

PROVERTHA[®]

CONNECTORS, CABLES & SOLUTIONS

TMC D-Sub PCB

High Performance Connectors





PROVERTHA

PROVERTHA takes over the D-Sub connector program from ERNI

PROVERTHA has extended its comprehensive range of D-Sub connectors. By taking over the D-Sub production from ERNI, the current product portfolio is supplemented optimally. With immediate effect, the D-Sub connectors and accessories of the TMC range can be ordered from us stating the current ERNI article numbers.

PROVERTHA has taken over the machinery and tools from ERNI to continue the production. The production has started end of October 2019. The sales prices of ERNI's discontinued D-Sub products will remain stable until the end of 2019. Look forward to new products in the usual high PROVERTHA quality!

The contact persons for your orders and further questions as well as a list of articles can be found under **www.provertha.com**



TMC D-Sub PCB High Performance Connectors

For any D-Sub PCB application

- Pressfit:** For application in backplanes and PCBs with solderless termination
- SMT:** For application in modern PCBs with fully automatic SMT assembly and solder process
- THR:** For cost reduction re-designs of THT/SMT solutions for fully automatic SMT assembly and solder process
- THT:** For standard designs with wave soldering process with various mounting options
- High Power:** Pressfit versions 180° and 90° for solderless termination
Pin layouts: 3W3/3WK3/7W2 (only 90°)/5W5/8W8
SMT 90° Standard and THR 90° Standard for fully automatic SMT assembly and solder process
Pin layouts: 3W3/3WK3/7W2

Right angle connectors

Standard: Assembly height 7.3 mm for PCB applications for 4 HP subrack
Eurostyle: Assembly height 3.6 mm for PCB applications for 3 HP subrack

Straight connectors

Assembly height 6.3 mm
Assembly height 9 mm
Other assembly heights upon request

UL Approval E465059



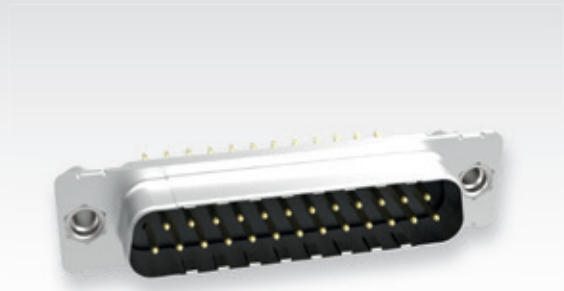
TMC D-Sub Pressfit Connectors

Advantages

- Solderless pressfit technology with standard elastic pressfit zone
- Cost-saving and reliable connection technology
- No solder failures, flux problems, no cleaning process and no thermal stress
- Allows assembly on both PCB sides
- Easy handling with low cost press-in tooling
- The contact is made on the copper layer and not in the tin-layer of the PCB
- The high elasticity compensates large hole tolerances or dimension changes over lifetime
- The pressfit zone design ensures a gas-tight connection due to the high edge pressure on the PCB copper layer

Features

- Male and female connectors
- Pin number: 9/15/25/37
- Right angle versions
Standard: Assembly height 7.3 mm for 4 HP subrack
Eurostyle: Assembly height 3.6 mm for 3 HP subrack
- Straight versions in assembly 6.3 and 9 mm;
Other assembly heights upon request
- Mounting options on PCB: pressfit clip or screw mounting
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub Pressfit 180°

Advantages

- Solderless pressfit technology with standard elastic pressfit zone
- Cost-saving and reliable connection technology
- No solder failures, flux problems, no cleaning process and no thermal stress
- Allows assembly on both PCB sides
- Easy handling with low cost press-in tooling
- The contact is made on the copper layer and not in the tin-layer of the PCB
- The high elasticity compensates large hole tolerances or dimension changes over lifetime
- The pressfit zone design ensures a gas-tight connection due to the high edge pressure on the PCB copper layer

Features

- Straight version in assembly height 6.3 mm
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: pressfit clip
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub Pressfit 90° Eurostyle

Advantages

- Solderless pressfit technology with standard elastic pressfit zone
- Cost-saving and reliably connection technology
- No solder failures, flux problems, no cleaning process and no thermal stress
- Allows assembly on both PCB sides
- Easy handling with low cost press-in tooling
- The contact is made on the copper layer and not in the tin-layer of the PCB
- The high elasticity compensates large hole tolerances or dimension changes over lifetime
- The pressfit zone design ensures a gas-tight connection due to the high edge pressure on the PCB copper layer

