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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 3A for shielded 4 wire bus systems (2 pair STP).
- Han-Brid® RJ45 C for Ethernet application

Han-Brid® inserts fit into the standard plastic as well as metal hoods and housings of the Han® 3A series offering a degree of protection IP 65 according to DIN EN 60529. 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 are standard crimp contacts
- Rated current: 10 A
- Rated voltage: max. 50 V
- Wire gauge: 0.14 - 2.5 mm²
- Specification UL

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: suitable for POF and HCS®* fibres crimp for POF and HCS crimpless for POF
- Temperature range: -40 °C to +70 °C

Han-Brid® Cu

- For termination of a shielded twisted pair
- Insert for 2 x 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
- Temperature range: -40 °C to +125 °C
- Insert for bulkhead mounted housing a the coupling housing are always equipped with an screening spring.

Bus Terminator

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

Han-Brid® Quintax 3A

- Possibility to terminate shielded 4 wires conductors (2 pair STP)
- Suitable for all 4 wires 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 to +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
- Han-D® male and female are standard crimp contacts
- Rated current: 10 A
Rated voltage: 24 V
- Termination range: 0.14-2.5 mm²

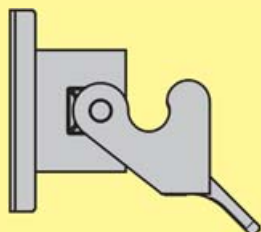
Overview

Plastic:

09 20 003 0320 (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

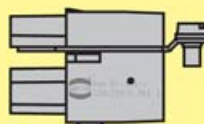
09 12 006 3111

Plastic:

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09 20 003 0426 (black)

Metal:

09 20 003 1443

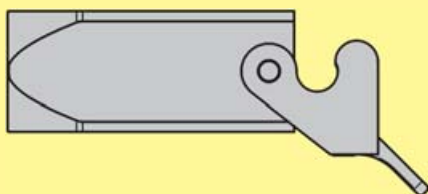


Plastic:

09 20 003 0720 (grey)
09 20 003 0727 (black)

Metal:

09 20 003 1750



Device side

09 12 006 2701
09 12 006 2795
09 12 006 2794

Cable side

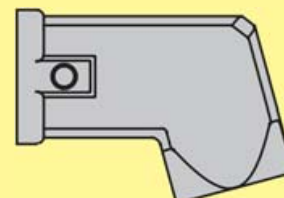
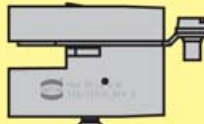
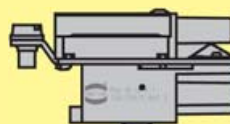
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Plastic:

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09 20 003 0626 (black)

Metal:

09 20 003 1643

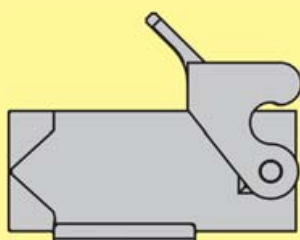


Plastic:

09 20 003 0220 (grey)
09 20 003 0227 (black)

Metal:

09 20 003 1250



ISO 23570



Hybrid Field Bus Connector
for shielded twisted pair
+ 4 electrical contacts 10 A
+ option for PE



Inserts

Part number

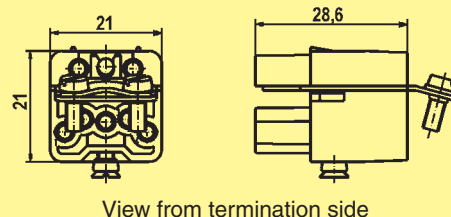
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Dimensions in mm

