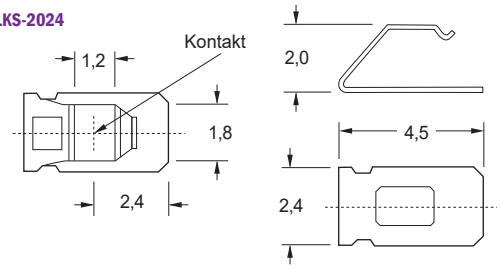

**LKS-1511**



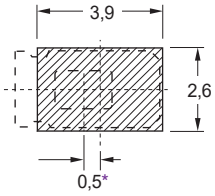

Lötpadempfehlung



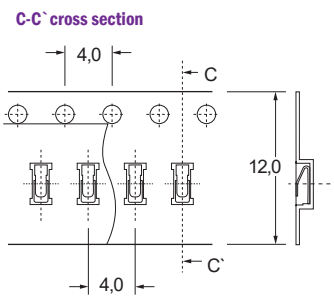

**LKS-2024**

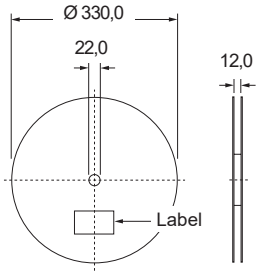



Lötpadempfehlung




* = Abstand zw. Mitte Lötfläche und Mitte Kontaktfläche




| Art.-Nr. | Typ | Höhe (mm) | Breite (mm) | Länge (mm) | t (mm) | Federbereich |
|---|---|---|---|---|---|---|
| 611 06 01 | LKS-1113 | 1,1 | 1,3 | 3,0 | 0,08 | 0,65 - 0,9 |
| 611 06 02 | LKS-1511 | 1,5 | 1,1 | 3,0 | 0,08 | 1,15 - 1,35 |
| 611 06 03 | LKS-2024 | 2,0 | 2,4 | 4,5 | 0,10 | 1,4 - 1,8 |

# LKS LEITERPLATTENKONTAKTE

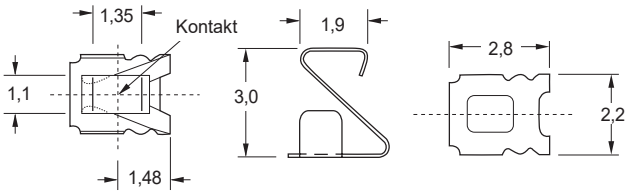
NEU

## Merkmale

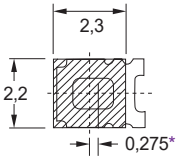
- Leiterplattenkontakte zur Masse- / Erdungs- / ESD-Anbindung
- für SMT-Bestückung
- Materialstärke (t): siehe Tabelle
- Material: Titan-Kupfer-Legierung
- komplette Operfläche: 0,5 - 1,0 µm vernickelt
- Kontakt- & Lötflächen: 0,03 µm versilbert

## Abmessungen ► Einheit = mm

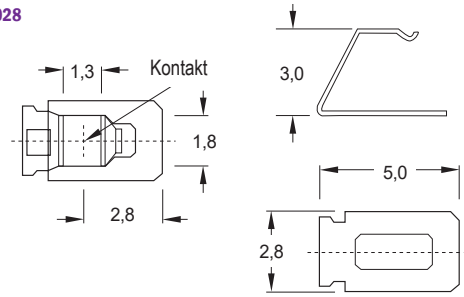
**LKS-3022**



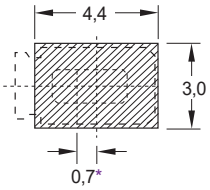

Lötpadempfehlung



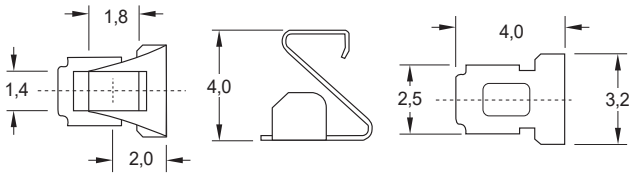

**LKS-3028**



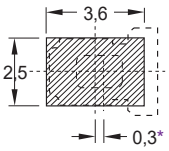

Lötpadempfehlung



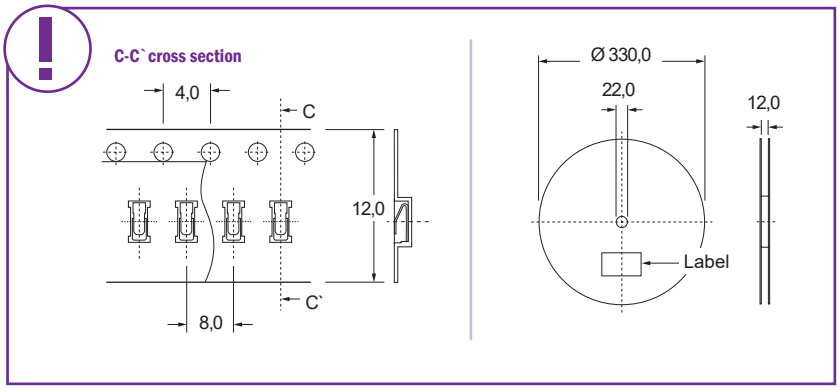

**LKS-4032**




Lötpadempfehlung




* = Abstand zw. Mitte Lötfläche und Mitte Kontaktfläche




| Art.-Nr. | Typ | Höhe (mm) | Breite (mm) | Länge (mm) | t (mm) | Federbereich |
|---|---|---|---|---|---|---|
| 611 06 04 | LKS-3022 | 3,0 | 2,2 | 2,8 | 0,08 | 2,2 - 2,6 |
| 611 06 05 | LKS-3028 | 3,0 | 2,8 | 5,0 | 0,08 | 2,1 - 2,6 |
| 611 06 06 | LKS-4032 | 4,0 | 3,2 | 4,0 | 0,10 | 2,8 - 3,6 |

NEU

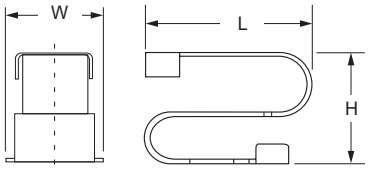
# LKS LEITERPLATTENKONTAKTE

Merkmale

- Leiterplattenkontakte zur Masse- / Erdungs- / ESD-Anbindung
- für SMT-Bestückung
- Materialstärke: 0,15 mm
- Material: Kupfer-Legierung verzinnt

Abmessungen ► Einheit = mm

**LKS-1601**




| Art.-Nr. | Typ | L (mm) | W (mm) | H (mm) | Rollengröße |
|---|---|---|---|---|---|
| **611 06 08** | LKS-1601 | 7,5 | 3,5 | 5,0 | 1500 |

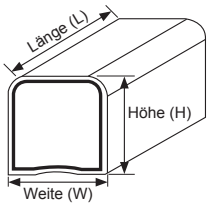
NEU

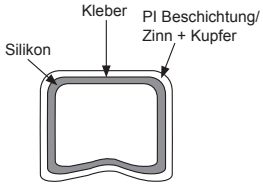
# SMS LEITERPLATTENKONTAKTE

Merkmale:

- für SMT-Bestückung
- ausgezeichnete Leitfähigkeit bei geringem Druck (10% bis 20%)
- hohe Temperaturbeständigkeit
- hohe Belastbarkeit
- Material Hülle: leitfähige PI-Folie (Oberfläche Sn-Cu), Kern: Silikon, UL94V-1
- glatte Oberfläche ermöglicht pick and place für Massenfertigung
- Reflow-lötbar
- kundenspezifische Abmessungen möglich

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | W (mm) | H (mm) | L (mm) |
|---|---|---|---|---|
| **611 08 02** | SMS-3-2,5-2,5 | 3,0 | 2,5 | 2,5 |
| **611 08 01** | SMS-3-3-2 | 3,0 | 3,0 | 2,0 |
| **611 08 03** | SMS-4-3-5 | 4,0 | 3,0 | 5,0 |
| **611 08 06** | SMS-4-4-3 | 4,0 | 4,0 | 3,0 |
| **611 08 05** | SMS-5-5-3 | 5,0 | 5,0 | 3,0 |
| **611 08 04** | SMS-5-7,5-3,5 | 5,0 | 7,5 | 3,5 |

## Spezifikationen

| Beschreibung | Wert | Testmethode |
|---|---|---|
| Oberflächenwiderstand | < 0,05 Ω/inch² | ASTM F390 |
| Silikonfestigkeit | 65 Shore A | ASTM D2240 |
| Druckwiderstand | 65% | ASTM F390, GB/T 1041 |
| Arbeitstemperatur | -40 °C bis +400 °C | - |

# SMF LEITERPLATTENKONTAKTE

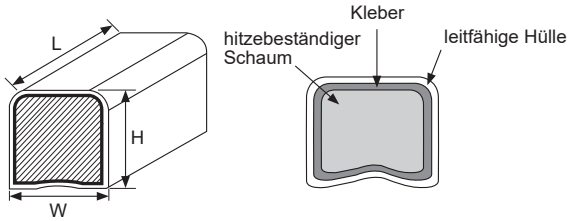
NEU

Merkmale:

- für SMT-Bestückung
- geringer Oberflächenwiderstand
- hervorragende Elastizität ohne verbiegen oder brechen
- Material Hülle: leitfähige PI-Folie (Oberfläche Ni-Cu-Sn), Kern: PU-Schaum, UL94V-0
- glatte Oberfläche ermöglicht pick and place für Massenfertigung
- Reflow-lötbar, halogenfrei

Abmessungen

► Einheit = mm




## Spezifikationen

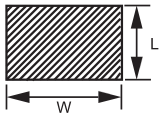
| Beschreibung | Wert | Testmethode |
|---|---|---|
| Wiedererhalt nach Stauchung | > 90 % | ESQ-517-26, ESQ-517-18 |
| Haftung Hülle | Stufe 5 | ESQ-517-16 |
| Repulsionskraft | < 0,45 Kgf | ESQ-517-27 |
| Abschirmwirkung | -70 dB (Ø) | MIL DTL-83528C modified |

- lieferbar in folgenden Abmessungen:

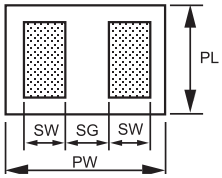
| H \ W | 3 | 4 | 4,5 | 5 | 6 | 8 | 10 | 13 |
|---|---|---|---|---|---|---|---|---|
| 1,5 | | | | | ● | | | |
| 2 | | | | | | | ● | |
| 2,2 | | | ● | | | | | |
| 2,5 | | ● | | ● | | | ● | |
| 3 | ● | ● | | ● | | | | |
| 4,5 | | | ● | | | | | |
| 5 | | | | | ● | ● | | |
| 6 | | | | | ● | | ● | |
| 6,5 | | | | | ● | | | |
| 7,5 | | | | | | ● | | |
| 8 | | | | | | ● | | |
| 10 | | | | ● | | ● | | ● |
| 11 | | | | | | | ● | |
| 15 | | | | | | ● | | |

oder kundenspezifisch
Maß L: nach Kundenvorgabe

SMF-Größe

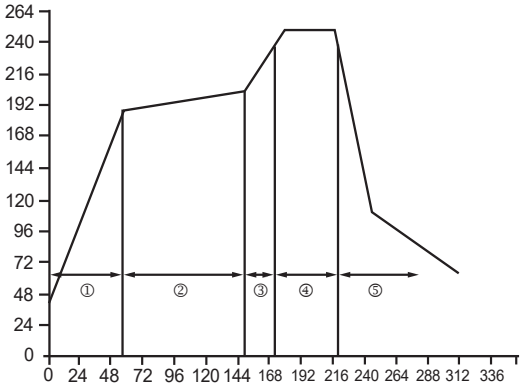



Lötpadempfehlung




| SMF Größe | | PCB Platz-bedarf | | Lötpad | | Lötpasten-Stärke |
|---|---|---|---|---|---|---|
| W | L | PW | PL | SW | SG | |
| 4,0 | 3,0 | 4,5 | 3,5 | 1,5 | 1,5 | 0,15 |
| 5,0 | 3,0 | 5,5 | 3,5 | 2,0 | 1,5 | 0,15 |
| 5,0 | 4,0 | 5,5 | 4,5 | 2,0 | 1,5 | 0,15 |
| 8,0 | 8,0 | 8,5 | 8,5 | 3,0 | 2,5 | 0,15 |

- SMF Gasket Reflow Lötbedingungen (Empfehlungen)




## Spezifikationen

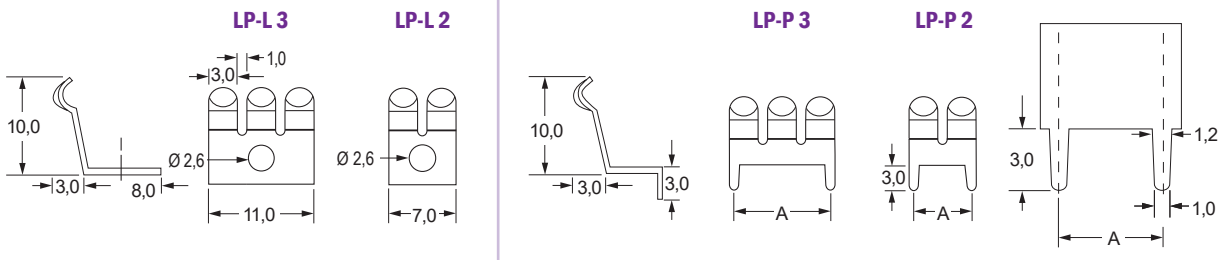
| Beschreibung | Temperatur (Grad) | Zeit (Sek.) |
|---|---|---|
| ① | RT~150 | 1~4°/sC |
| ② | 150~170 | 60~120 |
| ③ | Min. 200 | 2~4°C/s |
| ④ | 230~260 | Max. 10 |
| ⑤ | ~RT | Min. 60 |

# LP-L3, LP-L2, LP-P3, LP-P2 KONTAKTFEDERN

Merkmale

- Löt-, Schraub- oder Nietmontage
- Materialstärke: 0,2 mm
- Material: Cu-Be

Abmessungen ► Einheit = mm



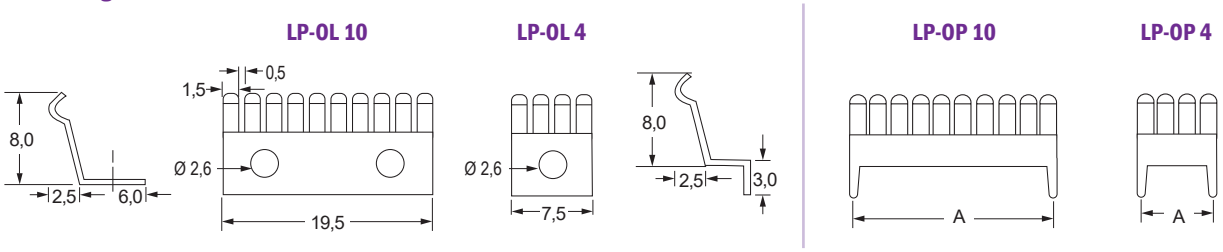

| Art.-Nr. | Typ | Anzahl der Finger | A (mm) |
|---|---|---|---|
| 621 01 172-3 | LP-L 3 | 3 | - |
| 621 01 172-2 | LP-L 2 | 2 | - |
| 621 01 173-3 | LP-P 3 | 3 | 10,0 |
| 621 01 173-2 | LP-P 2 | 2 | 5,0 |

# LP-OL, LP-OP KONTAKTFEDERN

Merkmale

- Löt-, Schraub- oder Nietmontage
- Materialstärke: 0,15 mm
- Material: Cu-Be

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | Anzahl der Finger | A (mm) |
|---|---|---|---|
| 621 01 174-10 | LP-OL 10 | 10 | - |
| 621 01 174-4 | LP-OL 4 | 4 | - |
| 621 01 175-10 | LP-OP 10 | 10 | 17,5 |
| 621 01 175-4 | LP-OP 4 | 4 | 5,0 |

Andere Längen und Oberflächen auf Anfrage: Telefon: 09852 61079-0

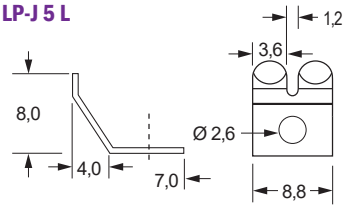
# LP-J5L, LP-J5P, LP-CL5L, LP-CL5P KONTAKTFEDERN

Merkmale

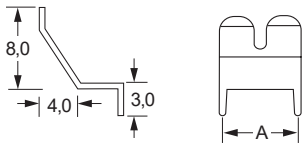
- Löt-, Schraub- oder Nietmontage
- Materialstärke: 0,127 mm
- Material: Cu-Be

Abmessungen ► Einheit = mm

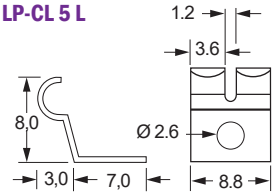
**LP-J 5 L**



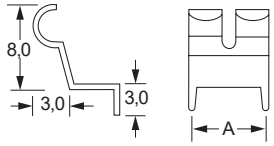

**LP-J 5P**




**LP-CL 5 L**




**LP-CL 5 P**




| Art.-Nr. | Typ | Anzahl der Finger | A (mm) |
|---|---|---|---|
| 621 01 176 | LP-J 5 L | 2 | - |
| 621 01 177 | LP-J 5 P | 2 | 5,0 |
| 621 01 178 | LP-CL 5 L | 2 | - |
| 621 01 179 | LP-CL 5 P | 2 | 5,0 |

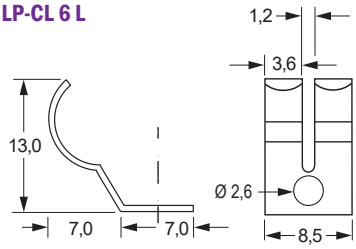
# LP-CL6L, LP-CL6P KONTAKTFEDERN

Merkmale

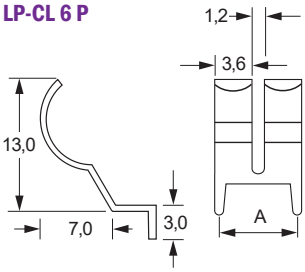
- Löt-, Schraub- oder Nietmontage
- Materialstärke: 0,127 mm
- Material: Cu-Be

Abmessungen ► Einheit = mm

**LP-CL 6 L**




**LP-CL 6 P**




| Art.-Nr. | Typ | Anzahl der Finger | A (mm) |
|---|---|---|---|
| 621 01 180 | LP-CL 6 L | 2 | - |
| 621 01 181 | LP-CL 6 P | 2 | 5,0 |

Andere Längen und Oberflächen auf Anfrage: Telefon: 09852 61079-0

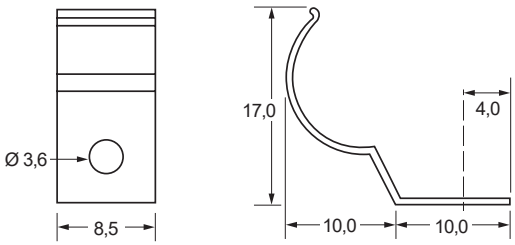
# LP-V1L, LP-V1P KONTAKTFEDERN

Merkmale

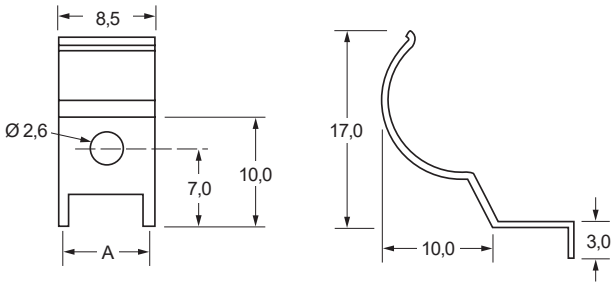
- mit Loch/Pins zum Anbringen auf Leiterplatten besonders geeignet
- Materialstärke: 0,127 mm
- Material: Cu-Be

Abmessungen ► Einheit = mm

**LP-V 1 L**




**LP-V 1 P**




| Art.-Nr. | Typ | Anzahl der Finger | A (mm) |
|---|---|---|---|
| 621 01 182 | LP-V 1 L | 1 | - |
| 621 01 183 | LP-V 1 P | 1 | 5,0 |

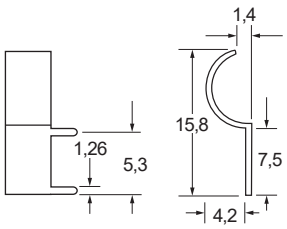
# LP-PX, LP-LX, LP-LY KONTAKTFEDERN

Merkmale

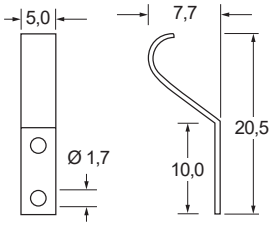
- mit Loch/Pins zum Anbringen auf Leiterplatten besonders geeignet
- Materialstärke: PX = 0,2 mm
  LX = 0,25 mm
  LY = 0,1 mm
- Material: Cu-Be

