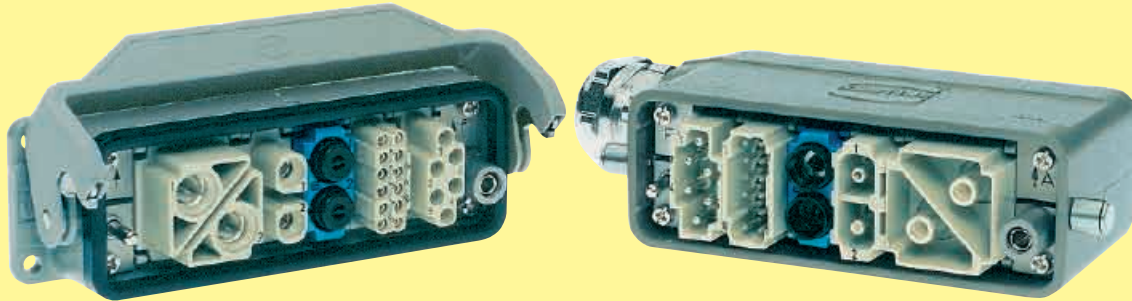


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Description of the Han-Modular® system



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.

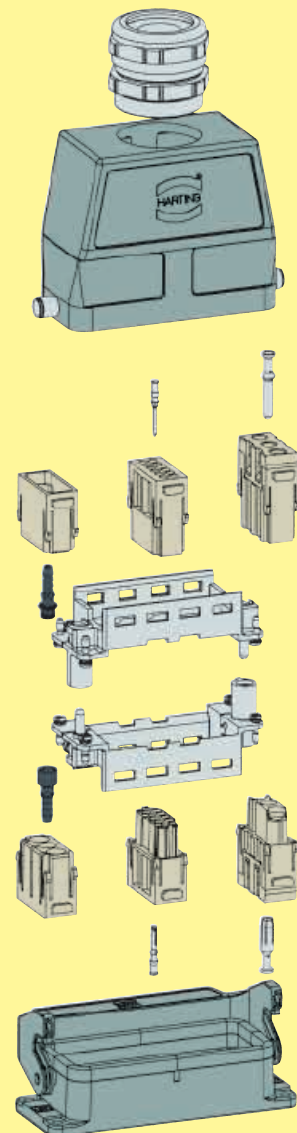
The individual contacts used in this system are all from existing well proven ranges and it is possible to use combinations of 1 to 12 modules depending on the size of the hoods and housings chosen.

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





Han-Modular® Compact



Page 06.06

Han
Modular

Han-Modular® Twin



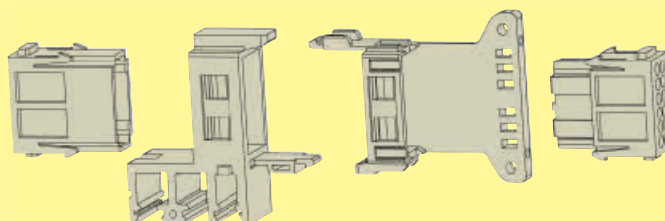
Page 06.08

Han-Modular® Hinged frames in Han® B hoods and housings



Page 06.10

Module clamps



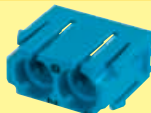
Page 06.70

Series	Han® 200 A module	Han® 100 A module	Han® 70 A module	Han® 40 A module
Number of contacts	1	2	2	2
Modules	Axial screw terminal 	Axial screw terminal 	Axial screw terminal 	Axial screw terminal 
Rated current	200 A	100 A	70 A	40 A
Rated voltage	1000 V	1000 V	1000 V	1000 V
Wire gauge	25 - 70 mm²	10 - 38 mm²	6 - 22 mm²	2.5 - 10 mm²
Page	06.12	06.14	06.16	06.18
Series	Han® C module	Han® C module	Han® CC Protected module	Han® CD module
Number of contacts	3	3	4	3
Modules	Axial screw terminal 	Crimp terminal 	Crimp terminal 	Crimp terminal 
Rated current	40 A	40 A	40 A	40 A
Rated voltage	690 V	400 / 690 V	830 V	830 V
Wire gauge	2.5 - 10 mm²	1.5 - 10 mm²	1.5 - 6 mm²	1.5 - 6 mm²
Page	06.20	06.22	06.24	06.26
Series	Han E® module	Han® EE module	Han® E Protected module	Han® EEE module
Number of contacts	6	8	6	20
Modules	Crimp terminal 	Crimp terminal 	Crimp terminal 	Crimp terminal 
Rated current	16 A	16 A	16 A	16 A
Rated voltage	500 V	400 V	830 V	500 V
Wire gauge	0.5 - 4 mm²	0.5 - 4 mm²	0.5 - 4 mm²	0.5 - 4 mm²
Page	06.28	06.30	06.32	06.34
Series	Han® ES module	Han® HV module	Han DD® module	Han® DDD module
Number of contacts	5	2	12	17
Modules	Cage-clamp spring terminal 	Crimp terminal 	Crimp terminal 	Crimp terminal 
Rated current	16 A	16 A	10 A	10 A
Rated voltage	400 V	2900 / 5000 V	250 V	160 V
Wire gauge	0.14 - 2.5 mm²	0.5 - 4 mm²	0.14 - 2.5 mm²	0.14 - 2.5 mm²
Page	06.36	06.38	06.40	06.42

Series	Han® High Density module		Han® D-Sub module			
Number of contacts	25		9			
Modules	Crimp terminal 		Crimp terminal 			
Rated current	5 A		5 A			
Rated voltage	50 V		50 V			
Wire gauge	0.08 - 0.52 mm²		0.08 - 0.52 mm²			
Page	06.44		06.46			

Series	Han® Dummy module		Han® USB module		Han® FireWire module		Han® RJ45 module	
Number of contacts			4		6		8	
Modules	to fill unused module spaces in the frame 							
Page	06.70		06.48		06.50		06.52	

Series	Han® Quintax module				Han® Multi Contact module	
Number of contacts	2				4	
Modules						
Page	06.54				06.58 / 06.60	
Contacts	Quintax contact 4 + shielding 	High Density Quintax contact 8 + shielding 	Han D® Coax contact 1 + shielding  75 Ω	Han E® Coax contact 1 + shielding  50 Ω	Coaxial contact  50 Ω RG 174 75 Ω RG 179 50 Ω RG 58	FOC contacts  Multimode F.O. HCS®*/PCF F.O. 1 mm POF

Series	Han® Pneumatic module			Han® SC module		
Number of contacts	2	3	3	4		
Modules						
Page	06.62	06.64	06.66	06.68		
Contacts	Pneumatic Contacts  Ø 6.0 mm			FOC contacts  Multimode F.O. HCS®*/PCF F.O. 1 mm POF		

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

Features

- Compact design saves space
- Modular structure increases flexibility
- Simple and quick assembly
- Robust design
- Two part grommet housing

Technical characteristics

Hoods/housings

Material	zinc die-cast
Surface	nickel plated
Locking element	stainless steel
Hoods/Housings sealing	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 65
Mechanical working life	
- mating cycles	500
PE contact	
wire gauge	10 mm ² / 8 AWG
Stripping length	10 mm
Tightening torque	1 Nm

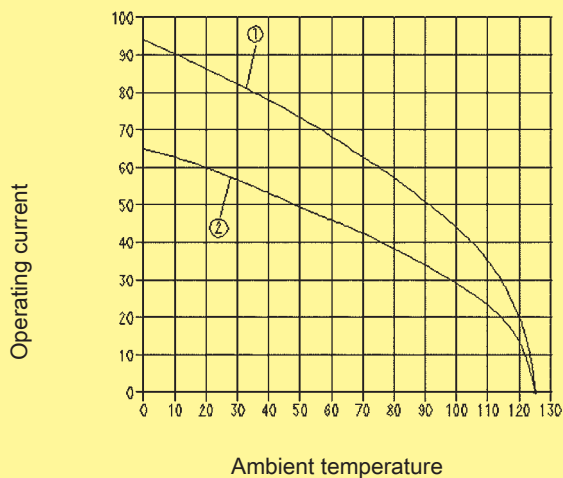
Protection covers

Material	Polycarbonate
Locking element	Polyamide
Hoods/Housings sealing	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 65
Flammability acc. to UL 94	V 0

Derating diagram

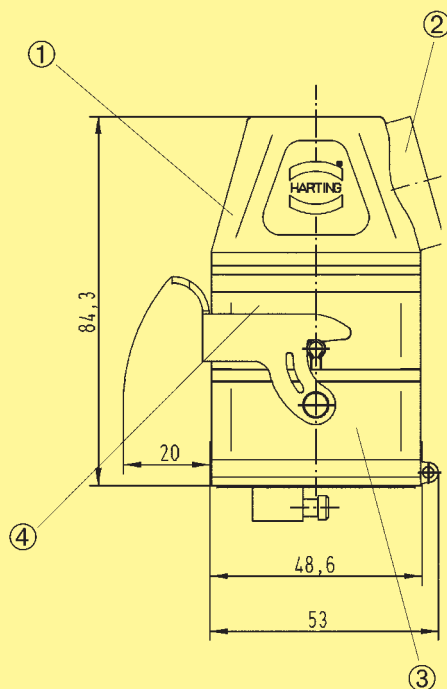
The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5



① Han® Axial screw module, Wire gauge: 10 mm²

② Han® C module, Wire gauge: 6 mm²

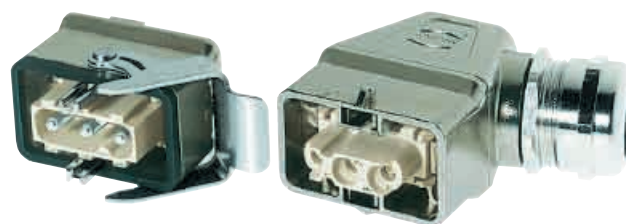


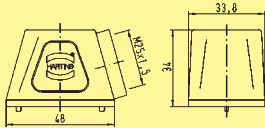
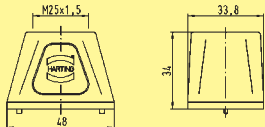
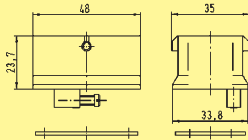
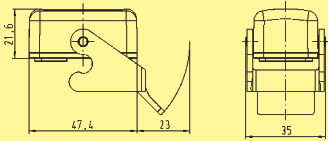
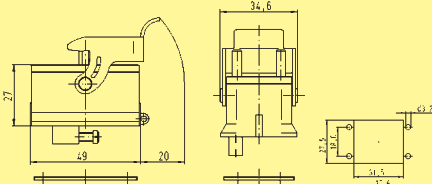
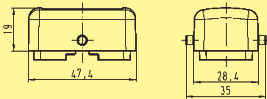
① Hood with side entry

② Thread M25

③ Bulkhead mounted housing with locking lever

④ Carrier hood



Identification	Part number	Drawing	Dimensions in mm
Hood side entry M 25 	19 14 001 0501	4 screws are included in the delivery range 	
Hood straight M 25 	19 14 001 0401	4 screws are included in the delivery range 	
Carrier hood 	09 14 001 0311		
Protection cover 	09 14 001 5402		
Housing, bulkhead mounting 	09 14 001 0301	Panel cut out 	
Protection cover 	09 14 001 5401		

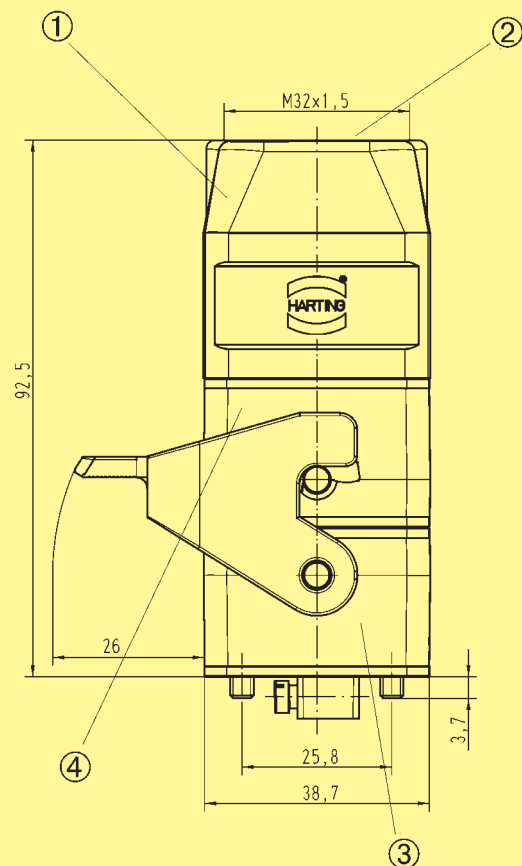
Features

- Compact and space saving
- High degree of flexibility due to modular assembly
- Easy and quick assembly
- Robust design
- Hood consists of two parts