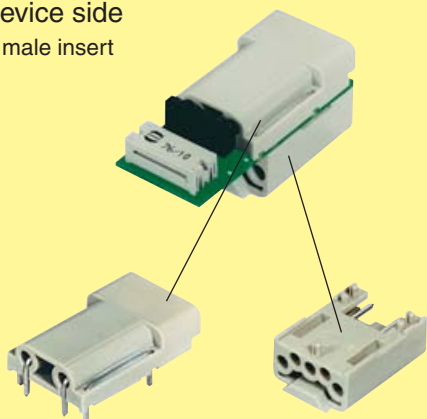
Cable side
female insert



09 12 006 3111



Device side
male insert



09 12 006 2611

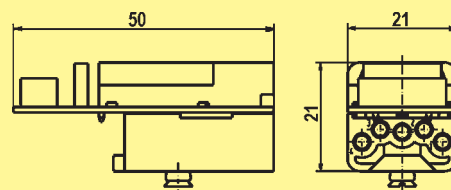
Also available
as single parts

loaded
09 12 002 2611

unloaded
09 12 002 3011

Also available
as single parts

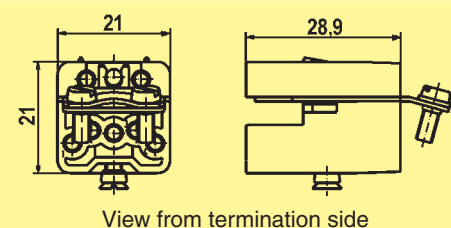
unloaded
09 12 004 3011



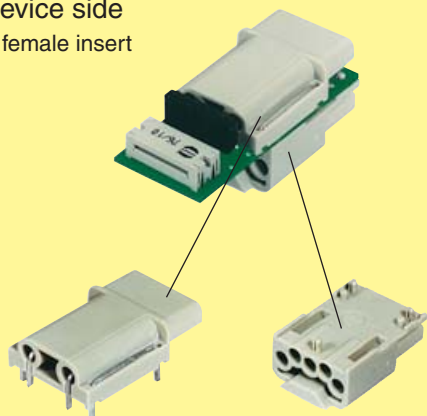
Cable side
male insert



09 12 006 3001



Device side
female insert



09 12 006 2701

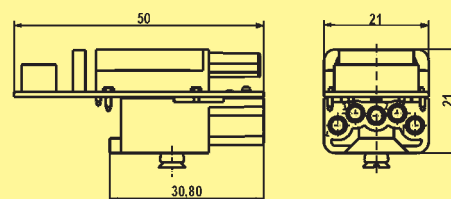
Also available
as single parts

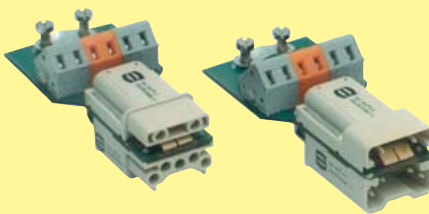
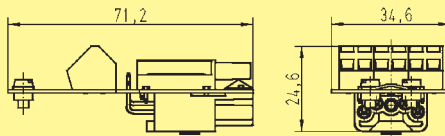
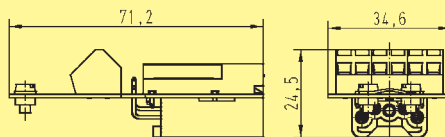
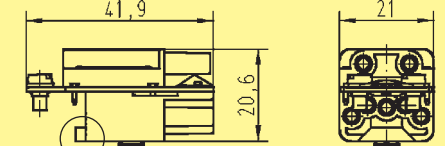
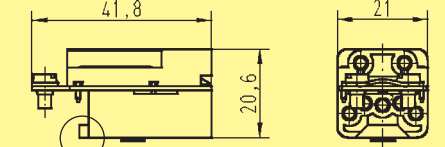
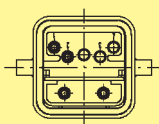
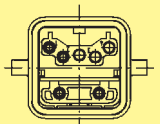
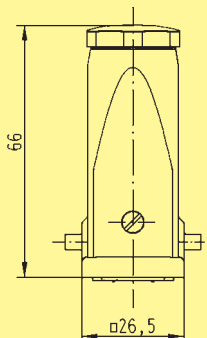
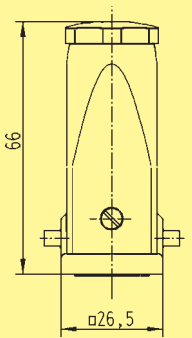
loaded
09 12 002 2701

unloaded
09 12 002 3101

Also available
as single parts

unloaded
09 12 004 3101



Inserts	Part number		Drawing	Dimensions in mm
	Female insert (F)	Male insert (M)		
Panel feed through with cage clamp 	09 12 006 2795	09 12 006 2695	Drawing 09 12 006 2795  Drawing 09 12 006 2695 	
Coupling/Panel feed through 	09 12 006 2794	09 12 006 2694	Drawing 09 12 006 2794  Drawing 09 12 006 2694 	
X = Cutting off the fin allows the use in cable to cable housings				
Bus terminator Plastic version  Metal version 	09 12 006 2791	09 12 006 2691	M  F   	
	09 12 006 2792	09 12 006 2692		

Stock items in bold type

ISO 23570



Hybrid Field Bus Connector
with FOC transmitter and receiver
+ 4 electrical contacts 10 A
+ option for PE



