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Features


General Description

The Han-Brid® series allows the connection of a data interface and a power supply in a single space saving connector. This means that it is now possible to provide data transmission and power to devices in a single bus structure. This hybrid connector family includes provision for connection of a max. 50 V, 10 A power supply together with a range of inserts for connection of a variety of data protocols and transmission medias:

- Han-Brid® F.O. for plastic (POF) or for HCS®* optical fibre
- Han-Brid® Cu for shielded twisted pair.
- Han-Brid® Quintax 3 A for shielded 4 wire bus systems (2 pair STP)
- Han-Brid® RJ45 C for Ethernet application
- Han-Brid® USB / Firewire for fast data transmission

Han-Brid® inserts fit into the standard plastic as well as metal hoods and housings with seal of the Han® 3 A series offering a degree of protection IP 65 according to DIN EN 60 529. For harsher environments Han® 3 HPR hoods and housings with a degree of protection of IP 68 can be used.

Power supply

- Han D® male and female with standard crimp contacts
- Rated current 10 A
- Rated voltage 50 V
- Wire gauge 0.14 - 2.5 mm²
- Approval 

Han-Brid

* HCS® Hard Clad Silica (is registered trade mark of the SpecTran Corporation)

Data interfaces

Han-Brid® F.O.

- Is suitable for all HP Versatile Link (Horizontal Package) transmitters and receivers
- Data rates: Standard 12 Mbit/s, suitable for all common fieldbus systems
- Insert allows integration of HP standard contacts for POF and HCS®* fibres
- Temperature range -40 °C ... 70 °C

Han-Brid® Cu

- For termination of a shielded twisted pair
- Insert for 2x Han D® male or female contacts
- Connection of the shield by means of shielding plate and fixing clamps
- Connection of the device side can be realized either by a printed circuit board as a modular version or as part of the appliance PCB
- Insert for bulkhead mounted housing or the coupling housing are always equipped with a screening spring

Bus Terminator

- Active bus terminator in male and female version
- Standard Han® 3 A hoods and housings
- Power supply to the termination network via electrical contacts of Han-Brid®
- Integrated, galvanically separated DC/DC converter 24 V / 5 V

Han-Brid® Quintax 3 A

- Possibility to terminate shielded 4 wires conductors (2 pair STP)
- Suitable for all 4-wire bus systems
- Suitable for shielded cable conductor diameter 3 – 9.5 mm
- Transmission of shielding separately from the hood's ground
- Connections are carried out acc. to DIN EN 50 173, Cat. 5
- Temperature range -40 °C ... 70 °C

Han-Brid® RJ45 C

- Suitable for standard RJ 45 Plug and Jack, shielded version
- Connections provided for conductors acc. to DIN EN 50 173, Cat. 5
- Termination from the device side is carried out via a PCB, two versions are possible: modular version or as part of the appliance PCB
- Assembly with standard tools
- Insert for 2 Han-D® male or female contacts offers the combination with electrical bus connector
- Rated current 10 A
- Rated voltage 24 V
- Wire gauge 0.14 - 2.5 mm²

Han-Brid® USB

- Insert for all Han® 3 A hoods and housings
- Hood with glued sealing
- Simple and low-cost termination via insert of a patch cable
- Strain-relief via cable tie

Han-Brid® FireWire

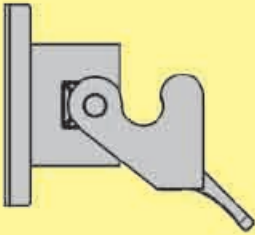
- Insert for all Han® 3 A hoods and housings
- Hood with glued sealing
- Simple and low-cost termination via insert of a patch cable
- Strain-relief via cable tie
- Compatible to IEEE 1394

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Overview (Sample: Han-Brid® Cu)

Thermoplastic
 09 20 003 0320 (light grey)
 09 20 003 0327 (black)

Metal
 09 20 003 0301

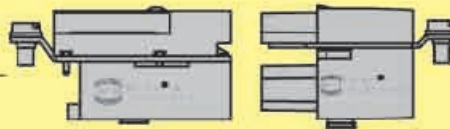


Device side
 09 12 006 2611
 09 12 006 2695
 09 12 006 2694

Cable side
 09 12 006 3111

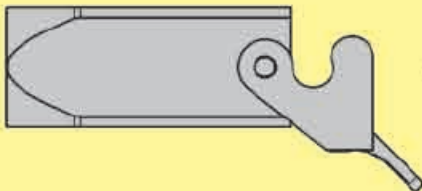
Thermoplastic
 09 20 003 0423 (light grey)
 09 20 003 0426 (black)
 19 20 003 0423 (light grey)
 19 20 003 0427 (black)

