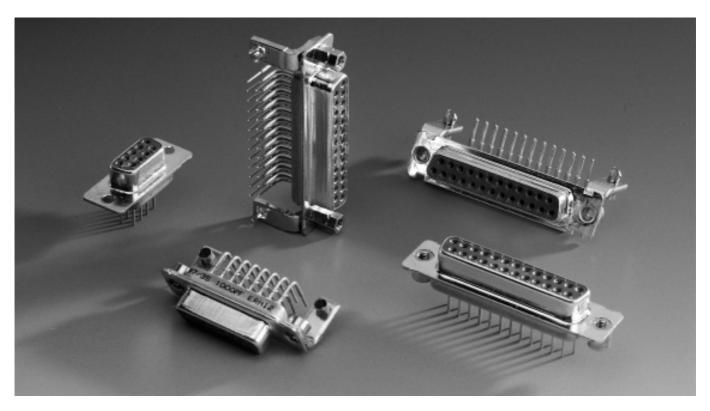


D-Sub Connectors

TMC-Filter series

Female connectors straight and right angle with filter contacts acc. to DIN 41 625/IEC 807-3, MIL-C-24308



General

Interference-free data transmission in modern systems used in communication and information technology requires protective measures wherever signals enter or leave devices and components.

The D-Sub connectors from the TMC-Filter series are the ideal instruments to suppress electro-magnetic interference (EMI) or radio frequence (RFI).

The line of D-Sub filter connectors has now been extended with the new range of female filter connectors in straight or right angle version.

The new female TMC filter connectors have high quality ceramic capacitors for effective filter function.

Additional design features provided with the TMC filter series are a very good low-resistance ground connection between the filters and the D-Sub metal housing.

Main features

- High quality ceramic filters (capacitors)
- Filters with capacitances from 330 pF to 1500pF
- Housing sizes with the pin numbers: 9, 15, 25, 37
- Female versions with straight or right angle contacts
- EMC housing with high shielding efficiency
- Metal housing with laminated ribbing on pin housing to provide optimum shielding and contacting with socket housing
- Housing on connection side sealed against RF interference owing to fully encapsulated metal backplane housing
- Very good low-resistance ground connection by means of solid fixing bolts integrated in connector
- Flexibility for different PCB thickness with pushfit clip from 1.4 up to 4.5 mm
- International approvals

Accessories

For EMI/RFI shielding and ESD protection with the benefit of easy assembly and disassembly is the new D-Sub cable connector housing KSG 200 the right solution.

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Electrical and mechanical data

| Design acc. to DIN 41 652, IEC 807-3 | | А | В | | |
|--------------------------------------|-----------|---|---------------------------------|--|--|
| Termination | | Solder termination, straight | Solder termination, right angle | | |
| Number of pins | | 2 rows: 9, 15, 25, 37 | | | |
| Temperature range | | -25°+85° C | | | |
| Permissible humidity | | Annual average ≤ 80%, max. 100% | | | |
| Operating current | А | | | | |
| at | +20° C | 5.0 | 2.8 | | |
| ambient | +70° C | 3.0 | 2.0 | | |
| temperature | +100° C | 1.5 | 1.2 | | |
| Test voltage, 1 min | | | | | |
| Contact/contact V DC | | 200 | | | |
| Volume resistance | $m\Omega$ | 9-37 pins ≤ 10 | 9-37 pins ≤ 25 | | |
| Insulation resistance | | ≥ 5 x 10° at 100 VDC | | | |
| Service life | | Performance level 2 ≥ 250 mating cycles | | | |
| Insertion and withdrawal f | force | 9 pins ≤ 30 / ≤ 20 | | | |
| for fully loaded | | 15 pins ≤ 50 / ≤ 33 | | | |
| connector N | | 25 pins ≤ 83 / ≤ 56 | | | |
| | | 37 pins ≤ 123 / ≤ 82 | | | |
| Insulating body material | | Thermoplastic | | | |
| Inflammability of the plasti | ic | UL 94 V-0 | | | |
| Metal housing with surface | | Steel with Sn over Ni | | | |
| Contact material | | Cu alloy | | | |
| Contact plating | | Au | Au over Ni | | |
| | | | | | |