Abmessungen ► Einheit = mm

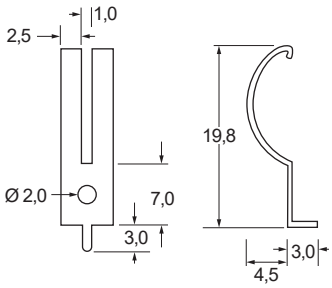
**LP-PX**



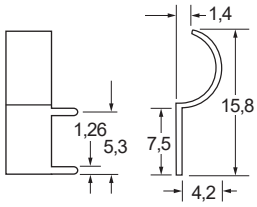

**LP-LX**




**LP-LY**




**LP-PX-R**




| Art.-Nr. | Typ | Anzahl der Finger | A (mm) |
|---|---|---|---|
| 621 01 184 | LP-PX | 1 | - |
| 621 01 185 | LP-LX | 1 | - |
| 621 01 186 | LP-LY | 2 | - |
| 621 01 184 R | LP-PX-R | 1 | - |

Andere Ausführungen und Oberflächen auf Anfrage: Telefon: 09852 61079-0

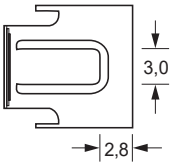
# USB-A/IEEE 1394 KONTAKTFEDERN

## Merkmale

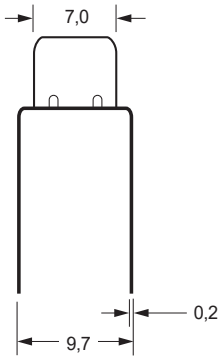
- Kontaktfedern passend für alle vertikalen USB-A und IEEE 1394-Anschlüsse
  - kontaktiert den Stecker mit der Frontplatte
  - einfache Durchsteckmontage
  - pick and place-Bestückung möglich
- Material: Kupfer-Beryllium
- Art.-Nr.: 621 01 234

## Abmessungen ► Einheit = mm

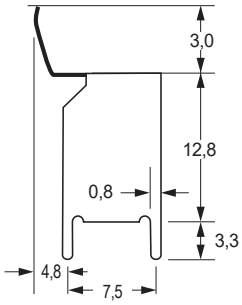
**Top**



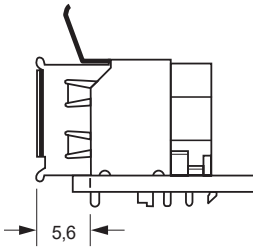

**Front**



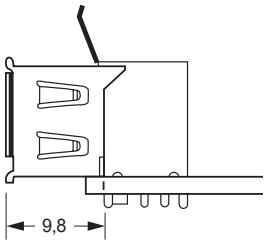

**Right Side**



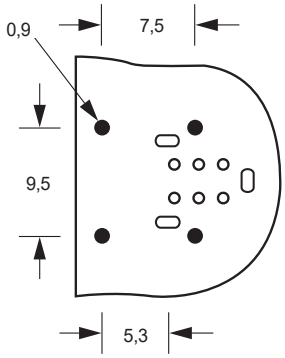

**Minimum Connector Protrusion**



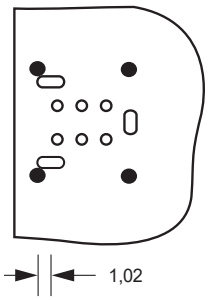

**Maximum Connector Protrusion**




**Top View: Minimum Protrusion PCB Layout**




**Top View: Maximum Protrusion PCB Layout**




Andere Oberflächenbeschichtungen auf Anfrage möglich: Telefon: 09852 61079-0

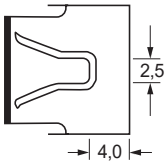
# USB-A/IEEE 1394 KONTAKTFEDERN

Merkmale

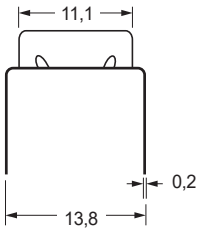
- Kontaktfedern passend für alle horizontalen USB-A und IEEE 1394-Anschlüsse
  - kontaktiert den Stecker mit der Frontplatte
  - einfache Durchsteckmontage
  - pick and place-Bestückung möglich
- Material: Kupfer-Beryllium
- Art.-Nr.: 621 01 233

Abmessungen ► Einheit = mm

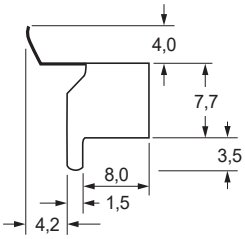
**Top**



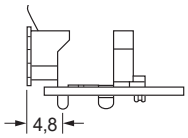

**Front**



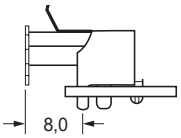

**Right Side**



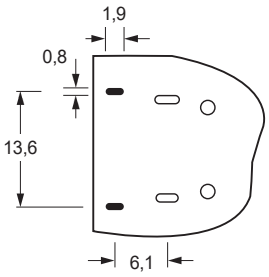

**Minimum Connector Protrusion**



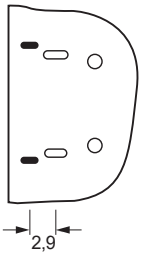

**Maximum Connector Protrusion**




**Top View: Minimum Protrusion PCB Layout**




**Top View: Maximum Protrusion PCB Layout**



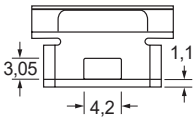

# USB-B KONTAKTFEDERN

Merkmale

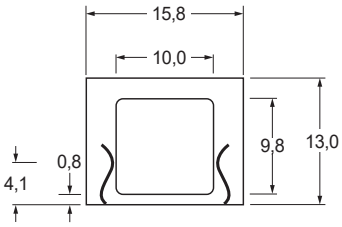
- Kontaktfedern passend für alle USB-B-Steckverbinder
- kontaktiert den Stecker mit der Frontplatte
- durch zusätzliches Anlöten des aufgesteckten Kontaktes wird eine bestmögliche Verbindung hergestellt
- Material: Kupfer-Beryllium
- Art.-Nr.: 621 01 228

Abmessungen ► Einheit = mm

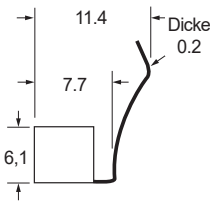
**Top**




**Front**




**Right Side**



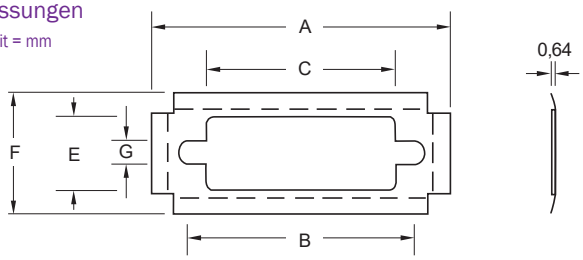
# STECKERDICHTUNGEN

## Merkmale

- mit Kontaktflansch
- zur Erdung und Abschirmung von D-SUB-Steckverbindern in 9,15,25,37 und 50-poliger Ausführung
- mit 20° abgewinkelten, durchgehenden Kontaktflanschen
- Material: Kupfer-Beryllium (Cu-Be) oder Edelstahl (A2)

## Abmessungen

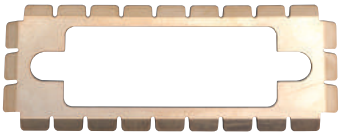
► Einheit = mm




| Art.-Nr. Cu-Be | Art.-Nr. VA | Polzahl | A (mm) | B (mm) | C (mm) | E (mm) | F (mm) | G (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 191 | 621 00 191 | 9 | 35,8 | 24,9 | 19,8 | 11,2 | 17,5 | 3,2 |
| 621 01 192 | 621 00 192 | 15 | 44,2 | 33,3 | 28,2 | 11,2 | 17,5 | 3,2 |
| 621 01 193 | 621 00 193 | 25 | 57,9 | 47,0 | 41,9 | 11,2 | 17,5 | 3,2 |
| 621 01 194 | 621 00 194 | 37 | 74,4 | 63,5 | 58,2 | 11,2 | 17,5 | 3,2 |
| 621 01 195 | 621 00 195 | 50 | 72,1 | 61,2 | 53,6 | 13,9 | 20,3 | 6,1 |

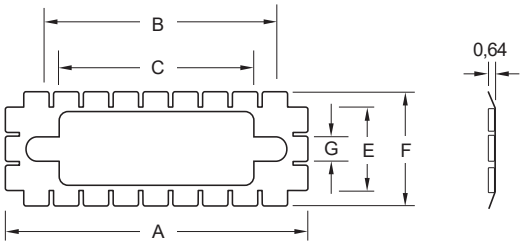
## Merkmale

- mit Kontaktflansch
- zur Erdung und Abschirmung von D-SUB-Steckverbindern in 9,15,25,37 und 50-poliger Ausführung
- Material: Kupfer-Beryllium (Cu-Be) oder Edelstahl (A2)



## Abmessungen

► Einheit = mm




| Art.-Nr. Cu-Be | Art.-Nr. VA | Polzahl | A (mm) | B (mm) | C (mm) | E (mm) | F (mm) | G (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 196 | 621 00 196 | 9 | 35,8 | 24,9 | 19,8 | 11,2 | 17,5 | 4,0 |
| 621 01 197 | 621 00 197 | 9 | 35,8 | 24,9 | 19,8 | 8,9 | 17,5 | 4,0 |
| 621 01 198 | 621 00 198 | 15 | 44,2 | 33,3 | 28,2 | 11,2 | 17,5 | 4,0 |
| 621 01 199 | 621 00 199 | 15 | 44,2 | 33,3 | 28,2 | 8,9 | 17,5 | 4,0 |
| 621 01 200 | 621 00 200 | 25 | 57,9 | 47,0 | 41,9 | 11,2 | 17,5 | 4,0 |
| 621 01 201 | 621 00 201 | 25 | 57,9 | 47,0 | 41,9 | 8,9 | 17,5 | 4,0 |
| 621 01 202 | 621 00 202 | 37 | 74,4 | 63,5 | 58,2 | 11,2 | 17,5 | 4,0 |
| 621 01 203 | 621 00 203 | 37 | 74,4 | 63,5 | 58,2 | 8,9 | 17,5 | 4,0 |
| 621 01 204 | 621 00 204 | 50 | 72,1 | 61,2 | 53,6 | 14,0 | 20,3 | 4,0 |
| 621 01 205 | 621 00 205 | 50 | 72,1 | 61,2 | 53,6 | 11,4 | 20,3 | 4,0 |

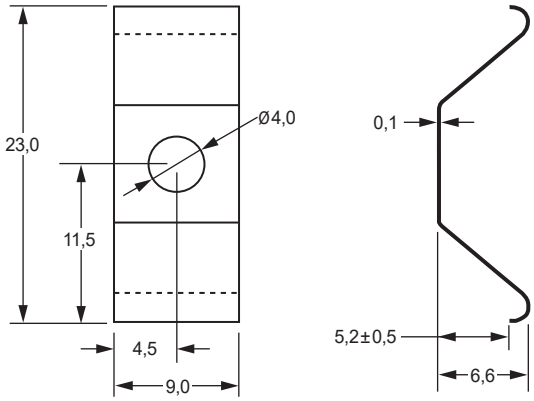
Andere Oberflächen bei Cu-Be möglich:
Telefon: 09852 61079-0

# CKC KONTAKTFEDERN

Merkmale

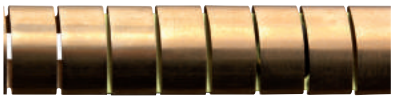
- Schraub- oder Nietmontage
- Material: Cu-Be

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | L (mm) |
|---|---|---|
| 621 01 232 | CKC-035 | 23,0 mm |

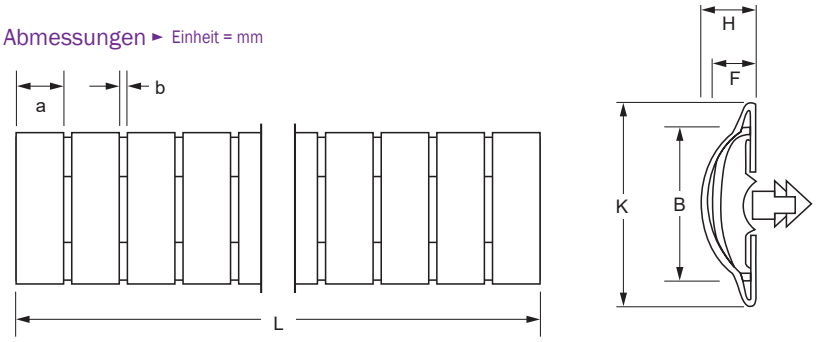
# HR-6, HR-7 UND HR-8 KONTAKTFEDERN



Merkmale

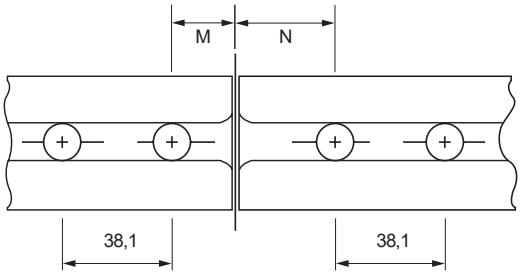
- halbrunde Ausführung mit Montageschiene und Befestigungsnieten
- besonders geeignet für bidirektionale Belastung

Abmessungen ► Einheit = mm

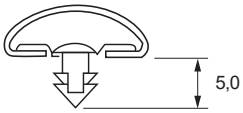



| Art.-Nr. | Typ | a (mm) | b (mm) | B (mm) | H (mm) | K (mm) | F (mm) | M (mm) | N (mm) | Niete (Anzahl) | L (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 621 01 162 | HR-6 | 4,7 | 0,4 | 8,8 | 2,7 | 9,6 | 1,8 | 16,8 | 21,33 | 10 | 381 |
| 621 01 163 | HR-7 | 6,3 | 0,5 | 11,4 | 3,5 | 13,0 | 1,8 | 16,0 | 22,35 | 10 | 381 |
| 621 01 164 | HR-8 | 9,5 | 0,7 | 15,7 | 5,5 | 19,3 | 2,5 | 14,2 | 23,87 | 10 | 381 |

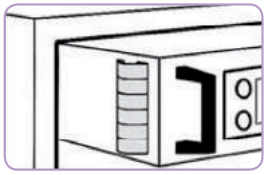
**Position der Nietlöcher**




Bohrung-Ø = 3,2 mm




**Montagebeispiel**
**Typ HR-6 bis HR-8**

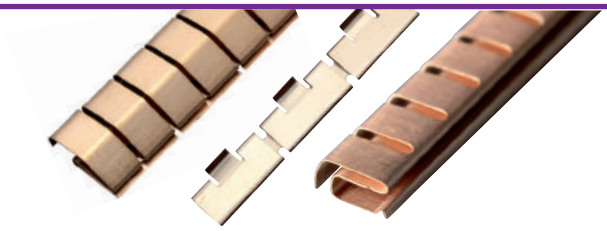


Andere Oberflächen auf Anfrage: Telefon: 09852 61079-0

# CO-LP5, CO-LP6, CO-LP7 KONTAKTFEDERN

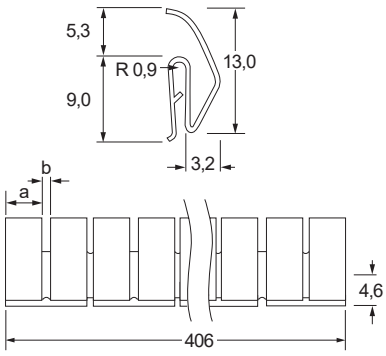
Merkmale

- Steckmontage
- Materialstärke: 0,08 mm
- Material: Cu-Be

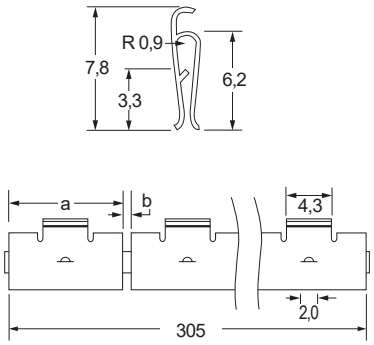


Abmessungen ► Einheit = mm

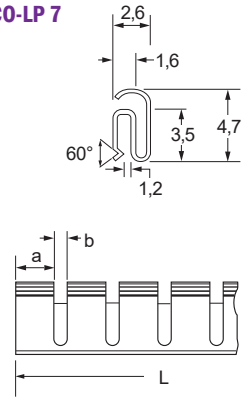
**CO-LP 5**




**CO-LP 6**




**CO-LP 7**



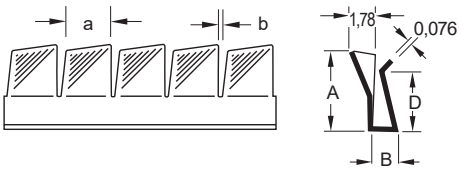

| Art.-Nr. | Typ | a (mm) | b (mm) | geeignet für Wandstärke | L = Länge |
|---|---|---|---|---|---|
| **621 01 169** | CO-LP 5 | 5,6 | 0,8 | 1,6 | 406 mm |
| **621 01 170** | CO-LP 6 | 12,7 | 1,1 | 1,6 | 305 mm |
| **621 01 171** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 15 Finger |
| **621 01 171-1 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 1 Finger |
| **621 01 171-2 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 2 Finger |
| **621 01 171-3 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 3 Finger |
| **621 01 171-4 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 4 Finger |
| **621 01 171-5 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 5 Finger |
| **621 01 171-6 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 6 Finger |
| **621 01 171-7 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 7 Finger |
| **621 01 171-9 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 9 Finger |
| **621 01 171-10 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 10 Finger |
| **621 01 171-12 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 12 Finger |
| **621 01 171-13 F** | CO-LP 7 | 3,0 | 1,0 | 1,6 | 13 Finger |
| **621 01 171-14 F** | CO-LP 7 | 3,0 | 1,0 | 1,0 | 14 Finger |
| **621 01 171-2-407** | CO-LP 7-2,0 | 3,0 | 1,0 | 2,0 | 102 Finger |

Andere Längen und Oberflächen auf Anfrage: Telefon: 09852 61079-0

# TC-1, TC-2 KONTAKTFEDERN

- Material: Cu-Be

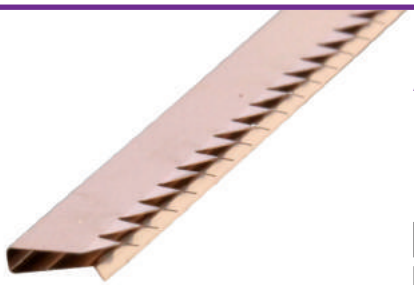
Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | A (mm) | B (mm) | D (mm) |
|---|---|---|---|---|---|---|
| 621 01 05 | TC-1 | 3,8 | 0,4 | 4,8 | 1,0 | 3,3 |
| 621 01 06 | TC-1 | 3,8 | 0,4 | 4,8 | 1,5 | 3,0 |
| 621 01 08 | TC-2 | 3,8 | 0,4 | 6,4 | 1,0 | 5,1 |

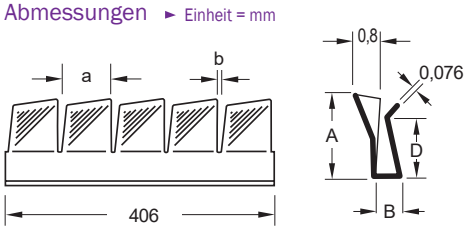
Auch mit Lanzen lieferbar: Tel.: 09852 61079-0

# MTC-1, MTC-2, MTC-3, MTC-4, MTC-5, MTC-6 KONTAKTFEDERN



- Material: Cu-Be

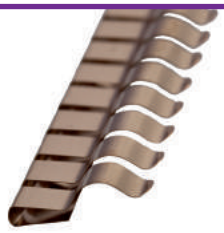
Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | a in mm | b (mm) | A (mm) | B (mm) | D (mm) |
|---|---|---|---|---|---|---|
| 621 01 13 | MTC-1 | 2,0 | 0,4 | 3,8 | 1,0 | 3,0 |
| 621 01 14 | MTC-2 | 2,0 | 0,4 | 3,8 | 1,5 | 2,5 |
| 621 01 15 | MTC-3 | 2,0 | 0,4 | 4,1 | 1,0 | 4,0 |
| 621 01 17 | MTC-5 | 2,0 | 0,4 | 5,8 | 1,0 | 4,0 |

