

Connectors

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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 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 (POF¹⁾) or for HCS^{®2)} 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® inserts fit into the standard plastic as well as metal hoods and housings 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 are standard crimp contacts
- Rated current: 10 A
- Rated voltage: 50 V
- Wire gauge: 0.14 - 2.5 mm²
- Specification UL

¹⁾ POF = Polymer-Optical Fibre

²⁾ HCS® = Hard Clad Silica (registered trademark of SpecTran Corporation)

Data interfaces

Han-Brid® F.O.

- Is suitable for all HP Versatile Link (horizontal package) transmitters and receivers
 - Data rates: Standard 12MBit/s
 - suitable for all common fieldbus systems
- Insert allows integration of HP standard contacts:
 - suitable for POF¹⁾ and HCS^{®2)}
 - crimp for POF¹⁾ and HCS^{®2)}
 - crimpless for POF¹⁾
- 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
- Insert for bulkhead mounted housing and the coupling housing are always equipped with a screening spring
- Temperature range: -40 °C to +125 °C

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 connector 24V / 5V

Han-Brid® Quintax 3 A

- Possibility to terminate shielded 4 wires conductors
- 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

¹⁾ POF = Polymer-Optical Fibre

²⁾ HCS[®] = Hard Clad Silica (registered trademark of SpecTran Corporation)

DESINA® conforming product
For more information conc. DESINA: www.desina.de



PROFI
BUS

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



Inserts

Part No.

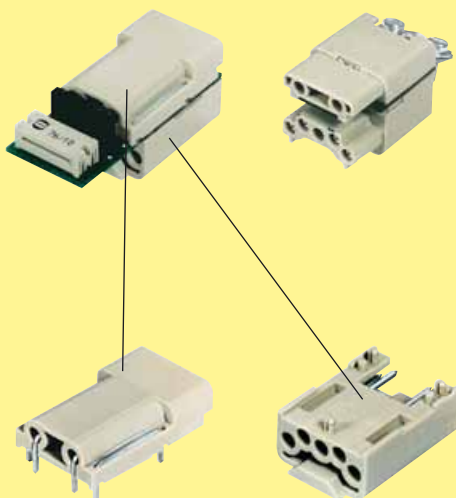
Drawing

Dimensions in mm

Possible combinations

Cu male
+ Han D® male

Cu female
+ Han D® female



also available as single parts

09 12 006 2611

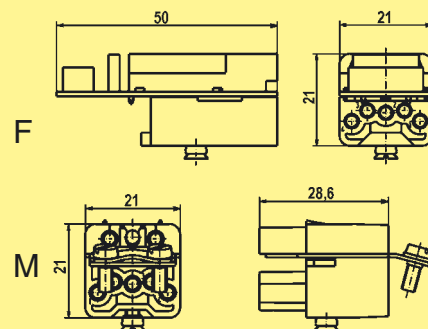
09 12 006 3111

loaded
09 12 002 2611

unloaded
09 12 002 3011

09 12 004 3011

View
termination side



Cu female
+ Han D® female

Cu male
+ Han D® male



also available as single parts

09 12 006 2701

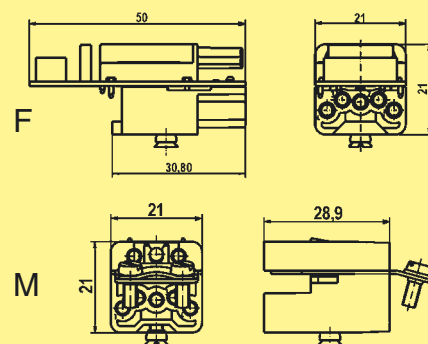
09 12 006 3001

loaded
09 12 002 2701

unloaded
09 12 002 3101

09 12 004 3101

View
termination side



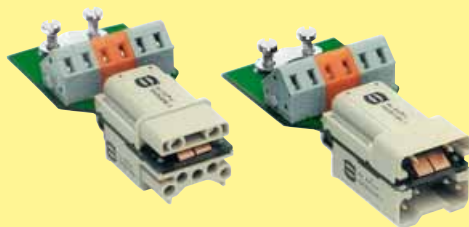
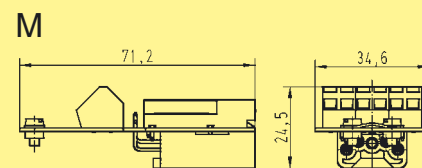
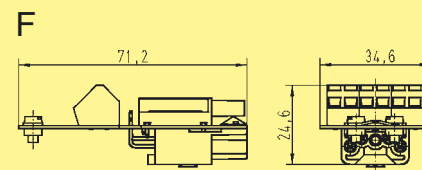
Connectors

S
10
03

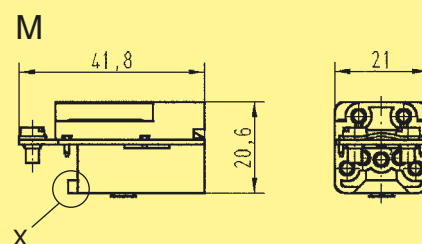
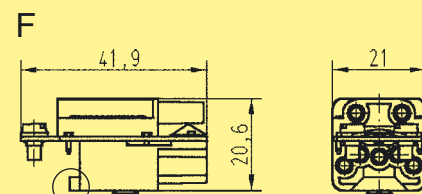
Inserts

Part No.
Female insert (F) Male insert (M)

Dimensions in mm

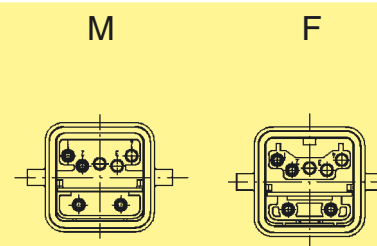
Panel feed through
with cage clamp**09 12 006 2795****09 12 006 2695**

Coupling / Panel feed through

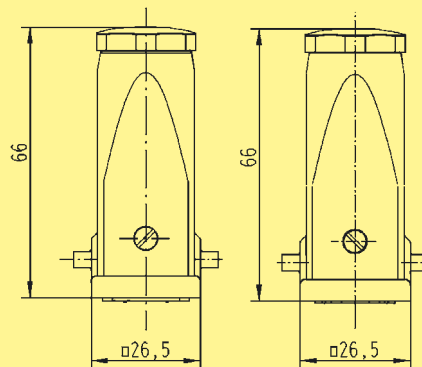
**09 12 006 2794****09 12 006 2694**X = Cutting off the fin allows the use
in cable to cable housings

Bus terminator

Plastic version

**09 12 006 2791****09 12 006 2691**

Metal version

**09 12 006 2792****09 12 006 2692**

4 contacts + screening
+ 2 power contacts
For use in Han® 3 A hoods with metric cable gland

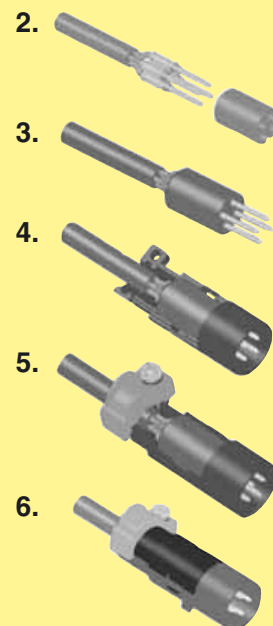
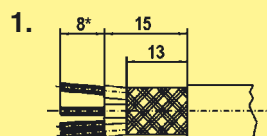


Identification	Cable-Ø mm	Part No.		Drawing	Dimensions in mm
		Male insert (M)	Female insert (F)		
Quintax insert 	—	09 15 003 3001			
	—		09 15 003 3101		
Quintax Z contact Zinc alloy Order crimp contacts separately Cable clamp for cable diameter 3 - 6 and 6 - 9.5 mm is supplied with the inserts	3 - 9.5	09 15 004 3013	09 15 004 3113		

Assembling manual

Quintax 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 the 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 corresponding cavity of the Quintax module as usual.