Inserts

Part number

Drawing

Dimensions in mm

Cable side

LWL sti + Han D® bu



Also available
as single parts

for POF
09 12 004 2711

for
POF crimpless
09 12 004 2713

for HCS®* Fibre
09 12 004 2716

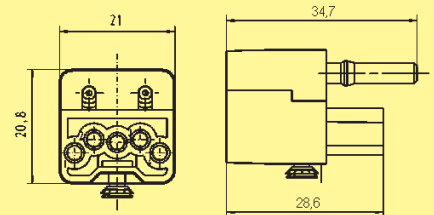
Also available
as single parts

for POF
09 12 004 3111

for
POF crimpless
09 12 004 3116

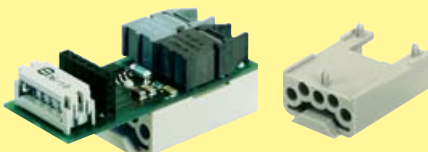
for HCS®* Fibre
09 12 004 3116

View from
termination side



Device side

LWL bu + Han D® sti



for POF
09 12 004 2611

for
POF crimpless
09 12 004 2611

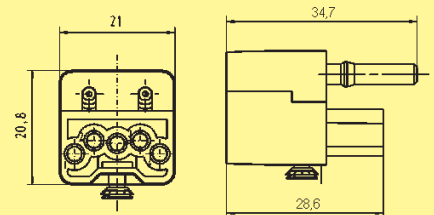
for HCS®* Fibre
09 12 004 2611

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

LWL sti + Han D® sti



Also available
as single parts

for POF
09 12 004 2601

for
POF crimpless
09 12 004 2603

for HCS®* Fibre
09 12 004 2606

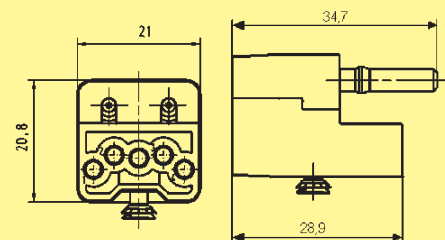
Also available
as single parts

for POF
09 12 004 3001

for
POF crimpless
09 12 004 3003

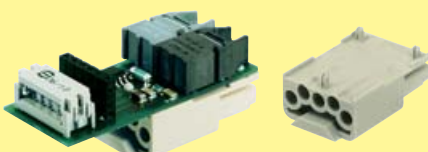
for HCS®* Fibre
09 12 004 3006

View from
termination side



Device side

LWL bu + Han D® bu



for POF
09 12 004 2701

for
POF crimpless
09 12 004 2701

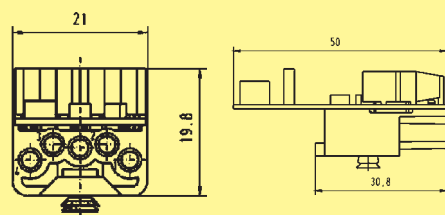
for HCS®* Fibre
09 12 004 2701

for POF
09 12 004 3101

for
POF crimpless
09 12 004 3101

for HCS®* Fibre
09 12 004 3101

View from
termination side



Description

The Han-Brid® series combines a data and power interface for industrial communication in the smallest possible space.

The components in this hybrid connector family all contain the facility to load power contacts rated at 50 V 10 A to provide a power supply for distributed devices. This means that a power supply can be provided to all devices in a bus structure via a single connector.

Han-Brid® Quintax 3 A for 4-wire bus systems with continuous screen connection.

The contact inserts can be used either in the standard plastic housing or the metal housing from the Han® 3 A series. The protection level of the housings corresponds to DIN EN 60 529, IP 65.

Data interface

- Can be connected to screened 4-wire cables
- Can be used for all 4-wire bus systems
- Accepts screened cable with a diameter from 3 to 9.5 mm
- Continuity of screen is independent of housing potential
- Cable connection in accordance with DIN EN 50 173, Category 5

Power supply

- Standard Han D® male and female crimp contacts
- Rated current: 10 A
- Rated voltage: 50 V
- Connection range: 0.14 to 2.5 mm² stranded
- Approval: UL

Technical characteristics

Transmission properties in accordance with Category 5 ISO/IEC 11 801:2002 and EN 50173-1

Protection level: IP 65 / IP 67

Wire gauge data: 0.14 - 2.5 mm² stranded
AWG 26 - 14

Wire gauge power supply: 0.14 - 2.5 mm² stranded
AWG 26 - 14

Temperature range: -40° C ... +70° C

Cable sheath diameter: 3 mm - 9.5 mm

Mating cycles: ≥ 500

4 contacts + shielding
+ 2 power contacts
Suitable for Han® 3 A metric hoods and housings