Features

- Right angle version
- Eurostyle: assembly height 3.6 mm for 3 HP subrack
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: pressfit clip
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub Pressfit 90° Standard

Advantages

- Solderless pressfit technology with standard elastic pressfit zone
- Cost-saving and reliably connection technology
- No solder failures, flux problems, no cleaning process and no thermal stress
- Allows assembly on both PCB sides
- Easy handling with low cost press-in tooling
- The contact is made on the copper layer and not in the tin-layer of the PCB
- The high elasticity compensates large hole tolerances or dimension changes over lifetime
- The pressfit zone design ensures a gas-tight connection due to the high edge pressure on the PCB copper layer

Features

- Right angle version
- Standard: assembly height 7.3 mm for 4 HP subrack
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: pressfit clip
- Mating accessories: thru hole, threaded rivet or threaded bolt



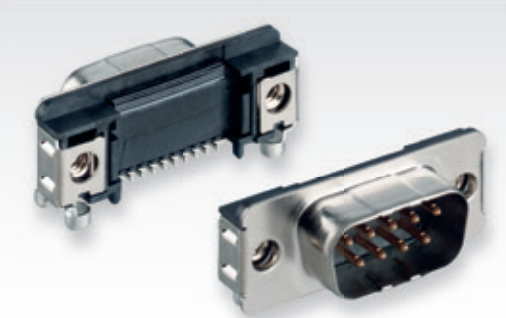
TMC D-Sub SMT Connectors

Advantages

- Fully automatic SMT assembly and solder process
- Pick-up area on right angle connector and cap on straight versions for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing the mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Slimline version: Ultrathin design as right angle 9-pole
- Male and female connectors
- Pin number: 9/15/25/37
- Right angle versions
 - Standard: Assembly height 7.3 mm for 4 HP subrack
 - Eurostyle: Assembly height 3.6 mm for 3 HP subrack
- Straight versions in assembly 6.3 and 9 mm; Other assembly heights upon request
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



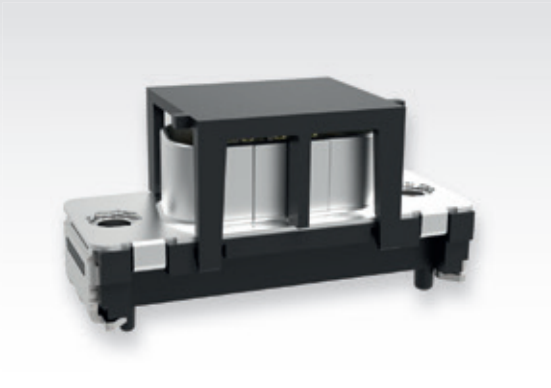
TMC D-Sub SMT 90° Slimline

Advantages

- Ultra-thin design with 66% less PCB space
- Fully automatic SMT assembly and solder process
- Integrated pick-up area
- Tape & reel packaging
- No insertion forces on the contacts
- Solderable retention pegs to absorb insertion forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for the SMT reflow solder process

Features

- Assembly height 4.65 mm
- Dual leaf spring contact for excellent reliability
- Wipe length 2 mm
- Male and female versions
- Pin number: 9
- Retention pegs for secure fastening on PCB
- Mounting options: thru hole or threaded rivet



TMC D-Sub SMT 180° Standard

Advantages

- Fully automatic SMT assembly and solder process
- Pre-assembled cap for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Straight version in assembly 6.3 mm;
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub SMT 180° High

Advantages

- Fully automatic SMT assembly and solder process
- Pre-assembled cap for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Straight version in assembly 9 mm;
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub SMT 90° Eurostyle

Advantages

- Fully automatic SMT assembly and solder process
- Integrated pick-up area for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Right angle version
- Eurostyle assembly height 3.6 mm for 3 HP subrack
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