DESINA® conforming product
For more information conc. DESINA: www.desina.de



Hybrid fieldbus connector
with FOC transmitter and receiver
+ 4 electrical contacts 10 A
+ option für PE



Insert

Part No.

Drawing

Dimensions in mm

Possible combinations

FOC female
+ Han D® male

FOC male
+ Han D® female



also available without FOC devices



for POF¹⁾
09 12 004 2611

for POF¹⁾
09 12 004 2711

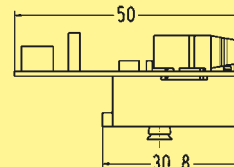
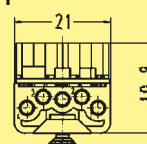
for POF¹⁾
crimpless

09 12 004 2713

for HCS²⁾-Fibre
09 12 004 2716

View
termination side

F



for POF¹⁾
09 12 004 3011

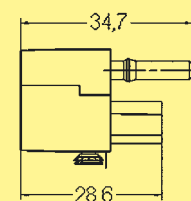
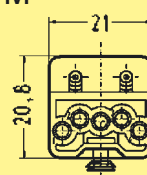
for POF¹⁾
09 12 004 3111

for POF¹⁾
crimpless

09 12 004 3113

for HCS²⁾-Fibre
09 12 004 3116

M



FOC female
+ Han D® female

FOC male
+ Han D® male



also available without FOC devices



for POF¹⁾
09 12 004 2701

for POF¹⁾
09 12 004 2601

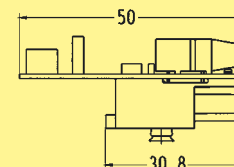
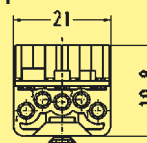
for POF¹⁾
crimpless

09 12 004 2603

for HCS²⁾-Fibre
09 12 004 2606

View
termination side

F



for POF¹⁾
09 12 004 3101

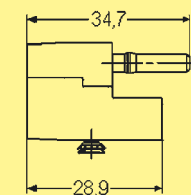
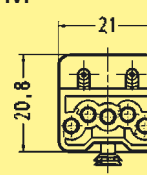
for POF¹⁾
09 12 004 3001

for POF¹⁾
crimpless

09 12 004 3003

for HCS²⁾-Fibre
09 12 004 3006

M



¹⁾ POF = Polymer-Optical Fibre

²⁾ HCS® = Hard Clad Silica (registered trademark of SpecTran Corporation)

F.O. contacts please order separately, see page S10.09

Contacts	Wire gauge (mm ²)	Part No.		Drawing	Dimensions in mm
		Male contacts	Female contacts		
Crimp contacts order separately	0.14-0.37	09 15 000 6104	09 15 000 6204		
	0.5	09 15 000 6103	09 15 000 6203		
	0.75	09 15 000 6105	09 15 000 6205		
	1.0	09 15 000 6102	09 15 000 6202		
	1.5	09 15 000 6101	09 15 000 6201		
	2.5	09 15 000 6106	09 15 000 6206		
	0.14-0.37	09 15 000 6124	09 15 000 6224		
silver plated	0.5	09 15 000 6123	09 15 000 6223		
	0.75	09 15 000 6125	09 15 000 6225		
	1.0	09 15 000 6122	09 15 000 6222		
	1.5	09 15 000 6121	09 15 000 6221		
	2.5	09 15 000 6126	09 15 000 6226		
	0.14-0.37	09 15 000 6124	09 15 000 6224		
	0.5	09 15 000 6123	09 15 000 6223		
gold plated	0.75	09 15 000 6125	09 15 000 6225		
	1.0	09 15 000 6122	09 15 000 6222		
	1.5	09 15 000 6121	09 15 000 6221		
	2.5	09 15 000 6126	09 15 000 6226		
	0.14-0.37	09 15 000 6124	09 15 000 6224		
	0.5	09 15 000 6123	09 15 000 6223		
	0.75	09 15 000 6125	09 15 000 6225		

Wire gauge		ø	Stripping length
0.14-0.37 mm ²	AWG 26-22	0.90 mm	8 mm
0.5 mm ²	AWG 20	1.10 mm	8 mm
0.75 mm ²	AWG 18	1.30 mm	8 mm
1 mm ²	AWG 18	1.45 mm	8 mm
1.5 mm ²	AWG 16	1.75 mm	8 mm
2.5 mm ²	AWG 14	2.25 mm	6 mm

F.O. contacts	Part No.		Drawing	Dimensions in mm
Single connector for Han-Brid® F.O.	Crimp POF ¹⁾	20 10 001 7111		
	Crimless POF ¹⁾	20 10 001 7112		
	HCS ²⁾	20 10 230 7111		

Hoods and housings

- Han® 3 A housings with glued sealing, protection degree: IP 65
IP 67
- Plastic version
- Metal version
- EMC version
- Han® HPR (pressure tight, EMC tight), protection degree: IP 68
- Han-Brid®-Quintax only suitable for metric hoods

For further information concerning cable glands as well as hoods and housings with Pg see chapter 30, concerning metric hoods and housings see chapter 31 in the main catalogue "Heavy Duty Han® Connectors" of the HARTING Electric GmbH & Co. KG.

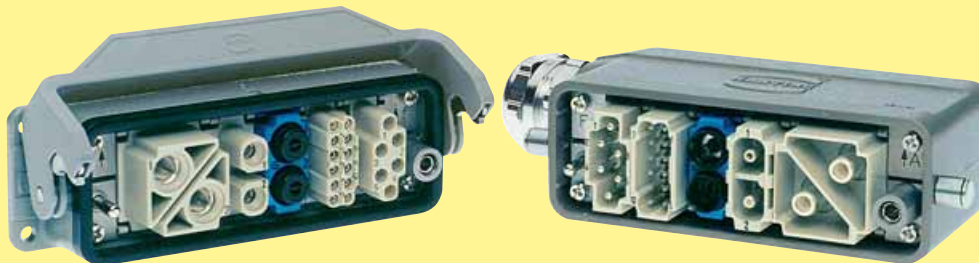
Han® 3 A	Versions	Part No.			
		Plastic grey	Plastic black	Metal	HPR ⁵⁾
	Hoods top entry Pg metric	09 20 003 0423³⁾⁴⁾ 19 20 003 0423³⁾	09 20 003 0426³⁾⁴⁾ 19 20 003 0426³⁾	09 20 003 1443³⁾⁴⁾ 19 20 003 1443³⁾	09 40 003 0402 19 40 003 0400
	Hoods angled Pg metric ⁵⁾	09 20 003 0623³⁾⁴⁾ 19 20 003 0623³⁾	09 20 003 0626³⁾⁴⁾ 19 20 003 0626³⁾	09 20 003 1643³⁾ 19 20 003 1643³⁾	– –
	Bulkhead mounted	09 20 003 0320³⁾	09 20 003 0327³⁾	09 20 003 0301³⁾	09 40 003 0301
	Coupling housing metric	19 20 003 0720	19 20 003 0727	19 20 003 1750	–

Cable gland	Part No.	
	Pg 11, ø 7.0 – 9.5 – 12.0 mm	metric, M20, cable-ø 5 – 9 mm
Plastic, black, IP 65	09 00 000 5182	19 00 000 5180
Metal, IP 65	09 00 000 5183	19 00 000 5080

¹⁾ POF = Polymer-Optical Fibre
²⁾ HCS® = Hard Clad Silica (registered trademark of SpecTran Corporation)

³⁾ Hoods with glued sealing
⁴⁾ Cable glands are included in the delivery range
⁵⁾ Not for Han-Brid® Quintax 3 A

Description of the Han-Modular® system



The **Han-Modular®** series is a new system of inserts designed to meet the specific requirements of individual customers. In close cooperation with potential users a range of modular inserts have been developed allowing the simple assembly of custom designed complete connectors which meet the diverse requirements encountered by designers today.