Technical characteristics

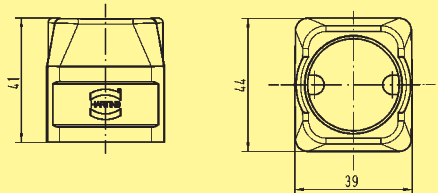
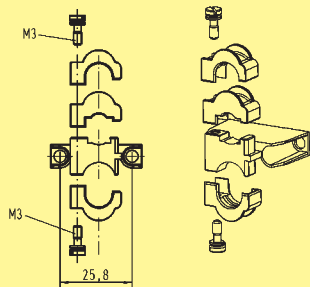
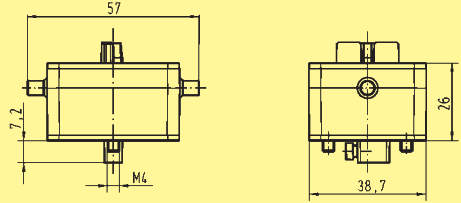
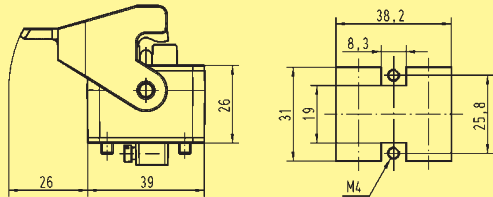
Hoods/housings

Material	aluminium die-cast
Surface	powder-coated
Locking element	Han® Easy-Lock
Hoods/Housings sealing	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 65
Mechanical working life	
- mating cycles	≥ 500
PE contact	
wire gauge	10 mm ² / 8 AWG
Stripping length	10 mm
Tightening torque	1 Nm



- ① Hood with side entry
- ② Thread M32
- ③ Bulkhead mounted housing with locking lever
- ④ Carrier hood



Identification	Part number	Drawing	Dimensions in mm
Hood straight M 32 	19 14 002 0402		
Shielding frame 	09 14 000 9924	Assembly instructions 	
Carrier hood 	09 14 002 0311		
Housing, bulkhead mounting 	09 14 002 0301	Panel cut out 	

Features

- Pre-leading grounding system according VDE
- Modules can only be assembled polarized to guarantee a correct orientation
- Alphabetical marking of module position
- High mechanical reliability of modules in case of vibration and impact stress
- No tools necessary to remove modules

Technical characteristics

Specifications DIN VDE 0110
DIN EN 61 984

Approvals  

Hinged frames

Number of modules 2, 3, 4, 6
PE contact
wire gauge
- Power side 4 - 6 mm² (10 mm²)*
AWG 12 - 10 (AWG 8)*
- Signal side 1 - 2.5 mm²
AWG 18 - 14
Material zinc die-cast
Limiting temperatures -40 °C ... 125 °C
Mechanical working life
- mating cycles ≥ 500

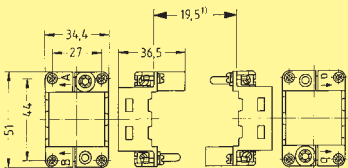
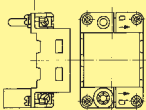
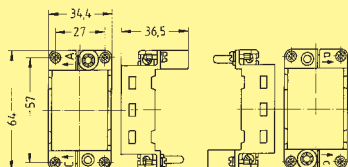
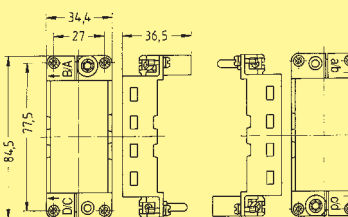
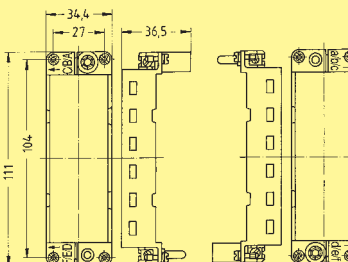
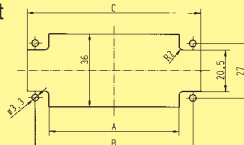
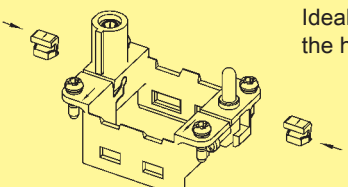
Hoods/housings

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

Accessories

Crimping tools chapter 99
Cable clamps chapter 40
Coding of hoods/housings chapter 40



Identification	Part number for Hood/Housing 2)			Drawing	Dimensions in mm																			
	Size	Marking A ... F	Marking a ... f																					
Hinged frame for 2 modules	6 B	09 14 006 0303	09 14 006 0313	Hoods  Housings 																				
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	 Panel cut out  <table><tr><th>Size</th><th>A</th><th>B</th><th>C</th></tr><tr><td>6 B</td><td>35</td><td>44</td><td>52</td></tr><tr><td>10 B</td><td>49</td><td>57</td><td>66</td></tr><tr><td>16 B</td><td>64</td><td>77.5</td><td>85.5</td></tr><tr><td>24 B</td><td>94</td><td>104</td><td>112</td></tr></table>	Size	A	B	C	6 B	35	44	52	10 B	49	57	66	16 B	64	77.5	85.5	24 B	94	104	112
Size	A	B	C																					
6 B	35	44	52																					
10 B	49	57	66																					
16 B	64	77.5	85.5																					
24 B	94	104	112																					
Locking element for hinged frames (20 pieces per bloc)		09 14 000 9960	09 14 000 9960	 Ideal to pre-assemble the hinged frames																				

1) Distance for electrical and F.O. contacts max. 21 mm; for pneumatic contacts max. 20.5 mm
2) Hinged frames can be used either in hood or housing
Both different markings must be used for one connector!

Features

- Axial-screw termination
- No special tools required
- Power module for big wire gauge up to 70mm²
- Suitable as a 3 + PE connector in a Han® 32 B housing

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
----------------	-------------------------------

Inserts

Number of contacts	1
Electrical data	
acc. to EN 61 984	200 A 1000 V 8 kV 3
Rated current	200 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3

Insulation resistance	≥ 10 ¹⁰ Ω
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts

Material	copper alloy
Surface	

- hard-silver plated 3 µm Ag

Contact resistance 0.2 mΩ

Screw terminal

- Wire gauge ¹⁾ 25 ... 70 mm²

- AWG 2 ... 00

- Hexagonal driver SW 5

- Stripping length 16 mm

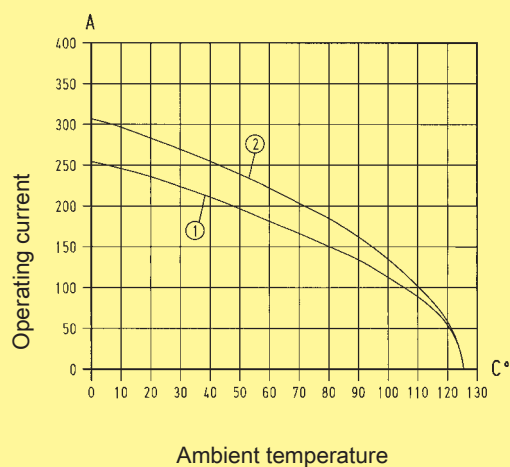
- Tightening torque

mm ²	25	35	50	70
Nm	8	8	9	10

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5

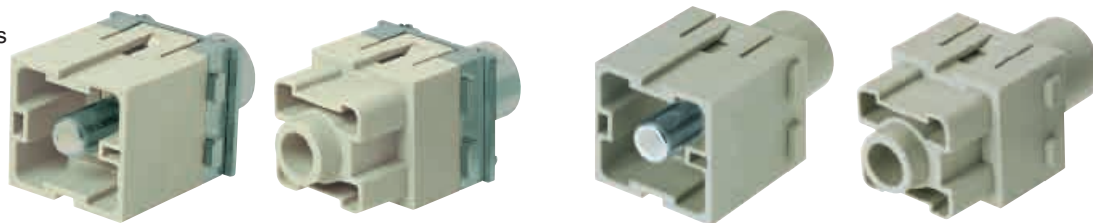


① 24 B hoods/housings with 3 modules;
wire gauge: 50 mm²

② 24 B hoods/housings with 3 modules;
wire gauge: 70 mm²

Number of contacts

1



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han® 200 A module Axial screw terminal 200 A				
25 ... 40 mm ²	09 14 001 2663	09 14 001 2763		
40 ... 70 mm ²	09 14 001 2662	09 14 001 2762		
Han® 200 A module Axial screw terminal 200 A PE (Ground)				
25 ... 40 mm ²	09 14 001 2668	09 14 001 2768		
40 ... 70 mm ²	09 14 001 2667	09 14 001 2767		

Han
Modular

Identification	Part number	Drawing	Dimensions in mm
Hex key SW 5 for axial setscrew			
with grip	09 99 000 0364		
adapter 3/8"	09 99 000 0371		

06
13

Stock items in bold type

Features

- Axial-screw termination
- No special tools required
- Connect PE contact with special cable shoe

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals



Inserts

Number of contacts	2
Electrical data	
acc. to EN 61 984	100 A 1000 V 8 kV 3
Rated current	100 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3

Pollution degree 2 also	100 A 1600 V 12 kV 2
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts

Material copper alloy

Surface

- hard-silver plated

3 μm Ag

Contact resistance

0.3 m Ω

Screw terminal

- Wire gauge ¹⁾

10 ... 38 mm²

- AWG

6 ... 2

- Hexagonal driver

SW 4

- Stripping length

13 mm

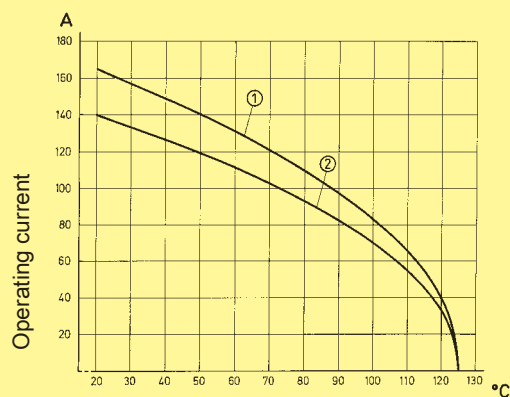
- Tightening torque

mm ²	10	16	25	35
Nm	6	6	7	8

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5

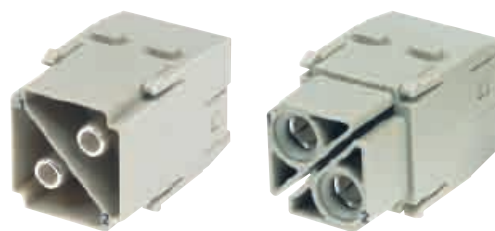


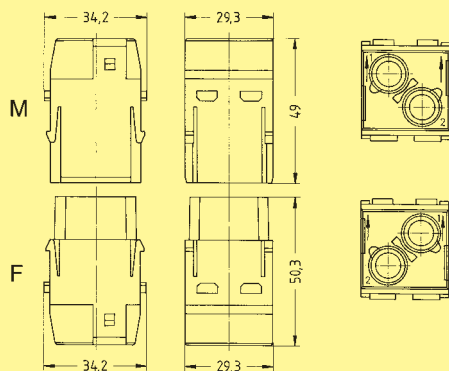
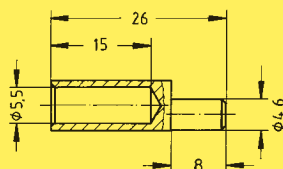
Ambient temperature

- ① 24 B hoods/housings with 3 modules;
wire gauge: 35 mm²
- ② 24 B hoods/housings with 3 modules;
wire gauge: 25 mm²

Number of contacts

2



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han® 100 A module Axial screw terminal 100 A				
10 ... 25 mm ²	09 14 002 2653	09 14 002 2753		
16 ... 35 mm ²	09 14 002 2651	09 14 002 2751		
38 mm ²	09 14 002 2650	09 14 002 2750		
Identification	Part number		Drawing	Dimensions in mm
Hex key SW 4 for axial setscrew				
with grip		09 99 000 0363		
adapter 3/8"		09 99 000 0370		
Cable shoe 16 mm ²				
for PE extension		09 14 000 9912	 Please use pressing tools for non-insulated cable shoes following DIN 46 230 with 16 mm² range (eg. K25, co. Klauke)	

Han
Modular06
15

Stock items in bold type

Features

- Axial-screw termination
- 2 contacts (70 A) for power circuits
- Polarisation of module
- Male and female contacts are finger safe

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
----------------	-------------------------------

Inserts

Number of contacts	2
Electrical data acc. to EN 61 984	70 A 1000 V 8 kV 3
Rated current	70 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Pollution degree 2 also	70 A 1600 V 12 kV 2
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
Contact resistance	$\leq 0.5 \text{ m}\Omega$
Screw terminal	
- Wire gauge ¹⁾	6 ... 22 mm ²
- AWG	8 ... 4
- Hexagonal driver	SW 2.5
- Stripping length	

mm ²	6	10	16	22
mm	11 ⁺¹	11 ⁺¹	11 ⁺¹	12.5 ⁺¹

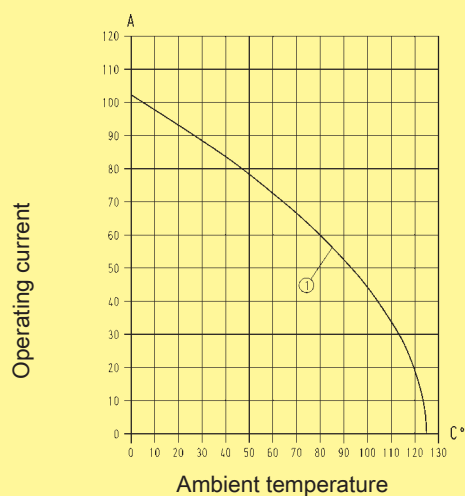
- Tightening torque

mm ²	6	10	16	22
Nm	2	3	4	5

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5

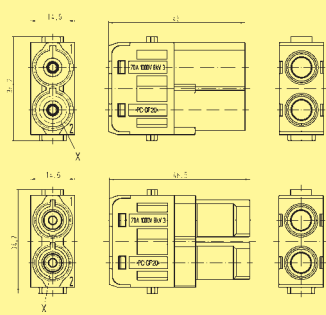


① 24 B hoods/housings with 6 modules;
wire gauge: 16 mm²

Number of contacts

2



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han® 70 A module Axial screw terminal 70 A				
6 ... 16 mm ²	09 14 002 2641	09 14 002 2741		
14 ... 22 mm ²	09 14 002 2642	09 14 002 2742		