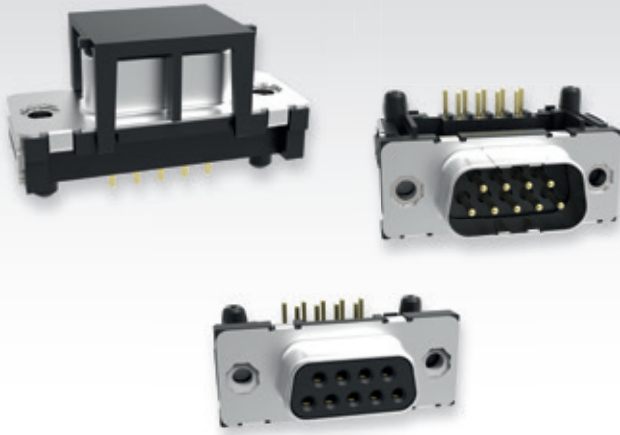
TMC D-Sub SMT 90° Standard

Advantages

- Fully automatic SMT assembly and solder process
- Integrated Pick-up area for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Right angle version
- Standard: assembly height 7.3 mm for 4 HP subrack
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



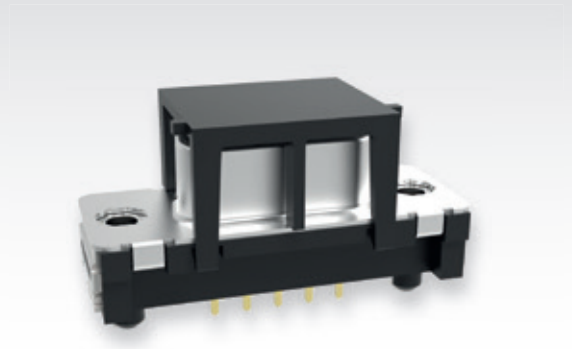
TMC D-Sub THR Connectors

Advantages

- Ideal for cost reduction in assemblies with THT/SMT assembly/soldering process
- Cost reduction through conversion to SMT assembly/soldering process
- Fully automatic SMT assembly and solder process
- Pick-up area on right angle connector and cap on straight versions for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Male and female connectors
- Pin number: 9/15/25/37
- Right angle versions
 - Standard: Assembly height 7.3 mm for 4 HP subrack
 - Eurostyle: Assembly height 3.6 mm for 3 HP subrack
- Straight versions in assembly 6.3 and 9 mm; Other assembly heights upon request
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub THR 180° Standard

Advantages

- Ideal for cost reduction in assemblies with THT/SMT assembly/soldering process
- Cost reduction through conversion to SMT assembly/soldering process
- Fully automatic SMT assembly and solder process
- Pre-assembled cap for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Straight versions in assembly 6.3 and 9 mm; Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



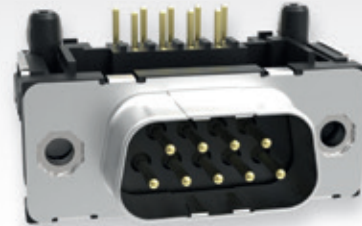
TMC D-Sub THR 90° Eurostyle

Advantages

- Ideal for cost reduction in assemblies with THT/SMT assembly /soldering process
- Cost reduction through conversion to SMT assembly/soldering process
- Fully automatic SMT assembly and solder process
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Straight versions in assembly 6.3 and 9 mm
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub THR 90° Standard

Advantages

- Ideal for cost reduction in assemblies with THT/SMT assembly/soldering process
- Cost reduction through conversion to SMT assembly/soldering process
- Fully automatic SMT assembly and solder process
- Integrated pick-up area for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Right angle version
- Standard: assembly height 7.3 mm for 4 HP subrack
Other assembly heights upon request
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



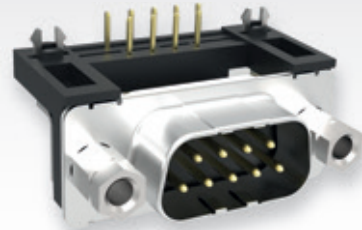
TMC D-Sub THT 180°

Advantages

- Machined contacts for high current rating
- Stamped contacts for economical solutions
- Various mounting options on the PCB
- Solid mounting accessories for any application
- Clip locking or screw locking on the PCB
- Threaded rivet with self-locking due to clamping ring