Die Typen MTC-1 und MTC-2 sind auch mit Lanzen lieferbar

# CO-D KONTAKTFEDERN

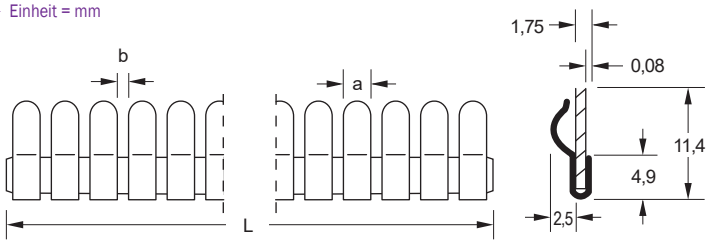


Merkmale

- Material: Cu-Be

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | L (mm) |
|---|---|---|---|---|
| 621 01 34 | CO-D | 3,6 | 1,2 | 407,0 |

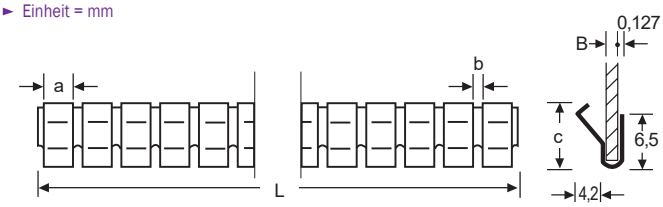
# CO-E KONTAKTFEDERN

Merkmale

- Material: Cu-Be

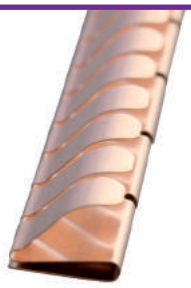
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | c (mm) | B (mm) | L (mm) |
|---|---|---|---|---|---|---|
| 621 01 35 | CO-E | 3,6 | 1,2 | 8,40 | 0,8 | 407,0 |
| 621 01 36 | CO-E 1 | 3,6 | 1,2 | 8,10 | 1,0 | 407,0 |

# CO-G KONTAKTFEDERN

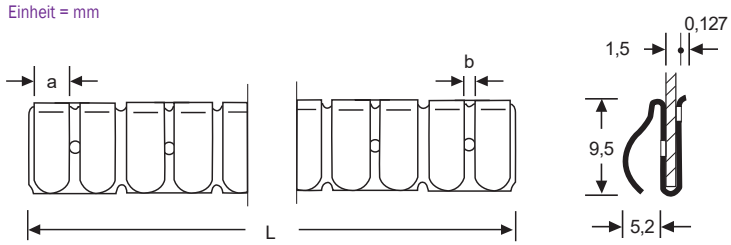


Merkmale

- auch mit D und T-Lanze lieferbar
- Materail: Cu-Be

Abmessungen

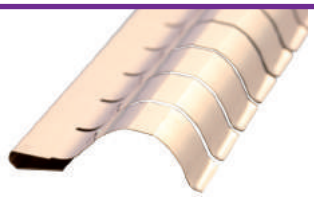
► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | L (mm) |
|---|---|---|---|---|
| 621 01 44 | CO-G | 5,3 | 1,0 | 406,0 |

Andere Längen und Oberflächen auf Anfrage: Tel.: 09852 61079-0

# CO-K KONTAKTFEDERN

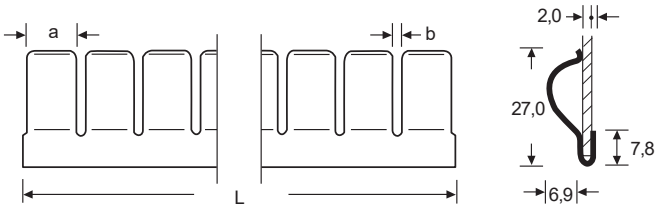


Merkmale

- Material: Cu-Be

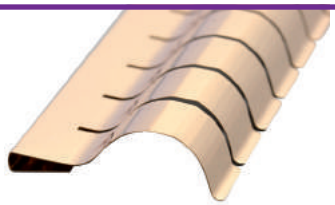
Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | L (mm) |
|---|---|---|---|---|
| 621 01 50 | CO-K | 8,5 | 1,0 | 494,0 |

# CO-L KONTAKTFEDERN

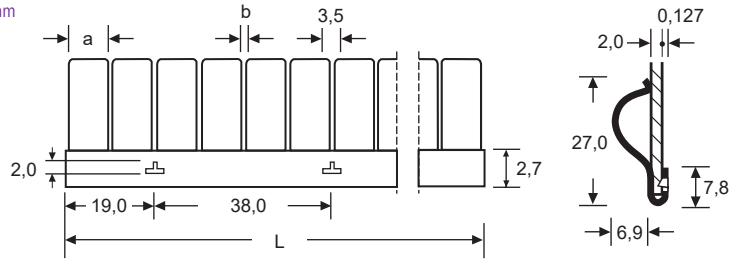


Merkmale

- Material: Cu-Be
- mit T-Lanzen-Befestigung im Klemmschenkel

Abmessungen

► Einheit = mm



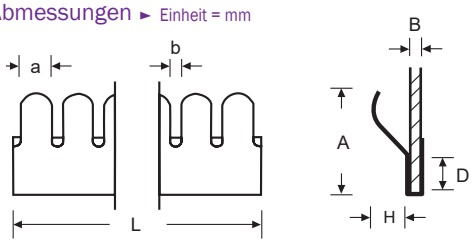

| Art.-Nr. | Typ | a (mm) | b (mm) | L (mm) |
|---|---|---|---|---|
| 621 01 51 | CO-L | 8,5 | 1,0 | 494,0 |

# CO-M KONTAKTFEDERN

Merkmale

- Material: Cu-Be
- mit T-Lanzen-Befestigung im Klemmschenkel

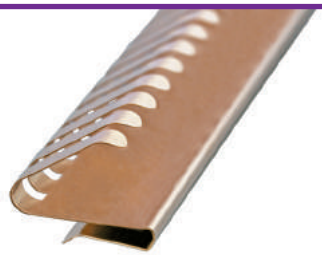
Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | A (mm) | B (mm) | D (mm) | H (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 52 | CO-M | 3,56 | 1,2 | 15,2 | 1,0 | 7,4 | 5,3 | 406,0 |
| 621 01 53 | CO-M 1 | 3,56 | 1,2 | 15,2 | 1,5 | 6,9 | 5,3 | 406,0 |
| 621 01 55 | CO-M 3 | 3,6 | 1,2 | 8,3 | 1,0 | 6,3 | 2,5 | 407,0 |
| 621 01 56 | CO-M 4 | 3,6 | 1,2 | 8,3 | 1,5 | 5,8 | 2,5 | 407,0 |
| 621 01 57 | CO-M 5 | 3,6 | 1,2 | 8,3 | 2,0 | 5,4 | 2,5 | 407,0 |

Andere Längen und Oberflächen auf Anfrage: Tel.: 09852 61079-0

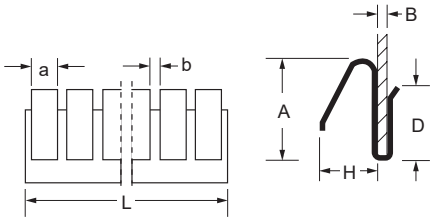
# CO-P KONTAKTFEDERN



Merkmale

- Materialstärke: Typ CO-P: 0,13 mm
  Typ CO-P 4 bis CO-P 6: 0,15 mm
  Typ CO-P 7: 0,08 mm
- Typ CO-P bis CO-P 6: auch mit D-Lanzen lieferbar
- Material: Cu-Be

Abmessungen
► Einheit = mm



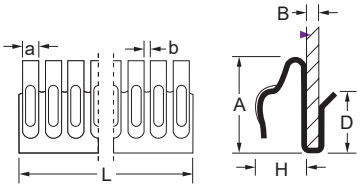

| Art.-Nr. | Typ | a (mm) | b (mm) | A (mm) | B (mm) | D (mm) | H (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 68 | CO-P | 5,4 | 1,0 | 9,7 | 1,8 | 6,4 | 5,1 | 406,0 |
| 621 01 72 | CO-P 4 | 3,2 | 1,6 | 12,25 | 1,5 | 7,55 | 7,2 | 407,0 |
| 621 01 73 | CO-P 5 | 3,2 | 1,6 | 12,25 | 2,0 | 7,55 | 7,2 | 407,0 |
| 621 01 74 | CO-P 6 | 3,2 | 1,6 | 12,25 | 3,0 | 6,3 | 7,2 | 407,0 |
| 621 01 75 | CO-P 7 | 2,8 | 0,4 | 4,6 | 1,0 | 3,8 | 2,3 | 307,0 |

# CO-Q KONTAKTFEDERN

Merkmale

- Materialstärke: Typ CO-Q 1: 0,15 mm / Typ CO-Q 6: 0,13 mm
- Material: Cu-Be

Abmessungen
Einheit = mm



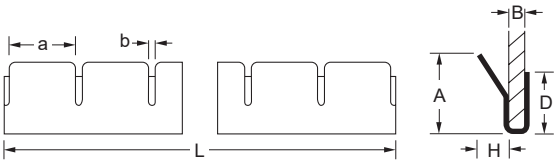

| Art.-Nr. | Typ | a (mm) | b (mm) | A (mm) | B (mm) | D (mm) | H (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 78 | CO-Q 1 | 1,6 | 0,8 | 9,4 | 1,5 | 6,4 | 5,1 | 406,0 |
| 621 01 83 | CO-Q 6 | 1,3 | 0,6 | 9,1 | 2,0 | 5,6 | 4,1 | 406,0 |

# CO-R KONTAKTFEDERN

Merkmale

- Materialstärke: 0,08 mm • auch mit D-Lanzen lieferbar
- Material: Cu-Be

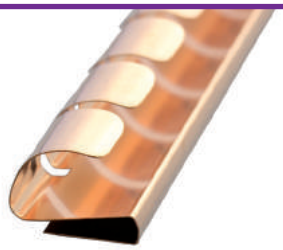
Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | A (mm) | B (mm) | D (mm) | H (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 87 | CO-R 1 | 3,8 | 0,4 | 4,8 | 1,0 | 2,8 | 1,3 | 305,0 |
| 621 01 88 | CO-R 2 | 3,8 | 0,4 | 4,8 | 1,5 | 2,3 | 1,3 | 305,0 |

Andere Längen und Oberflächen auf Anfrage: Tel.: 09852 61079-0

# CO-H KONTAKTFEDERN

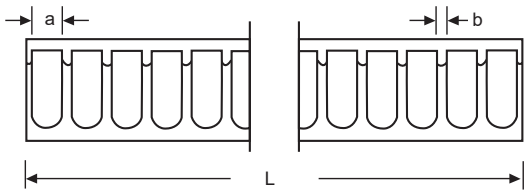


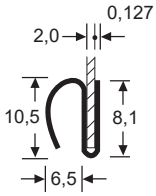
Merkmale

- Material: Cu-Be

Abmessungen

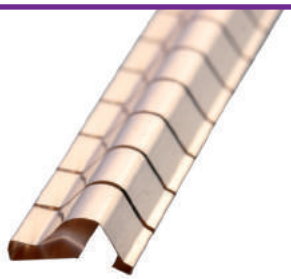
► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | L (mm) |
|---|---|---|---|---|
| 621 01 45 | CO-H | 3,2 | 1,55 | 405,0 |
| 621 01 46 | CO-H 1 | 8,0 | 1,55 | 405,0 |

# CO-I KONTAKTFEDERN

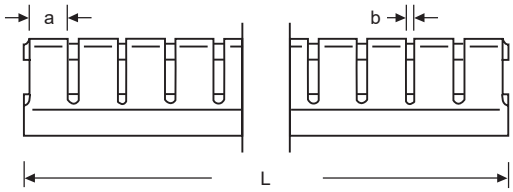


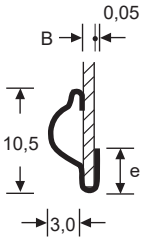
Merkmale

- Material: Cu-Be

Abmessungen

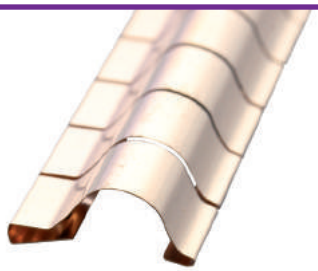
► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | e (mm) | B (mm) | L (mm) |
|---|---|---|---|---|---|---|
| 621 01 47 | CO-I | 5,7 | 0,6 | 5,7 | 0,8 | 409,0 |
| 621 01 48 | CO-I 1 | 5,7 | 0,6 | 5,5 | 1,5 | 409,0 |

# CO-J KONTAKTFEDERN

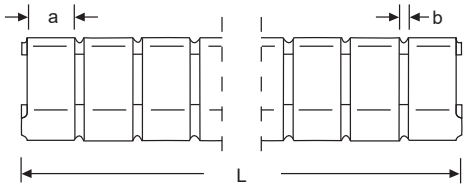


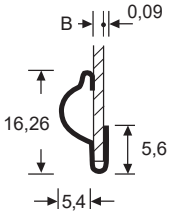
Merkmale

- Material: Cu-Be

Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | B (mm) | L (mm) |
|---|---|---|---|---|---|
| 621 01 49 | CO-J | 8,7 | 0,8 | 1,5 | 455,0 |

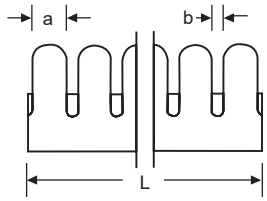
Andere Längen und Oberflächen auf Anfrage: Tel.: 09852 61079-0

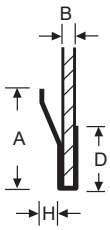
# CO-N KONTAKTFEDERN

Merkmale

- Material: Cu-Be
- auch mit T-Lanzen lieferbar

Abmessungen ► Einheit = mm



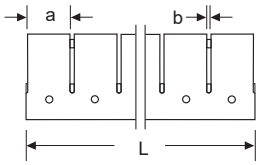
| Art.-Nr. | Typ | a (mm) | b (mm) | A (mm) | B (mm) | D (mm) | H (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 58 | CO-N | 3,6 | 1,2 | 11,4 | 1,0 | 6,9 | 2,5 | 407,0 |
| 621 01 60 | CO-N 2 | 3,6 | 1,2 | 11,4 | 2,0 | 5,8 | 2,5 | 407,0 |

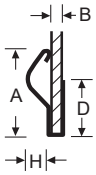
# CO-O KONTAKTFEDERN

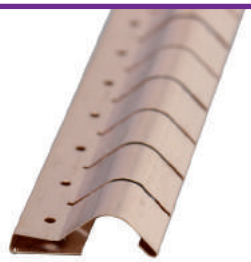
Merkmale

- Material: Cu-Be
- auch mit T-Lanze lieferbar

Abmessungen ► Einheit = mm



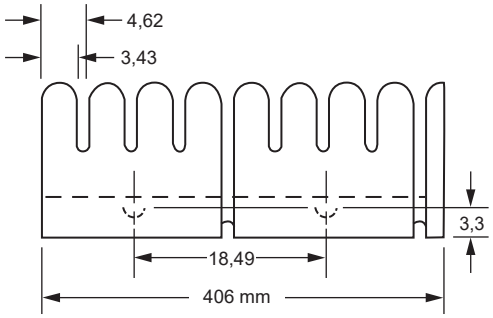
| Art.-Nr. | Typ | a (mm) | b (mm) | A (mm) | B (mm) | D (mm) | H (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 61 | CO-O | 5,85 | 0,5 | 11,7 | 1,0 | 6,1 | 3,0 | 457,0 |
| 621 01 62 | CO-O 1 | 5,85 | 0,5 | 11,7 | 1,5 | 5,6 | 3,0 | 457,0 |
| 621 01 63 | CO-O 2 | 5,85 | 0,5 | 11,7 | 2,0 | 5,1 | 3,0 | 457,0 |
| 621 01 64 | CO-O 3 | 9,0 | 0,5 | 19,3 | 1,0 | 7,4 | 6,4 | 456,0 |
| 621 01 65 | CO-O 4 | 9,0 | 0,5 | 19,3 | 1,5 | 6,9 | 6,4 | 456,0 |
| 621 01 66 | CO-O 5 | 9,0 | 0,5 | 19,3 | 2,0 | 6,4 | 6,4 | 456,0 |

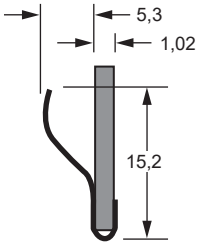
# 182 RF8C KONTAKTFEDERN

Merkmale

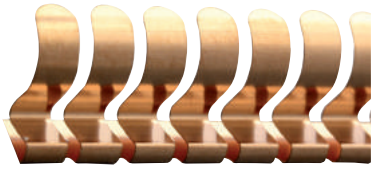
- Steckmontage
- Materialstärke: 0,13 mm
- Material: Cu-Be
- Art.Nr.: 621 01 217

Abmessungen ► Einheit = mm



# CO-LP1, CO-LP2, CO-LP3 KONTAKTFEDERN

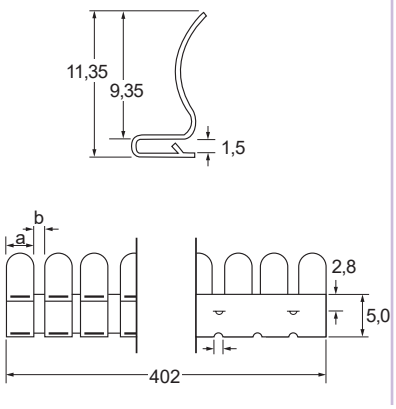


Merkmale

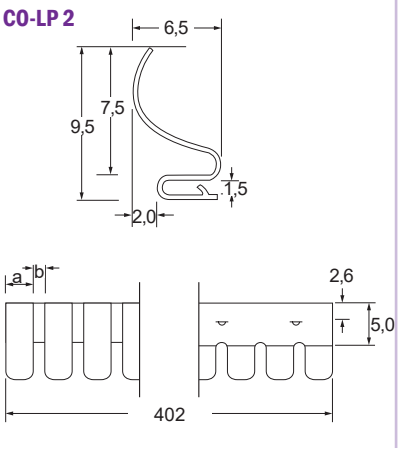
- Steckmontage
- Materialstärke: 0,127 mm
- Material: Cu-Be

Abmessungen ► Einheit = mm

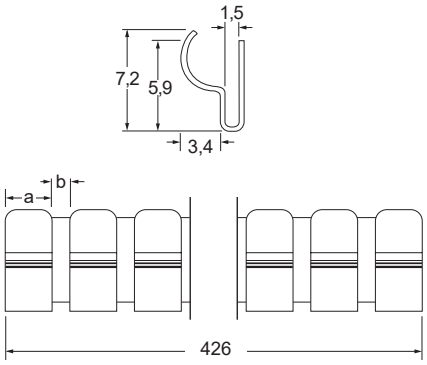
**CO-LP 1**




**CO-LP 2**




**CO-LP 3**




| Art.-Nr. | Typ | a (mm) | b (mm) |
|---|---|---|---|
| 621 01 165 | CO-LP 1 | 3,6 | 1,2 |
| 621 01 166 | CO-LP 2 | 3,6 | 1,2 |
| 621 01 167 | CO-LP 3 | 3,6 | 1,2 |

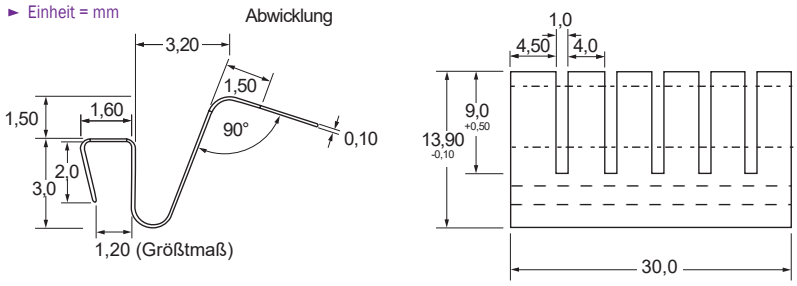
# 4-20527 KONTAKTFEDERN

Merkmale

- Steckmontage
- Material: Cu-Be, versilbert
- Materialstärke: 0,10 mm
- Art.Nr.: 621 04 231

Abmessungen

► Einheit = mm

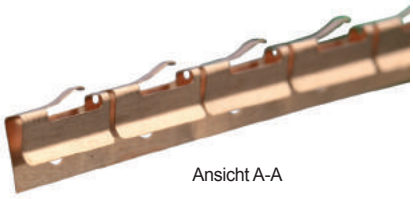



Andere Längen und Oberflächen auf Anfrage: Telefon: 09852 61079-0

# CO-LP8 KONTAKTFEDERN

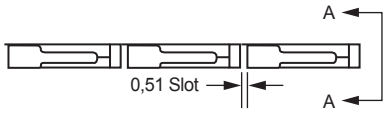
Merkmale

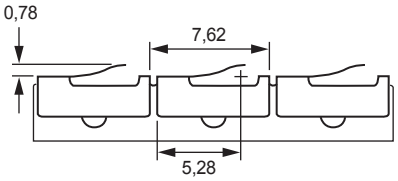
- geeignet für Wandstärken von 0,88 mm bis 1,52 mm
- mühelose Montage und sicherer Halt durch Clip-On Design
- extrem geringer Kraftaufwand zur Komprimierung
- Material: Cu-Be