Han
Modular

Identification	Part number	Drawing	Dimensions in mm
Hex key SW 2.5 for axial setscrew			
Bit 1/4"	09 99 000 0375		



Stock items in bold type

Features

- Axial-screw termination
- No special tools required

Technical characteristics

Specifications DIN EN 61 984
 DIN VDE 0110

Approvals

Inserts

Number of contacts 2
Electrical data
acc. to EN 61 984 **40 A 1000 V 8 kV 3**
Rated current 40 A
Rated voltage 1000 V
Rated impulse voltage 8 kV
Pollution degree 3

Pollution degree 2 also 40 A 1600 V 12 kV 2
Insulation resistance $\geq 10^{10} \Omega$
Material Polycarbonate
Limiting temperatures -40 °C ... 125 °C
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

Contacts

Material copper alloy
Surface
- hard-silver plated 3 μm Ag
Contact resistance $\leq 0.5 \text{ m}\Omega$
Screw terminal
- Wire gauge ¹⁾ 2.5 ... 10 mm²
- AWG 14 ... 8
- Hexagonal driver SW 2
- Stripping length

mm ²	2.5	4	6	10
mm	5+1	5+1	8+1	11+1

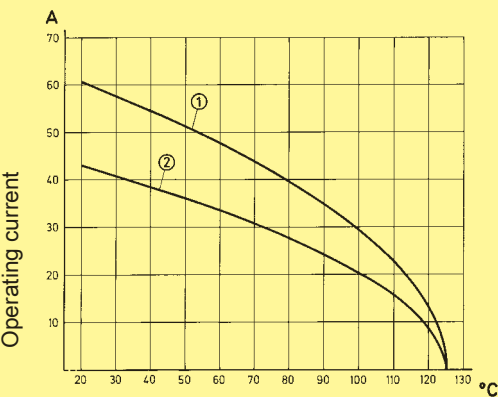
mm ²	2.5	4	6	10
Nm	1.5	1.5	2	2

- Tightening torque

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5



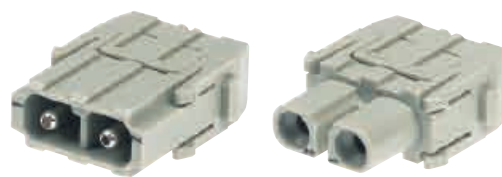
Ambient temperature

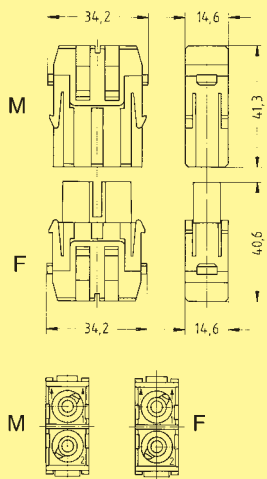
- ① 24 B hoods/housings with 6 modules;
wire gauge: 10 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 6 mm²

1) geometric wire gauge

Number of contacts

2



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han® 40 A module Axial screw terminal 40 A				
2.5 ... 8 mm ²	09 14 002 2601	09 14 002 2701		
6 ... 10 mm ²	09 14 002 2602	09 14 002 2702		
Identification	Part number		Drawing	Dimensions in mm
Hex key SW 2 for axial setscrew				
with grip		09 99 000 0313		
Bit 1/4"		09 99 000 0369		

Features

- Axial screw terminal
- No special tools required for assembly
- Compatible to Han® C module with crimp terminal

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

Inserts

Number of contacts 3
Electrical data
acc. to EN 61 984 **40 A 690 V 8 kV 3**
Rated current 40 A
Rated voltage 690 V
Rated impulse voltage 8 kV
Pollution degree 3

Rated voltage
acc. to UL/CSA 600 V
Insulation resistance $\geq 10^{10} \Omega$
Material Polycarbonate
Limiting temperatures -40 °C ... 125 °C
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

Contacts

Material copper alloy
Surface
- hard-silver plated 3 μm Ag
Contact resistance $\leq 0.3 \text{ m}\Omega$
Screw terminal
- Wire gauge ¹⁾ 2.5 ... 10 mm²
- AWG 14 ... 8
- Hexagonal driver SW 2
- Stripping length

mm ²	2.5	4	6	10
mm	5 ⁺¹	5 ⁺¹	8 ⁺¹	11 ⁺¹

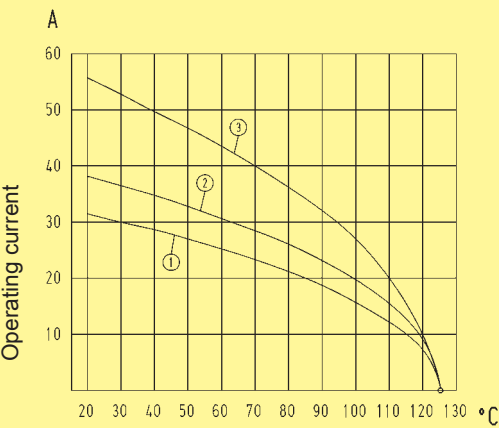
- Tightening torque

mm ²	2.5	4	6	10
Nm	1.5	1.5	2	2

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5



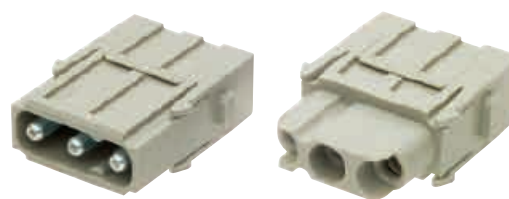
Ambient temperature

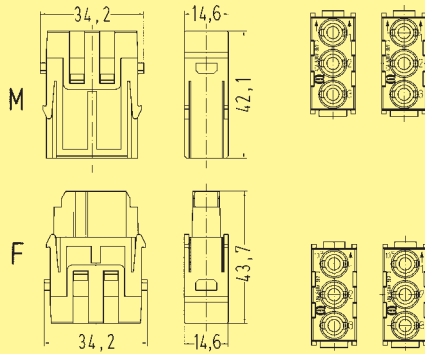
- ① 24 B hoods/housings with 6 modules;
wire gauge: 4 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 6 mm²
- ③ 24 B hoods/housings with 6 modules;
wire gauge: 10 mm²

1) geometric wire gauge

Number of contacts

3



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han® C module Axial screw terminal 40 A				
2.5 ... 8 mm ²	09 14 003 2601	09 14 003 2701		
6 ... 10 mm ²	09 14 003 2602	09 14 003 2702		

Han
Modular

Identification	Part number	Drawing	Dimensions in mm
Hex key SW 2 for axial setscrew			
with grip	09 99 000 0313		
Bit 1/4"	09 99 000 0369		

06
21

Stock items in bold type

Features

- Suitable for Han® C crimp contacts
- Standard module for power up to 40 A
- Compatible to Han® C module with axial screw terminal

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

Inserts

Number of contacts 3
Electrical data
acc. to EN 61 984
Cable diameter up to 5 mm **40 A 400/690 V 6 kV 3**
Rated current 40 A
Rated voltage conductor - ground 400 V
Rated voltage conductor - conductor 690 V
Rated impulse voltage 6 kV
Pollution degree 3

Cable diameter up to 7.5 mm **40 A 500 V 6 kV 3**
Rated current 40 A
Rated voltage 500 V
Rated impulse voltage 6 kV
Pollution degree 3

Rated voltage
acc. to UL/CSA 600 V
Insulation resistance ≥ 10¹⁰ Ω
Material Polycarbonate
Limiting temperatures -40 °C ... 125 °C
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

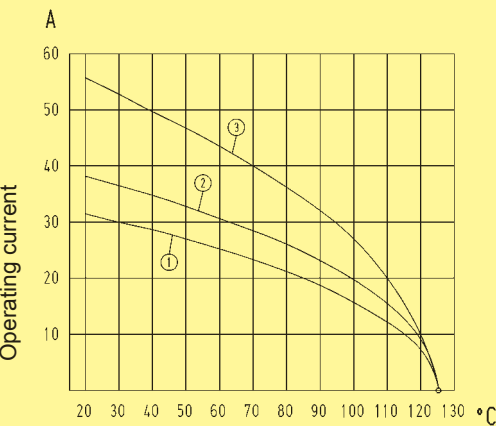
Contacts

Material copper alloy
Surface
- hard-silver plated 3 µm Ag
Contact resistance ≤ 0.3 mΩ
Crimp terminal
- mm² 1.5 ... 10 mm²
- AWG 16 ... 8

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5

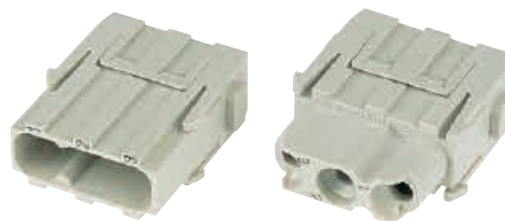


Ambient temperature

- ① 24 B hoods/housings with 6 modules;
wire gauge: 4 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 6 mm²
- ③ 24 B hoods/housings with 6 modules;
wire gauge: 10 mm²

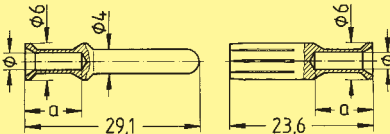
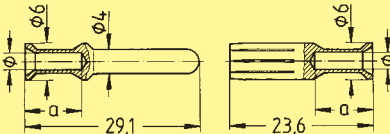
Number of contacts

3



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately			 Contact arrangement View from termination side	
Cable diameter up to 5 mm	09 14 003 3001	09 14 003 3101		
Cable diameter up to 7.5 mm	09 14 003 3002	09 14 003 3102		

Han
Modular

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																														
		Male contact	Female contact																																
Crimp contacts																																			
Power contacts																																			
silver plated	1.5	09 32 000 6104	09 32 000 6204																																
	2.5	09 32 000 6105	09 32 000 6205																																
	4	09 32 000 6107	09 32 000 6207																																
	6	09 32 000 6108	09 32 000 6208																																
	10*	09 32 000 6109	09 32 000 6209																																
<table><tr><th colspan="3">Wire gauge</th><th>Ø</th><th>Stripping length</th></tr><tr><td>1.5</td><td>mm²</td><td>AWG 16</td><td>1.75</td><td>9 mm</td></tr><tr><td>2.5</td><td>mm²</td><td>AWG 14</td><td>2.25</td><td>9 mm</td></tr><tr><td>4</td><td>mm²</td><td>AWG 12</td><td>2.85</td><td>9.6 mm</td></tr><tr><td>6</td><td>mm²</td><td>AWG 10</td><td>3.5</td><td>9.6 mm</td></tr><tr><td>10</td><td>mm²</td><td>AWG 8</td><td>4.3</td><td>15 mm</td></tr></table>						Wire gauge			Ø	Stripping length	1.5	mm²	AWG 16	1.75	9 mm	2.5	mm²	AWG 14	2.25	9 mm	4	mm²	AWG 12	2.85	9.6 mm	6	mm²	AWG 10	3.5	9.6 mm	10	mm²	AWG 8	4.3	15 mm
Wire gauge			Ø	Stripping length																															
1.5	mm²	AWG 16	1.75	9 mm																															
2.5	mm²	AWG 14	2.25	9 mm																															
4	mm²	AWG 12	2.85	9.6 mm																															
6	mm²	AWG 10	3.5	9.6 mm																															
10	mm²	AWG 8	4.3	15 mm																															
Stripping length a = 15 mm for cables ≥ 5 mm Stripping length a = 18 mm for cables ≥ 6.4 mm																																			

* for modules 09 14 003 3002 and 09 14 003 3102 only

Stock items in bold type

Features

- Suitable for Han® C crimp contacts
- Designed for a high working voltage up to 830 V
- Finger safe male and female contacts
- High contact density

Technical characteristics

Specifications DIN EN 61 984
 DIN VDE 0110

Approvals 

Inserts

Number of contacts	4
Electrical data	
acc. to EN 61 984	40 A 830 V 8 kV 3
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Pollution degree 2 also	40 A 1000 V 8 kV 2

Rated voltage	
acc. to UL/CSA	600 V
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

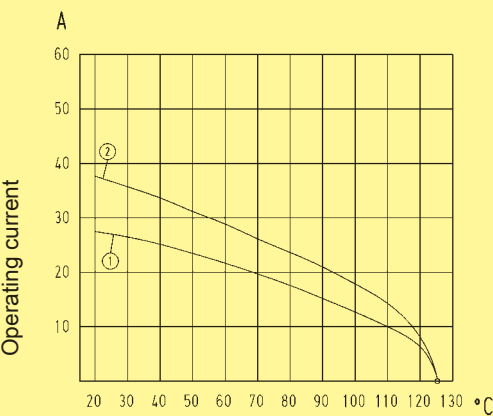
Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
Contact resistance	$\leq 0.3 \text{ m}\Omega$
Crimp terminal	
- mm^2	1.5 ... 6 mm^2
- AWG	16 ... 10