Metal
 09 20 003 1443
 19 20 003 1443



Thermoplastic
 09 20 003 0720 (light grey)
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 19 20 003 0720 (light grey)
 19 20 003 0727 (black)

Metal
 09 20 003 1750
 19 20 003 1750

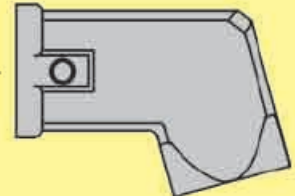


Device side
 09 12 006 2701
 09 12 006 2795
 09 12 006 2794

Cable side
 09 12 006 3001

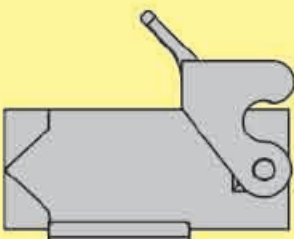
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Metal
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 19 20 003 1643





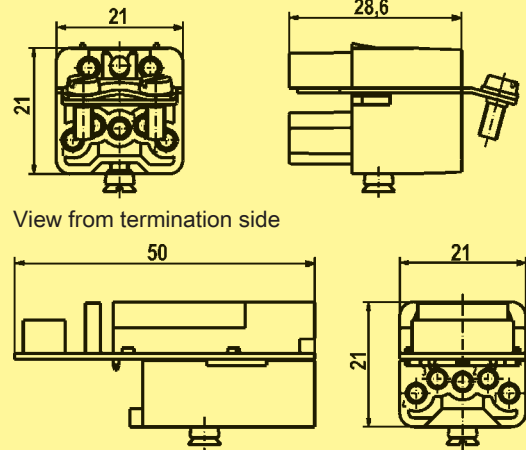


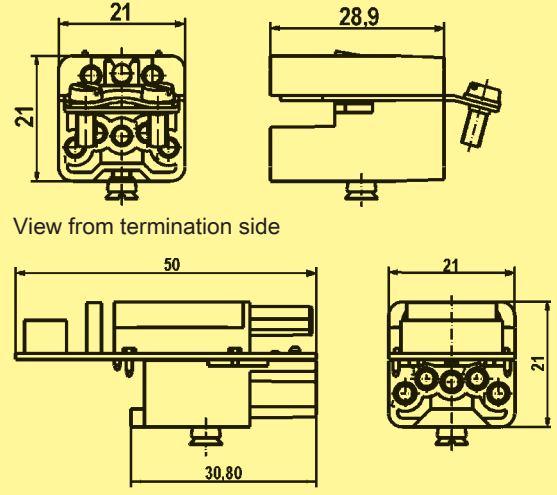
Thermoplastic
 09 20 003 0220 (light grey)
 09 20 003 0227 (light grey)
 19 20 003 0220 (light grey)
 19 20 003 0227 (black)