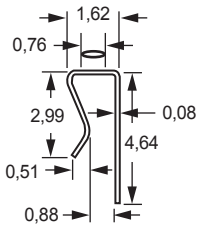


Ansicht A-A

Abmessungen ► Einheit = mm



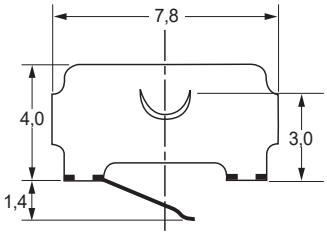

| Art.-Nr. | Typ | L (mm) |
|---|---|---|
| 621 01 225 | CO-LP 8 | 305,0 |

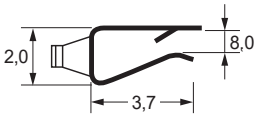
# CO-LP9 KONTAKTFEDERN

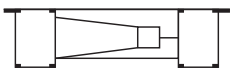
Merkmale

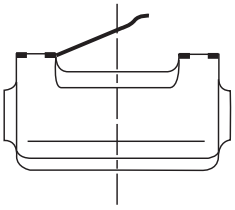
- zuverlässige Erdung an den Leiterplatten-Kanten
- geeignet für Wandstärken bis zu max. 1,6 mm
- mit D-Lanze zur sicheren Fixierung
- umweltfreundliches Material mit hervorragenden Eigenschaften
- Material: Titan-Kupfer-Legierung, vernickelt
- Art.-Nr.: 621 01 236

Abmessungen ► Einheit = mm



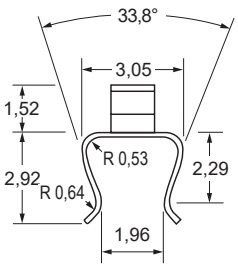


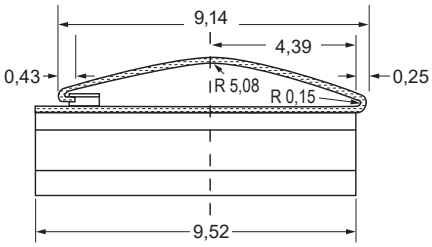
# CO-LP973 KONTAKTFEDERN

Merkmale

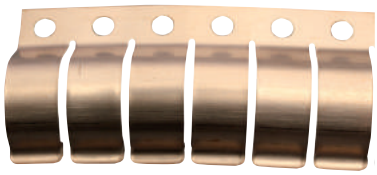
- Steckmontage
- Material: Cu-Be, blank (verzinnt)
- Materialstärke: 0,15 mm
- Art.-Nr.: 621 01 237 (621 02 237)

Abmessungen
► Einheit = mm



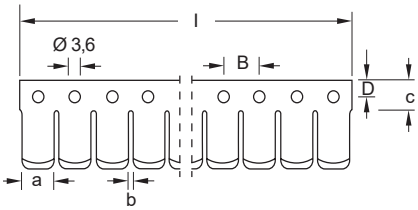
# TD KONTAKTFEDERN

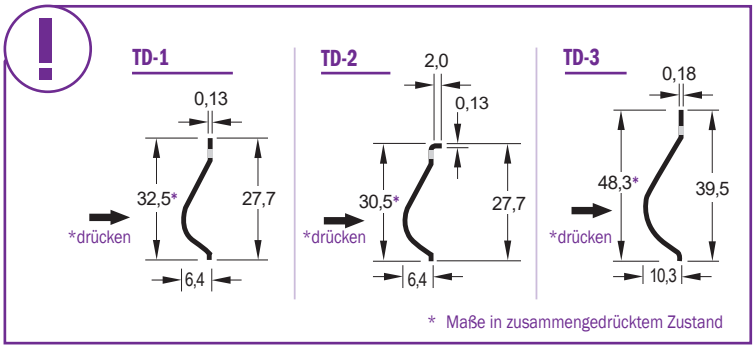


## Merkmale

- ideal zur Abschirmung von Türen und anderen beweglichen Teilen an abgeschirmten Räumen, Kabinen und Schränken
- hervorragende Dämpfungswerte von ≥ 110 dB bei 100 MHz
- Befestigung erfolgt durch nieten, schrauben oder löten
- Material: Cu-Be

## Abmessungen ► Einheit = mm



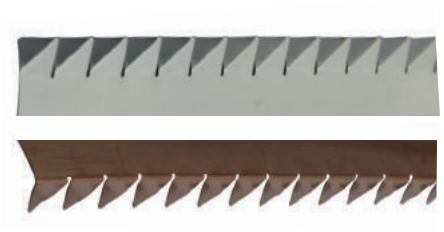




| Art.-Nr. | Typ | a (mm) | b (mm) | c (mm) | B (mm) | D (mm) | l (mm) |
|---|---|---|---|---|---|---|---|
| **621 01 19-503,5** | TD-1 | 8,5 | 1,0 | 6,7 | 9,5 | 3,96 | 503.5 |
| **621 01 19** | TD-1 | 8,5 | 1,0 | 6,7 | 9,5 | 3,96 | 10.600 |
| **621 01 20-503,5** | TD-2 | 8,5 | 1,0 | 6,7 | 9,5 | 3,96 | 503.5 |
| **621 01 21-508** | TD-3 | 11,7 | 1,0 | 7,9 | 12,7 | 4,75 | 508 |
| **621 01 21** | TD-3 | 11,7 | 1,0 | 7,9 | 12,7 | 4,75 | 7.600 |

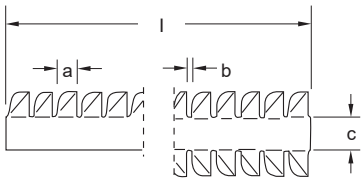
Andere Längen und Oberflächen z.B. verzinnt, verzinkt, versilbert, vergoldet etc. auf Anfrage: Tel.: 09852 61079-0

# TC, TCWU, TCWO + TCD KONTAKTFEDERN

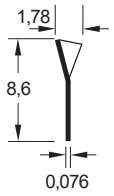
- Material: Cu-Be



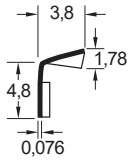
Abmessungen ► Einheit = mm



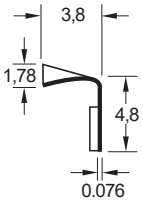

**TC**



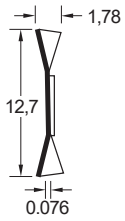

**TCWU**




**TCWO**




**TCD**




| Art.-Nr. | Typ | a (mm) | b (mm) | c (mm) | l (mm) |
|---|---|---|---|---|---|
| 621 01 01-610 | TC | 3,8 | 0,4 | 4,8 | 610 |
| 621 01 01-500 | TC | 3,8 | 0,4 | 4,8 | 500 |
| 621 01 01 | TC | 3,8 | 0,4 | 4,8 | 50.000 |
| 621 01 03 | TCWU | 3,8 | 0,4 | 4,8 | 500 |
| 621 01 02-610 | TCD | 3,8 | 0,4 | 4,8 | 610 |
| 621 01 04-500 | TCWO | 3,8 | 0,4 | 4,8 | 500 |
| 621 01 04-610 | TCWO | 3,8 | 0,4 | 4,8 | 610 |
| 621 01 02 | TCD | 3,8 | 0,4 | 4,8 | 7.600 |

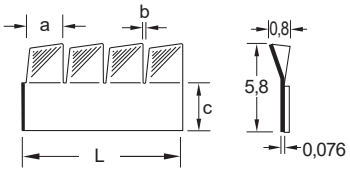
Lieferbar mit und ohne Klebestreifen: Telefon: 09852 61079-0

# MTC, MTCW KONTAKTFEDERN

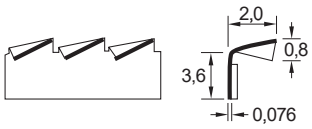
- Material: Cu-Be

Abmessungen ► Einheit = mm

**MTC**



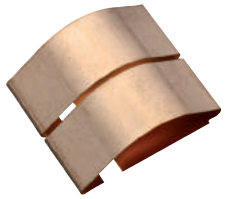

**MTCW**




| Art.-Nr. | Typ | a (mm) | b (mm) | c (mm) | L (mm) |
|---|---|---|---|---|---|
| 621 01 11-500 | MTC | 2,0 | 0,4 | 3,6 | 500 |
| 621 01 11-610 | MTC | 2,0 | 0,4 | 3,6 | 610 |
| 621 01 11 | MTC | 2,0 | 0,4 | 3,6 | 50.000 |
| 621 01 12-610 | MTCW | 2,0 | 0,4 | 3,6 | 610 |

Lieferbar mit und ohne Klebestreifen: Telefon: 09852 61079-0

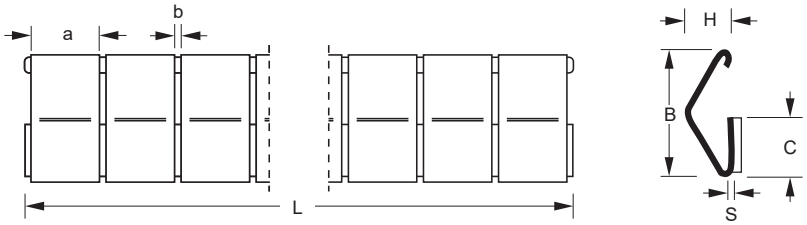
# KF1 KONTAKTFEDERN



Merkmale

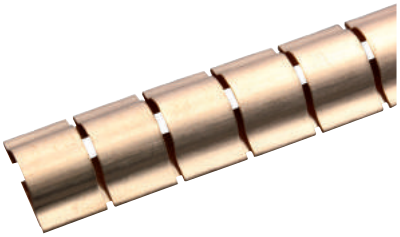
- Klebemontage

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | C (mm) | H (mm) | B (mm) | S (mm) | L in mm |
|---|---|---|---|---|---|---|---|---|
| 621 01 104 | KF 1-A | 4,3 | 0,5 | 5,3 | 2,8 | 8,1 | 0,05 | 406,0 |
| 621 01 105 | KF 1-B | 5,7 | 0,6 | 5,3 | 3,3 | 9,4 | 0,05 | 406,0 |
| 621 01 106 | KF 1-C | 8,7 | 0,8 | 7,2 | 5,7 | 15,2 | 0,08 | 610,0 |
| 621 01 107 | KF 1-D | 8,7 | 1,0 | 11,2 | 8,1 | 19,8 | 0,10 | 455,0 |
| 621 01 108 | KF 1-E | 11,7 | 1,0 | 19,8 | 10,2 | 27,9 | 0,13 | 457,0 |

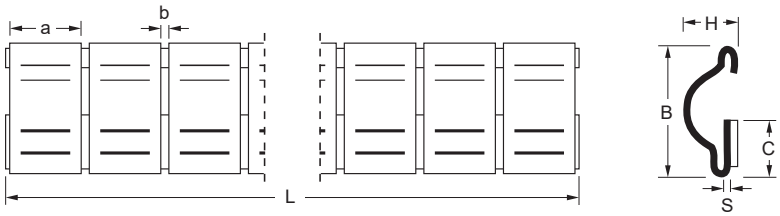
# KF2 KONTAKTFEDERN



Merkmale

- Klebemontage

Abmessungen ► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | C (mm) | H (mm) | B (mm) | S (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 109 | KF 2-A | 4,3 | 0,5 | 5,4 | 2,5 | 8,1 | 0,09 | 408,0 |
| 621 01 110 | KF 2-B | 5,7 | 0,6 | 5,25 | 3,3 | 9,4 | 0,09 | 406,0 |
| 621 01 111 | KF 2-C | 3,9 | 0,8 | 7,4 | 5,6 | 15,2 | 0,09 | 455,0 |
| 621 01 112 | KF 2-D | 8,7 | 0,8 | 7,2 | 5,6 | 15,2 | 0,09 | 457,0 |

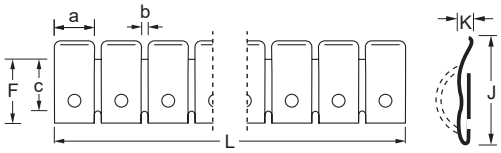
Andere Längen und Oberflächen auf Anfrage: Telefon: 09852 61079-0

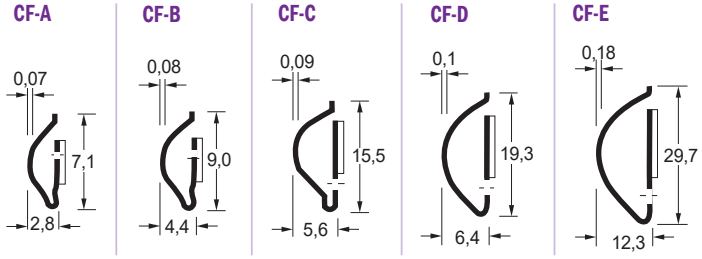
# CF KONTAKTFEDERN

Merkmale

- Klebemontage
- Material: Cu-Be

Abmessungen ► Einheit = mm



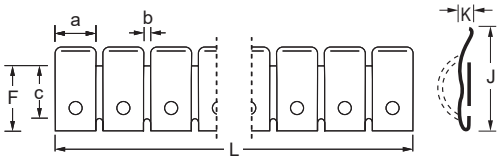

| Art.-Nr. | Typ | a (mm) | b (mm) | c (mm) | F (mm) | J (mm) | K (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 89-406 | CF-A | 4,31 | 0,46 | 3,81 | 5,84 | 9,40 | 1,65 | 406,0 |
| 621 01 90-406 | CF-B | 5,79 | 0,56 | 3,85 | 7,5 | 13,20 | 1,60 | 406,0 |
| 621 01 90 | CF-B | 5,79 | 0,56 | 3,85 | 7,5 | 13,20 | 1,80 | 7.620,0 |
| 621 01 91-610 | CF-C | 8,71 | 0,81 | 10,0 | 12,60 | 23,83 | 1,60 | 610,0 |
| 621 01 92-610 | CF-D | 8,51 | 1,02 | 10,0 | 12,60 | 23,83 | 1,60 | 610,0 |
| 621 01 93-304 | CF-E | 11,68 | 1,02 | 17,0 | 17,80 | 49,20 | 1,60 | 305,0 |

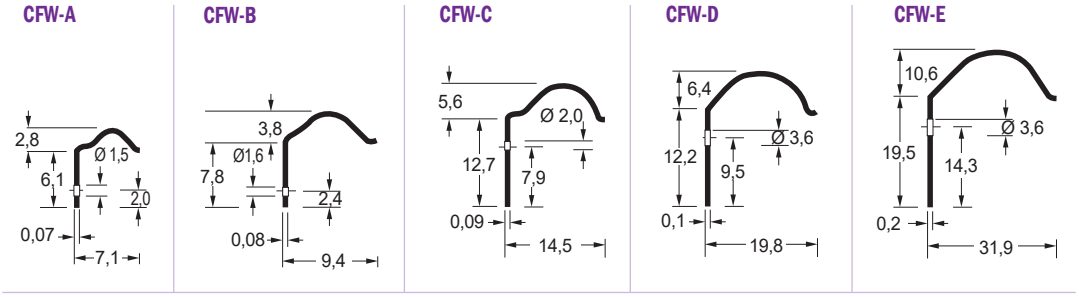
# CFW KONTAKTFEDERN

Merkmale

- Befestigung erfolgt durch Schrauben, Nieten oder Löten
- Material: Cu-Be

Abmessungen ► Einheit = mm



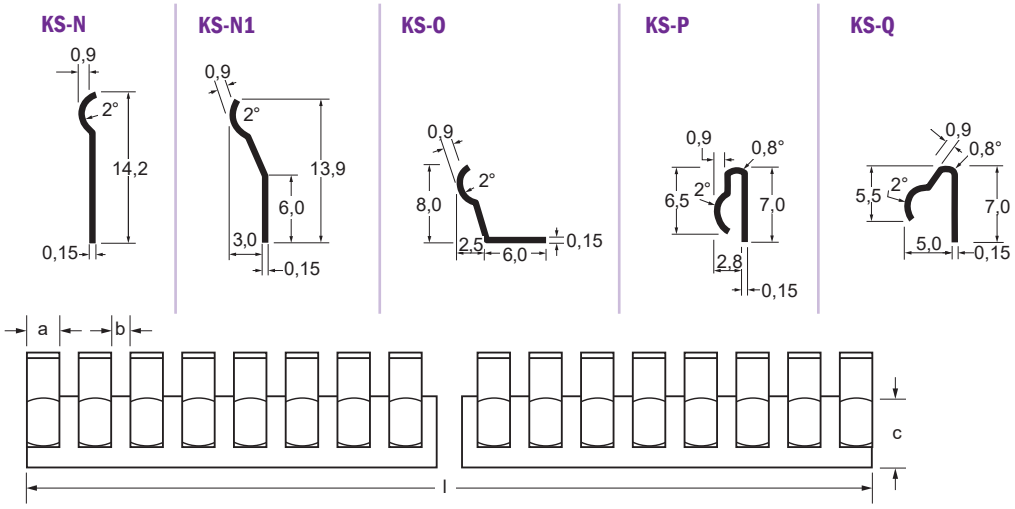




| Art.-Nr. | Typ | a (mm) | b (mm) | c (mm) | F (mm) | J (mm) | K (mm) | L (mm) |
|---|---|---|---|---|---|---|---|---|
| 621 01 94 | CFW-A | 4,31 | 0,46 | 3,81 | 5,84 | 9,40 | 1,65 | 406,0 |
| 621 01 95 | CFW-B | 5,79 | 0,56 | 3,9 | 7,6 | 12,70 | 1,60 | 406,0 |
| 621 01 96 | CFW-C | 8,71 | 0,81 | 9,9 | 12,90 | 19,56 | 1,60 | 610,0 |
| 621 01 97 | CFW-D | 8,51 | 1,02 | 11,90 | 12,70 | 23,83 | 1,60 | 305,0 |
| 621 01 98 | CFW-E | 11,68 | 1,02 | 18,0 | 19,90 | 49,20 | 1,60 | 305,0 |

Andere Längen und Oberflächen auf Anfrage: Tel.: 09852 61079-0

# KS-N, KS-N1, KS-O, KS-P, KS-Q
## KONTAKTFEDERN

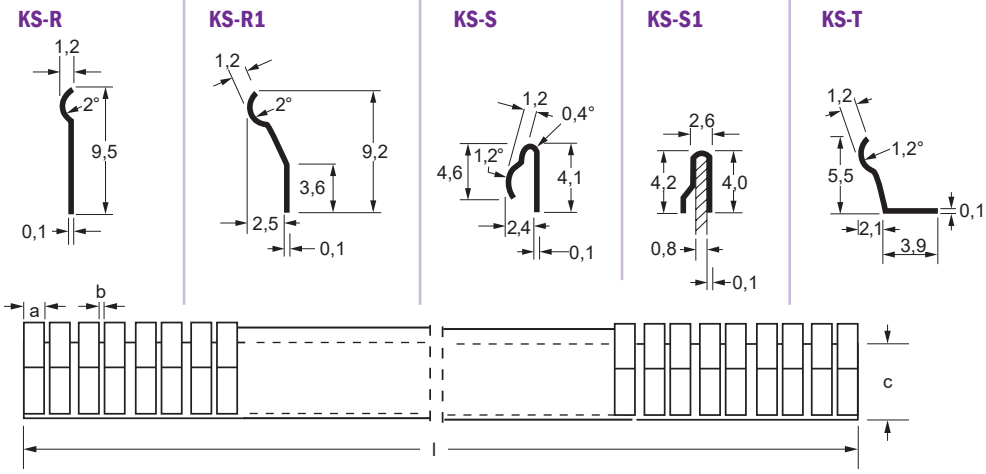
Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | c (mm) | l (mm) |
|---|---|---|---|---|---|
| 621 01 126 | KS-N | 1,5 | 0,5 | 5,5 | 500,0 |
| 621 01 127 | KS-N 1 | 1,5 | 0,5 | 5,5 | 500,0 |
| 621 01 128 | KS-O | 1,5 | 0,5 | 5,5 | 500,0 |
| 621 01 129 | KS-P | 1,5 | 0,5 | 5,5 | 500,0 |
| 621 01 130 | KS-Q | 1,5 | 0,5 | 5,5 | 500,0 |

# KS-R, KS-R1, KS-S, KS-S1, KS-T
## KONTAKTFEDERN

Abmessungen
► Einheit = mm




| Art.-Nr. | Typ | a (mm) | b (mm) | c (mm) | l (mm) |
|---|---|---|---|---|---|
| 621 01 131 | KS-R | 1,0 | 0,5 | 3,2 | 500,0 |
| 621 01 132 | KS-R 1 | 1,0 | 0,5 | 3,2 | 500,0 |
| 621 01 133 | KS-S | 1,0 | 0,5 | 3,2 | 500,0 |
| 621 01 134 | KS-S 1 | 1,0 | 0,5 | 3,2 | 406,0 |
| 621 01 135 | KS-T | 1,0 | 0,5 | 3,2 | 500,0 |

Andere Materialstärken auf Anfrage: Telefon: 09852 61079-0

# KONTAKTFEDERN AUS KUPFER-BERYLLIUM

## Anwendung

Federn aus Kupfer-Beryllium werden aufgrund ihrer hervorragenden Materialeigenschaften in den unterschiedlichsten Formen und Abmessungen vor allem in den folgenden Industriezweigen eingesetzt:

→ **Nachrichten- und Hochfrequenztechnik, Elektrotechnik, Mess- und Regeltechnik, Luft- und Raumfahrt, Kernphysik, Datenverarbeitung und Telekommunikation.**

Kontaktstreifen und -ringe aus Kupfer-Beryllium finden ihre Anwendung in allen Frequenzbereichen, u.a. als Kontaktgeber an Röhren und Abstimmelementen, in zunehmendem Maße jedoch für die Abschirmung. Z.B. sind die **Typen CF** und **SF** vielseitig einsetzbare Abschirmungen, mit denen Gehäuse, Schränke und Verkleidungen gegen Störstrahlungen sehr effektiv abgedichtet werden können.
Der Platzbedarf ist gering und die Montage äußerst einfach, da die Unterseite der Feder mit einem doppelseitigen Klebeband ausgerüstet ist. So sind aufwendige Löt-, Niet- oder Schraubarbeiten nicht erforderlich. Die gemessenen Dämpfungswerte sind hervorragend.