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to
DIN EN 60 512-5



Ambient temperature

- ① 24 B hoods/housings with 6 modules;
wire gauge: 4 mm^2
- ② 24 B hoods/housings with 6 modules;
wire gauge: 6 mm^2

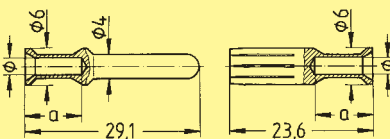
Number of contacts

4



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 14 004 3041	09 14 004 3141	Contact arrangement View from termination side	

Han
Modular

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																									
		Male contact	Female contact																											
Crimp contacts																														
Power contacts																														
silver plated	1.5	09 32 000 6104	09 32 000 6204																											
	2.5	09 32 000 6105	09 32 000 6205																											
	4	09 32 000 6107	09 32 000 6207																											
	6	09 32 000 6108	09 32 000 6208																											
<table><tr><th colspan="3">Wire gauge</th><th>Ø</th><th>Stripping length</th></tr><tr><td>1.5</td><td>mm²</td><td>AWG 16</td><td>1.75</td><td>9 mm</td></tr><tr><td>2.5</td><td>mm²</td><td>AWG 14</td><td>2.25</td><td>9 mm</td></tr><tr><td>4</td><td>mm²</td><td>AWG 12</td><td>2.85</td><td>9.6 mm</td></tr><tr><td>6</td><td>mm²</td><td>AWG 10</td><td>3.5</td><td>9.6 mm</td></tr></table>						Wire gauge			Ø	Stripping length	1.5	mm²	AWG 16	1.75	9 mm	2.5	mm²	AWG 14	2.25	9 mm	4	mm²	AWG 12	2.85	9.6 mm	6	mm²	AWG 10	3.5	9.6 mm
Wire gauge			Ø	Stripping length																										
1.5	mm²	AWG 16	1.75	9 mm																										
2.5	mm²	AWG 14	2.25	9 mm																										
4	mm²	AWG 12	2.85	9.6 mm																										
6	mm²	AWG 10	3.5	9.6 mm																										

Stock items in bold type

Features

- 3 contacts (40 A) for power circuits and 4 contacts (10 A) for signal circuits
- Ideal as motor drive connector
- Male and female contacts are finger safe

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
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Inserts

Number of contacts	3 / 4
Electrical data acc. to EN 61 984	
Power contacts	40 A 830 V 8 kV 3
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3

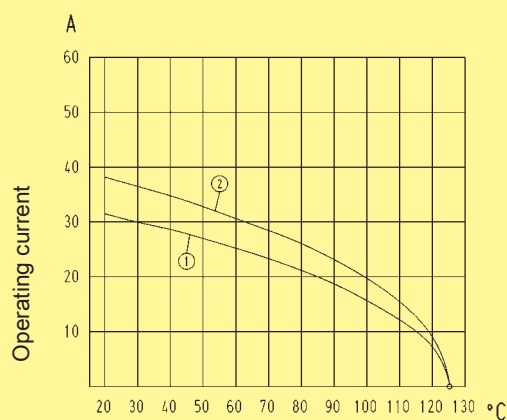
Signal contacts	10 A 830 V 8 kV 3
Rated current	10 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3

Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5



Ambient temperature

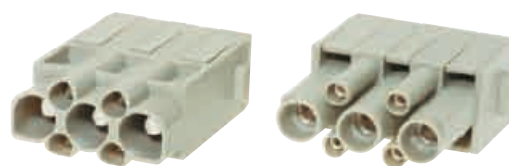
- ① 24 B hoods/housings with 6 modules;
wire gauge: 4 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 6 mm²

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 µm Ag
- hard-gold plated	2 µm Au over 3 µm Ni
Contact resistance	
Power contacts	$\leq 0.3 \text{ m}\Omega$
Signal contacts	$\leq 3 \text{ m}\Omega$
Crimp terminal	
- mm ²	
Power contacts	1.5 ... 6 mm ²
Signal contacts	0.14 ... 2.5 mm ²
- AWG	
Power contacts	16 ... 10
Signal contacts	26 ... 14
Max. insulation diameter	
- Power contacts	5 mm

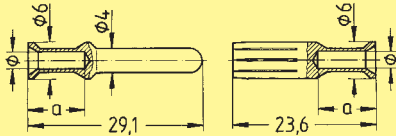
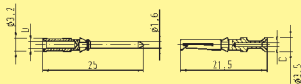
Number of contacts

3



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 14 007 3001	09 14 007 3101	Contact arrangement View from termination side	

Han
Modular

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																																			
		Male contact	Female contact																																					
Crimp contacts																																								
Power contacts																																								
silver plated	1.5	09 32 000 6104	09 32 000 6204		<table><tr><th colspan="3">Wire gauge</th><th>Ø</th><th>Stripping length</th></tr><tr><td>1.5</td><td>mm²</td><td>AWG 16</td><td>1.75</td><td>9 mm</td></tr><tr><td>2.5</td><td>mm²</td><td>AWG 14</td><td>2.25</td><td>9 mm</td></tr><tr><td>4</td><td>mm²</td><td>AWG 12</td><td>2.85</td><td>9.6 mm</td></tr><tr><td>6</td><td>mm²</td><td>AWG 10</td><td>3.5</td><td>9.6 mm</td></tr></table>	Wire gauge			Ø	Stripping length	1.5	mm²	AWG 16	1.75	9 mm	2.5	mm²	AWG 14	2.25	9 mm	4	mm²	AWG 12	2.85	9.6 mm	6	mm²	AWG 10	3.5	9.6 mm										
Wire gauge			Ø			Stripping length																																		
1.5	mm²	AWG 16	1.75			9 mm																																		
2.5	mm²	AWG 14	2.25			9 mm																																		
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	2.5	09 32 000 6105	09 32 000 6205																																					
	4	09 32 000 6107	09 32 000 6207																																					
	6	09 32 000 6108	09 32 000 6208																																					
Signal contacts																																								
silver plated	0.14-0.37	09 15 000 6104	09 15 000 6204		<table><tr><th colspan="3">Wire gauge</th><th>Ø</th><th>Stripping length</th></tr><tr><td>0.14-0.37</td><td>mm²</td><td>AWG 26-22</td><td>0.9</td><td>8 mm</td></tr><tr><td>0.5</td><td>mm²</td><td>AWG 20</td><td>1.1</td><td>8 mm</td></tr><tr><td>0.75</td><td>mm²</td><td>AWG 18</td><td>1.3</td><td>8 mm</td></tr><tr><td>1</td><td>mm²</td><td>AWG 18</td><td>1.45</td><td>8 mm</td></tr><tr><td>1.5</td><td>mm²</td><td>AWG 16</td><td>1.75</td><td>8 mm</td></tr><tr><td>2.5</td><td>mm²</td><td>AWG 14</td><td>2.25</td><td>6 mm</td></tr></table>	Wire gauge			Ø	Stripping length	0.14-0.37	mm²	AWG 26-22	0.9	8 mm	0.5	mm²	AWG 20	1.1	8 mm	0.75	mm²	AWG 18	1.3	8 mm	1	mm²	AWG 18	1.45	8 mm	1.5	mm²	AWG 16	1.75	8 mm	2.5	mm²	AWG 14	2.25	6 mm
Wire gauge			Ø			Stripping length																																		
0.14-0.37	mm²	AWG 26-22	0.9			8 mm																																		
0.5	mm²	AWG 20	1.1			8 mm																																		
0.75	mm²	AWG 18	1.3			8 mm																																		
1	mm²	AWG 18	1.45			8 mm																																		
1.5	mm²	AWG 16	1.75	8 mm																																				
2.5	mm²	AWG 14	2.25	6 mm																																				
	0.5	09 15 000 6103	09 15 000 6203																																					
	0.75	09 15 000 6105	09 15 000 6205																																					
	1	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																																					
gold plated	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																																					
	1	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

Features

- Suitable for Han E[®] crimp contacts
- Standard module for power up to 40 A

Technical characteristics

Specifications	DIN EN 61 984
	DIN VDE 0110

Approvals	
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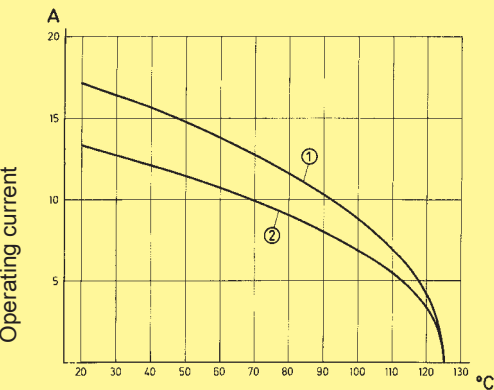
Inserts

Number of contacts	6
Electrical data	
acc. to EN 61 984	16 A 500 V 8 kV 3
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	8 kV
Pollution degree	3
Pollution degree 2 also	16 A 400/690 V 6 kV 2
Rated voltage	
acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5



Ambient temperature

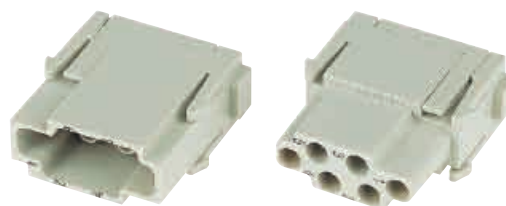
- ① 24 B hoods/housings with 6 modules;
wire gauge: 2.5 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 1.5 mm²

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	≤ 1 mΩ
Crimp terminal	
- mm ²	0.5 ... 4 mm ²
- AWG	20 ... 12

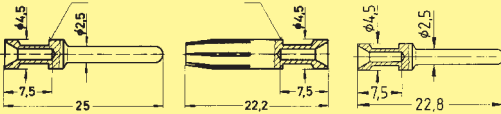
Number of contacts

6



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 14 006 3001	09 14 006 3101	Contact arrangement View from termination side	

Han
Modular

Identification		Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
			Male contact	Female contact		
Crimp contacts						
Power contacts						
	silver plated	0.14-0.37	09 33 000 6127	09 33 000 6227		
		0.5	09 33 000 6121	09 33 000 6220		
		0.75	09 33 000 6114	09 33 000 6214		
		1	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	0.14-0.37	09 33 000 6117	09 33 000 6217		
		0.5	09 33 000 6122	09 33 000 6222		
		0.75	09 33 000 6115	09 33 000 6215		
		1	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	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			

Crimp contacts 0.14 ... 0.37 mm² only used with BUCHANAN crimping tool 09 99 000 0001 and adjustment gauge 09 99 000 0203

Stock items in bold type

Features

- Suitable for Han E® crimp contacts
- High contact density

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

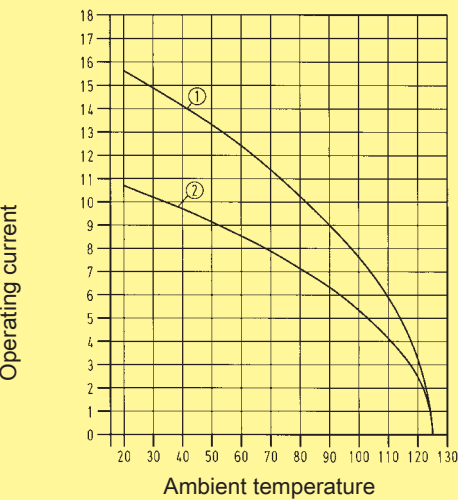
Inserts

Number of contacts	8
Electrical data	
acc. to EN 61 984	16 A 400 V 6 kV 3
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Pollution degree 2 also	16 A 400/690 V 6 kV 2
Rated voltage	
acc. to UL/CSA	600 V
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5



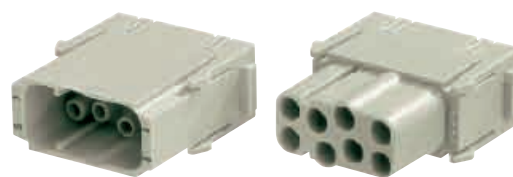
- ① 24 B hoods/housings with 6 modules;
wire gauge: 2.5 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 1.5 mm²

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 µm Ag
- hard-gold plated	2 µm Au over 3 µm Ni
Contact resistance	$\leq 1 \text{ m}\Omega$
Crimp terminal	
- mm ²	0.5 ... 4 mm ²
- AWG	20 ... 12

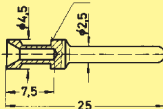
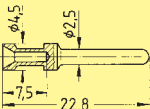
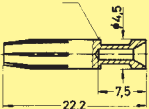
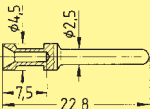
Number of contacts

8



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 14 008 3001	09 14 008 3101	Contact arrangement View from termination side	