Metal
 09 20 003 1250
 19 20 003 1250


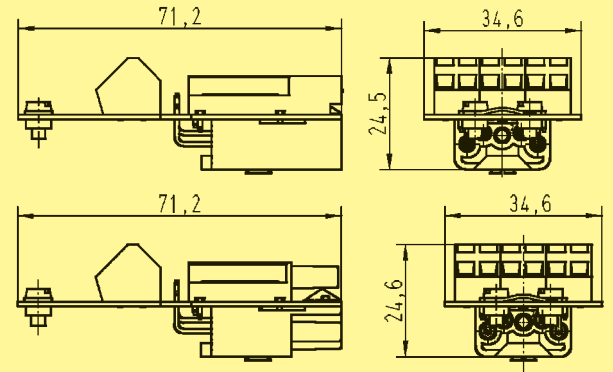

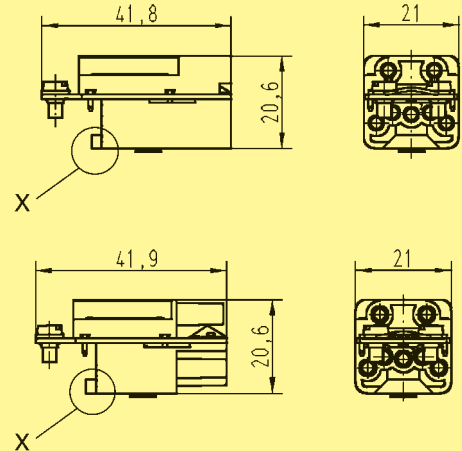


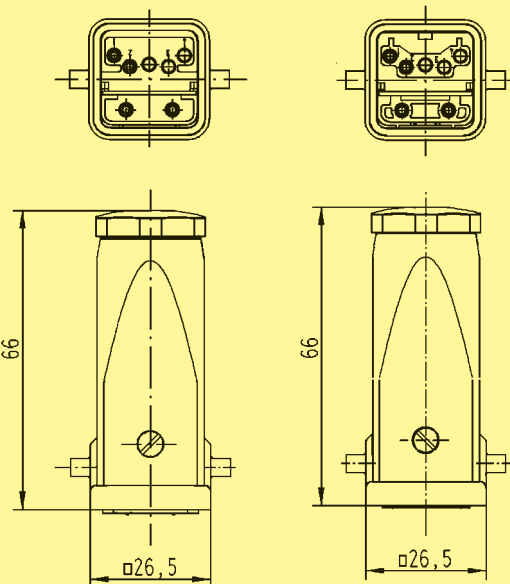


Hybrid field bus connector
for shielded twisted pair
+ 4 electrical contacts 10 A
+ option for PE



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
<p>Cable side Female insert</p>  <p>Device side Male insert</p> 	<p>09 12 006 3111</p>		 <p>View from termination side</p>	
	<p>09 12 006 2611</p> <p>Also available as single part</p> <p>loaded 09 12 002 2611 unloaded 09 12 002 3011</p>	<p>Also available as single part</p> <p>unloaded 09 12 004 3011</p>		
<p>Cable side Male insert</p>  <p>Device side Female insert</p> 	<p>09 12 006 3001</p>		 <p>View from termination side</p>	
	<p>09 12 006 2701</p> <p>Also available as single part</p> <p>loaded 09 12 002 2701 unloaded 09 12 002 3101</p>	<p>Also available as single part</p> <p>unloaded 09 12 004 3101</p>		

Han-Brid

Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
<p>Panel feed through with cage clamp</p> 	09 12 006 2695	09 12 006 2795		
<p>Coupling / Panel feed through</p>  <p>X = Cutting off the fin allows the use in cable to cable housings</p>	09 12 006 2694	09 12 006 2794		
<p>Bus terminator</p> <p>Plastic hoods/housings</p>  <p>Hoods/Housings, metal</p> 	09 12 006 2691	09 12 006 2791		

Han-Brid

Hybrid field bus connector
with F.O. transmitter and receiver
+ 4 electrical contacts 10 A
+ option for PE



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Cable side F.O. (m) + Han D® (f) 	Also available as single part for POF 09 12 004 2711 for POF crimpless 09 12 004 2713 for HCS®* fibre 09 12 004 2716	Also available as single part for POF 09 12 004 3111 for POF crimpless 09 12 004 3113 for HCS®* fibre 09 12 004 3116	 View from termination side	
Device side F.O. (f) + Han D® (m) 	for POF 09 12 004 2611 for POF crimpless 09 12 004 2611 for HCS®* fibre 09 12 004 2611	for POF 09 12 004 3011 for POF crimpless 09 12 004 3011 for HCS®* fibre 09 12 004 3011	 View from termination side	
Cable side F.O. (m) + Han D® (m) 	Also available as single part for POF 09 12 004 2601 for POF crimpless 09 12 004 2603 for HCS®* fibre 09 12 004 2606	Also available as single part for POF 09 12 004 3001 for POF crimpless 09 12 004 3003 for HCS®* fibre 09 12 004 3006	 View from termination side	
Device side F.O. (f) + Han D® (f) 	for POF 09 12 004 2701 for POF crimpless 09 12 004 2701 for HCS®* fibre 09 12 004 2701	for POF 09 12 004 3101 for POF crimpless 09 12 004 3101 for HCS®* fibre 09 12 004 3101	 View from termination side	


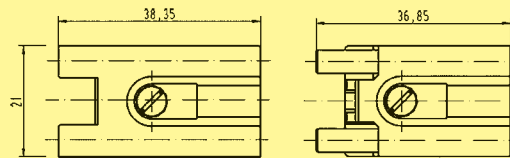

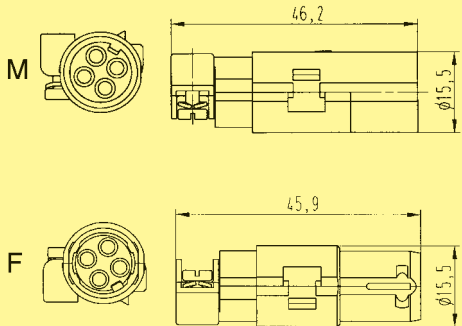
Han-Brid

* HCS®=Hard Clad Silica (is registered trade mark of the SpecTran Corporation)