Features

- Straight version with assembly height 6.3 mm
- Male and female connectors
- Pin number: 9/15/25/37
- Mounting options on PCB:
 - Boardlock with snap-in clip for board thickness 1.5
 - Universal Boardlock with snap-in clip for PCB thickness 1.4-4.5
 - Combilock with snap-in clip for PCB thickness 1.5
 - Universal Combilock with snap-in Clip for PCB thickness 1.4-4.5
 - Threaded sleeve for screw fastening for PCB thickness 1.5
 - Threaded sleeve for screw fastening for PCB thickness 1.4-4.5
 - Threaded bolt and threaded sleeve for screw mounting for PCB thickness 1.5
 - Threaded bolt and threaded sleeve for screw fastening for PCB thickness 1.4-4.5
- Threaded rivet with clamping ring



TMC D-Sub THT 90°

Advantages

- Machined contacts for high current rating
- Stamped contacts for economical solutions
- Various mounting and grounding options on the PCB
- Mounting accessories for any application

Features

- Right angle versions with assembly height 7.3 mm for 4 HP
- Male and female connectors
- Pin number: 9/15/25/37
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub PCB High Power

Pressfit:

- For application in backplanes and PCBs with solderless termination
- Right angle version: Standard 7.3 mm
- Pin layout: 7W2
- Straight version: Standard 6.3 mm
- Pin layout: 3W3/3WK3/5W5/8W8

SMT:

- For application in modern PCBs with fully automatic SMT assembly and solder process
- Right angle version: Standard 7.3 mm
- Pin layout: 3W3/3WK3/7W2

THR:

- For cost reduction re-designs of THT/SMT solutions for fully automatic SMT assembly and solder process
- Right angle version: Standard 7.3 mm
- Pin layout: 3W3/3WK3/7W2

THT:

- For standard designs with wave soldering process with various mounting options
- Right angle version: Standard 7.3 mm
- Straight version: Standard 6.3 mm
- Pin layout: 3W3/3WK3/5W5/8W8

Other assembly heights and pin layouts upon request



TMC D-Sub High Power Pressfit

Advantages

- Solderless pressfit technology with standard elastic pressfit zone
- Cost-saving and reliably connection technology
- No solder failures, flux problems, no cleaning process and no thermal stress
- Allows assembly on both PCB sides
- Easy handling with low cost press-in tooling
- The contact is made on the copper layer and not in the tin-layer of the PCB
- The high elasticity compensates large hole tolerances or dimension changes over lifetime
- The pressfit zone design ensures a gas-tight connection due to the high edge pressure on the PCB copper layer

Features

- Male and female connectors
- Straight version with assembly height 6.3 mm
Other assembly heights upon request
- Stamped male versions for economical solutions
- Pin layout: 5W5/8W8
- Machined contacts for high current rating
- Pin layout: 3W3/3WK3/5W5/8W8
- Right angle version with assembly height 7.3 mm
- Pin layout: 3W3/3WK3/7W2/5W5/8W8
- Mounting options on PCB: pressfit clip
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub High Power SMT 90°

Advantages

- Fully automatic integrated SMT assembly and solder process
- Pick-up area for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing the mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Right angle version with assembly height 7.3 mm for 4HP
- Male and female connectors
- Pin layout: 3W3/3WK3/7W2
- Other pin layouts and assembly heights upon request
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



TMC D-Sub High Power THR 90°

Advantages

- Ideal for cost reduction in assemblies with THT/SMT assembly /soldering process
- Cost reduction through conversion to SMT assembly /soldering process
- Fully automatic SMT assembly and solder process
- Pre-assembled cap for vacuum pick-up
- Tray or Tape & Reel packaging
- No mating forces on the contacts
- Metal bracket for tilt-free placing and for absorbing mating forces
- Black insulator for easy and clear detection with vision system
- High temperature plastics for SMT reflow solder process
- Well balanced connector avoids tilting during assembly and solder process

Features

- Straight version with assembly height 6.3 mm
- Male and female connectors
- Pin layout: 3W3/3WK3/7W2
- Other pin layouts and assembly heights upon request
- Mounting options on PCB: assembly clip with force or assembly clip with no force
- Mating accessories: thru hole, threaded rivet or threaded bolt



D-Sub Cable Assembly

Crimp:

- D-Sub with 9/15/25/37/50 poles
- HD D-Sub with 15/26/44/62/78 poles
- Mixed layout: 2W2/3W3/3W3C/7W2/5W5/17W2/8W8/21W4
- Mounting: thru hole, threaded rivet UNC or M3
- Machined signal crimp contacts AWG 18-28
- Stamped signal crimp contacts AWG 20-32
- Reels with 10000 pcs or 500 pcs
- Machined high power crimp contacts 10A/20A/30A/40A