Han
Modular

Identification		Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																																				
			Male contact	Female contact																																						
Crimp contacts																																										
Power contacts																																										
	silver plated	0.14-0.37	09 33 000 6127	09 33 000 6227																																						
		0.5	09 33 000 6121	09 33 000 6220																																						
		0.75	09 33 000 6114	09 33 000 6214																																						
		1	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	0.14-0.37	09 33 000 6117	09 33 000 6217																																						
		0.5	09 33 000 6122	09 33 000 6222																																						
		0.75	09 33 000 6115	09 33 000 6215																																						
		1	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	09 33 000 6119	09 33 000 6221																																						
Relay contact																																										
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		2.5	09 33 000 6111																																							
<table><tr><th>Identification</th><th colspan="2">Wire gauge</th><th>Stripping length</th></tr><tr><td>no groove</td><td>0.14-0.37</td><td>mm² AWG 26-22</td><td>7.5 mm</td></tr><tr><td>no groove</td><td>0.5</td><td>mm² AWG 20</td><td>7.5 mm</td></tr><tr><td>1 groove*</td><td>0.75</td><td>mm² AWG 18</td><td>7.5 mm</td></tr><tr><td>1 Rille</td><td>1</td><td>mm² AWG 18</td><td>7.5 mm</td></tr><tr><td>2 grooves</td><td>1.5</td><td>mm² AWG 16</td><td>7.5 mm</td></tr><tr><td>3 grooves</td><td>2.5</td><td>mm² AWG 14</td><td>7.5 mm</td></tr><tr><td>wide groove</td><td>3</td><td>mm² AWG 12</td><td>7.5 mm</td></tr><tr><td>no groove</td><td>4</td><td>mm² AWG 12</td><td>7.5 mm</td></tr></table>							Identification	Wire gauge		Stripping length	no groove	0.14-0.37	mm² AWG 26-22	7.5 mm	no groove	0.5	mm² AWG 20	7.5 mm	1 groove*	0.75	mm² AWG 18	7.5 mm	1 Rille	1	mm² AWG 18	7.5 mm	2 grooves	1.5	mm² AWG 16	7.5 mm	3 grooves	2.5	mm² AWG 14	7.5 mm	wide groove	3	mm² AWG 12	7.5 mm	no groove	4	mm² AWG 12	7.5 mm
Identification	Wire gauge		Stripping length																																							
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wide groove	3	mm² AWG 12	7.5 mm																																							
no groove	4	mm² AWG 12	7.5 mm																																							
* on the back crimp collar																																										

Crimp contacts 0.14 ... 0.37 mm² only used with BUCHANAN crimping tool 09 99 000 0001 and adjustment gauge 09 99 000 0203

Stock items in bold type

Features

- Suitable for Han E® crimp contacts
- designed for a high working voltage up to 830 V
- finger safe male and female contacts

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

Inserts

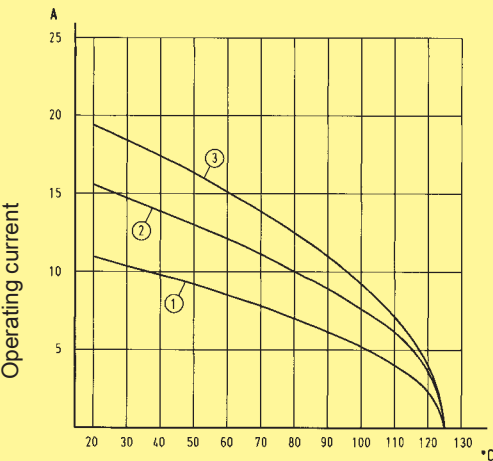
Number of contacts 6
Electrical data
acc. to EN 61 984 **16 A 830 V 8 kV 3**
Rated current 16 A
Rated voltage 830 V
Rated impulse voltage 8 kV
Pollution degree 3
Pollution degree 2 also 16 A 1250 V 10 kV 2

Rated voltage
acc. to UL/CSA 600 V
Insulation resistance $\geq 10^{10} \Omega$
Material Polycarbonate
Limiting temperatures -40 °C ... 125 °C
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to EN 60 512-5



Ambient temperature

- ① 24 B hoods/housings with 6 modules;
wire gauge: 1.5 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 2.5 mm²
- ③ 24 B hoods/housings with 6 modules; wire gauge: 4 mm²

Contacts

Material copper alloy
Surface
- hard-silver plated 3 µm Ag
- hard-gold plated 2 µm Au over 3 µm Ni
Contact resistance $\leq 1 \text{ m}\Omega$
Crimp terminal
- mm² 0.5 ... 4 mm²
- AWG 20 ... 12

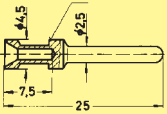
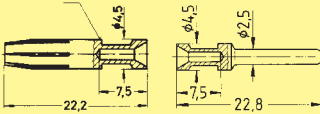
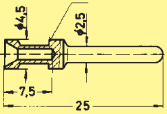
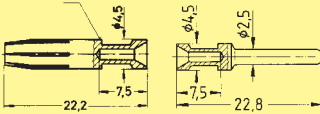
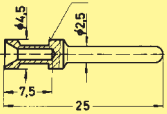
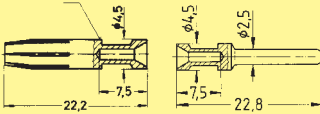
Number of contacts

6



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 14 006 3041	09 14 006 3141	Contact arrangement View from termination side	

Han
Modular

Identification		Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
			Male contact	Female contact		
Crimp contacts						
Power contacts						
	silver plated	0.14-0.37	09 33 000 6127	09 33 000 6227		
		0.5	09 33 000 6121	09 33 000 6220		
		0.75	09 33 000 6114	09 33 000 6214		
		1	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	0.14-0.37	09 33 000 6117	09 33 000 6217		
		0.5	09 33 000 6122	09 33 000 6222		
		0.75	09 33 000 6115	09 33 000 6215		
		1	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	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			

Identification	Wire gauge		Stripping length
no groove	0.14-0.37	mm² AWG 26-22	7.5 mm
no groove	0.5	mm² AWG 20	7.5 mm
1 groove*	0.75	mm² AWG 18	7.5 mm
1 Rille	1	mm² AWG 18	7.5 mm
2 grooves	1.5	mm² AWG 16	7.5 mm
3 grooves	2.5	mm² AWG 14	7.5 mm
wide groove	3	mm² AWG 12	7.5 mm
no groove	4	mm² AWG 12	7.5 mm

* on the back crimp collar

Crimp contacts 0.14 ... 0.37 mm² only used with BUCHANAN crimping tool 09 99 000 0001 and adjustment gauge 09 99 000 0203

Stock items in bold type

Features

- Suitable for Han E® crimp contacts
- High contact density
- Up to 16 A per contact
- Also suitable as a reliable signal connector

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

Inserts

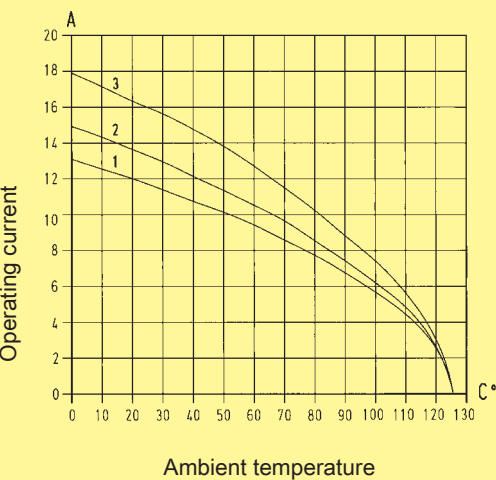
Number of contacts 20
Electrical data
acc. to EN 61 984 **16 A 500 V 6 kV 3**
Rated current 16 A
Rated voltage 500 V
Rated impulse voltage 6 kV
Pollution degree 3
Pollution degree 2 also 16 A 830 V 8 kV 2

Rated voltage
acc. to UL/CSA 600 V
Insulation resistance $\geq 10^{10} \Omega$
Material Polycarbonate
Limiting temperatures -40 °C ... 125 °C
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to
DIN EN 60 512-5



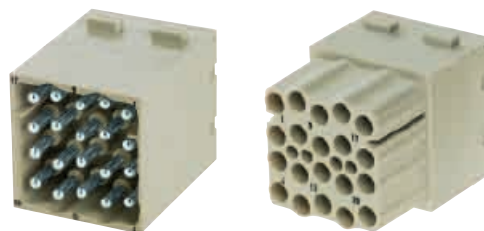
- ① 24 B hoods/housings with 3 modules;
wire gauge: 1.5 mm²
- ② 24 B hoods/housings with 3 modules;
wire gauge: 2.5 mm²
- ③ 24 B hoods/housings with 3 modules; wire gauge: 4 mm²

Contacts

Material copper alloy
Surface
- hard-silver plated 3 µm Ag
- hard-gold plated 2 µm Au over 3 µm Ni
Contact resistance $\leq 1 \text{ m}\Omega$
Crimp terminal
- mm² 0.5 ... 4 mm²
- AWG 20 ... 12

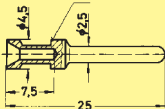
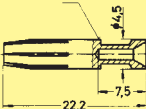
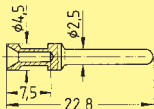
Number of contacts

20



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 14 020 3001	09 14 020 3101	Contact arrangement View from termination side	

Han
Modular

Identification		Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																																				
			Male contact	Female contact																																						
Crimp contacts																																										
Power contacts																																										
 		0.14-0.37	09 33 000 6127	09 33 000 6227	  																																					
		0.5	09 33 000 6121	09 33 000 6220																																						
		0.75	09 33 000 6114	09 33 000 6214																																						
		1	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																																						
 		0.14-0.37	09 33 000 6117	09 33 000 6217																																						
		0.5	09 33 000 6122	09 33 000 6222																																						
		0.75	09 33 000 6115	09 33 000 6215																																						
		1	09 33 000 6118	09 33 000 6218																																						
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		2.5	09 33 000 6123	09 33 000 6223																																						
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	Relay contact																																									
silver plated		0.75-1	09 33 000 6109																																							
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<table><tr><th>Identification</th><th colspan="2">Wire gauge</th><th>Stripping length</th></tr><tr><td>no groove</td><td>0.14-0.37</td><td>mm² AWG 26-22</td><td>7.5 mm</td></tr><tr><td>no groove</td><td>0.5</td><td>mm² AWG 20</td><td>7.5 mm</td></tr><tr><td>1 groove*</td><td>0.75</td><td>mm² AWG 18</td><td>7.5 mm</td></tr><tr><td>1 Rille</td><td>1</td><td>mm² AWG 18</td><td>7.5 mm</td></tr><tr><td>2 grooves</td><td>1.5</td><td>mm² AWG 16</td><td>7.5 mm</td></tr><tr><td>3 grooves</td><td>2.5</td><td>mm² AWG 14</td><td>7.5 mm</td></tr><tr><td>wide groove</td><td>3</td><td>mm² AWG 12</td><td>7.5 mm</td></tr><tr><td>no groove</td><td>4</td><td>mm² AWG 12</td><td>7.5 mm</td></tr></table> * on the back crimp collar							Identification	Wire gauge		Stripping length	no groove	0.14-0.37	mm² AWG 26-22	7.5 mm	no groove	0.5	mm² AWG 20	7.5 mm	1 groove*	0.75	mm² AWG 18	7.5 mm	1 Rille	1	mm² AWG 18	7.5 mm	2 grooves	1.5	mm² AWG 16	7.5 mm	3 grooves	2.5	mm² AWG 14	7.5 mm	wide groove	3	mm² AWG 12	7.5 mm	no groove	4	mm² AWG 12	7.5 mm
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no groove	4	mm² AWG 12	7.5 mm																																							

Crimp contacts 0.14 ... 0.37 mm² only used with BUCHANAN crimping tool 09 99 000 0001 and adjustment gauge 09 99 000 0203

Stock items in bold type

Features

- Cage-clamp terminal
- No special tools required

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

Inserts

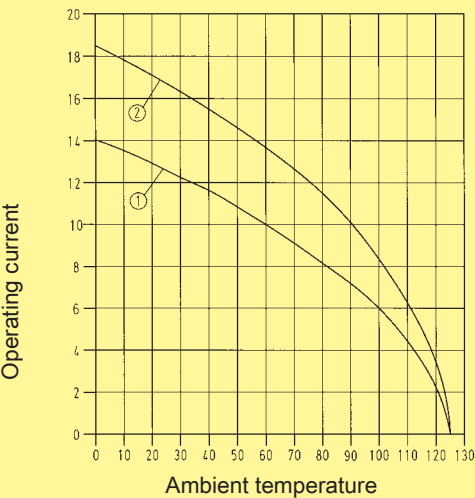
Number of contacts 5
Electrical data
acc. to EN 61 984 **16 A 400 V 6 kV 3**
Rated current 16 A
Rated voltage 400 V
Rated impulse voltage 6 kV
Pollution degree 3
Pollution degree 2 also 16 A 500 V 6 kV 2

Rated voltage
acc. to UL/CSA 600 V
Insulation resistance $\geq 10^{10} \Omega$
Material Polycarbonate
Limiting temperatures -40 °C ... 125 °C
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to
DIN EN 60 512-5



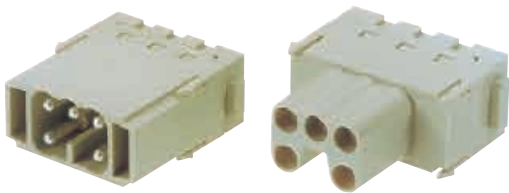
- ① 24 B hoods/housings with 6 modules;
wire gauge: 2.5 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 1.5 mm²

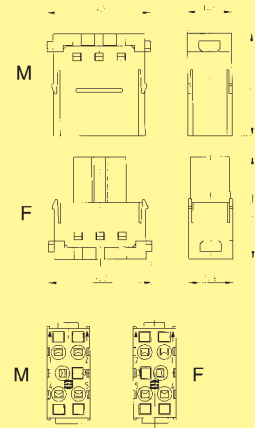
Contacts

Material copper alloy
Surface
- hard-silver plated 3 µm Ag
Contact resistance $\leq 3 \text{ m}\Omega$
Crimp terminal
- mm² 0.14 ... 2.5 mm²
- AWG 26 ... 14

Number of contacts

5



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Cage-clamp terminal	09 14 005 2616	09 14 005 2716	 Contact arrangement View from termination side	

Han
Modular

Features

- Suitable for Han E® crimp contacts
- 2 contacts up to 5000 V
- Insulator out of a voltage resistant teflon material
- Combination of all other modules (pneumatic, signal etc.)