Stock items in bold type

4 contacts + shielding
 + 2 power contacts
 suitable in Han® 3 A metric
 hoods and housings

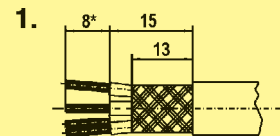


Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Quintax insert 	09 15 003 3001	09 15 003 3101		
Quintax contacts Zinc alloy Order crimp contacts separately (see page)06.55  Special clamp for cable diameter 3 - 6 and 6 - 9.5 mm included in delivery range	09 15 004 3013	09 15 004 3113		

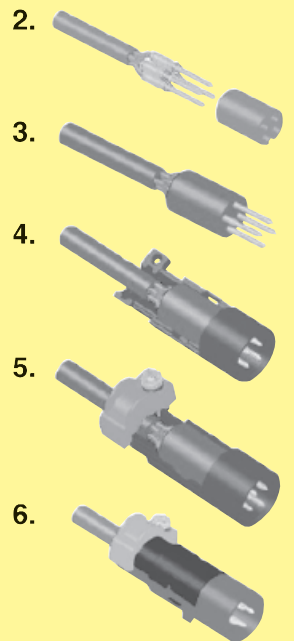
Han-Brid Assembly instructions

Quintax-Z-contact

- Strip cable acc. to drawing 1 and fold the shielding over the cable.
- Crimp Han D® contacts onto the wires.


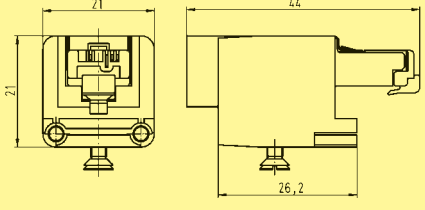

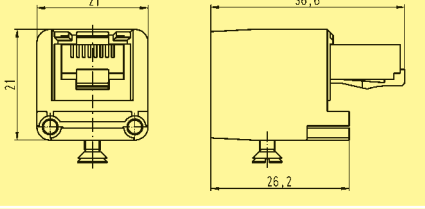

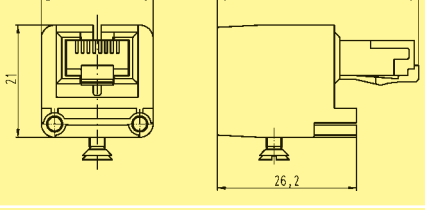

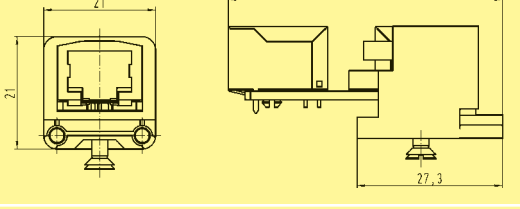

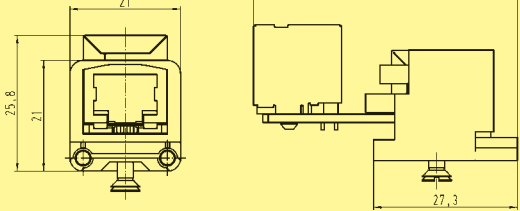

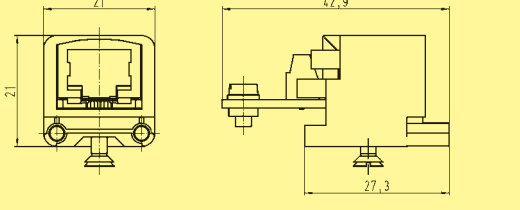


- Insert Han D® contacts into corresponding cavities of insulator until they are snapped in.
- Fit the insert including the cable into the opened shielded bushing. The coding pin of the shielded bushing has to meet the groove of the insulator.
- Clamp the tilt over the shielding onto the cable by means of the special clamp (small opening for cable diameter of 3 - 6 mm, large opening for cable diameter of 6 - 9.5 mm).
- Check the wiring.
- Close the shielded bushing with the cover and insert it into the corresponding cavity of the Quintax Module as usual.