Magnetisches Feld: Bei 14 KHz mehr als bei 46 dB.
Freie Welle: Bei 10 GHz ca. 108 dB.

Der **Typ SF** ist eine Weiterentwicklung des **Typs CF,** bei dem der freie Teil des Fingers in einer Lasche geführt und so gegen Beschädigung geschützt wird. Je nach Andruck kann der Finger mehr oder weniger in die Lasche schlüpfen.

## Werkstoffeigenschaften

Das für unsere Produkte verwendete Kupfer-Beryllium (CuBe 2) ist ein qualitätsgeprüfter und ausscheidungshärtender Federwerkstoff. Er zeichnet sich aus durch eine hohe Streckgrenze, Festigkeit und Elastizität, gute elektrische Leitfähigkeit, hohe Ermüdungsfestigkeit sowie Beständigkeit gegen Verschleiß und Korrosion. Die gute Wärmeleitfähigkeit verbunden mit hoher Härte bewirkt Funkensicherheit. Der Werkstoff ist unmagnetisch und hat ein erstklassiges Temperaturverhalten.

**Physikalische Eigenschaften**

| | | |
|---|---|---|
| Spez. Gewicht: 8,4 g/cm³ | Vickershärte: 350 - 430 kp/mm² | Elastizitätsmodul: 135.000 N/mm² |
| Schmelzbeginn: 900°C | Zugfestigkeit: 1200 - 1450 N/mm² | Torsionsmodul: 47.000 N/ mm² |
| Ausdehnungskoeffizient (20 - 200°C): 17 x $10^{-6}$/°C | Biegewechselfestigkeit bei $10^5$ Lastspielen: 250 - 290 ± N/mm² | Federbiegegrenze: 820 - 950 N/mm² |
| Wärmeleitfähigkeit: 0,27 cal/cm • s • °C, 1,13 W/cm • °C | | Elektr. Leitfähigkeit: 12,5 - 13 m/Ωmm² |

| Liefermöglichkeiten | Lieferform |
|---|---|
| Material: ausgehärtet oder ungehärtet | Als Einzelfeder konfektioniert, Kontaktfederstreifen oder Kontaktring |
| Lagerprogramm: ausgehärtet, blank oder verzinnt | Einige Kontaktfederstreifen können vom Anwender zu Kontaktringen mit beliebigem Durchmesser geformt werden |
| Anpressdruck: kann auf Wunsch mitgeteilt werden | |
| Oberfläche: blank, verzinnt, versilbert, verzinkt, vergoldet, vernickelt bzw. Kundenwunsch oder in Edelstahl | Kontaktferstreifen werden als lagermäßiges Sortiment gehalten |

**Bestellcode:**

Zur Auswahl der gewünschten Oberflächenvergütung muss bei der Bestellung die 4. und 5. Stelle der Art.-Nr. wie folgt angegeben werden:

| | | |
|---|---|---|
| 00 = Edelstahl | 02 = verzinnt | 04 = versilbert |
| 01 = CuBe blank (Standard) | 03 = verzinkt | 05 = vergoldet |
| | | 06 = vernickelt |

• **Sonderfedern:**
Neue Federformen + Sonderanfertigungen sind kurzfristig lieferbar. Viele Federn sind im Werkstoff Edelstahl erhältlich.

## Besondere Verarbeitungshinweise beim Löten

• Hartlöten: Das Hartlöten erfolgt vor der Aushärtungsbehandlung. Bei der Hartlötung kleinerer Teile, etwa gleicher Abmessung werden niedrig schmelzende Silberlote mit Löttemperaturen zwischen 610°C + 650°C unter Beachtung einer sehr kurzen Lötzeit benutzt. Nach Erstarren des Lotes müssen die Teile in Wasser abgeschreckt werden. Empfehlenswert ist das niedrig schmelzende Hartlot LAg45 (DIN 1734) mit einer Arbeitstemperatur von 620°C. Bei Lötzeiten über einer halben Minute ist mit einer Einbuße der Aushärtbarkeit des Materials zu rechnen. Bei der Lötung sehr ungleicher Teile kann z.B. das eutekische Ag-Cu-Lot (72% Ag, 28% Cu) mit einer Löttemperatur von 790°C gewählt werden. Dieses Lötverfahren wird meist im Lötofen unter Schutzgas durchgeführt. Die Teile sind nach dem Löten ebenfalls abzuschrecken. Als Flussmittel kommen für all diese Hartlötverfahren meist niedrigschmelzende Fluoride mit hoher Aktivität infrage.
• Weichlöten: Weichlötung erfolgt grundsätzlich nach der Aushärtung, da die Schmelztemperaturen der Weichlote mit höchstens 250°C stets unterhalb der Anlasstemperaturen liegen. Ein häufig benutztes Weichlot ist das LSn50 (DIN 17707), jedoch können auch andere Lote mit höherer Festigkeit und Löttemperatur benutzt werden. Als Flussmittel werden Zinkchlorid oder Lösungen von Zinkchlorid, Ammoniumchlorid und Salzsäure in Wasser verwendet, falls die Teile nach der Lötung gewaschen werden können. Falls dies nicht möglich ist, wird häufig, nach vorheriger Verzinnung, ein Kolophonium-Mittel angewendet, um Korrosion durch Flussmittelreste zu vermeiden. Als besonders brauchbar hat sich eine heiß gesättigte, wässrige Ammoniumfluorid-Lösung erwiesen, da sich dann selbst im Falle starker Verzunderung, die sonst erforderliche Säuberung der Metalloberfläche von Berylliumoxid durch Beizen erübrigt.

# LS-2D LOCHSCHAUM

## Features

- X, Y, Z direction conductivity
- shielding effectiveness ≥ 60 dB
- Absorbs shock and vibration (foam cushion)
- Easy to cut and burr free
- Flame-retardant UL94V-1 (conductive foam type)
- Working Temperature: -40°C to +70°C
- Option: conductive adhesive coating

## Typical Applications:

- Recommened for protecting mobile phone, PDA, PDP/LCD TV

## Properties

| LS-2D-0030 | | Test Method |
|---|---|---|
| Thickness (mm) | 0,3 ±0,1 | ASTM D1777 |
| Weight g/m² | 90 ±10 | ASTM D3776 |
| Width (mm) | 1050 ±20 | - |
| Surface resistance Ω | < 0,08 | MIL-G-83528 |
| Vertical resistance Ω | < 0,03 | MIL-G-83528 |

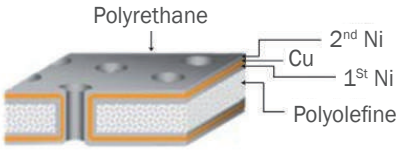
| LS-2D-0050 | | Test Method |
|---|---|---|
| Thickness (mm) | 0,5 ±0,1 | ASTM D1777 |
| Weight g/m² | 115 ±10 | ASTM D3776 |
| Width (mm) | 1050 ±20 | - |
| Surface resistance Ω | < 0,08 | MIL-G-83528 |
| Vertical resistance Ω | < 0,03 | MIL-G-83528 |

| LS-2D-0070 | | Test Method |
|---|---|---|
| Thickness (mm) | 0,7 ±0,1 | ASTM D1777 |
| Weight g/m² | 128 ±10 | ASTM D3776 |
| Width (mm) | 1000 ±20 | - |
| Surface resistance Ω | < 0,08 | MIL-G-83528 |
| Vertical resistance Ω | < 0,03 | MIL-G-83528 |

| LS-2D-0080 | | Test Method |
|---|---|---|
| Thickness (mm) | 0,8 ±0,1 | ASTM D1777 |
| Weight g/m² | 124 ±10 | ASTM D3776 |
| Width (mm) | 1050 ±20 | - |
| Surface resistance Ω | < 0,08 | MIL-G-83528 |
| Vertical resistance Ω | < 0,03 | MIL-G-83528 |

| LS-2D-0100 | | Test Method |
|---|---|---|
| Thickness (mm) | 1,1 ±0,1 | ASTM D1777 |
| Weight g/m² | 178 ±10 | ASTM D3776 |
| Width (mm) | 1000 ±20 | - |
| Surface resistance Ω | < 0,08 | MIL-G-83528 |
| Vertical resistance Ω | < 0,03 | MIL-G-83528 |

## Structure



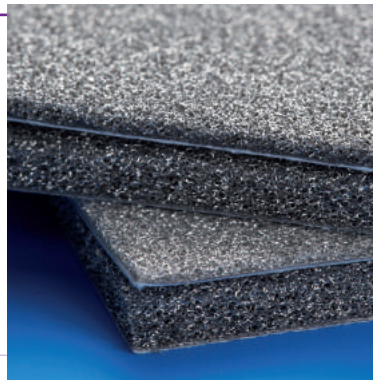
# LS-3D LEITSCHAUM

Characteristics

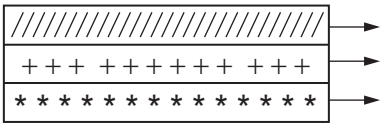
- self-adhesive polyolefin foam with nickel-copper-plating
- excellent conductivity in x-, y- and z-axis (3 dimensional)
- high damping properties in the HF range

## Properties

| LS-3D | | Test Method |
|---|---|---|
| Thickness (mm) | 0,3, 0,5, 1,0 1,5, 2,0, 2,0, 2,5, 3,0, 3,5, 4,0 (±0,2) | FZ/T01003-1991 |
| Color | Gray | - |
| Surface Resistance Ω/in | < 0,5 | MIL-DTL-83528C |
| Top-Bottom Resistance Ω/in 2 | < 0,5 | MIL-DTL-83528C |
| Adhesion Strenght kgf/in | ≥ 1,0 | KSA1107 1 |
| Temperature Range (°C) | +10 to +80 | ASTM D3330 |



## Structure



# SB-5F ABSCHIRMGEHÄUSE

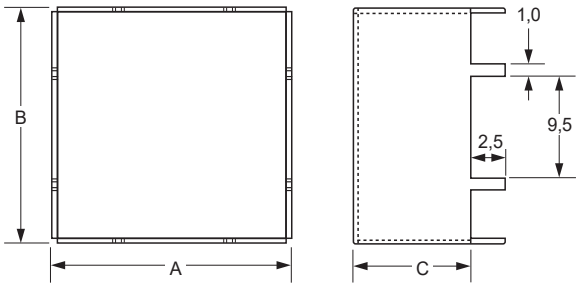
## Merkmale

- Abschirmgehäuse (Abschirmhaube) 5-seitig mit Pins
- Seitenwände nur gebogen, ungeschweißt
- Standardgrößen ohne Werkzeugkosten
- Material: Stahlblech verzinnt, S = 0,6 mm

## Abmessungen

► Einheit = mm

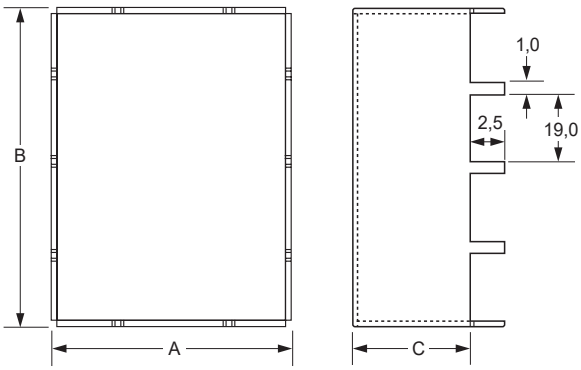
**Figur 1**




## Abmessungen

► Einheit = mm

**Figur 2**



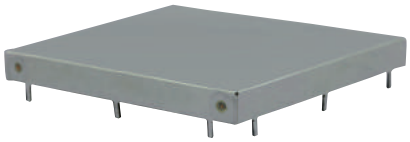

| Art.-Nr. | A (mm) | B (mm) | C (mm) | Figur |
|---|---|---|---|---|
| 622 01 22 | 25,0 | 25,0 | 15,0 | 1 |
| 622 01 23 | 30,0 | 25,0 | 18,0 | 1 |
| 622 01 24 | 40,0 | 28,0 | 20,0 | 1 |
| 622 01 25 | 40,0 | 32,0 | 18,0 | 1 |
| 622 01 26 | 60,0 | 40,0 | 20,0 | 2 |
| 622 01 27 | 70,0 | 50,0 | 25,0 | 2 |

Ausführliche Datenblätter auf Anfrage:
Telefon: 09852 61079-0

# SA-5F ABSCHIRMGEHÄUSE

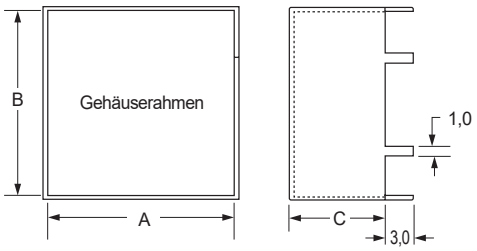
## Merkmale

- Abschirmgehäuse (Abschirmhaube) 5-seitig mit Pins
- Seitenwände gebogen und punktgeschweißt
- Standardgrößen ohne Werkzeugkosten
- Material: Kupfer verzinnt, S = 0,4 mm



## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 622 12 01 | 20,0 | 20,0 | 2,5 |
| 622 12 02 | 20,0 | 20,0 | 5,0 |
| 622 12 03 | 20,0 | 20,0 | 10,0 |
| 622 12 04 | 30,0 | 20,0 | 2,5 |
| 622 12 05 | 30,0 | 20,0 | 5,0 |
| 622 12 06 | 30,0 | 20,0 | 10,0 |
| 622 12 07 | 30,0 | 30,0 | 2,5 |
| 622 12 08 | 30,0 | 30,0 | 5,0 |
| 622 12 09 | 30,0 | 30,0 | 10,0 |
| 622 12 10 | 50,0 | 25,0 | 2,5 |
| 622 12 11 | 50,0 | 25,0 | 5,0 |
| 622 12 12 | 50,0 | 25,0 | 10,0 |
| 622 12 13 | 50,0 | 50,0 | 2,5 |
| 622 12 14 | 50,0 | 50,0 | 5,0 |
| 622 12 15 | 50,0 | 50,0 | 10,0 |
| 622 12 16 | 75,0 | 50,0 | 5,0 |
| 622 12 17 | 75,0 | 50,0 | 10,0 |
| 622 12 18 | 75,0 | 50,0 | 15,0 |
| 622 12 19 | 75,0 | 75,0 | 5,0 |
| 622 12 20 | 75,0 | 75,0 | 10,0 |
| 622 12 21 | 75,0 | 75,0 | 15,0 |
| 622 12 22 | 100,0 | 50,0 | 5,0 |
| 622 12 23 | 100,0 | 50,0 | 10,0 |
| 622 12 24 | 100,0 | 50,0 | 15,0 |
| 622 12 25 | 125,0 | 75,0 | 10,0 |
| 622 12 26 | 125,0 | 75,0 | 15,0 |
| 622 12 27 | 125,0 | 75,0 | 25,0 |

Ausführliche Datenblätter auf Anfrage:
Telefon: 09852 61079-0

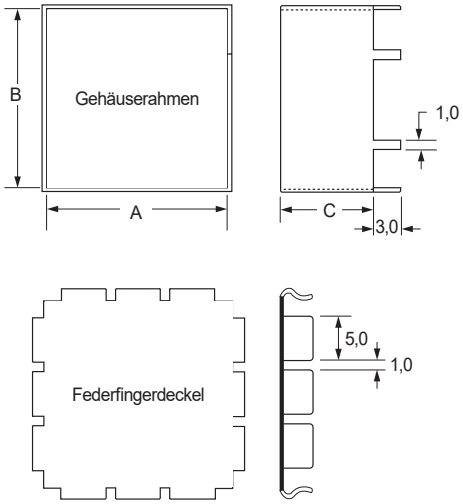
# SA-4SFL ABSCHIRMGEHÄUSE

## Merkmale

- Abschirmgehäuse mit seperatem, aufsteckbarem Federfingerdeckel
- Gehäuserahmen 4-seitig, punktgeschweißt, mit Lötpins
- Standardgrößen ohne Werkzeugkosten
- Material Rahmen: Kupfer verzinnt, S = 0,4 mm
- Material Deckel: Messing verzinnt, S = 0,4 mm

## Abmessungen

► Einheit = mm




| Art.-Nr. | A (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 622 09 01 | 20,0 | 20,0 | 2,5 |
| 622 09 02 | 20,0 | 20,0 | 5,0 |
| 622 09 03 | 20,0 | 20,0 | 10,0 |
| 622 09 04 | 30,0 | 20,0 | 2,5 |
| 622 09 05 | 30,0 | 20,0 | 5,0 |
| 622 09 06 | 30,0 | 20,0 | 10,0 |
| 622 09 07 | 30,0 | 30,0 | 2,5 |
| 622 09 08 | 30,0 | 30,0 | 5,0 |
| 622 09 09 | 30,0 | 30,0 | 10,0 |
| 622 09 10 | 50,0 | 25,0 | 2,5 |
| 622 09 11 | 50,0 | 25,0 | 5,0 |
| 622 09 12 | 50,0 | 25,0 | 10,0 |
| 622 09 13 | 50,0 | 50,0 | 2,5 |
| 622 09 14 | 50,0 | 50,0 | 5,0 |
| 622 09 15 | 50,0 | 50,0 | 10,0 |
| 622 09 16 | 75,0 | 50,0 | 5,0 |
| 622 09 17 | 75,0 | 50,0 | 10,0 |
| 622 09 18 | 75,0 | 50,0 | 15,0 |
| 622 09 19 | 75,0 | 75,0 | 5,0 |
| 622 09 20 | 75,0 | 75,0 | 10,0 |
| 622 09 21 | 75,0 | 75,0 | 15,0 |
| 622 09 22 | 100,0 | 50,0 | 5,0 |
| 622 0923 | 100,0 | 50,0 | 10,0 |
| 622 09 24 | 100,0 | 50,0 | 15,0 |
| 622 09 25 | 125,0 | 75,0 | 10,0 |
| 622 09 26 | 125,0 | 75,0 | 15,0 |
| 622 09 27 | 125,0 | 75,0 | 25,0 |

Ausführliche Datenblätter auf Anfrage:
Telefon: 09852 61079-0

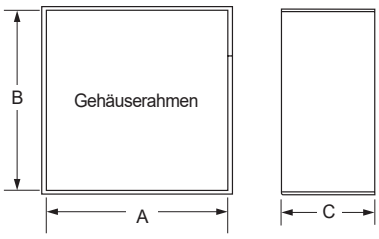
# SA-4SFL-SMT ABSCHIRMGEHÄUSE

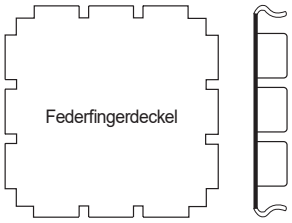
## Merkmale

- Abschirmgehäuse mit separatem, aufsteckbarem Federfingerdeckel
- Gehäuserahmen 4-seitig, punktgeschweißt, für SMD-Bestückung
- Standardgrößen ohne Werkzeugkosten
- Material Rahmen: Kupfer verzinnt, S = 0,4 mm
- Material Deckel: Messing verzinnt, S = 0,4 mm