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0115 DIN VDE 0110
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Inserts

Number of contacts	2
Electrical data	
acc. to EN 61 984	16 A 2900/5000 V 15 kV 3
Rated current	16 A
Rated voltage conductor - ground	2900 V
Rated voltage conductor - conductor	5000 V
Rated impulse voltage	15 kV
Pollution degree	3
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate/Teflon (PTFE)
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	HB
Mechanical working life	
- mating cycles	≥ 500

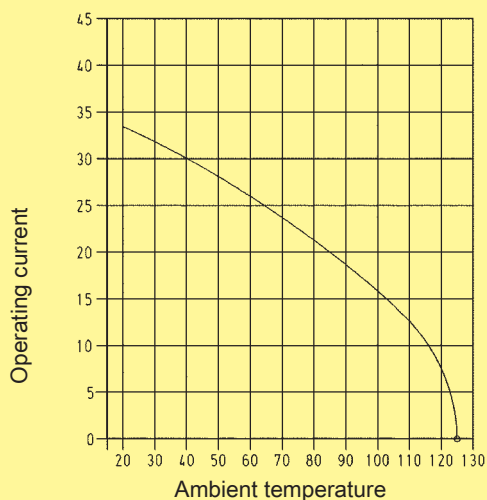
Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	$\leq 1 \text{ m}\Omega$
Crimp terminal	
- mm^2	0.5 ... 4 mm^2
- AWG	20 ... 12

Derating diagram

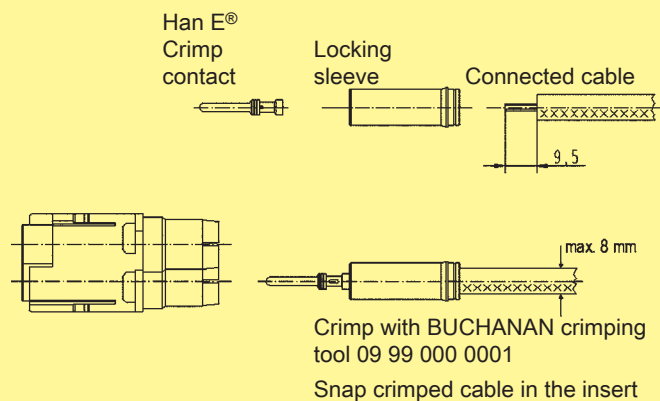
The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5



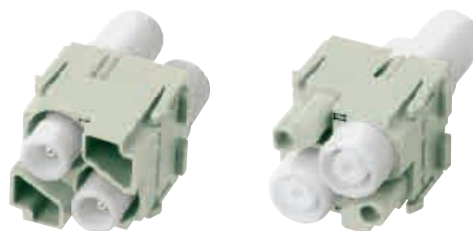
Hoods/housings Han® 16 B with 1 Han® HV module, wire gauge: 2.5 mm^2

Assembly instructions



Number of contacts

2



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately				
Range of delivery: - 1 module - 2 locking sleeves - 2 heat shrink tubes	09 14 002 3021	09 14 002 3121		
Removal tool for locking sleeve	09 99 000 0327	09 99 000 0327		

Han
Modular

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Crimp contacts					

Stock items in bold type

Features

- Suitable for Han D[®] crimp contacts
- Standard module for power up to 10 A

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

Inserts

Number of contacts	12
Electrical data	
acc. to EN 61 984	10 A 250 V 4 kV 3
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage	
acc. to UL/CSA	600 V
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

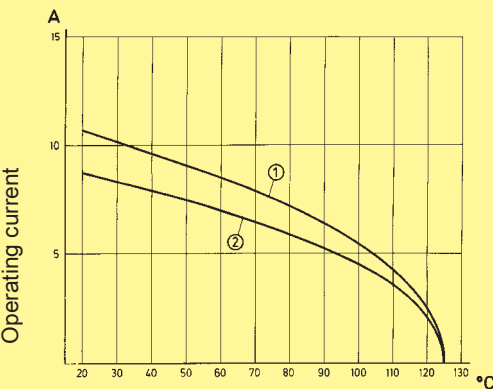
Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	$\leq 3 \text{ m}\Omega$
Crimp terminal	
- mm ²	0.14 ... 2.5 mm ²
- AWG	26 ... 14

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5

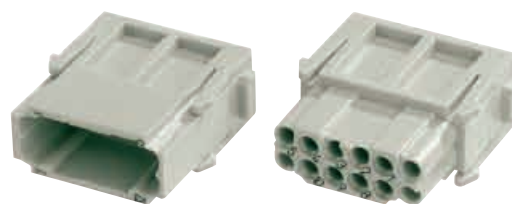


Ambient temperature

- ① 24 B hoods/housings with 6 modules;
wire gauge: 1.5 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 1.0 mm²

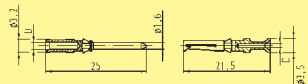
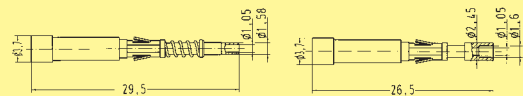
Number of contacts

12



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 14 012 3001	09 14 012 3101	Contact arrangement View from termination side	

Han
Modular

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Crimp contacts					
Power contacts					
silver plated	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	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		
gold plated	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		
	1	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		
F.O. contacts					
for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221		
				For cables see catalogue	
				„Fibre Optic Data Link systems“	

Stock items in bold type

Features

- Suitable for Han D® crimp contacts
- High contact density

Technical characteristics

Specifications DIN EN 61 984
 DIN VDE 0110

Approvals

Inserts

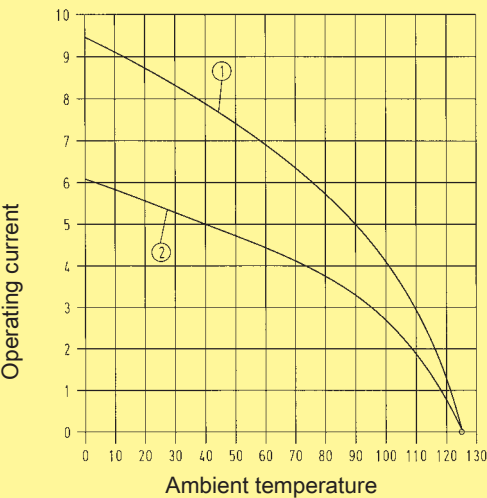
Number of contacts 17
Electrical data
acc. to EN 61 984 **10 A 160 V 2.5 kV 3**
Rated current 10 A
Rated voltage 160 V
Rated impulse voltage 2.5 kV
Pollution degree 3
Pollution degree 2 also 10 A 250 V 4 kV 2

Rated voltage
acc. to UL/CSA 250 V
Insulation resistance $\geq 10^{10} \Omega$
Material Polycarbonate
Limiting temperatures -40 °C ... 125 °C
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to
DIN EN 60 512-5



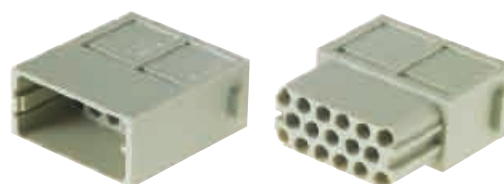
- ① 24 B hoods/housings with 6 modules;
wire gauge: 1.5 mm²
- ② 24 B hoods/housings with 6 modules;
wire gauge: 1.0 mm²

Contacts

Material copper alloy
Surface
- hard-silver plated 3 µm Ag
- hard-gold plated 2 µm Au over 3 µm Ni
Contact resistance $\leq 3 \text{ m}\Omega$
Crimp terminal
- mm² 0.14 ... 2.5 mm²
- AWG 26 ... 14

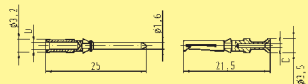
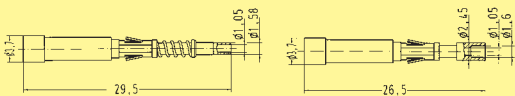
Number of contacts

17



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately			M F M F Contact arrangement View from termination side	
	09 14 017 3001	09 14 017 3101		

Han
Modular

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Crimp contacts					
Power contacts					
silver plated	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	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		
gold plated	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		
	1	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		
F.O. contacts					
for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221		
				For cables see catalogue	
				„Fibre Optic Data Link systems“	

Stock items in bold type

Features

- Suitable for D-Sub crimp contacts
- High contact density
- Using of guiding pins (male and female) is recommended.

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
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Inserts

Number of contacts	25
Electrical data	
acc. to EN 61 984	5 A 50 V 0.8 kV 3
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

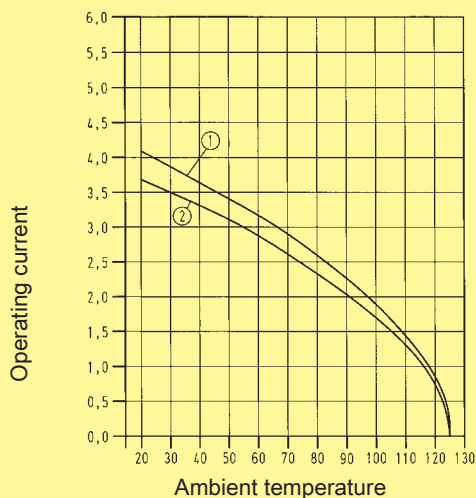
Contacts

Crimp terminal	
- mm ²	0.08 ... 0.52 mm ²
- AWG	28 ... 20
turned contacts	Performance level 1 as per CECC 75 301-802, 500 mating cycles, 10 days 4 mixed gas test - IEC 60 512

Derating diagram

The power rating of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

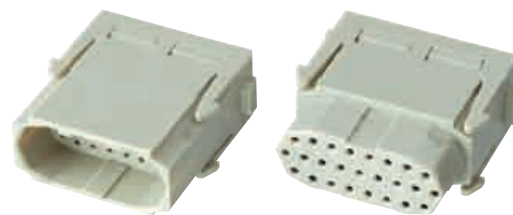
Measuring and testing techniques according to DIN EN 60 512-5

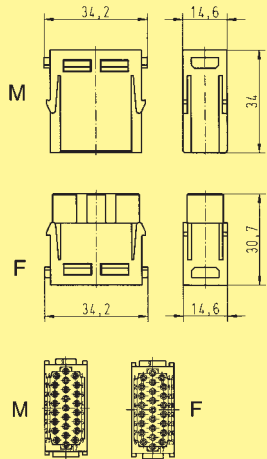


- ① 24 B hoods/housings with 6 modules; wire gauge: 0.5 mm² turned contacts
- ② 24 B hoods/housings with 6 modules; wire gauge: 0.5 mm² stamped contacts

Number of contacts

25



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 14 025 3001	09 14 025 3101	 Contact arrangement View from termination side	

Han
Modular

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm												
		Male contact	Female contact														
Individual contacts																	
	0.08-0.21	61 03 000 0078	61 03 000 0080														
	0.13-0.33	61 03 000 0094	61 03 000 0096														
	0.33-0.52	61 03 000 0073	61 03 000 0074														
				<table><tr><th colspan="2">Wire gauge</th><th>Stripping length</th></tr><tr><td>0.08-0.21 mm²</td><td>AWG 28-24</td><td>5 mm</td></tr><tr><td>0.13-0.33 mm²</td><td>AWG 26-22</td><td>5 mm</td></tr><tr><td>0.33-0.52 mm²</td><td>AWG 22-20</td><td>5 mm</td></tr></table>	Wire gauge		Stripping length	0.08-0.21 mm²	AWG 28-24	5 mm	0.13-0.33 mm²	AWG 26-22	5 mm	0.33-0.52 mm²	AWG 22-20	5 mm	
Wire gauge		Stripping length															
0.08-0.21 mm²	AWG 28-24	5 mm															
0.13-0.33 mm²	AWG 26-22	5 mm															
0.33-0.52 mm²	AWG 22-20	5 mm															

Stock items in bold type



Features

- 9-pin D-Sub connector of the Han-Modular® system
- Ideal for the transmission of sensitive signals
- Compatible to crimp, solder or IDC termination
- Using of guiding pins (male and female) is recommended.