Han-Modular® is a logical development of the **Han-Com®** series which already offers the combination of power and signal circuits in one connector.

The individual modules of this series now allow the integration of **electrical**, **optical** and **gaseous** signal and power connections in one connector assembly.

The pneumatic contacts are also suitable for the connection of liquid media. However it must be stated that a combination of electrical and liquid connections in one connector is not allowed according to VDE regulations.

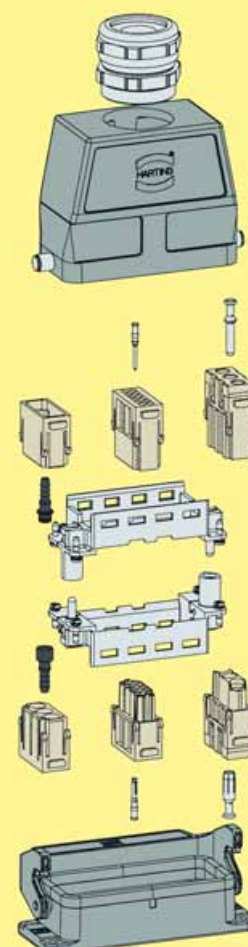
The individual contacts used in this system are all from existing well proven ranges and it is possible to use combinations of 1 to 12 modules depending on the size of the hoods and housings chosen.

The basic modules snap into a mounting frame and can be exchanged separately at any time.

Advantages:

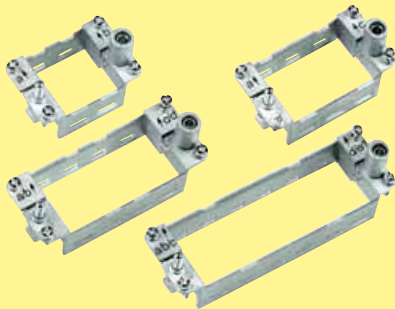
- ☐ Custom designs can be simply assembled
- ☐ Optimum solutions can be reached
- ☐ Stock can be minimized

Assembly details



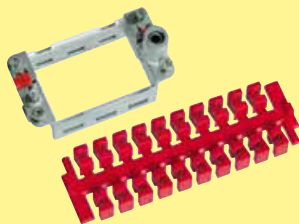
Hinged frames

No tool
necessary
to remove
modules



Locking Element

for hinged frames
(20 pieces per bloc)



Page S20.06

Number of modules	Hoods / Housings Size
1	10 A
2	6 B
3	10 B
4	16 B
6	24 B
2 x 4	32 B
2 x 6	48 B

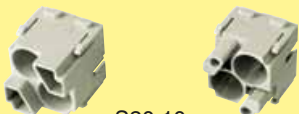
Series	Han® Axial screw module 100 ¹⁾	Han® Axial screw module 40 ¹⁾
Number of contacts	2	2
Modules	Axial screw terminal 	Axial screw terminal 
Working current	100 A	40 A
Working voltage	1000 V	1000 V
Wire gauge	16 - 35 mm²	2.5 - 10 mm²

Series	Han® C-module ¹⁾	Han® E®-module ¹⁾	Han® EE-module
Number of contacts	3	6	8
Modules	Crimp terminal 	Crimp terminal 	Crimp terminal 
Working current	40 A	16 A	16 A
Working voltage	400 / 690 V	500 V	400 V
Wire gauge	1.5 - 6 mm²	0.5 - 4.0 mm²	0.5 - 4.0 mm²
Page			S20.08

Series	Han DD®-module ¹⁾	Han® High Density module ¹⁾	Han® HV-module ¹⁾
Number of contacts	12	25	2
Modules	Crimp terminal 	Crimp terminal 	Crimp terminal 
Working current	10 A	5 A	16 A
Working voltage	250 V	50 V	2900 / 5000 V
Wire gauge	0.14 - 2.5 mm²	0.09 - 0.56 mm²	0.5 - 4.0 mm²

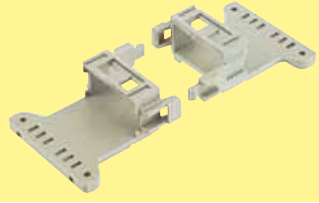
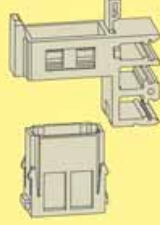
¹⁾ Please find adequate modules and contacts in the HARTING catalogue “Heavy Duty Han® connectors”

Series	Han® ES module ¹⁾	Han® D-Sub module
Number of contacts	5	9
Modules	Cage-clamp terminal	Crimp terminal
Working current	16 A	5 A
Working voltage	400 V	50 V
Wire gauge	0.14 - 2.5 mm ²	0.09 - 0.56 mm ²
Page		P70.13

Series	Han Quintax® module		Han® Multicontact module ¹⁾		Han® Pneumatic module ¹⁾	
Number of contacts	2		4		2	3
Modules						
Page	S20.10					
Contacts	Quintax contacts 4 + shielding	Coaxial contacts 1 + shielding	Coaxial contacts	FOC contacts	Pneumatic contacts	Pneumatic contacts
						
	3 - 9.5 mm	3 - 9.5 mm	50 Ω RG 58 50 Ω RG 174 75 Ω RG 179		ø 6 mm	ø 1.6 mm ø 3 mm ø 4 mm

Series	Han® ID module	Han® Dummy module	Han® SC module ¹⁾	FOC contacts ¹⁾
Number of contacts	6		4	
Modules	electronic storage of data max. 128 Byte	to fill unused module spaces in the frame		
				
Page	ID00.02	S20.12		order contacts separately

Accessories Han-Modular®

Module clamp without strain relief Page S20.12		Assembly details	
Module clamp with strain relief Page S20.12			
Module clamp for rail Page S20.12			

¹⁾ Please find adequate modules and contacts in the HARTING catalogue "Heavy Duty Han® connectors"

Features

- ❑ compact and place saving
- ❑ robust design
- ❑ high degree of flexibility due to modular assembly
- ❑ two pre-leading PE contacts
- ❑ easy and quick assembly
- ❑ hood consists of two parts
- ❑ bulkhead mounted housing and carrier hood are exchangeable: this offers the possibility of a locking lever on the cable side and a cable to cable version
- ❑ It is recommended to use a wire ferrule