## Abmessungen

► Einheit = mm

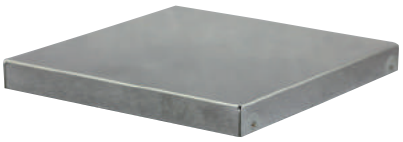



| Art.-Nr. | A (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 622 09 01 SMT | 20,0 | 20,0 | 2,5 |
| 622 09 02 SMT | 20,0 | 20,0 | 5,0 |
| 622 09 03 SMT | 20,0 | 20,0 | 10,0 |
| 622 09 04 SMT | 30,0 | 20,0 | 2,5 |
| 622 09 05 SMT | 30,0 | 20,0 | 5,0 |
| 622 09 06 SMT | 30,0 | 20,0 | 10,0 |
| 622 09 07 SMT | 30,0 | 30,0 | 2,5 |
| 622 09 08 SMT | 30,0 | 30,0 | 5,0 |
| 622 09 09 SMT | 30,0 | 30,0 | 10,0 |
| 622 09 10 SMT | 50,0 | 25,0 | 2,5 |
| 622 09 11 SMT | 50,0 | 25,0 | 5,0 |
| 622 09 12 SMT | 50,0 | 25,0 | 10,0 |
| 622 09 13 SMT | 50,0 | 50,0 | 2,5 |
| 622 09 14 SMT | 50,0 | 50,0 | 5,0 |
| 622 09 15 SMT | 50,0 | 50,0 | 10,0 |
| 622 09 16 SMT | 75,0 | 50,0 | 5,0 |
| 622 09 17 SMT | 75,0 | 50,0 | 10,0 |
| 622 09 18 SMT | 75,0 | 50,0 | 15,0 |
| 622 09 19 SMT | 75,0 | 75,0 | 5,0 |
| 622 09 20 SMT | 75,0 | 75,0 | 10,0 |
| 622 09 21 SMT | 75,0 | 75,0 | 15,0 |
| 622 09 22 SMT | 100,0 | 50,0 | 5,0 |
| 622 09 23 SMT | 100,0 | 50,0 | 10,0 |
| 622 09 24 SMT | 100,0 | 50,0 | 15,0 |
| 622 09 25 SMT | 125,0 | 75,0 | 10,0 |
| 622 09 26 SMT | 125,0 | 75,0 | 15,0 |
| 622 09 27 SMT | 125,0 | 75,0 | 25,0 |

Ausführliche Datenblätter auf Anfrage:
Telefon: 09852 61079-0

# SA-5F-SMT ABSCHIRMGEHÄUSE

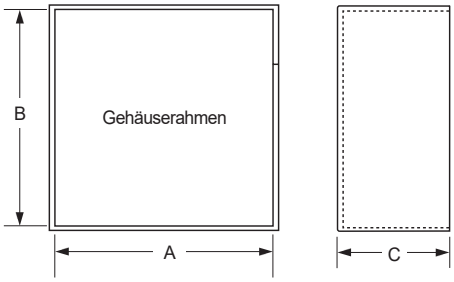


## Merkmale

- Abschirmgehäuse (Abschirmhaube) 5-seitig, punktgeschweißt, für SMD-Bestückung
- Standardgrößen ohne Werkzeugkosten
- Material: Kupfer verzinnt, S = 0,4 mm

## Abmessungen

► Einheit = mm



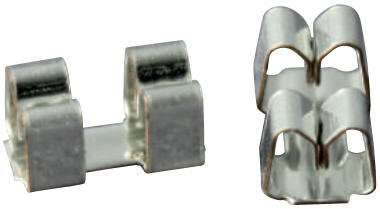

| Art.-Nr. | A (mm) | B (mm) | C (mm) |
|---|---|---|---|
| 622 12 01 SMT | 20,0 | 20,0 | 2,5 |
| 622 12 02 SMT | 20,0 | 20,0 | 5,0 |
| 622 12 03 SMT | 20,0 | 20,0 | 10,0 |
| 622 12 04 SMT | 30,0 | 20,0 | 2,5 |
| 622 12 05 SMT | 30,0 | 20,0 | 5,0 |
| 622 12 06 SMT | 30,0 | 20,0 | 10,0 |
| 622 12 07 SMT | 30,0 | 30,0 | 2,5 |
| 622 12 08 SMT | 30,0 | 30,0 | 5,0 |
| 622 12 09 SMT | 30,0 | 30,0 | 10,0 |
| 622 12 10 SMT | 50,0 | 25,0 | 2,5 |
| 622 12 11 SMT | 50,0 | 25,0 | 5,0 |
| 622 12 12 SMT | 50,0 | 25,0 | 10,0 |
| 622 12 13 SMT | 50,0 | 50,0 | 2,5 |
| 622 12 14 SMT | 50,0 | 50,0 | 5,0 |
| 622 12 15 SMT | 50,0 | 50,0 | 10,0 |
| 622 12 16 SMT | 75,0 | 50,0 | 5,0 |
| 622 12 17 SMT | 75,0 | 50,0 | 10,0 |
| 622 12 18 SMT | 75,0 | 50,0 | 15,0 |
| 622 12 19 SMT | 75,0 | 75,0 | 5,0 |
| 622 12 20 SMT | 75,0 | 75,0 | 10,0 |
| 622 12 21 SMT | 75,0 | 75,0 | 15,0 |
| 622 12 22 SMT | 100,0 | 50,0 | 5,0 |
| 622 12 23 SMT | 100,0 | 50,0 | 10,0 |
| 622 12 24 SMT | 100,0 | 50,0 | 15,0 |
| 622 12 25 SMT | 125,0 | 75,0 | 10,0 |
| 622 12 26 SMT | 125,0 | 75,0 | 15,0 |
| 622 12 27 SMT | 125,0 | 75,0 | 25,0 |

Ausführliche Datenblätter auf Anfrage:
Telefon: 09852 61079-0

# ASGC-CLIP

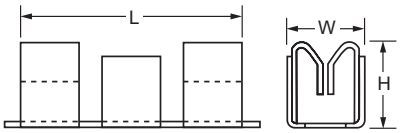
## Merkmale

- passend für Abschirmgehäuse Typ SA-4-5F-SMT oder für individuelle Lösungen
- Abschirmgehäusedeckel bzw. Rahmen werden auf den Clip gesteckt
- Deckel kann für Service- oder Einstellarbeiten abgenommen werden und wieder aufgesteckt werden
- für SMT-Bestückung
- Material: Kupfer-Legierung verzinnt

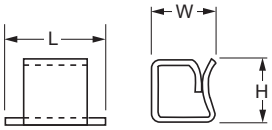


## Abmessungen ► Einheit = mm

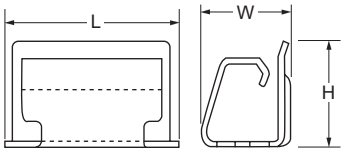
**ASGC0919**



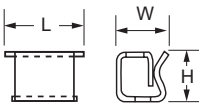

**ASGC0927**



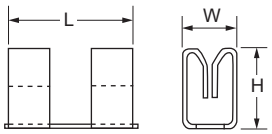

**ASGC1271**



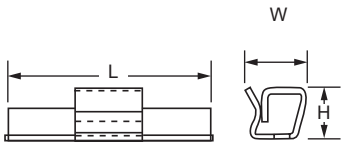

**ASGC1381**



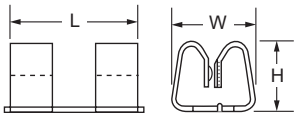

**ASGC1407**



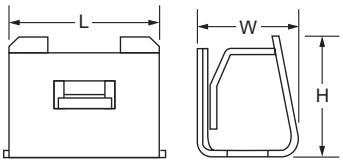

**ASGC1431**



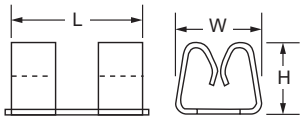

**ASGC1496**




**ASGC1567**

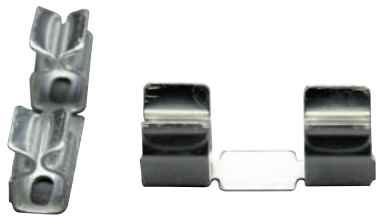



**ASGC1645**




| Typ | L (mm) | W (mm) | H (mm) | Materialstärke (mm) | Deckelstärke (mm) | Rollengröße |
|---|---|---|---|---|---|---|
| ASGC0919 | 9,0 | 2,7 | 3,0 | 0,15 | 0,3 bis 0,5 | 2.000 |
| ASGC0927 | 3,2 | 2,0 | 2,0 | 0,15 | 0,2 bis 0,3 | 2.000 |
| ASGC1271 | 10,0 | 5,0 | 6,0 | 0,3 | 0,8 bis 1,0 | 1.500 |
| ASGC1381 | 2,4 | 1,6 | 1,5 | 0,15 | 0,2 | 2.000 |
| ASGC1407 | 5,0 | 2,0 | 3,0 | 0,15 | 0,2 | 2.500 |
| ASGC1431 | 6,2 | 1,8 | 1,5 | 0,15 | 0,15 bis 0,2 | 4.000 |
| ASGC1496 | 5,0 | 3,0 | 2,5 | 0,15 | 0,3 bis 0,5 | 1.500 |
| ASGC1567 | 5,6 | 3,7 | 4,5 | 0,2 | 0,3 | 1.250 |
| ASGC1645 | 5,0 | 3,0 | 2,5 | 0,12 | 0,3 bis 0,5 | 1.500 |

# HWN ABSCHIRMCLIP

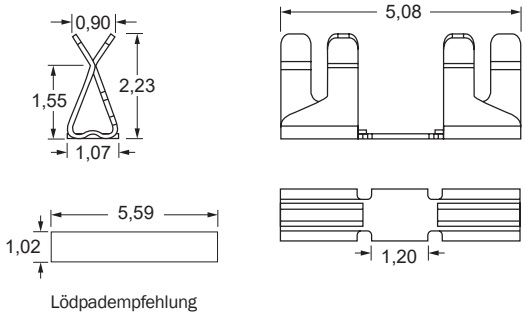


## Merkmale

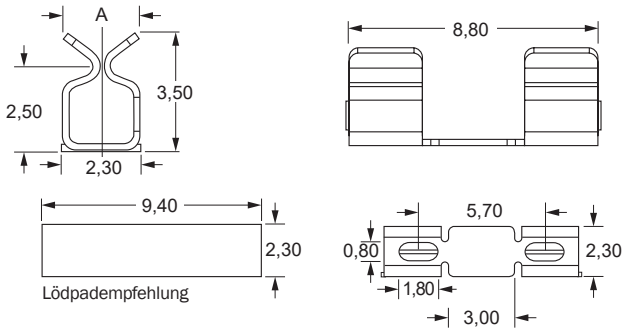
- Clip zur Aufnahme von Abschirmhauben S = 0,13 mm bis 1,0 mm (wie z.B. SA-5F-SMT oder individuelle Lösungen)
- ermöglicht einfaches Entfernen und wieder Aufstecken der Abschirmhaube, um Service bzw. Nacharbeiten der zu schirmenden Bauteile durchführen zu können
- schnelle und variable SMD-Bestückung
- Material: Kupfer-Beryllium, verzinnt
- Lieferform: lose oder Tape and Reel Ø 330 mm

## Abmessungen ► Einheit = mm

**HWN-S**




**HWN-L (A=2,60) / HWN-M (A=2,20)**




| Art.-Nr. | Typ | für Haubenstärke (S) (mm) | Einsteckkraft (max.) | Auszugskraft (max.) | Kontaktwiderstand (max.) 0,30 - 0,50 | Rollengröße (Stck.) |
|---|---|---|---|---|---|---|
| **622 01 08** | HWN-S | 0,13 - 0,23 | 5N (bei S = 0,17) | 0,35 N | 40mΩ | 5.000 |
| **622 01 09** | HWN-M | 0,30 - 0,50 | 3N (bei S = 0,30) | 1N | 20mΩ | 1.900 |
| **622 01 10** | HWN-L | 0,70 - 1,0 | 3N (bei S = 0,70) | 1N | 20mΩ | 1.900 |

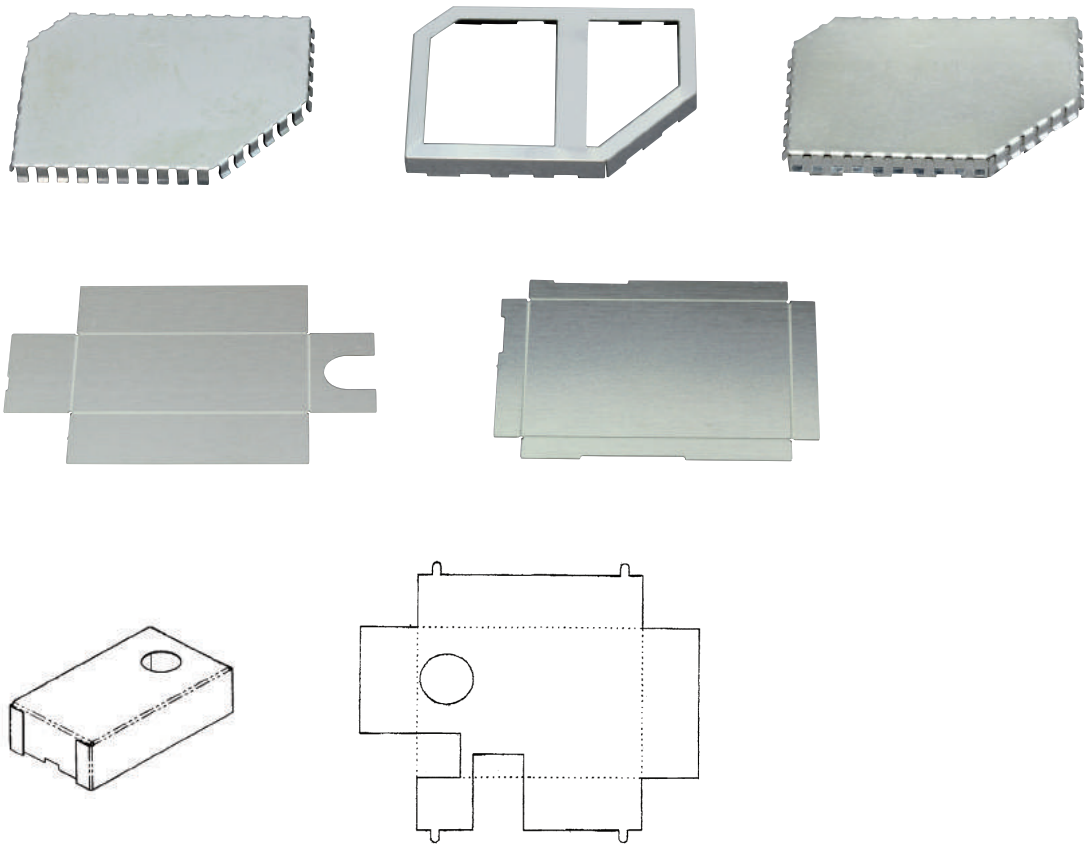
Ausführliche Datenblätter auf Anfrage:
Telefon: 09852 61079-0

# INDIVIDUELLE LÖSUNGEN ABSCHIRMGEHÄUSE

Merkmale

- Für indivduelle Lösungen schicken Sie uns bitte Ihre Anfrage mit einer Zeichnung, möglichst als PDF.
- Ihre Anforderungen werden sofort von unseren Technikern, die Sie auch gerne direkt vor Ort beraten, geprüft und die beste Fertigungsart in Abhängigkeit von Qualität zu Menge und zu Art und Ausführung empfohlen.

## Individuelle Lösungen



| Fertigungsmöglichkeiten |
|---|
| Ätztechnik |
| Lasertechnik |
| Stanz-/ Biegetechnik |

| Materialien |
|---|
| Stahl (verzinnt) |
| Messing (verzinnt) |
| Kupfer (verzinnt) |
| Neusilber |
| Edelstahl |

# TECSHIELD ABSCHIRMBLECHE

## Merkmale

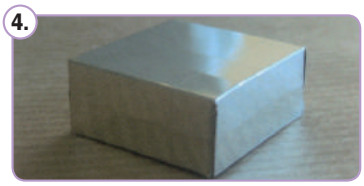
- TECSHIELD Abschirmbleche ermöglichen Konstrukteuren durch vorgeätzte Biegekanten in verschiedenen Rastermaßen eine rasche und kostengünstige Herstellung von Gehäuseprototypen für Neuentwicklungen.

**Gebrauchsanweisung:**

1.
Zeichnen Sie mit einem Filzstift die Abwicklung des benötigten Abschirmgehäuses auf dem Blech vor.

2.
Schneiden Sie mit einer Schere die Umrisse aus.

3.
Biegen Sie die Seitenwände um 90°. Wenn nötig können Sie die Kanten zusätzlich verlöten.

4. 
Fertiger Gehäuse-Prototyp.

→ **Auf Wunsch sind kundenspezifische Rastermaße möglich!**

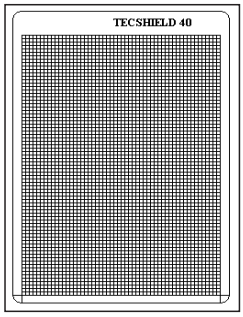
# TECSHIELD 40 ABSCHIRMBLECHE

## Merkmale

- Abschirmblech mit vorgeätzten Biegekanten
- Abmessungen: Höhe 335mm x Breite 260mm = 66 x 51 Einzelfelder
- Materialstärke: 0,5 mm
- Material: Kupfer verzinnt

## Abmessungen

► Einheit = mm




| Art.-Nr. | Rastermaß |
|---|---|
| 622 01 01 | 5,08 |
| 622 01 05 | 3,50 |
| 622 01 04 | 6,35 |

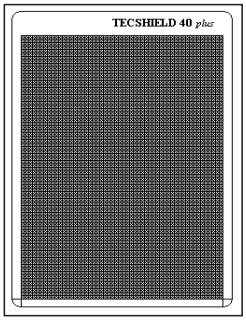
# TECSHIELD 40 PLUS ABSCHIRMBLECHE

Merkmale

- Abschirmblech mit vorgeätzten Biegekanten
- jede Zelle mit sechseckigem Ausbruch für bessere Luftkühlung
- Abmessungen: 335 x 260 mm (H x B) = 66 x 51 Einzelfelder
- Materialstärke: 0,5 mm
- Material: Kupfer verzinnt

Abmessungen

► Einheit = mm




| Art.-Nr. | Rastermaß |
|---|---|
| 622 01 02 | 5,08 |

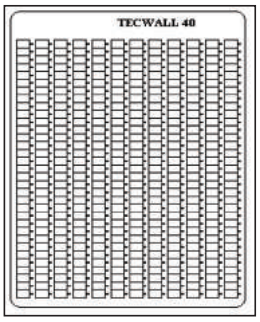
# TECWALL 40 ABSCHIRMBLECHE

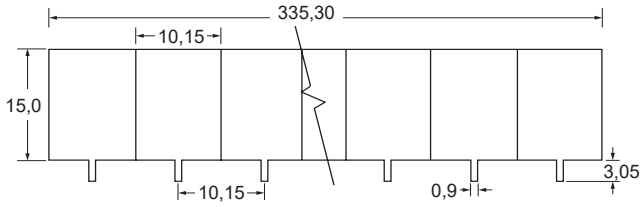
Merkmale

- Abschirmblech mit vorgeätzten Biegekanten für Gehäuse-Seitenwände
- 12 Streifen mit je 33 Einzelsegmenten gem. Zeichnung
- Materialstärke: 0,5 mm
- Material: Kupfer verzinnt

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 622 01 03 |

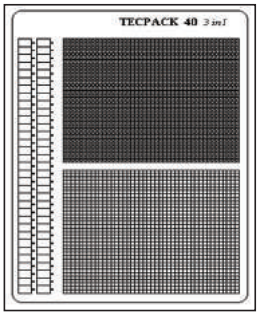
# TECPACK 40 3 IN 1 ABSCHIRMBLECHE

Merkmale

- Abschirmblech mit 2 Streifen TECWALL 40 und je 157 x 203 mm der Typen TECSHIELD 40 und TECSHIELD 40 plus
- Materialstärke: 0,5 mm
- Material: Kupfer verzinnt

Abmessungen

► Einheit = mm




| Art.-Nr. |
|---|
| 622 01 06 |

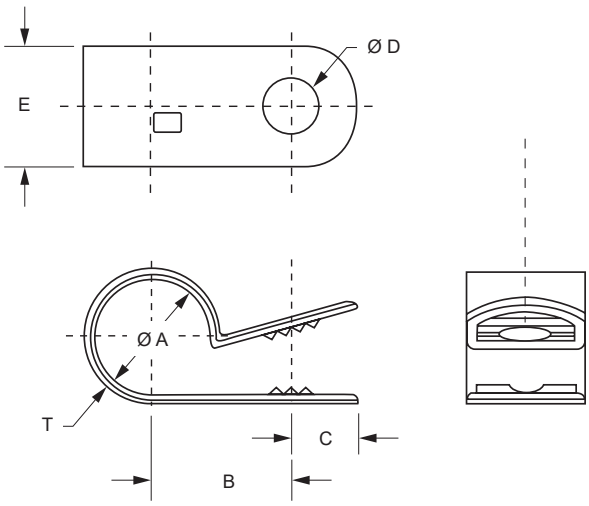
# NK-NS ERDUNGSSCHELLE

## Merkmale

- bestens geeignet zur Befestigung und Kontaktierung des Schirmes von geschirmten Leitung auf geerdeten Teilen
- die Schelle passt sich durch hervorragende Elastizität ideal an den zu erdenden Kabelschirm an → der Schirm wird dadurch nicht beschädigt
- Material Schelle: Nylon 6.6
- Kontaktmaterial: Silberbeschichtung
- Oberflächenwiderstand: max. 0,08 Ω