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
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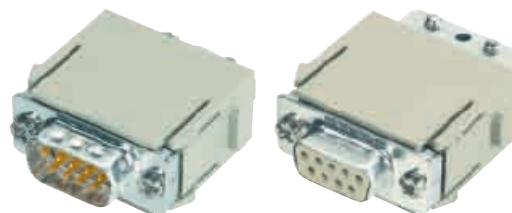
Inserts

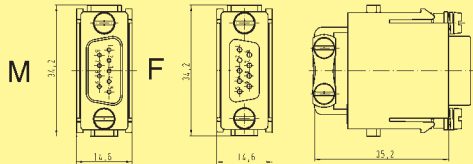
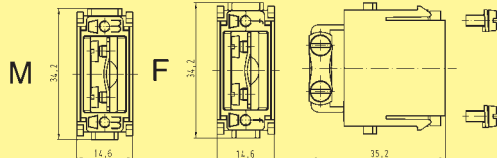
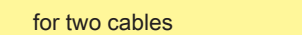
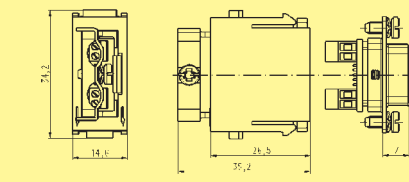
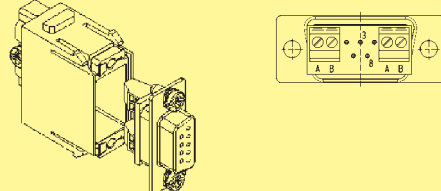
Number of contacts	9
Electrical data	
acc. to EN 61 984	5 A 50 V 0.8 kV 3
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	$\geq 10^{10} \Omega$
Material	
- insert	Polycarbonate
- shielding element	Zinc die-cast alloy
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Han
Modular

Number of contacts

9



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately (see page) 	09 14 009 3001	09 14 009 3101		
Adapter module without D-Sub insert Adapter module without D-Sub insert for one cable 	09 14 000 9930	09 14 000 9931		
for two cables 	09 14 000 9932	09 14 000 9933		
Screw terminal for RS 485-based bus systems with T-functionality 		09 14 009 3151	  Contact arrangement View from termination side	

Han
Modular

Features

- According to USB 2.0 specification
- Simple and cost effective termination by plug in patch cable
- Cable tie strain relief

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
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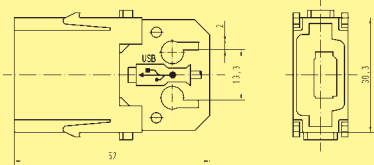
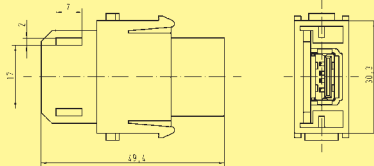
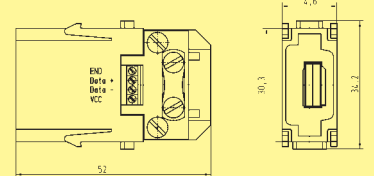
Inserts

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
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Number of contacts

4



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Module for patch cable Male insert 	09 14 001 4601			
Module for patch cable Female insert 		09 14 001 4701		
Module for screw termination Male insert 	09 14 001 4651			
Patch cable USB male / male Style A 	2 m 39 50 903 0050 5 m 39 50 903 0051	2 m 39 50 903 0050 5 m 39 50 903 0051		

Han
Modular

Features

- Compatibel to IEEE 1394
- Simple and cost effective termination by plug in patch cable
- Cable tie strain relief

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
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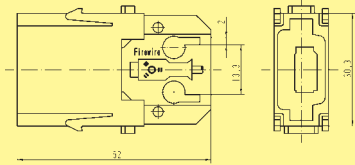
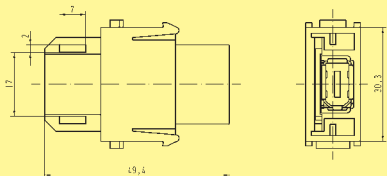
Inserts

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
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Number of contacts

6



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Module for patch cable Male insert 	09 14 001 4611			
Module for patch cable Female insert 		09 14 001 4711		

Han
Modular

Features

- Single module with standard shielded RJ45 plug and jack
- Cat 5e for all data pairs (all 8 pins)
- Conforming to the RoHS directive
- The RJ45 inserts are protected by a reliable plastic insulator

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
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Inserts

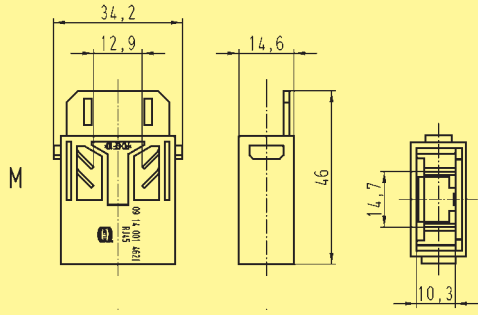
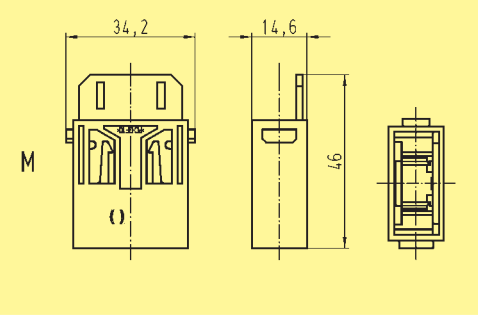
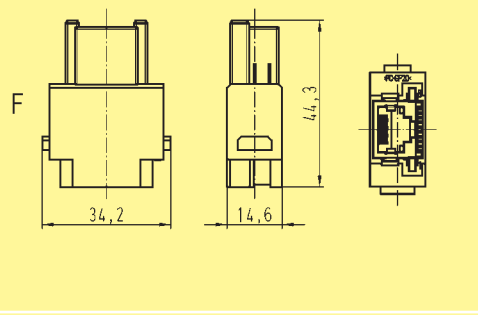
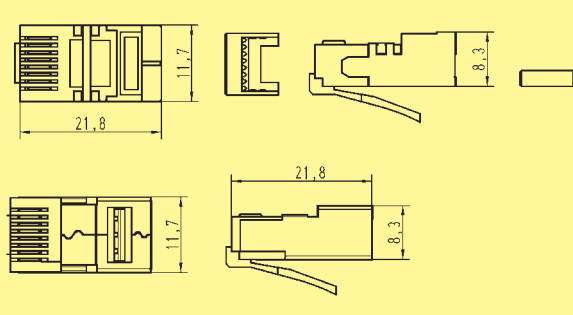
Number of contacts	8
Electrical data	
acc. to EN 61 984	1 A 50 V 0.8 kV 3
Rated current	1 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	≥ 10 ¹⁰ Ω
Material	Polycarbonate
Limiting temperatures	-40 °C ... 85 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Han
Modular

Number of contacts

8



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
for patch cable 	09 14 001 4621			
for RJ45 plugs (please order separately) 	09 14 001 4622			
Gender Changer for patch cable 		09 14 001 4721		
RJ45 plug AWG 24 ... 26 Ø 0.89 mm ... 0.99 mm AWG 22 ... 24 Ø 0.94 mm ... 1.07 mm	09 12 000 9958			

Han
Modular

Features

- Shielding bus separate from housing potential
- Perfect for transmission of sensitive signals (eg. bus signals)
- The four pole Han® Quintax contact is suitable for Ethernet Cat. 5e and PROFIBUS when diagonally wiring of the data pairs.

Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
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Approvals	
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Inserts

Number of contacts	2
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Quintax contacts

Number of contacts	
- Quintax	4 + shielding
- High Density Quintax	8 + shielding
Electrical data acc. to EN 61 984	
- Quintax	10 A 50 V 0.8 kV 3
- High Density Quintax	5 A 50 V 0.8 kV 3
Rated current	10 A / 5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Material	
- Insulator	Polycarbonate
- Outer conductor	zinc alloy
Contact resistance	$\leq 4 \text{ m}\Omega$
Limiting temperatures	-40 °C ... 85 °C
Flammability acc. to UL 94	V 0
Outer surface finish	nickel
Cable diameter	3 - 9.5 mm

Han D® contacts

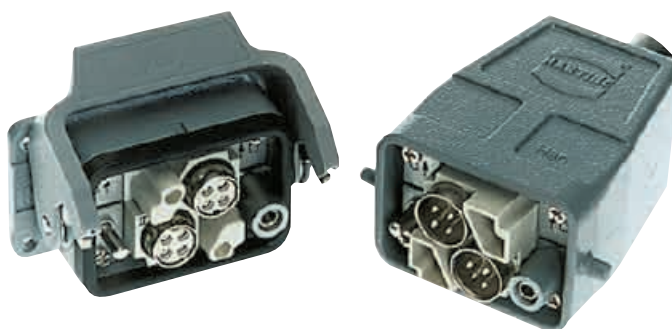
Material	copper alloy
Surface	
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	$\leq 3 \text{ m}\Omega$
Crimp terminal	
- mm ²	0.14 - 2.5 mm ²
- AWG	26 - 14 AWG

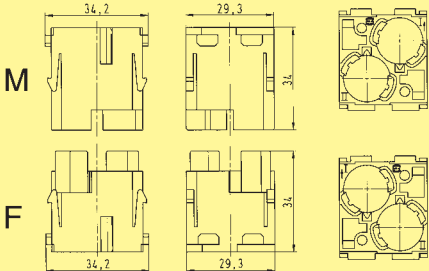
D-Sub contacts

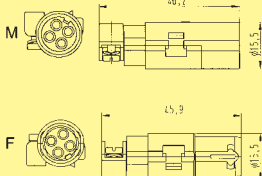
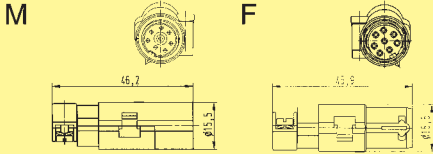
Crimp terminal	
- mm ²	0.08 - 0.52 mm ²
- AWG	28 - 20 AWG
turned contacts	Performance level 1

Number of contacts

2



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal 	09 14 002 3001	09 14 002 3101	 Contact arrangement View from termination side	
Quintax metal adapter option 	09 14 000 9915	09 14 000 9915		

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Quintax contact 4 + shielding Han D® crimp contacts 		09 15 004 3013	09 15 004 3113		
Han D® Crimp contact gold plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226		
High Density Quintax contact 8 + shielding Han® D-Sub contacts 		09 15 008 3013	09 15 008 3113		
D-Sub Single contact 	0.08-0.21 0.13-0.33 0.33-0.52	61 03 000 0078 61 03 000 0094 61 03 000 0073	61 03 000 0080 61 03 000 0096 61 03 000 0074		

Order crimp contacts separately

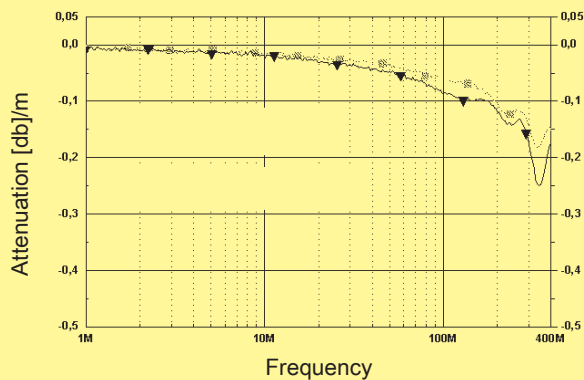
Stock items in bold type

Han
Modular

Features

- Well known quintax concept
- Suitable for contacts with large diameters
- Han E® coax is applicable to the ETCS Eurobalise cable

RF transmission characteristics



75 Ω coax cable
diameter shielding: 7.3 mm

Han E® Coax with ETCS S21 Eurobalise cable (4 mm ²)	27 MHz
Return loss [db]	35.4
Attenuation [db]	0.017

Han E® Coax with RG 213 cable (2.5 mm ²)	200 MHz	500 MHz	1.0 GHz	1.2 GHz	1.5 GHz	2.0 GHz	2.5 GHz
Return loss [db]	23.8	21.1	>18.7	>17.7	>16.4	>14.1	>12.0
Attenuation [db]	0.07	0.11	0.17	0.2	<0.23	<0.53	<2.0

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

Inserts

Number of contacts 2

Insulation resistance $\geq 10^{10} \Omega$

Material Polycarbonate

Limiting temperatures -40 °C ... 125 °C

Flammability acc. to UL 94 V 0

Mechanical working life - mating cycles ≥ 500

Coax contacts

Number of contacts - Coax 1 + shielding

Electrical data acc. to EN 61 984

- Han D® Coax	10 A	50 V	0.8 kV 3
- Han E® Coax	16 A	50 V	0.8 kV 3

Rated current 10 A / 16 A

Rated voltage 50 V

Rated impulse voltage 0.8 kV

Pollution degree 3

Material

- Insulator	Polycarbonate
- Outer conductor	zinc alloy

Contact resistance $\leq 4 \text{ m}\Omega$

Limiting temperatures -40 °C ... 85 °C

Flammability acc. to UL 94 V 0

Outer surface finish nickel

Cable diameter 3 - 9.5 mm

Han D® contacts

Material copper alloy

Surface - hard-gold plated 2 μm Au over 3 μm Ni

Contact resistance $\leq 3 \text{ m}\Omega$

Crimp terminal - mm² 0.14 - 2.5 mm²

- AWG 26 - 14 AWG

Han E® contacts

Material copper alloy

Surface - hard-gold plated 2 μm Au over 3 μm Ni

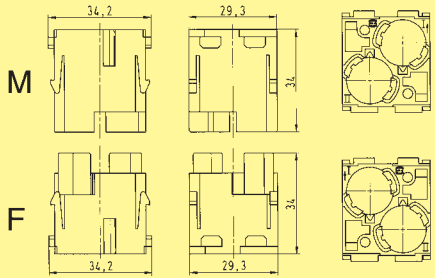
Contact resistance $\leq 1 \text{ m}\Omega$

Crimp terminal - mm² 0.14 - 4 mm²

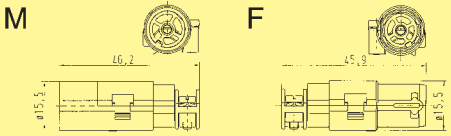
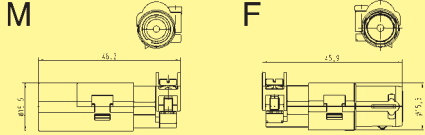
- AWG 26 - 12 AWG

Number of contacts

2

Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal 	09 14 002 3001	09 14 002 3101	 M F Contact arrangement View from termination side	

Han
Modular

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Han® Coax contact 1 + shielding, 75 Ω Han D® crimp contacts 		09 15 001 3013	09 15 001 3113	 M F	
Han D® Crimp contact gold plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226		
Han® Coax contact 1 + shielding, 50 Ω Han E® crimp contacts 		09 15 001 3023	09 15 001 3123	 M F	
Han E® contacts gold plated 	0.14-0.37 0.5 0.75 1 1.5 2.5 4	09 33 000 6117 09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123 09 33 000 6119	09 33 000 6217 09 33 000 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223 09 33 000 6221	2 clamps for cable diameter 3...6 mm and 6...9.5 mm included in the delivery range	

Order crimp contacts separately

Stock items in bold type

Features

- Suitable for FOC and coaxial contacts acc. to DIN 41626
- Using of guiding pins (male and female) is recommended.