Technical characteristics

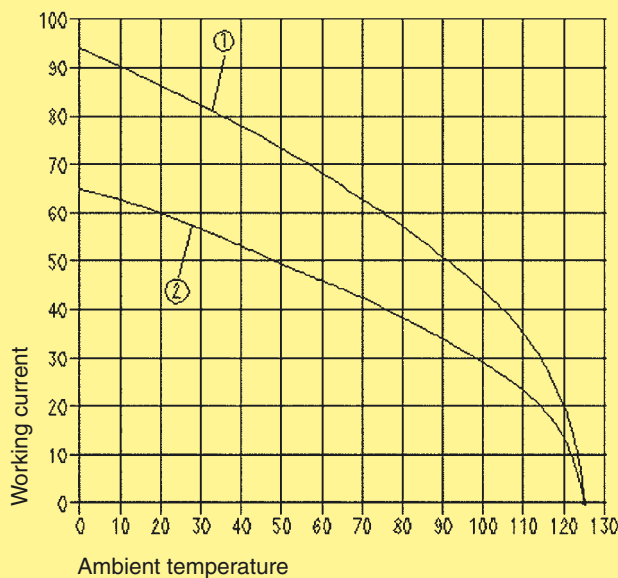
Hoods/housings

Material	zinc die cast
Surface	Ni
Locking elements	stainless steel
Hoods/housings seal	NBR
Temperature range	- 40 °C ... +125 °C
Degree of protection acc. to DIN EN 40 050 for coupled connector	IP 65
Mechanical working life - mating cycles	≥ 500
PE contact wire gauge	10 mm ² / AWG 8
Stripping length	10 mm
Tightening torque	1 Nm

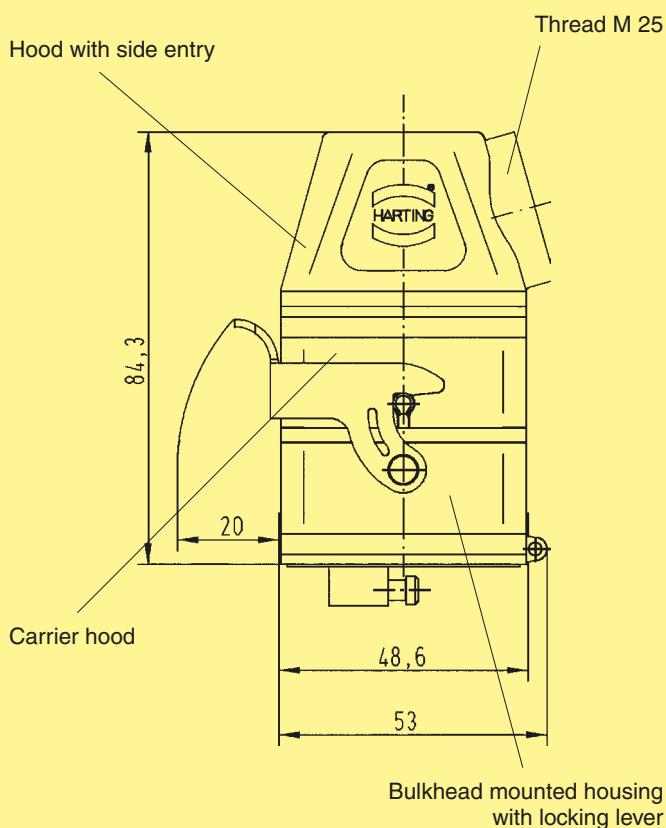
Current carrying capacity

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60 512-3.



- ① Han® Axial screw module, Wire gauge: 10 mm²
 ② Han® C module, Wire gauge: 6 mm²





Identification	Part No.		Drawing	Dimensions in mm
Hood side entry M 25	19 14 001 0501			4 screws are included in the delivery range
Hood top entry M 25	19 14 001 0401			4 screws are included in the delivery range
Carrier hood	09 14 001 0311			
Housing bulkhead mounting	09 14 001 0301			Panel cut out
Cable glands M 25	Metal 19 00 000 5090 19 00 000 5092	Plastic 19 00 000 5190 19 00 000 5192	cable Ø 9 – 16 mm 13 – 18 mm	

Features

- ❑ Grounding system according to VDE
- ❑ Rigid die cast zinc frame
- ❑ Modules can only be assembled polarized to guarantee correct orientation
- ❑ Both male and female modules may be mounted in the same hinged frame
- ❑ Hinged frames are mountable in standard hoods/housings
- ❑ Alphabetical marking of module positions
- ❑ No tool necessary to remove modules
- ❑ High mechanical reliability of modules in case of vibrations and impact stress

Technical characteristics

Specifications DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals  

Hinged frames

Number of modules	2, 3, 4, 6
PE wire gauge	
- Power side	4 - 6 mm ² AWG 12 - 10
- Signal side	1 - 2.5 mm ² AWG 18 - 14
Material	die cast zinc alloy
Temperature range	- 40 °C ... +125 °C
Mechanical working life	
- mating cycles	≥ 500

Hoods/Housings

Material	die cast aluminium
Surface	powder-coated RAL 7037
Locking elements	Han-Easy Lock®
Hoods/Housings seal	NBR
Temperature range	- 40 °C ... +125 °C
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65

Accessories

Crimping Tools
Cable clamps
Coding of Hoods/Housings
Label acc. to CSA-approval

Han-Modular® Hinged frames



Part No. for Hoods / Housings ²⁾														
Identification	Size	Marking A ... F	Marking a ... f	Drawing	Dimensions in mm									
Hinged frame for 2 modules	6 B	09 14 006 0303	09 14 006 0313	Hood	Housing									
Hinged frame for 3 modules				10 B	09 14 010 0303	09 14 010 0313								
Hinged frame for 4 modules							16 B	09 14 016 0303	09 14 016 0313					
Hinged frame for 6 modules										24 B	09 14 024 0303	09 14 024 0313		
				</										

- ¹⁾ Distance for electrical and FOC contacts max. 21 mm; for pneumatic contacts max. 20.5 mm
²⁾ Hinged frames can be used either in hood or housing, but two different markings must be used for one connector

Stock items in bold type

Features

- ❑ 8 contacts (16 A) for power circuits
- ❑ Male insert with protection collar
- ❑ Polarization of module
- ❑ Crimp termination
- ❑ Contacts with silver and gold plated surface
- ❑ Both male and female modules may be mounted in the same frame

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Inserts

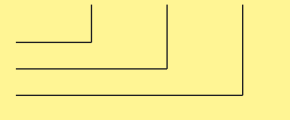
Number of contacts

8

Electrical data
acc. to DIN EN 61 984

16 A 400 V 6 kV 3

Rated current
Rated voltage
Rated impulse voltage
Pollution degree



– Pollution degree 2 also

16 A 400/690 V 6 kV 2

Rated voltage
according to UL/CSA
Insulation resistance
Material
Temperature range
Flammability acc. to UL 94
Mechanical working life
- mating cycles

600 V
 $\geq 10^{10} \Omega$
Polycarbonate
- 40 °C ... + 125 °C
V0
 ≥ 500

Contacts

Material

copper alloy

Surface

- hard-silver plated
- hard-gold plated

3 μm Ag
2 μm Au over 3 μm Ni

Contact resistance

$\leq 1 \text{ m}\Omega$

Crimp terminal

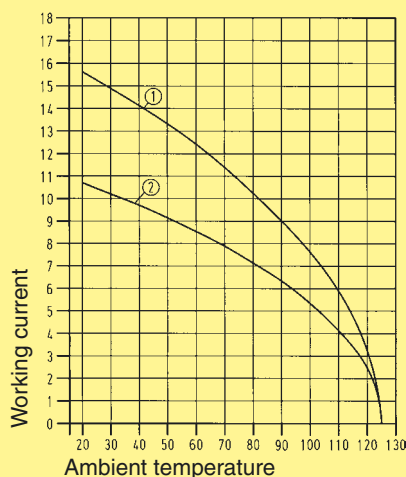
- mm²
- AWG

0.5 - 4.0 mm²
20 - 12

Current carrying capacity

The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the maximum temperature.