Capacitance tolerances

| Filter capacitance (pF) | 330 | 470 | 680 | 1000 | 1500 |
|----------------------------|-----|-----|-------|------|------|
| Capacitance tolerance (pF) | | | ± 20% | | |

Insertion loss

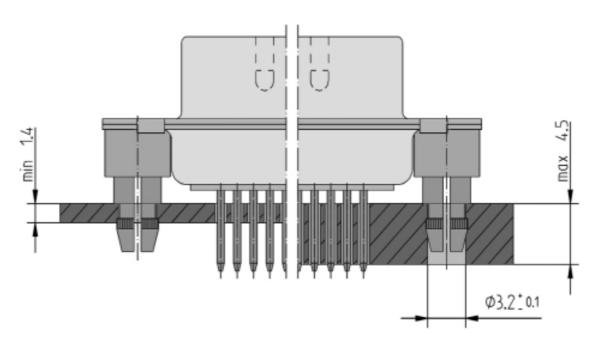
| Frequency [MHz] | Insertion | loss [dB]acc. to MIL-STD 220 at T=25° C; no load | | | | |
|--------------------|-----------|--|--------|--------|---------|---------|
| | | 330 pF | 470 pF | 680 pF | 1000 pF | 1500 pF |
| 10 | | | | | | 3 |
| 30 | | 2 | 7 | 10 | 14 | 20 |
| 100 | | 9 | 18 | 22 | 27 | 31 |
| 300 | | 18 | 27 | 30 | 35 | 39 |
| 1000 | | 28 | 32 | 37 | 42 | 47 |
| 1000 | | 31 | 36 | 42 | 46 | 51 |

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Principle of the pushfit clip for PC board thickness from 1.4 mm up to 4.5 mm



Ordering information for straight versions

Capacitance value: 1000 pF (other values on request)

| Number of pins | Thru hole | Clinch nut | Pushfit with | Clinch nut | Pushfit clip with | |
|----------------|-----------|------------|--------------|------------|-------------------|--|
| | | clinch nut | | | clinch nut | |
| | | M3 | | #4/ | 40 | |
| 9 | 104294 | 104495 | 104503 | 104499 | 104507 | |
| 15 | 104295 | 104496 | 104504 | 104500 | 104508 | |
| 25 | 104296 | 104497 | 104505 | 104501 | 104509 | |
| 37 | 104297 | 104498 | 104506 | 104502 | 104510 | |

Ordering information for right angle versions

Capacitance value: 1000 pF (other values on request)

| Number of pins | Metal bracket with pushfit clip | Metal bracket with pushfit clip | | |
|----------------|---------------------------------|---------------------------------|--|--|
| | and clinch nut | and clinch nut | | |
| | M3 | #4/40 | | |
| 9 | 104298 | 104302 | | |
| 15 | 104299 | 104303 | | |
| 25 | 104300 | 104304 | | |
| 37 | 104301 | 104305 | | |

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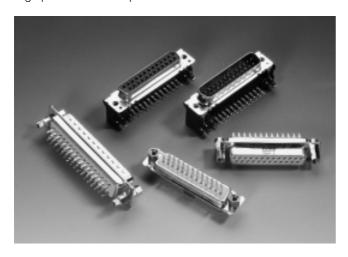


Professional and economical interface solututions

D-Sub Pressfit Connectors

straight and right angle versions right angle assembly height: Standard: 7.3 mm Eurorstyle: 3.6 mm

High power versions up to 40A



D-Sub Cable Connector Housing KSG 200

High EMI/RFI Shielding and high ESD Protection Easy assembly and disassembly Complete kit incl. knurled screws



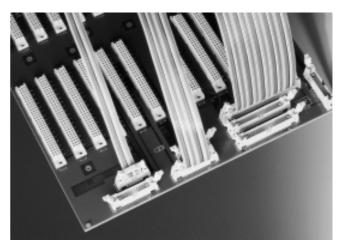
ERbic Bus Interface Connector System

Profibus, CAN-Bus, Interbus-S and Bitbus versions Bus keeps running via ER*bic*, if node is disconnected Horizontal or vertical cable entry.



IDC Systems acc. to DIN 41 651/IEC 602-13 LPV

PCB Headers with pressfit termination Assembly heights: Standard and Low Profile Female Ribbon Cable Connectors



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