Hybrid network connector
+ 2 electrical contacts 10 A

Identification	Part number	Drawing	Dimensions in mm
Han-Brid® RJ45 C with RJ Industrial 	09 12 003 3011		21, 21, 44, 26,2
Han-Brid® RJ45 C with Stewart RJ45 	09 12 003 3021		21, 21, 36,6, 26,2
Han-Brid® RJ45 C with HIROSE RJ45 	09 12 003 3031		21, 21, 37,8, 26,2
Panel feed through straight 	09 12 003 2774		21, 21, 51,5, 27,3
Panel feed through angled 	09 12 003 2776		21, 25,8, 21, 50,1, 27,3
Panel feed through with 4 pole terminal block 	09 12 003 2770		21, 21, 47,9, 27,3

Han-Brid

Han-Brid® USB

Features

- Insert for all Han® 3 A hoods and housings
- Hood with glued sealing
- Simple and low-cost termination via insert of a patch cable
- Strain-relief via cable tie

Technical characteristics

USB style A, 2.0 Standard

Specifications	DIN VDE 0110
	DIN EN 61 984

Number of contacts	4
Electrical data acc. to EN 61 984	1 A 50 V 0.8 kV 3
Rated current	1 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Material	Polycarbonate
Insulation resistance	$\geq 10^{10} \Omega$
Contact resistance	$\geq 4 \text{ m}\Omega$
Temperature range	-40 °C ... 85 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Han-Brid® FireWire

Features

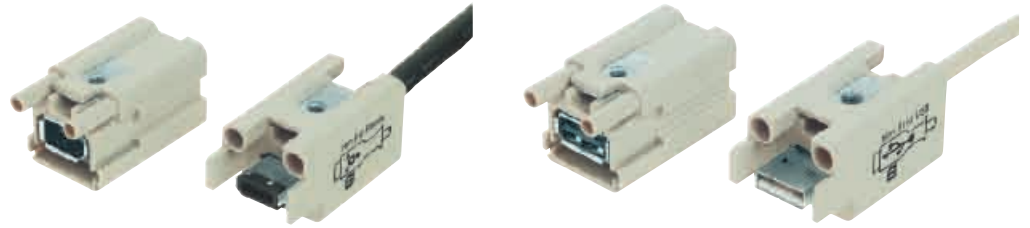
- Insert for all Han® 3 A hoods and housings
- Hood with glued sealing
- Simple and low-cost termination via insert of a patch cable
- Strain-relief via cable tie
- Compatible to IEEE 1394


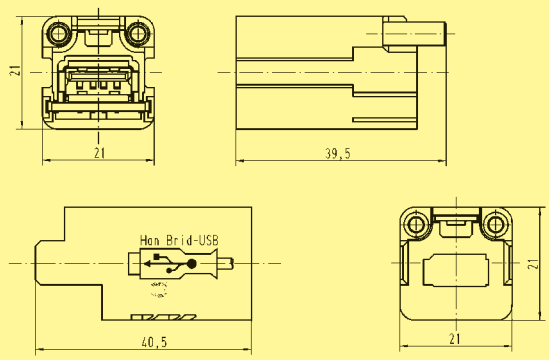

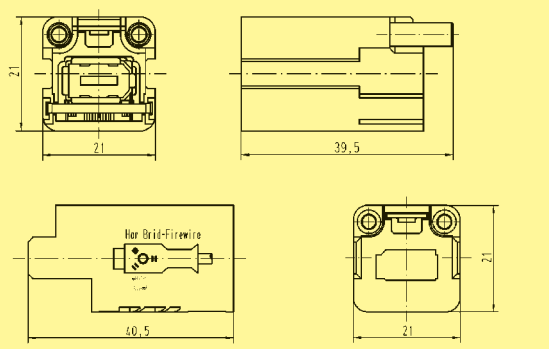
Technical characteristics

Firewire IEEE 1394

Specifications	DIN VDE 0110
	DIN EN 61 984

Number of contacts	6
Electrical data acc. to EN 61 984	1 A 50 V 0.8 kV 3
Rated current	1 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Material	Polycarbonate
Insulation resistance	$\geq 10^{10} \Omega$
Contact resistance	$\geq 4 \text{ m}\Omega$
Temperature range	-40 °C ... 85 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han-Brid® USB 	09 12 001 2794	09 12 001 3091		
Han-Brid® FireWire 	09 12 001 2774	09 12 001 3071		

Han-Brid