Control and test procedures according to DIN IEC 60 512-3.



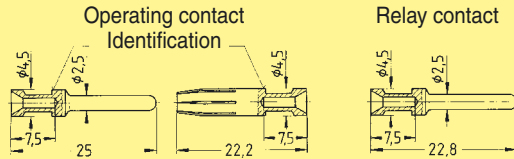
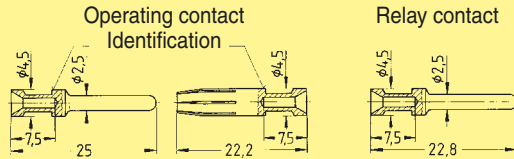
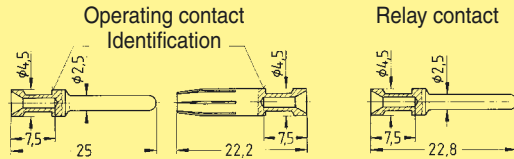
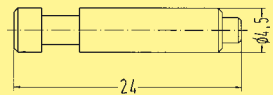
- ① 24 B hood/housing with 6 modules; wire gauge: 2.5 mm²
② 24 B hood/housing with 6 modules; wire gauge: 1.5 mm²

Number of contacts

8



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order contacts separately	09 14 008 3001	09 14 008 3101		

Wire gauge		Part No.		Drawing	Dimensions in mm
Identification	(mm²)	Male contacts	Female contacts		
Crimp contacts Power contacts silver plated	0.5	09 33 000 6121	09 33 000 6220		
	0.75	09 33 000 6114	09 33 000 6214		
	1.0	09 33 000 6105	09 33 000 6205		
	1.5	09 33 000 6104	09 33 000 6204		
	2.5	09 33 000 6102	09 33 000 6202		
	3	09 33 000 6106	09 33 000 6206		
	4	09 33 000 6107	09 33 000 6207		
gold plated	0.5	09 33 000 6122	09 33 000 6222		
	0.75	09 33 000 6115	09 33 000 6215		
	1.0	09 33 000 6118	09 33 000 6218		
	1.5	09 33 000 6116	09 33 000 6216		
	2.5	09 33 000 6123	09 33 000 6223		
	4.0	09 33 000 6119	09 33 000 6221		
Relay contact silver plated	0.75-1	09 33 000 6109			
	1.5	09 33 000 6110			
	2.5	09 33 000 6111			
Coding Pin			09 33 000 9954		

Features

- ❑ 4 Han D® contacts per Han Quintax® contact
- ❑ 2 Han Quintax® contacts per Quintax module
- ❑ Modular Assembly (double module)
- ❑ Suitable for shielded cables with diameters of:
 - 3 – 6 mm
 - 6 – 9.5 mm
- ❑ Several independent cables can be integrated in one housing without interruption of shielding
- ❑ Polarized connection of Quintax contacts is only possible when mounted in a Quintax module
- ❑ Ideal for the transmission of very sensitive signals (BUS signals)

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals



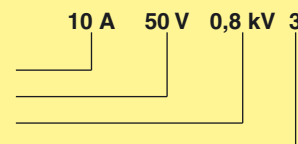
Module

Number of contacts

2

Electrical data
acc. to DIN EN 61 984

Rated current
Rated voltage
Rated impulse voltage
Pollution degree



Insulation resistance
Material

$\geq 10^{10} \Omega$
Polycarbonate
- 40 °C ... + 125 °C
V0

Temperature range
Flammability acc. UL 94
Mechanical working life
- mating cycles

≥ 500

Quintax Contacts

Number of contacts
Material: – Insulator
 – Outer conductor
Contact resistance
Temperature range
Flammability acc. UL 94
Outer surface finish
Cable diameter

Z-version
4 + Shielding
Polycarbonate
zinc alloy
 $\leq 4 \text{ m}\Omega$
- 40 °C ... + 70 °C
V0
Ni
3 - 9.5 mm

Coax Contacts

Number of contacts
Material: – Insulator
 – Outer conductor
Contact resistance
Temperature range
Flammability acc. UL 94
Outer surface finish
Cable diameter

1 + Shielding
Polycarbonate
zinc alloy
 $\leq 4 \text{ m}\Omega$
- 40 °C ... + 70 °C
V0
Ni
3 - 9.5 mm

Han D Contacts

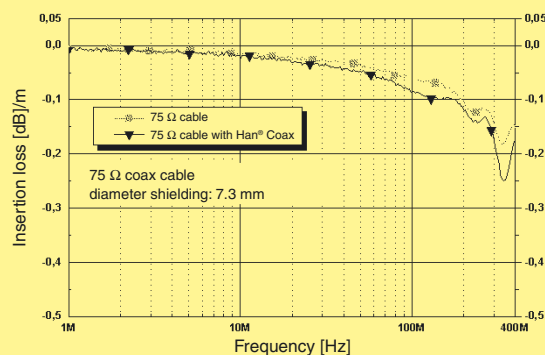
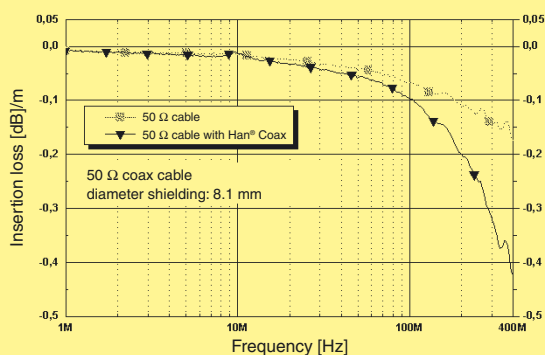
Material
Surface
- gold plated
Contact resistance
Crimp termination
- mm²
- AWG