## Abmessungen

► Einheit = mm




| Art.-Nr. | Typ | Ø A (mm) | B (mm) | C (mm) | Ø D (mm) | E (mm) | T (mm) | Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|
| 220 09 01 S | NK-1NS | 1,9 | 6,9 | 5,6 | 3,2 | 9,5 | 1,1 | 1,6 |
| 220 09 02 S | NK-2NS | 4,0 | 9,4 | 4,5 | 4,3 | 9,0 | 0,9 | 3,4 |
| 220 09 03 S | NK-3NS | 5,6 | 10,2 | 4,5 | 4,3 | 9,0 | 0,9 | 4,9 |
| 220 09 04 S | NK-4NS | 6,8 | 11,0 | 4,8 | 4,3 | 9,6 | 1,0 | 5,8 |
| 220 09 05 S | NK-5NS | 8,6 | 11,8 | 4,8 | 4,3 | 9,6 | 1,0 | 7,7 |
| 220 09 06 S | NK-6NS | 11,0 | 12,6 | 4,8 | 4,3 | 9,6 | 1,0 | 9,9 |
| 220 09 07 S | NK-7NS | 12,2 | 13,4 | 4,8 | 4,3 | 9,6 | 1,0 | 10,7 |
| 220 09 08 S | NK-8NS | 13,4 | 14,2 | 4,8 | 4,3 | 9,6 | 1,0 | 11,8 |
| 220 09 10 S | NK-10NS | 15,4 | 15,8 | 5,1 | 4,3 | 10,2 | 1,0 | 14,1 |
| 220 09 12 S | NK-12NS | 20,0 | 18,1 | 6,6 | 4,3 | 13,2 | 1,8 | 18,4 |
| 220 09 14 S | NK-14NS | 22,5 | 19,7 | 6,4 | 5,1 | 12,8 | 1,8 | 20,0 |
| 220 09 16 S | NK-16NS | 26,0 | 21,0 | 6,4 | 5,1 | 12,8 | 1,8 | 23,8 |

Weitere Abmessungen auf Anfrage: Telefon: 09852 61079-0

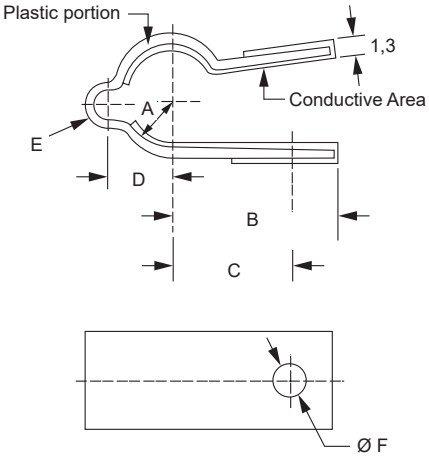
# FGC ERDUNGSSCHELLE

Merkmale:

- bestens geeignet zur Befestigung und Kontaktierung des Schirmes von geschirmten Leitung auf geerdeten Teilen
- die Schelle passt sich durch hervorragende Elastizität ideal an den zu erdenden Kabelschirm an ⟶ der Schirm wird dadurch nicht beschädigt
- Material Schelle: Nylon 6.6, UL94V-2
- Kontaktmaterial: Kupfer

Abmessungen

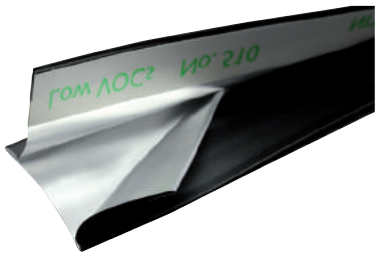
► Einheit = mm




| Art.-Nr. | Typ | A (r) (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Ø F (mm) | Kabel-Ø (mm) |
|---|---|---|---|---|---|---|---|---|
| 611 03 03 | FGC-3 | R1,8 | 9,5 | 13,5 | 3,0 | R1,5 | 3,2 | 2,7 - 3,5 |
| 611 03 05 | FGC-5 | R3,0 | 10,7 | 14,7 | 4,3 | R2,0 | 3,2 | 5,0 - 5,5 |
| 611 03 08 | FGC-8 | R4,8 | 12,5 | 16,6 | 6,5 | R2,3 | 3,2 | 8,2 - 9,0 |
| 611 03 03-4 | FGC-3M4 | R1,8 | 9,5 | 13,5 | 3,0 | R1,5 | 4,2 | 2,7 - 3,5 |
| 611 03 05-4 | FGC-5M4 | R3,0 | 10,7 | 14,7 | 4,3 | R2,0 | 4,2 | 5,0 - 5,5 |
| 611 03 08-4 | FGC-8M4 | R4,8 | 12,5 | 16,6 | 6,5 | R2,3 | 4,2 | 8,2 - 9,0 |

Weitere Abmessungen auf Anfrage: Telefon: 09852 61079-0

# FCS KABELABSCHIRMUNG

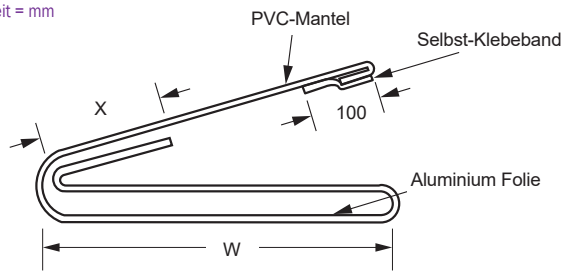


## Merkmale

- ideal zur Abschirmung von bereits mit Steckern konfektionierten Flachbandleitungen
- einfache Montage
- Schließen erfolgt mittels Selbstklebeband
- für 16- bis 50-polige Flachbandkabel
- Zugfestigkeit: 140 N/3cm
- Innen: Alufolie zur HF-Abschirmung
- Aussen: PVC-Mantel = nicht leitend
- Farbe: schwarz

## Abmessungen

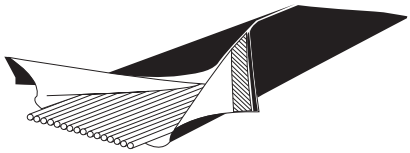
► Einheit = mm



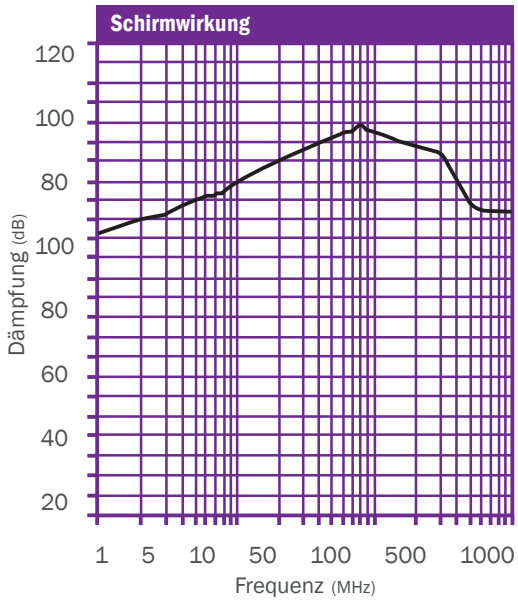

| Art.-Nr. | Typ | Kabelbreite (mm) | W (mm) | X (mm) |
|---|---|---|---|---|
| 613 08 16 | FCS-22A | 20,3 | 22,0 | 8,0 |
| 613 08 20 | FCS-27A | 25,4 | 27,0 | 10,0 |
| 613 08 26 | FCS-35A | 33,0 | 35,0 | 15,0 |
| 613 08 34 | FCS-46A | 43,2 | 45,0 | 15,0 |
| 613 08 40 | FCS-53A | 50,8 | 53,0 | 20,0 |
| 613 08 50 | FCS-66A | 63,5 | 66,0 | 20,0 |

## AUFBAU

| Struktur | Werte |
|---|---|
| Aluminium Folie | 25 µ m |
| Polyester Film | 12 µ m |
| PVC-Mantel | 100 µ m |



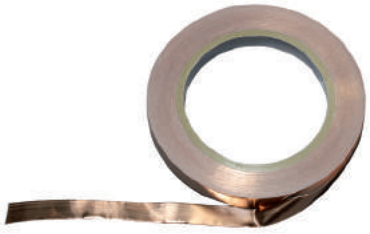
- Schließen erfolgt mittels Selbsklebeband



# KKB / AKB EMV ABSCHIRMKLEBEBÄNDER

Merkmale

- mit leitendem Kleber beschichtet
- aus Kupfer, blank oder verzinnt bzw. aus Aluminium
- Widerstand Kupferband: entlang des Bandes: 0,002 Ω
  durch das Band: < 0,01 Ω
- Widerstand Aluminiumband: entlang des Bandes: < 1,000 Ω
  durch das Band: < 1,0 Ω



Abmessungen ► Einheit = mm

**KKB + AKB**

| Art.-Nr. | Typ | Material | Folie Materialstärke (mm) | gesamt / inklusive Kleber Materialstärke (mm) | Breite (mm) | Länge (m) |
|---|---|---|---|---|---|---|
| 620 01 05 | KKB-05 | Cu / blank | 0,040 | 0,065 | 5,0 | 25,0 |
| 620 01 06 | KKB-06 | Cu / blank | 0,040 | 0,065 | 6,0 | 25,0 |
| 620 01 08 | KKB-08 | Cu / blank | 0,040 | 0,065 | 8,0 | 25,0 |
| 620 01 10 | KKB-10 | Cu / blank | 0,040 | 0,065 | 10,0 | 25,0 |
| 620 01 12 | KKB-12 | Cu / blank | 0,040 | 0,065 | 12,0 | 25,0 |
| 620 01 17 | KKB-17 | Cu / blank | 0,040 | 0,065 | 17,0 | 33,0 |
| 620 01 20 | KKB-20 | Cu / blank | 0,040 | 0,065 | 20,0 | 25,0 |
| 620 01 25 | KKB-25 | Cu / blank | 0,040 | 0,065 | 25,0 | 25,0 |
| 620 01 30 | KKB-30 | Cu / blank | 0,040 | 0,065 | 30,0 | 25,0 |
| 620 01 35 | KKB-35 | Cu / blank | 0,040 | 0,065 | 35,0 | 25,0 |
| 620 01 40 | KKB-40 | Cu / blank | 0,040 | 0,065 | 40,0 | 25,0 |
| 620 01 50 | KKB-50 | Cu / blank | 0,040 | 0,065 | 50,0 | 25,0 |
| 620 01 100 | KKB-100 | Cu / blank | 0,040 | 0,065 | 100,0 | 25,0 |
| 620 01 200 | KKB-200 | Cu / blank | 0,040 | 0,065 | 200,0 | 25,0 |
| 620 01 300 | KKB-300 | Cu / blank | 0,040 | 0,065 | 300,0 | 25,0 |

| Art.-Nr. | Typ | Material | Folie Materialstärke (mm) | gesamt / inklusive Kleber Materialstärke (mm) | Breite (mm) | Länge (m) |
|---|---|---|---|---|---|---|
| 620 10 08 | AKB-08 | Aluminium | 0,040 | 0,070 | 8,0 | 66,0 |
| 620 10 10 | AKB-10 | Aluminium | 0,040 | 0,070 | 10,0 | 66,0 |
| 620 10 17 | AKB-17 | Aluminium | 0,040 | 0,070 | 17,0 | 66,0 |
| 620 10 20 | AKB-20 | Aluminium | 0,040 | 0,070 | 20,0 | 66,0 |
| 620 10 25 | AKB-25 | Aluminium | 0,040 | 0,070 | 25,0 | 66,0 |
| 620 10 30 | AKB-30 | Aluminium | 0,040 | 0,070 | 30,0 | 66,0 |
| 620 10 38 | AKB-38 | Aluminium | 0,040 | 0,070 | 38,0 | 66,0 |
| 620 10 50 | AKB-50 | Aluminium | 0,040 | 0,070 | 50,0 | 66,0 |
| 620 10 100 | AKB-100 | Aluminium | 0,040 | 0,070 | 100,0 | 66,0 |
| 620 10 200 | AKB-200 | Aluminium | 0,040 | 0,070 | 200,0 | 66,0 |
| 620 10 300 | AKB-300 | Aluminium | 0,040 | 0,070 | 300,0 | 66,0 |

Auch auf Länge geschnitten oder gestanzt nach Zeichnung auf Anfrage erhältlich: Telefon: 09852 61079-0

# DREI SCHRITTE ZUR KOSTENEINSPARUNG

## 1. VORBEREITEN

**THORA ELEKTRONIK GMBH:**

- Ausarbeitung eines KANBAN-Konzeptes
- Bereitstellung der technischen Einrichtung
- Festlegung von Regal- und Behälterkennzeichnungen
- Materialflussanalyse zur optimalen System-auslegung

**KUNDE:**

- Festlegung des Sortiments mit Verbrauchsmengen
- Anzahl und Spezifikation der Bereitstellungsorte

## 2. EINFÜHRUNG

**THORA ELEKTRONIK GMBH:**

- Aufstellung der Regale
- Befüllung der Regale mit Behältern und Material
- Beschriftung der Regale und Behälter
- Mitarbeiteranweisung für das KANBAN-Handling
- Installation des Barcode-scanners und Einweisung in die Bedienung

**KUNDE:**

- Bereitstellung der Lagerfläche

## 3. BETREUUNG

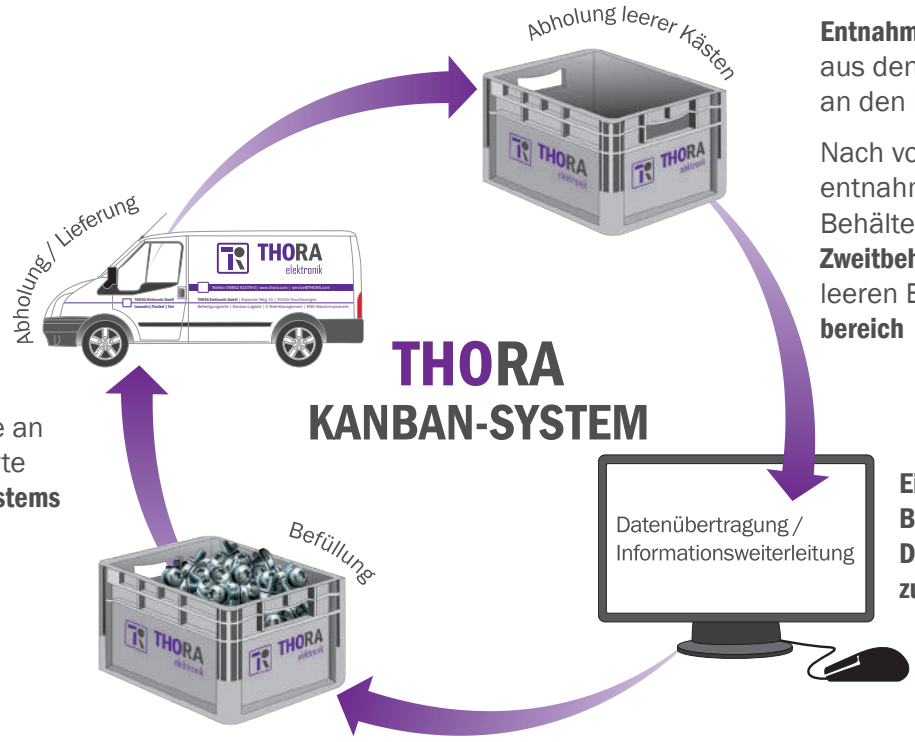
**THORA ELEKTRONIK GMBH:**

- Verbrauchsorientierte Auffüllung des KANBAN-Systems
- Flexible Artikeloptimierung innerhalb des Sortiments
- Vergrößerung von Regalmodulen bei Neuartikeln
- Gewährleistung der Prozess-kontrolle zur permanenten Optimierung inkl. Ermittlung von weiteren Einsparpotentialen

**KUNDE:**

- Information über Sortiments-erweiterung
- Information über Produktions-veränderungen, die die Artikel- bzw. Mengenführung beeinflussen
- Sicherstellung von Ordnung und Sauberkeit des Systems

# KANBAN-SYSTEMBELIEFERUNGS-KREISLAUF




**Entnahme der Artikel** aus den Regalbehältern an den Montageplätzen.

Nach vollständiger Material-entnahme des vorderen Behälters, **Zugriff auf den Zweitbehälter** – Abstellen des leeren Behälters im **Leergut-bereich**

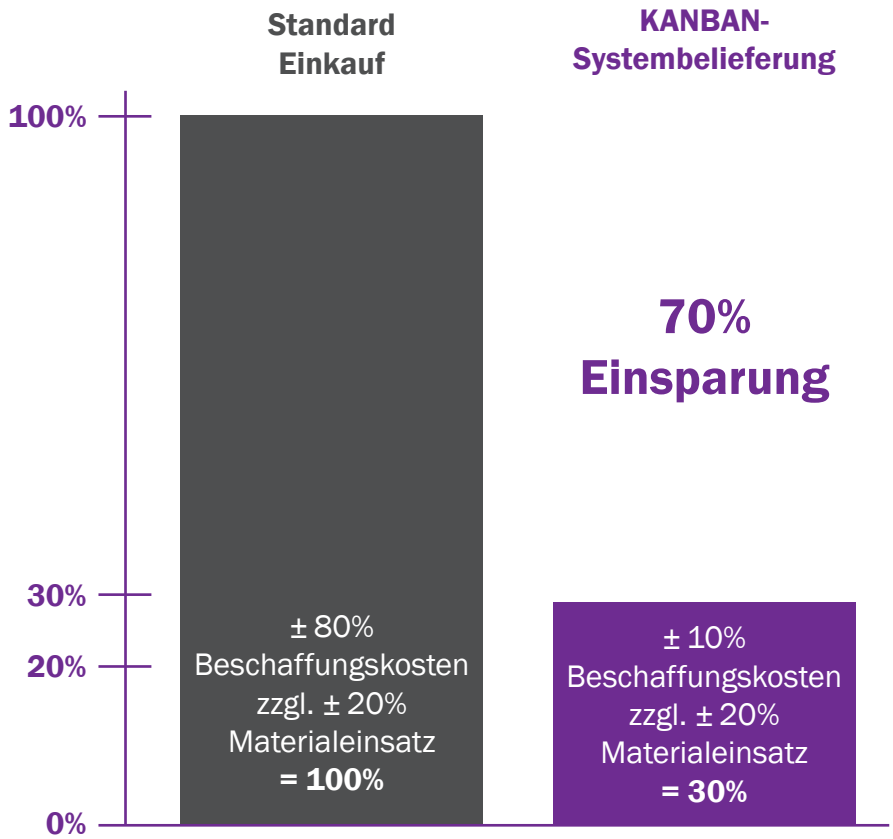
**Einlesen des Barcodeetiketts – Datenübermittlung zu THORA**

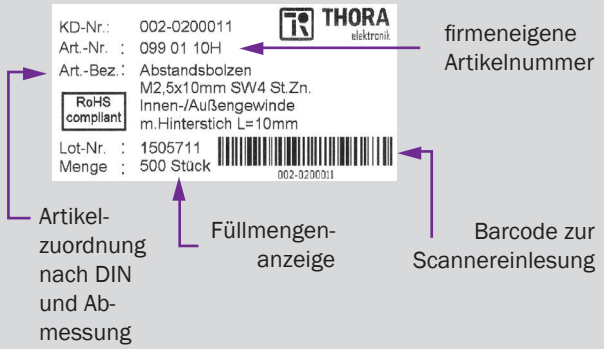
Anlieferung der Ware an die Bereitstellungsorte und **Auffüllung des Systems**

# PROZESSKOSTENANALYSE BEI C-TEILEN

**Arbeitsgänge bei Materialbeschaffung und -lagerung**

- Bestellvorschlag, Stückliste
- Start einer Anfragenkampagne
- Auswertung der Angebote
- Auslösen der Bestellungen
- Terminüberwachung/-mahnung
- Materialvereinnahmung
- Eingangs- und Qualitätskontrolle
- Materialeingangsbuchung
- Materialverteilung
- Materialentnahme
- Rechnungsprüfung/-buchung
- **Materialeinsatz**




Um die Wünsche unserer Kunden optimal zu erfüllen, arbeiten wir mit diversen Standardetiketten, die an spezielle Kundenanforderungen angepasst werden können. Darüber hinaus gibt es aber auch die Möglichkeit einer kompletten Neuerstellung eines Etiketts.