Solder cup:

- D-Sub with 9/15/25/37/50 poles
- HD D-Sub with 15/26/44/62/78 poles
- Mixed layout: 2W2/3W3/3W3C/7W2/5W5/17W2/8W8/21W4
- High power contacts pre-assembled or separate
- Mounting: thru hole, threaded rivet UNC or M3

IDC:

- Standard with pin number: 9/15/25/37
- Low Profile for constricted installations with pin number: 9/15/25/37
- Double-contact for higher demands with pin number: 9/15/25/37/50
- Mounting: thru hole, threaded rivet UNC or M3

D-Sub 600V:

- Crimp connectors 4-pole male and touch-proof female
- 2 versions: coded and uncoded
- Different housing color for each contact style
- Machined crimp contacts for max. 20 A in AWG 8-12/16-20
- Stamped crimp contacts für max. 16 A in AWG 14-20



D-Sub Hoods

Screw Lock

- D-Sub plastic hoods straight cable exit black or metallized
- D-Sub plastic hoods side cable exit black or metallized
- D-Sub plastic hoods with easy clip/snap-together assembly straight cable exit black or metallized
- D-Sub full metal hoods straight cable exit
- D-Sub full metal hoods side cable exit
- Full metal hoods allow for 3 locking screws: Slot, Pozidrive or Allen
- D-Sub modular plastic hoods straight and side cable exit black or metallized
- D-Sub plastic adapter hoods black or metallized
- D-Sub full metal adapter hoods

Sliding/Clip Lock

- D-Sub plastic hoods straight (not 9-pole) and 2 side cable exits black or metallized
- D-Sub full metal hoods straight (not 9-pole) and 2 side cable exits black or metallized
- Quick Lock Push Pull Lock
- Quick Lock D-Sub plastic hoods straight and side cable exit black or metallized
- Push Pull D-Sub full metal hoods straight and side cable exit

Accessories

- External cable clamps
- Crimp flanges and crimp sleeves for torsion- and vibration-proof shield connection and strain relief
- Rubber cable bushings
- Plastic cable bushings



D-Sub Specials

Bus Connectors

- Full metal for higher demands and excellent shielding
- Profibus (male 9-pole) and CAN bus (female 9-pole)
- 4 Termination styles for any installation condition
 - M12 Plug&Play quick connection
 - Internal cable clamp/External cable clamp for large cable Ø
 - Crimp flange/crimp sleeve for improved strain relief
- 4 Housing styles
 - Axial: cable exit 180°/Small: cable exit 180°
 - Compact: cable exit 90°/Special: cable exit 55°
- D-Sub with 9 screw terminals for universal applications

Bus Hoods

- Full metal hoods for robust applications and excellent shielding
- 2 Cable exits
- 4 Housing styles: Axial + Small (180°)/Compact (90°)/Special (55°)
- Knurled screw lock/Axial + Small: optional Allen screw vibration-proof
- Compact and Special: options for 1 x or 2 x D-Sub

DIN rail Adapter

- Full metal versions for robust applications
- Design with excellent shielding
- Easy snap-on assembly with solid DIN rail clip
- Secure effective grounding
- 4 Termination styles for any installation condition
- 2 Housing styles: Compact (90°)/Special (55°)

Splitter Solutions

- Full metal versions for robust applications and excellent shielding
- Compact versions with full metal D-Sub splitter hoods 9- and 15-pole
- Secure effective grounding
- Customized splitter versions like CAN service box for railway in V4A
- Termination/Interface options: D-Sub, M12, M8, other connectors, cable

PROVERTHA®
CONNECTORS, CABLES & SOLUTIONS

Sales Partner

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Composants & Technologies pour l'Électronique



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About us



More than
35
years of
experience

- Products for highest physical stability in extremely challenging networks
- Many innovations
- Customer-specific solutions



850
employees

- German-Hungarian company
- Production in Hungary
- Customer Service in Germany
- Happy customers



Certifi-
cates

- For your safety
- IATF 16949
- ISO 9001
- For our environment
our production locations
are ISO 14001 certified
- UL approvals

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