Copper alloy

2 μm Au over 3 μm Ni
 $\leq 3 \text{ m}\Omega$

0.14 - 2.5 mm²
26 - 14

RF transmission characteristics Han® Coax



Number of contacts

4 + Shielding
per Quintax Contact

2 Quintax Contacts
per Han Quintax® Module

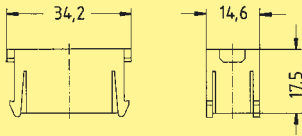
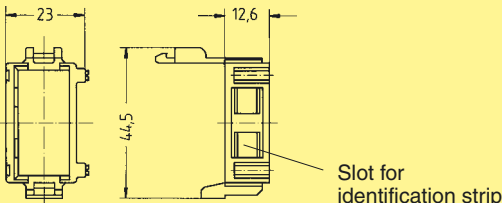
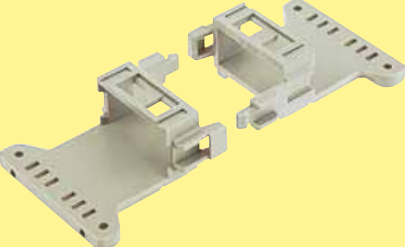
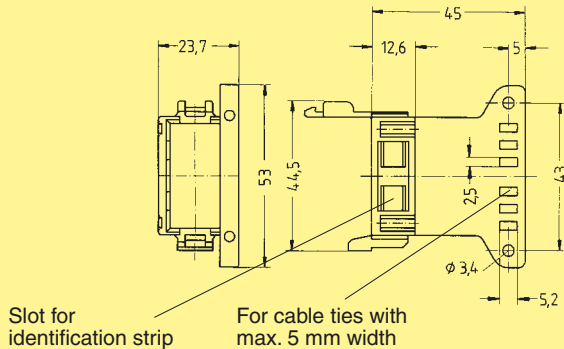
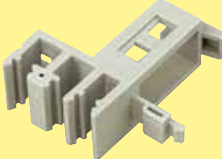
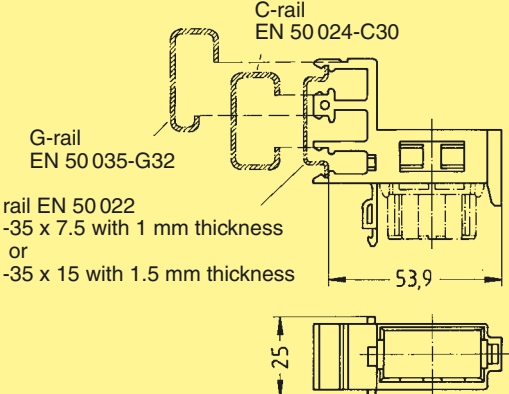
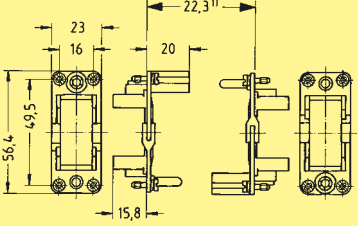


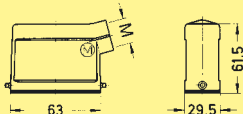
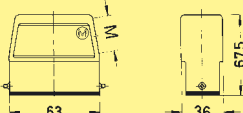
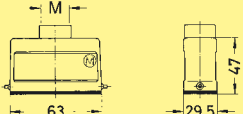
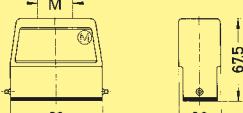
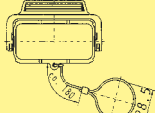
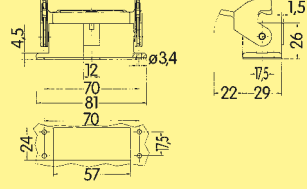
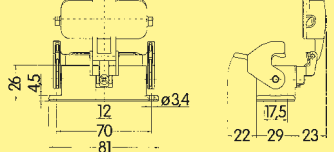
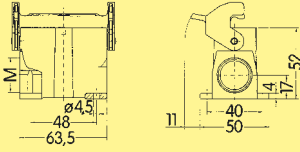
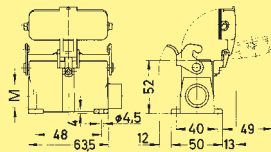
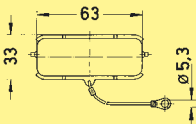
Identification	Part No.		Drawing	Dimensions in mm
	Male contact (M)	Female contact (F)		
Module 	09 14 002 3001	09 14 002 3101	Contact arrangement View from the termination side	
Quintax metal adapter (option) 	09 14 000 9915	09 14 000 9915		

Identification	Cable diameter mm	Part No.		Drawing	Dimensions in mm
		Male contact (M)	Female contact (F)		
Quintax Z Contact Order contacts separately	3 - 9.5	09 15 004 3013	09 15 004 3113	Special clamp for cable diameter 3 - 6 and 6 - 9.5 mm included in delivery range	
Coax Contact Order contacts separately	3 - 9.5	09 15 001 3013	09 15 001 3113	Special clamp for cable diameter 3 - 6 and 6 - 9.5 mm included in delivery range	

		Part No.																														
Identification	Wire gauge (mm²)	Male contacts	Female contacts	Drawing	Dimensions in mm																											
Crimp contacts gold plated 	0.14-0.37	09 15 000 6124	09 15 000 6224	<table><tr><th colspan="2">Wire gauge</th><th>ø</th><th>Stripping length</th></tr><tr><td>0.14-0.37 mm²</td><td>AWG 26-22</td><td>0.90 mm</td><td>8 mm</td></tr><tr><td>0.5 mm²</td><td>AWG 20</td><td>1.10 mm</td><td>8 mm</td></tr><tr><td>0.75 mm²</td><td>AWG 18</td><td>1.30 mm</td><td>8 mm</td></tr><tr><td>1 mm²</td><td>AWG 18</td><td>1.45 mm</td><td>8 mm</td></tr><tr><td>1.5 mm²</td><td>AWG 16</td><td>1.75 mm</td><td>8 mm</td></tr><tr><td>2.5 mm²</td><td>AWG 14</td><td>2.25 mm</td><td>6 mm</td></tr></table>	Wire gauge		ø	Stripping length	0.14-0.37 mm²	AWG 26-22	0.90 mm	8 mm	0.5 mm²	AWG 20	1.10 mm	8 mm	0.75 mm²	AWG 18	1.30 mm	8 mm	1 mm²	AWG 18	1.45 mm	8 mm	1.5 mm²	AWG 16	1.75 mm	8 mm	2.5 mm²	AWG 14	2.25 mm	6 mm
	Wire gauge		ø		Stripping length																											
	0.14-0.37 mm²	AWG 26-22	0.90 mm		8 mm																											
	0.5 mm²	AWG 20	1.10 mm		8 mm																											
	0.75 mm²	AWG 18	1.30 mm		8 mm																											
	1 mm²	AWG 18	1.45 mm		8 mm																											
	1.5 mm²	AWG 16	1.75 mm		8 mm																											
	2.5 mm²	AWG 14	2.25 mm		6 mm																											
0.5	09 15 000 6123	09 15 000 6223																														
0.75	09 15 000 6125	09 15 000 6225																														
1.0	09 15 000 6122	09 15 000 6222																														
1.5	09 15 000 6121	09 15 000 6221																														
2.5	09 15 000 6126	09 15 000 6226																														

Stock items in bold type

Identification	Part No.	Drawing	Dimensions in mm
Han-Modular® Dummy module to fill up module spaces not in use in the frame 	09 14 000 9950		
Module clamp without strain relief  Delivery comprises 2 module clamps	09 14 000 0301		
Module clamp with strain relief  Delivery comprises 2 module clamps	09 14 000 0302		
Module clamp for rail  Delivery comprises 2 module clamps	09 14 000 0303		
Frame for 1 module in Han® 10 A housing 	09 14 000 0304	Hood 	Housing
Identification strips 20 pieces in one block – 9 mm width 20 mm length	09 33 000 9982		