# IHRE VORTEILE

- **Senkung der Prozesskosten** durch verbrauchsgesteuerte Belieferung und Logistik — – KOSTEN
- **Lieferantenreduzierung** — – AUFWAND
- erhöhte **Versorgungssicherheit** — + SICHERHEIT
- Einsparung **Lagerkapazitäten** — – LAGERHALTUNG
- erhöhte **Liquidität** — + LIQUIDITÄT
- **Flächenoptimierung** — + FLÄCHE
- Verlagerung **Qualitätsüber-wachung** an Lieferanten — – AUFWAND
- **Einsparung** Materialdisposition und Kommissionierung — – AUFWAND
- **Artikeloptimierung** durch Sortimentsanalyse — + ARTIKELOPTIMIERUNG

Notizen

# ALLGEMEINE GESCHÄFTSBEDINGUNGEN

## §1 Geltung der allgemeinen Verkaufsbedingungen

(1)Die Firma THORA ELEKTRONIK GMBH legt allen Verkaufsgeschäften die nachfolgenden Verkaufsbedingungen zugrunde; alle Verträge, Lieferungen und sonstige Leistungen einschließlich Beratungsleistungen und Auskünften von THORA ELEKTRONIK GMBH erfolgen somit ausschließlich aufgrund dieser Geschäftsbedingungen an den Vertragspartner – nachfolgend Kunde genannt-.
(2) Die Verkaufsbedingungen gelten auch für alle zukünftigen Verträge mit dem Kunden sowie alle zukünftigen an ihn zu erbringenden Lieferungen und Leistungen, selbst wenn sie nicht nochmals ausdrücklich vereinbart werden.
(3)Abweichungen von diesen Geschäftsbedingungen sind nur wirksam, wenn THORA ELEKTRONIK GMBH dies ausdrücklich schriftlich bestätigt. Dies gilt auch für die Aufhebung des Schriftformerfordernisses selbst.

## §2 Angebot, Vertragsabschluß und Ausführungsunterlagen

(1)Alle Angebote sind freibleibend.
(2)Sämtliche Werbung in Prospekten, Internet etc. und die in den freibleibenden Angeboten erfolgten Angaben stellen lediglich eine Einladung an den Kunden dar, eine verbindliche Bestellung abzugeben.
Der Vertragsabschluß erfolgt erst mit der schriftlichen Annahme der Bestellung durch unsere Auftragsbestätigung, einer Lieferung oder Ausführung der Leistung.
(3)Die Annahme der Bestellung können wir von einer Vorauszahlung bis zur Höhe des Gesamtpreises einschließlich Verpackung und Versand abhängig machen.
(4)THORA ELEKTRONIK GMBH stehen auch weiterhin die Rechte, insbesondere Eigentums- und Urheberrechte sowie das Recht auf Verwertung, Vervielfältigung und Verbreitung an den im Zusammenhang mit der Angebotsabgabe dem Kunden überlassenen Plänen, Zeichnungen, Beschreibungen, Materialien und sonstigen Unterlagen zu. Ob und in welchem Ausmaß der Kunde an den Eigentums-, Nutzungs- und Veröffentlichungsrechten Ansprüche erwirbt, ist von den mit ihm getroffenen vertraglichen Vereinbarungen abhängig.
(5)Wir sind berechtigt an den Liefergegenständen Änderungen vorzunehmen, die aus technischen Gründen oder aufgrund derModellpflege erforderlich sind, soweit die Funktionsfähigkeit dadurch nicht beeinträchtigt wird.
(6)Der Kunde ist verpflichtet die bestellte Lieferung und/oder Leistung abzunehmen und zu vergüten, sobald der Vertrag geschlossen ist.

## §3 Preise, Zahlung, Aufrechnung

(1)Maßgebend sind die in der Auftragsbestätigung genannten Preise. Sofern nichts anderes vereinbart ist, verstehen sich die Preise ab Werk, zuzüglich Fracht, Porto, Verpackung, Versicherung, Verzollung und der im Zeitpunkt der Lieferung jeweils gesetzlich gültigen Mehrwertsteuer.
(2)THORA ELEKTRONIK GMBH ist im Falle einer Kostensteigerung für den Bezug oder die Herstellung der zu liefernden Ware (z.B. Roh- oder Betriebsstoffe, Lohnkosten, Kursschwankungen, Zölle und sonstige öffentliche Abgaben), zwischen dem Vertragsabschluß und der Lieferung berechtigt die vereinbarten Preise entsprechend zu erhöhen. Auf Verlangen des Kunden sind wir verpflichtet, die Kostenerhöhung nachzuweisen.
(3)Zahlungen sind , soweit nichts anderes vereinbart ist, innerhalb von 14 Tagen abzügl. 2% Skonto oder 30 Tage netto ab Rechnungsdatum zu erbringen. Wenn zwischen dem Kunden und THORA ELEKTRONIK GMBH bisher noch keine Geschäftsbeziehung bestand, Lieferungen in das Ausland erfolgen sollen oder sich der Geschäftssitz des Kunden im Ausland befindet, ist THORA ELEKTRONIK GMBH berechtigt Abschlagszahlungen oder Vorauskasse zu vereinbaren. Insbesondere gilt Vorangestelltes, falls begründete Zweifel daran bestehen, dass die Zahlung fristgerecht erbracht wird.
(4)Die Zahlung gilt an dem Tag als erfolgt, wenn THORA ELEKTRONIK GMBH über den geschuldeten Betrag verfügen kann.
(5)Schecks und Wechsel werden als Zahlungsmittel nicht akzeptiert.
(6)Zahlungsverzug tritt nach Ablauf der Zahlungsfrist ein. Einer Mahnung bedarf es nicht. Kommt der Kunde seiner Zahlungspflicht schuldhaft nicht nach oder steht uns ein Leistungsverweigerungsrecht gemäß BGB §321 Abs. 1 zu, werden alle unsere offenen Forderungen gegen den Kunden, gleich ob sie bereits in Rechnung gestellt sind oder nicht, sofort zur Zahlung fällig.
(7)THORA ELEKTRONIK GMBH ist berechtigt bei Zahlungsverzug Verzugszinsen gemäß §288BGB zu fordern. Die Geltendmachung anderer Schäden, insbesondere höherer Zinsen aus anderem Rechtsgrund bleibt vorbehalten.
(8) Sofern der Kunde keinen anderen Verwendungszweck bestimmt, werden Zahlungen des Kunden stets nach BGB §366 Abs. 2 und §367 auf bereits fällige Forderungen angerechnet. Der Kunde ist nicht berechtigt, mit anderen als unbestritten oder rechtskräftig festgestellten Forderungen aufzurechnen. Dies gilt auch für die Geltendmachung von Zurückbehaltungsrechten.
(9)Wird THORA ELEKTRONIK GMBH nach Vertragsabschluß eine wesentliche Verschlechterung der Vermögens- und Liquiditätsverhältnisse des Kunden bekannt, behalten wir uns eine Änderung der vereinbarten Zahlungskonditionen bzw. den Rücktritt vom Kaufvertrag vor.
(10)Bei schlechter Bonitätsüberprüfung durch eine Wirtschaftsauskunftsdatei, bei Vorliegen von Umständen, die dazu geeignet sind die Kreditwürdigkeit des Bestellers zu mindern, bei Einleitung eines schuldenregulierenden Verfahrens, bei Zahlungseinstellung sowie bei Überschreiten der Zahlungsfristen offener Rechnungen werden alle unsere offenen Forderungen gegen den Kunden, gleich ob sie bereits in Rechnung gestellt sind oder nicht, sofort zur Zahlung fällig. Wir behalten uns den Rücktritt von sämtlichen Verträgen unter Ausschluss jeglicher Gewährleistung vor.

## §4 Versandkosten, Gefahrenübergang

(1)Die Gefahr geht auf den Käufer über, sobald die Ware dem Transportunternehmen übergeben worden ist (Schickschuld). Dies gilt auch dann, wenn THORA ELEKTRONIK GMBH die Transportkosten übernimmt oder übernommen hat.
(2)Beanstandungen wegen Transportschäden oder dem zufälligen Untergang der Ware hat der Kunde unmittelbar gegenüber dem Transportunternehmen geltend zu machen.
(3)Eine Verpflichtung zur Versicherung der Ware durch THORA ELEKTRONIK GMBH besteht nicht. Soweit der Kunde eine Transportversicherung wünscht, hat er hierfür selbst Sorge zu tragen und auch die Kosten derer zu tragen, soweit nichts anderes vereinbart ist.
(4)Versandkosten sind vom Käufer zu tragen.
(5) Die Verpackung der Ware erfolgt grundsätzlich handelsüblich; erforderliche Sonderverpackungen gehen zu Lasten des Käufers. Verpackung und Verpackungsmaterial werden von uns zurückgenommen, Kosten des Rücktransportes trägt der Kunde.

## §5 Lieferung

(1)Sämtliche Angaben über Liefertermine und Lieferfristen sind unverbindliche Angaben.
(2)Der Beginn vereinbarter Liefer- oder Herstellungsfristen kann erst dann erfolgen, wenn alle erforderlichen technischen Fragen abgeklärt sind. Insbesondere gilt dies für die Mitwirkungspflichten des Kunden gem. §7.
(3)Bei Nichteinhaltung eines Liefertermins hat der Kunde schriftlich eine angemessene Nachfrist zu setzen.
(4)Beim Eintreten höherer Gewalt (z.B. Streik, Aussperrung, Verzögerungen bei der Auslieferung von Vormaterial) und ähnlichen von THORA ELEKTRONIK GMBH nicht zu vertretenden Ereignissen, verlängert sich die Leistungspflicht von THORA ELEKTRONIK GMBH um die Dauer dieser Ereignisse und zwar gleichgültig, ob diese Ereignisse bei der Firma THORA ELEKTRONIK GMBH oder deren Zulieferanten eintreten. Falls die Dauer von mehr als drei Monaten überschritten wird, kann jede Vertragspartei vom Vertrag zurücktreten. Derartige Verzögerungen sind auch dann nicht von THORA ELEKTRONIK GMBH zu vertreten, wenn diese sich bereits im Verzug befindet.THORA ELEKTRONIK GMBH haftet nicht für Leistungsverzögerungen, die von THORA ELEKTRONIK GMBH nicht zu vertreten sind und ersetzt keine hierdurch entstandenen Schäden.
(5)Nachträglich vereinbarte Änderungs- oder Ergänzungswünsche des Kunden führen zu einer angemessenen Verlängerung der vereinbarten Termine und Fristen.
(6)THORA ELEKTRONIK GMBH ist berechtigt zumutbare Teilleistungen und Teillieferungen zu leisten.
(7)Soweit nichts anderes vereinbart ist, sind vorzeitige Lieferungen oder Leistungen zulässig.
(8) Kommt der Kunde in Annahmeverzug ist THORA ELEKTRONIK GMBH berechtigt Ersatz für die Aufbewahrung in Höhe der üblichen Lagerkosten sowie für sonstige Mehraufwendungen zur Aufbewahrung und Erhaltung des Liefergegenstandes zu verlangen. Zudem geht die Gefahr des zufälligen Untergangs oder einer Verschlechterung in dem Zeitpunkt auf den Kunden über, in dem er in Annahmeverzug gerät.
(9)Bei Sonderanfertigungen sind Mehr- oder Minderlieferungen von 10% zulässig und werden in der Rechnung berücksichtigt.

## §6 Abnahme, Abrufaufträge

(1)Lieferverträge ohne bestimmten Liefertermin, sogenannte „Abrufaufträge“, können nur aufgrund ausdrücklicher vertraglicher Vereinbarungen erfolgen.
(2)Sofern keine anderweitigen Vereinbarungen getroffen sind, ist die Dauer von Abrufaufträgen auf 52 Wochen begrenzt. Während dieser Zeit ist die Ware für den Kunden verfügbar.
(3)Abrufe sind mit einer angemessenen Frist vorab anzukündigen.
(4)Mit Ablauf der Vertragsdauer, gemäß §6 Abs.2, ist in jedem Fall die gesamte noch nicht abgerufene Liefermenge abzunehmen und zur Zahlung fällig.

## §7 Mitwirkungspflicht

(1)Falls die ordnungsgemäße Erbringung einer vereinbarten Lieferung oder Leistung die Mitwirkung des Kunden erfordert, muss dieser sicherstellen, dass THORA ELEKTRONIK GMBH alle erforderlichen und zweckmäßigen Informationen und Daten rechtzeitig und in ordnungsgemäßer Qualität erhält.
(2)Sollte der Kunde seinen Verpflichtungen nicht, nicht vollständig oder nicht rechtzeitig nachkommen, so verlängert sich die Lieferrist um den Zeitraum, bis der Kunde seinen Mitwirkungspflichten genügt.
(3)Der Kunde trägt die anfallenden Kosten und Schäden der THORA ELEKTRONIK GMBH, die durch die Verzögerung verursacht werden, es sei denn der Kunde hat die Pflichtverletzung nicht zu vertreten.

## §8 Eigentumsvorbehalt

(1)Alle gelieferten Waren bleiben bis zur vollständigen Bezahlung aller Forderungen aus der Geschäftsbeziehung Eigentum der THORA ELEKTRONIK GMBH.
(2)Bei Verarbeitung mit anderen, sich nicht im Eigentum der THORA ELEKTRONIK GMBH befindlichen Waren, steht ihr das Miteigentum am neuen Produkt zu, im Verhältnis des Wertes im Zeitpunkt der Verarbeitung der vorbehaltenen Waren zu denanderen verarbeiteten Waren.
(3)Der Kunde ist zur Weiterveräußerung der vorbehaltenen Ware nur mit der Maßgabe berechtigt, dass die entsprechende Kaufpreisforderung an die THORA ELEKTRONIK GMBH abgetreten wird und zwar gleichgültig, ob die Vorbehaltsware bereits verarbeitet ist oder nicht oder mit einem Grundstück oder beweglichen Sachen verbunden ist.
(4)Der Kunde verwahrt die Vorbehaltsware für uns unentgeltlich. Er ist verpflichtet die Vorbehaltsware in ordnungsgemäßem Zustand zu erhalten und in einem kaufmännischer Sorgfalt entsprechenden Rahmen auf seine Kosten zu versichern.
(5)Bei Zugriffen Dritter durch Pfändung oder sonstiger gerichtlicher Anordnung ist der Kunde verpflichtet, dem Zugriff zu widersprechen, auf unser (Mit-) Eigentum zu verweisen und THORA ELEKTRONIK GMBH unverzüglich zu benachrichtigen. Die Kosten, die zur Abwendung des Zugriffs entstehen, trägt der Kunde.
(6)Bei Zahlungsverzug des Kunden ist THORA ELEKTRONIK GMBH aufgrund des Eigentumsvorbehalts berechtigt, Ware auch ohne Gerichtsurteil jederzeit zur Sicherung Ihrer Forderungen zu entfernen. Zur Sicherstellung der Ware gestattet der Kunde THORA ELEKTRONIK GMBH oder einem Beauftragten unwiderruflich das Recht die Räume, in denen sich die Waren befinden, zu betreten.
(7)THORA ELEKTRONIK GMBH verpflichtet sich, auf Anforderung die ihr zustehenden Sicherungen insoweit freizugeben, als ihr realisierbarer Wert die zu sichernden Forderungen um mehr als 20% übersteigt.

## §9 Mängelrechte, Haftung, Verjährung

(1)Die von uns zu liefernden Produkte werden in handelsüblicher Beschaffenheit geliefert. Als verbindlich gelten ausschließlich die in unserer Auftragsbestätigung angegebenen Merkmale i.V.m. unserer Produktbeschreibung und sonstigen damit ausgefertigten Unterlagen, die zur Beschreibung der Beschaffenheit geeignet sind. Webeaussagen und Anpreisungen, die lediglich reklamehaften Inhalt haben, stellen keine verbindlichen Beschaffenheitsangaben dar. Wenn der Kunde eine über den gewöhnlichen Verwendungszweck hinausgehende oder abweichende Beschaffenheit verlangt, die für einen besonderen Verwendungszweck geeignet sein soll, insbesondere sicherheitstechnisch relevante Anwendungen, z.B. Medizin, Automotive und Luft- und Raumfahrt, so muss dies zwingend vertraglich vereinbart werden.
(2)Die Untersuchungs- und Rügepflicht des Kunden muss gemäß HGB §377 unverzüglich nach Anlieferung, bei nicht offensichtlichen Mängeln, nach dessen Entdeckung förmlich erfolgen. Der Kunde verpflichtet sich in der schriftlichen Mängelanzeige detaillierte Angaben zu der Lieferung (Datum, Lieferscheinnummer, Menge, Lot.Nr. Artikel-Nr.) sowie zu dem aufgetretenen Mangel zu machen.
(3)Mangels anderweitiger Vereinbarungen beträgt die Gewährleistungsfrist 1 Jahr ab Gefahrenübergang.
(4)Der Nachweis der pfleglichen Behandlung sowie der ordnungsgemäßen Lagerung der Ware obliegt dem Käufer.
(5)Ist der Liefergegenstand mangelhaft, so ist die THORA ELEKTRONIK GMBH nach ihrer Wahl berechtigt innerhalb einer angemessenen Frist die gelieferte Ware auszubessern oder neu zu liefern. Ein Wahlrecht des Käufers besteht nicht. Schlägt die Nachbesserung gem. BGB §440Satz 2 fehl, kann der Kunde nach seiner Wahl Minderung verlangen oder vom Vertrag zurücktreten.
(6)Der Kunde ist verpflichtet, die Prüfung des fehlerhaften Liefergegenstandes bei ihm oder der THORA ELEKTRONIK GMBH zu gestatten. Sofern der THORA ELEKTRONIK GMBH die Prüfung verweigert wird, ist diese von der Gewährleistungspflicht befreit.
(7)Beanstandete Liefergegenstände sind nur nach vorhergehender Absprache und Zustimmung sowie Klärung der Kostenübernahme für die Rücksendung, an die THORA ELEKTRONIK GMBH zur Prüfung oder Überarbeitung zu senden.
(8)Für Leistungen, die von THORA ELEKTRONIK GMBH zur Feststellung oder zur Beseitigung von Mängeln erbracht wurden ohne dass ein Gewährleistungsfall vorlag, ist der Kunde zur Übernahme des hierdurch entstandenen Aufwands verpflichtet.
(8)Mängelrügen berühren die Fälligkeit des Kaufpreisanspruchs nicht, es sei denn, ihre Berechtigung ist durch THORA ELEKTRONIK GMBH schriftlich anerkannt oder rechtskräftig festgestellt.
(9)Für nicht von THORA ELEKTRONIK GMBH zu vertretende Schäden haftet THORA ELEKTRONIK GMBH nicht. Im Besonderen nicht für Schäden, die durch eine unsachgemäße Lagerung, Handhabung oder Verwendung der Produkte entstanden sind.
(10)Soweit sich aus Vorstehendem nichts anderes ergibt, sind weitergehende Schadensersatzanprüche des Kunden - gleich aus welchem Rechtsgrund – ausgeschlossen. Vorstehende Haftungsbeschränkung gilt nicht in den Fällen von Vorsatz oder grober Fahrlässigkeit, Personenschäden, Verletzung wesentlicher Vertragspflichten, wegen Übernahme von Garantien und nach dem Produkthaftungsgesetz. Im Fall von Verletzung wesentlicher Vertragspflichten ist der Schadensersatzanspruch auf den vertragstypischen, vorhersehbaren Schaden begrenzt, soweit keine der in Satz 2 genannten Ausnahmen bestehen.

## §10 Datenschutz

THORA ELEKTRONIK GMBH ist berechtigt, die im Rahmen der Geschäftsbeziehung erforderlichen personenbezogenen Daten des Kunden zu erheben, zu speichern und zu verarbeiten.

## §11 Erfüllungsort, Gerichtsstand, Recht

(1)Erfüllungsort für Lieferungen und Zahlungen ist der Geschäftssitz von THORA ELEKTRONIK GMBH.
(2)Gerichtsstand für sämtliche Rechtsstreitigkeiten ist das für den Geschäftssitz von THORA ELEKTRONIK GMBH zuständige Gericht mit der Maßgabe, dass diese berechtigt ist, auch am Ort des Geschäftssitzes des Käufers zu klagen.
(3) Es gilt ausschließlich deutsches Recht. Ausländisches Recht ist ausgeschlossen.
(4)Sollten einzelne Bestimmungen dieser Geschäftsbedingungen unwirksam sein oder nach Vertragsschluss unwirksam werden, bleibt davon die Wirksamkeit der Geschäftsbedingungen im Übrigen unberührt. An die Stelle der unwirksamen Bestimmung soll diejenige wirksame treten, deren Wirkung der wirtschaftlichen Zielsetzung am nächsten kommt, die die Vertragsparteien mit der unwirksamen Bestimmung verfolgt haben.

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THORA
elektronik

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