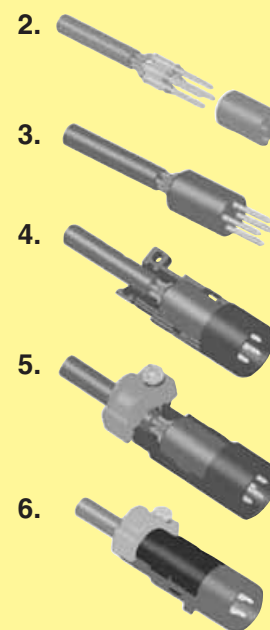
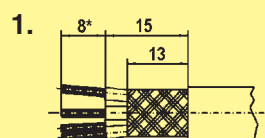


Identification	Cable Ø mm	Part No.		Drawing	Dimensions in mm
		Male insert (M)	Female insert (F)		
Quintax-Insert 	—	09 15 003 3001			
	—		09 15 003 3101		
Quintax-Z-Contact Zinc alloy Crimp contacts order separately Special clamp for cable diameter 3 - 6 and 6 - 9.5 mm included in delivery range	3 - 9.5	09 15 004 3013	09 15 004 3113		

Assembly Manual

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.



Description

Han-Brid® RJ 45 realizes the connection of network components in an industrial environment. The integration of standard RJ 45 plugs and jacks in industrial connector hoods and housings of the series Han® 3 A offers the advantages:

- Many different hoods and housings in thermoplastic, metal and pressure tight versions are available for flexible adaption to the relevant environment
- Standard RJ 45 components
- Integration of two additional contacts with a rated current of 10 A to supply the network components allows a cost effective installation and a optimal space saving design.

Only standard tools are necessary for the field assembly, thus it is possible to assemble the components for example for Ethernet in an industrial environment.

Bus Termination

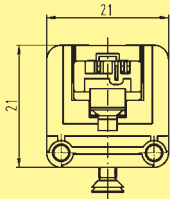
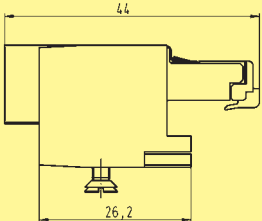
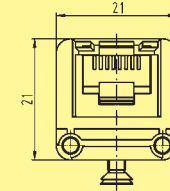
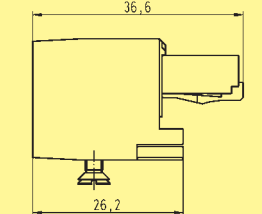
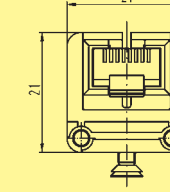
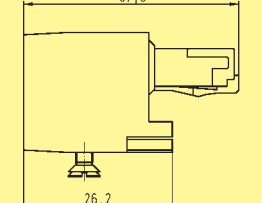
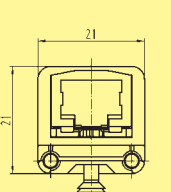
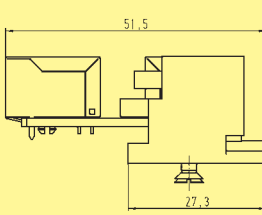
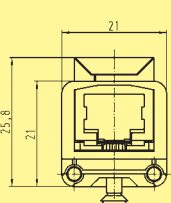
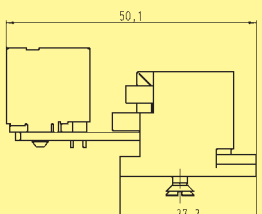
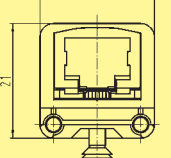
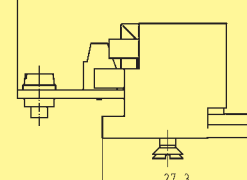
- Suitable for standard RJ 45 Plug and Jack, shielded version
- Connections provided for conductors acc. to DIN EN 50 173, cat. 5
- Termination from the device side is carried out via a PCB, two versions are possible: modular version or as part of the appliance PCB
- Assembly with standard tools

Power Supply

- Insert for 2 Han-D® male or female contacts offers the combination with electrical bus connector
- Han-D® male and female are standard crimp contacts
- Rated current: 10 A
Rated voltage: 24 V
- Termination range: 0.14-2.5 mm²

Hybrid Network Connector
+ 2 electrical contacts 10 A



Identification	Part No.	Drawing	Dimensions in mm
Han-Brid® RJ45 C with RJ Industrial 	09 12 003 3011		
Han-Brid® RJ45 C with Stewart RJ45 	09 12 003 3021		
Han-Brid® RJ45 C with HIROSE RJ45 	09 12 003 3031		
Panel feed-through straight 	09 12 003 2774		
Panel feed-through angled 	09 12 003 2776		
Han-Brid® RJ45 C with 4 pole terminalblock 	09 12 003 2770		

Han-Brid



Han-
Brid