Identification		Part No.		M	Drawing	Dimensions in mm
		Low construction	High construction			
Hoods	Hoods side-entry 	19 20 010 1540		20		63 29,5 61,5
			19 20 010 0546	25		63 36 67,5
	Hoods top-entry 	19 20 010 1440		20		63 29,5 47
			19 20 010 0446	25		63 36 67,5
	Protection covers for hoods 	09 20 010 5423				63 29,5 47
Housings	Housings bulkhead mounting 	09 20 010 0301		—		4,5 12 70 81 70 57 24 17,5 26 1,5 17,5 22—29
		with thermo- plastic cover 09 20 010 0321¹⁾		—		26 4,5 12 70 81 22—29—23
	Housings surface mounting 	19 20 010 0251		1 x 25		M 4,5 48 63,5 11 40 50
	 2 side- entries	19 20 010 0290		2 x 20		M 4,5 48 63,5 12 50 13
	Protection covers for housings 	09 20 010 5425				63 33 5,3

Stock items in bold type

Connectors

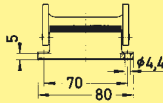
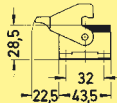
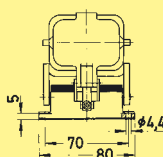
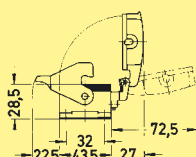
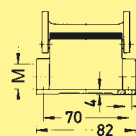
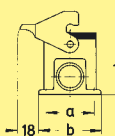
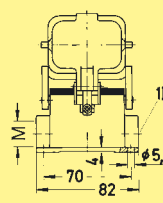
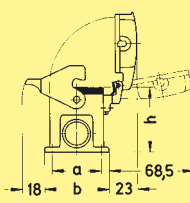
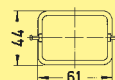
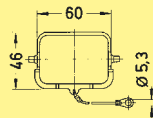
S
20
13

for 2 modules

Identification		Part No.		M	Drawing	Dimensions in mm
		Low construction	High construction			
Connectors	Hoods side-entry	19 30 006 1540 19 30 006 1541	19 30 006 0546 19 30 006 0547	20 25 25 32		
	Hoods top-entry	19 30 006 1440	19 30 006 0446 19 30 006 0447	20 25 32		
	Protection covers for hoods metal	09 30 006 5401 09 30 006 5423				
	Hoods cable to cable	19 30 006 1750	19 30 006 0756	20 25		
	Protection cover for cable to cable hood metal	09 30 006 5427				

Stock items in bold type

for 2 modules

		Part No.																	
Identification		Low construction	High construction	M	Drawing	Dimensions in mm													
Housings	Housings bulkhead mounting				Panel cut out 48 x 35 mm														
		09 30 006 0301		—															
		with thermo-plastic cover 09 30 006 0302 with metal cover 09 30 006 0318		—															
Housings	Housings surface mounting																		
		19 30 006 1250 19 30 006 1290	19 30 006 0291 19 30 006 0292	1 x 20 2 x 20 2 x 25 2 x 32															
		with thermo-plastic cover 19 30 006 1255 19 30 006 1295 with metal cover 19 30 006 2255 19 30 006 2295	with thermo-plastic cover 19 30 006 0296 19 30 006 0297 with metal cover 19 30 006 7296	1 x 20 2 x 20 2 x 25 2 x 32 1 x 20 2 x 20 2 x 25															
					1) Blind way for one cable entry														
					<table><tr><td></td><td>a</td><td>b</td><td>h</td></tr><tr><td>Low construction</td><td>40</td><td>52</td><td>51.5</td></tr><tr><td>High construction</td><td>45</td><td>57</td><td>74</td></tr></table>		a	b	h	Low construction	40	52	51.5	High construction	45	57	74		
	a	b	h																
Low construction	40	52	51.5																
High construction	45	57	74																
Protection covers	metal																		
		09 30 006 5404 09 30 006 5425																	

Connectors

S
20
15

Stock items in bold type

Hoods

Connectors

Housings

S
20
16

Stock items in bold type

for 3 modules

		Part No.					
Identification		Low construction	High construction	M	Drawing	Dimensions in mm	
Hoods	Hoods side-entry	19 30 010 1540 19 30 010 1541	19 30 010 0547	20 25 32			
	Hoods top-entry	19 30 010 1440 19 30 010 1441	19 30 010 0447	20 25 32			
Housings	Housings bulkhead mounting	09 30 010 0305 with thermo-plastic cover 09 30 010 0303 with metal cover 09 30 010 0318		— — —	Panel cut out 60 x 35 mm 		
	Housings surface mounting	1 side-entry 2 side-entries	19 30 010 1250 19 30 010 1290	19 30 010 0291 19 30 010 0292	20 20 25 32		
		1 side-entry 2 side-entries	with thermo-plastic cover 19 30 010 1255 with thermo-plastic cover 19 30 010 1295		20 20 25 32		
			with metal cover 19 30 010 2295	19 30 010 0296 19 30 010 0297	20 20 25 32		
					20 25		
				19 30 010 7296	20 25		
	Hoods cable to cable		19 30 010 1750	19 30 010 0756 19 30 010 0757	20 25 32		

Connectors

S 20 17

Stock items in bold type

for 4 modules

Identification		Part No.			Drawing	Dimensions in mm					
		Low construction	High construction	M							
Hoods	Hoods side-entry	19 30 016 1521 19 30 016 1522	19 30 016 0527 19 30 016 0528	25 32							
	Hoods top-entry	19 30 016 1421 19 30 016 1422	19 30 016 0427 19 30 016 0428	25 32 32 40							
	Protection covers for housings thermoplastic/metal	09 30 016 5401 09 30 016 5422									
Housings	Housing bulkhead mounting	09 30 016 0301		—	Panel cut out 82 x 35 mm 						
	Housings surface mounting 1 side-entry	19 30 016 1231	19 30 016 0232	25 32							
	Housings surface mounting 2 side-entries	19 30 016 1271	19 30 016 0271 19 30 016 0272 19 30 016 0273	25 32 40	Blind way for one cable entry <table border="1"><thead><tr><th></th><th>h</th></tr></thead><tbody><tr><td>Low construction</td><td>56</td></tr><tr><td>High construction</td><td>81</td></tr></tbody></table>		h	Low construction	56	High construction	81
		h									
	Low construction	56									
High construction	81										
Protection covers for housings bulkhead mounting thermoplastic/metal	09 30 016 5405 09 30 016 5425										
Hoods cable to cable	19 30 016 1731	19 30 016 0736 19 30 016 0737	25 32								
	Protection cover for hoods cable to cable metal	09 30 016 5426									

Stock items in bold type

for 4 modules

		Part No.			Drawing	Dimensions in mm						
Identification		Low construction	High construction	M								
Hoods	Hoods side-entry	19 30 016 1541 19 30 016 1542	19 30 016 0547 19 30 016 0548	25 32								
	Hoods top-entry	19 30 016 1441 19 30 016 1442	19 30 016 0447 19 30 016 0448	25 32								
Housings	Housings bulkhead mounting	09 30 016 0307 with thermo- plastic cover 09 30 016 0306 with metal cover 09 30 016 0318		— — —								
	Housings surface mounting	1 side-entry 19 30 016 1251 2 side-entries 19 30 016 1291 with thermo- plastic cover 1 side-entry 19 30 016 1256 with thermo- plastic cover 2 side-entries 19 30 016 1296 with metal cover 2 side-entries 19 30 016 2296	19 30 016 0252 19 30 016 0291 19 30 016 0292 with thermo- plastic cover 19 30 016 0297 with thermo- plastic cover 19 30 016 7297	25 32 25 32 25 32 25 32		Panel cut out 82 x 35 mm 						
Hoods	Hoods cable to cable	19 30 016 1751	19 30 016 0757	25 32		<table><tr><td></td><td>h</td></tr><tr><td>Low construction</td><td>47.5</td></tr><tr><td>High construction</td><td>78.5</td></tr></table>		h	Low construction	47.5	High construction	78.5
		h										
Low construction	47.5											
High construction	78.5											

Stock items in bold type

S
20
19

for 6 modules

		Part No.											
Identification		Low construction	High construction	M	Drawing	Dimensions in mm							
Hoods	Hoods side-entry	19 30 024 1521 19 30 024 1522	19 30 024 0527 19 30 024 0528	25 32									
	Hoods top-entry	19 30 024 1422	19 30 024 0427 19 30 024 0428	32 40									
	Protection covers for hoods thermoplastic/metal	09 30 024 5401 09 30 024 5422											
Housings	Housing bulkhead mounting	09 30 024 0301		—	Panel cut out 108 x 35 mm 								
	Housings surface mounting 1 side-entry	19 30 024 1231	19 30 024 0232	25 32									
	Housings surface mounting 2 side-entries	19 30 024 1271	19 30 024 0272 19 30 024 0273	25 32 40	Blind way for one cable entry <table border="1"><thead><tr><th></th><th>h</th></tr></thead><tbody><tr><td>Low construction</td><td>56</td></tr><tr><td>High construction</td><td>81</td></tr></tbody></table>		h	Low construction	56	High construction	81		
		h											
	Low construction	56											
High construction	81												
Protection covers for housings bulkhead/surface mounting thermoplastic/metal	09 30 024 5405 09 30 024 5425												
Hoods cable to cable	19 30 024 1732	19 30 024 0737	32										
	Protection cover for hoods metal	09 30 024 5426											

Stock items in bold type

for 6 modules

Identification		Part No.		M	Drawing	Dimensions in mm
		Low construction	High construction			
Hoods	Hoods side-entry	19 30 024 1541 19 30 024 1542		25 32		
	Hoods top-entry	19 30 024 1442	19 30 024 0547 19 30 024 0548	32 40		
Housings	Housings bulkhead mounting	09 30 024 0307 with thermo-plastic cover 09 30 024 0304 with metal cover 09 30 024 0318		— — —		
	Housings 1 side-entry	19 30 024 1251		25		
Housings	2 side-entries	19 30 024 1291 with thermo-plastic cover 19 30 024 1256 with thermo-plastic cover 19 30 024 1296 with metal cover 19 30 024 2296	19 30 024 0292	25 32		
	2 side-entries	19 30 024 2297		25 32		
Hoods	Hoods cable to cable	19 30 024 1752	19 30 024 0757	32		

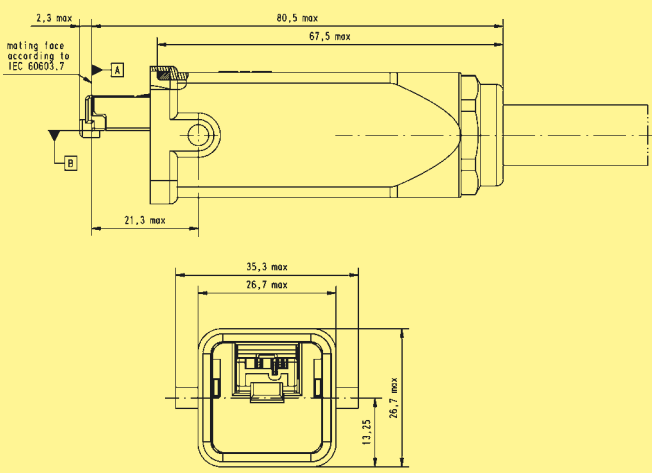
Connectors

S 20 21

Stock items in bold type



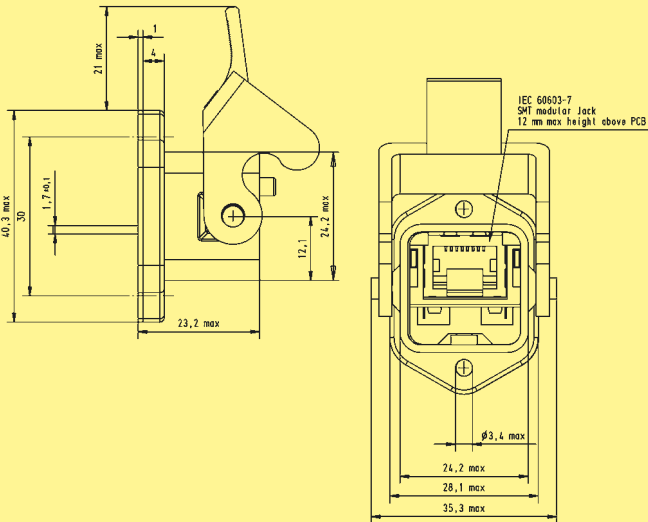
IP 67 Data 3A connectors

Identification	Part No.	Drawing	Dimensions in mm
Connector set incl. housing, cable gland and instruction manual Plastic version Metal version Coding pin set	 09 45 125 1100 09 45 115 1100 09 45 820 0000		
Technical characteristics		General informations	
Transmission properties in accordance with Category 5 ISO/IEC 11 801:2002 and EN 50 173-1 Degree of protection: IP 67/65 Mating interface: RJ45 in accordance with IEC 60 603-7 Wire gauge data ¹⁾ : AWG 22 - 24 stranded AWG 23 - 23 solid Temperature range: -40 °C ... +70 °C Cable sheath diameter: 6.5 mm - 6.9 mm Mating cycles: mind. 750 Housing material: Thermoplastic, black Zinc die cast, grey		The IP 67 data version of the RJ Industrial is based on the RJ45 data module, integrated into a standard Han® 3 A industry housing that can be used for most industrial applications. The housing is optionally available in plastic or metal, and offers protection level IP 67/65. Implementing a uniform pattern for all the connectors based on the Han® 3 A contour for data and hybrid solutions means that all versions are plug-compatible for data signals. Optional coding prevents incorrect mating up to four different connectors.	

¹⁾ Details see technical data sheet



IP 67 Data 3A panel feed through

Identification	Part No.	Drawing	Dimensions in mm
Panel feed throughset incl. housing and instruction manual			
Plastic version	09 45 225 1100		
Metal version	09 45 215 1100		
Coding pin set	09 45 820 0000		

Technical characteristics

Transmission properties in accordance with Category 5 ISO/IEC 11 801:2002 and EN 50 173-1

Degree of protection:	IP 67/65
Mating interface internal and external:	RJ45 jack in accordance with IEC 60 603-7
Panel cut out:	22 x 22 mm
Temperature range:	-40 °C ... +70° C
Mating cycles:	min. 750
Housing material:	Thermoplastic, black Zinc die cast, grey

General information

The IP 67 panel feed through data version of the RJ Industrial is based on a RJ45 jack, integrated into a Han® 3 A housing that can be used for most industrial applications. The housing is optionally available in plastic or metal, and offers protection level IP 67/65.

Implementing a uniform plug pattern for all the connectors based on the Han® 3 A contour for data and hybrid solutions means that all versions are plug-compatible for data signals. Optional coding prevents incorrect mating up to four different connectors. The panel feed through is compatible with RJ45 connectors, which means that standard patch cables for service and test purposes can be used. The data lines are connected at the rear via an RJ45 jack meeting IP 20.