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals

Inserts

Number of contacts 4
Insulation resistance $\geq 10^{10} \Omega$
Material Polycarbonate
Limiting temperatures $-40^{\circ}\text{C} \dots 125^{\circ}\text{C}$
Flammability acc. to UL 94 V 0
Mechanical working life
- mating cycles ≥ 500

Contacts

Coaxial contacts

Material copper alloy
Surface
- hard-gold plated demand level 2, S4
Impedance $50 \Omega / 75 \Omega$
Contact resistance
- Internal wire $\leq 10 \text{ m}\Omega$
- Outer conductor $\leq 3 \text{ m}\Omega$
Rated current 1.5 A
Rated voltage 50 V

F.O. contacts *
Fibre type Glas fibre (GI)
Attenuation $< 1.5 \text{ dB}$

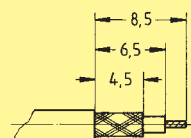
F.O. contacts *
Fibre type Polymer Optical Fibre (POF)
Attenuation $< 2.5 \text{ dB}$

Coaxial cables (group 2)

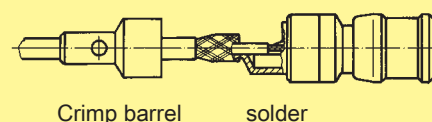
Wires	Shell $\varnothing$	Internal wire $\varnothing$	Attenuation db/100 m at		
	mm	mm	100 MHz	200 MHz	800 MHz
50 Ω					
RG 174 / U	2.5	0.48			84
RG 188 A / U	2.6	0.54	29	40	
RG 316 / U	2.5	0.54		40	
75 Ω					
RG 179 B / U	2.55	0.3		41	
RG 187 A / U	2.7	0.3		41	

Assembly instructions

Stripping de- scription



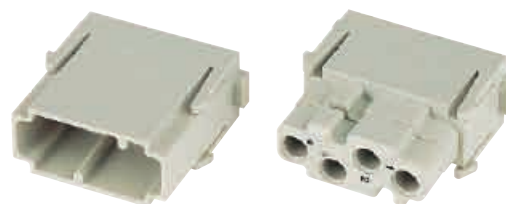
Assembly details for coaxial contacts



Due to the closed entry design of female insert the upper part has to be removed by screw driver (7 mm) before extracting the contacts

Number of contacts

4



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Multicontact module acc. to DIN 41 626 Order contacts separately	09 14 004 4501	09 14 004 4512	Contact arrangement View from termination side	

Han
Modular

Identification	Part number		Drawing	Dimensions in mm
	Male contact	Female contact		
Coaxial contacts acc. to DIN 41 626 Solder / crimp contact 	50 Ω 75 Ω	09 14 000 6211 09 14 000 6221	09 14 000 6111 09 14 000 6121	For cable group 2 flexible wires
F.O. contacts acc. to DIN 41 626 for SI fibre (HCS®) 200/230 µm 		20 10 230 4211 20 10 230 4221	20 10 230 4221	
for GI fibre 50/125 µm or 62.5/125 µm ceramic ferrule 		20 10 125 4212	20 10 125 4222	
for 1 mm plastic fibre 		20 10 001 4211	20 10 001 4221	

Stock items in bold type

Features

- Suitable for coaxial contacts acc. D-Sub (DIN 41 652)
- Using of guiding pins (male and female) is recommended.

Technical characteristics

Specifications DIN EN 61 984
DIN VDE 0110

Approvals 

Inserts

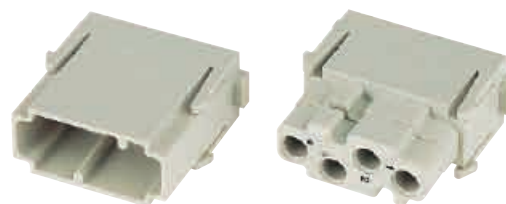
Number of contacts	4
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts

<u>Coaxial contacts</u>	
Material	copper alloy
Surface	
- hard-gold plated	demand level 2, S4
Impedance	50 Ω / 75 Ω
Contact resistance	
- Internal wire	$\leq 10 \text{ m}\Omega$
- Outer conductor	$\leq 3 \text{ m}\Omega$
Rated current	1.5 A
Rated voltage	50 V

Number of contacts

4



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Multicontact module acc. to D-Sub Order contacts separately	09 14 004 4501	09 14 004 4513	Contact arrangement View from termination side	

Han
Modular

Identification	Impedance	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Coaxial contacts acc. to D-Sub Performance level 2 Solder / solder contact	50 Ω	09 14 000 6215	09 14 000 6115	RG 58	
Solder / crimp contact Performance level S4	50 Ω 50 Ω 50 Ω 75 Ω	09 69 281 5140 09 69 281 5141 09 69 281 5143 09 69 281 5230	09 69 181 5140 09 69 181 5141 09 69 181 5143 09 69 181 5230	RG 174 U, 188 AU, 316 U RG 178 BU, 196 AU, 404 U RG 58 CU, 141 AU RG 179 BU, 187 AU	
Crimp / crimp terminal Performance level S4	50 Ω 75 Ω	09 69 282 5140 09 69 282 5230	09 69 182 5140 09 69 182 5230	RG 174 U, 188 AU, 316 U RG 179 BU, 187 AU	

Due to the closed entry design of female insert the upper part has to be removed by screw driver (7 mm) before extracting the contacts

Stock items in bold type

Features

- For the transmission of clean and dry compressed
- Female contacts with / without shut off
- Removal of tubes from pre-assembled pneumatic contacts is possible

Shut off principle:

In the disconnected position the spring integrated in the female contact is active, thus the O-ring of the valve seals the opening of the air-way. During the mating process, when the defined depth of insertion is reached the male contact presses on the valve head and moves it backwards against the spring tension, so that the air-way opens.

Using of guiding pins in connection with pneumatic modules is imperative.

In addition to this guiding pins guarantee a coding, if pneumatic modules are used exclusively.

Technical characteristics

Approvals  

Inserts *

Number of contacts	2
Colour	blue
Material	Polycarbonate
Limiting temperatures	-40 °C ... 80 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts

Material	delrin acetal black
Tube termination	
- Internal diameter (ID)	6.0 mm / 1/4"
Working pressure	up to 8 bar / 116 psi

Sealing

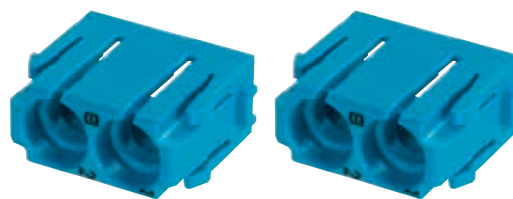
Material	Buna-N
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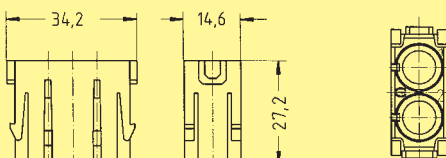
Shut off valve

Material	Polypropylen
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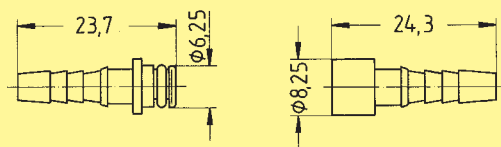
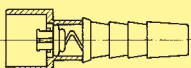
Number of contacts

2



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
for 6 mm Order contacts separately for 6 mm 	09 14 002 4501	09 14 002 4501	 Contact arrangement View from termination side	

Han
Modular

Identification	ID (mm)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Pneumatic contacts without shut off for tube internal diameter (ID) 	6.0	09 14 000 6174	09 14 000 6274	 Male contact Female contact	
Pneumatic contacts with shut off for tube internal diameter (ID) 	6.0		09 14 000 6279	 female contact with shut off in closed position	

Stock items in bold type

Features

- For the transmission of clean and dry compressed
- Female contacts with / without shut off
- Removal of tubes from pre-assembled pneumatic contacts is possible

Shut off principle:

In the disconnected position the spring integrated in the female contact is active, thus the O-ring of the valve seals the opening of the air-way. During the mating process, when the defined depth of insertion is reached the male contact presses on the valve head and moves it backwards against the spring tension, so that the air-way opens.

Using of guiding pins in connection with pneumatic modules is imperative.

In addition to this guiding pins guarantee a coding, if pneumatic modules are used exclusively.

Technical characteristics

Approvals



Inserts *

Number of contacts	3
Colour	blue
Material	Polycarbonate
Limiting temperatures	-40 °C ... 80 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts

Material	delrin acetal black
Tube termination	
- Internal diameter (ID)	1.6 mm / 1/16" 3.0 mm 4.0 mm / 1/8"
Working pressure	up to 8 bar / 116 psi

Sealing

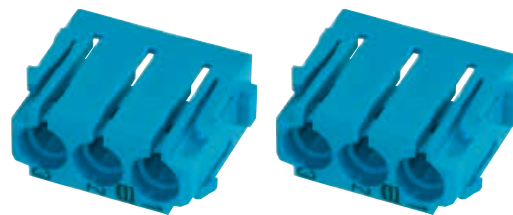
Material	Buna-N
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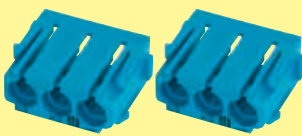
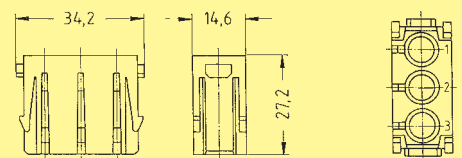
Shut off valve

Material	Polypropylen
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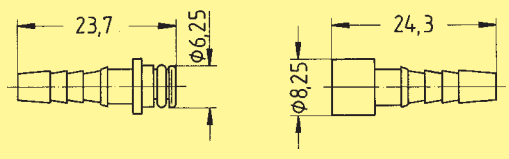
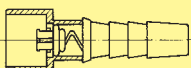
Number of contacts

3



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
for 1.6; 3; 4 mm Order contacts separately for 1.6; 3; 4 mm 	09 14 003 4501	09 14 003 4501	 Contact arrangement View from termination side	

Han
Modular

Identification	ID (mm)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Pneumatic contacts without shut off for tube internal diameter (ID) 	1.6 3.0 4.0	09 14 000 6151 09 14 000 6152 09 14 000 6153	09 14 000 6251 09 14 000 6252 09 14 000 6253	 Male contact Female contact	
Pneumatic contacts with shut off for tube internal diameter (ID) 	1.6 3.0 4.0		09 14 000 6256 09 14 000 6257 09 14 000 6258	 female contact with shut off in closed position	

Stock items in bold type

Features

- 3 contacts for transmission of clean and dry compressed air. Other gaseous and liquid media on request
- Termination of 3 mm, 4 mm, und 6 mm ID-tubes
- Tube sizes may be mixed in one module (for 3 mm, 4 mm, und 6 mm)
- Female contacts with and without shut off
- Contacts can be removed

Shut off principle:

In the disconnected position the spring integrated in the female contact is active, thus the O-ring of the valve seals the opening of the air-way. During the mating process, when the defined depth of insertion is reached the male contact presses on the valve head and moves it backwards against the spring tension, so that the air-way opens.

Technical characteristics

Inserts

Number of contacts	3
Colour	blue
Material	Polycarbonate
Limiting temperatures	-40 °C ... 80 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts

Material	brass
Tube termination	
- Internal diameter (ID)	3.0 mm 4.0 mm / 1/8" 6.0 mm / 1/4"
Working pressure	up to 8 bar / 116 psi

Sealing

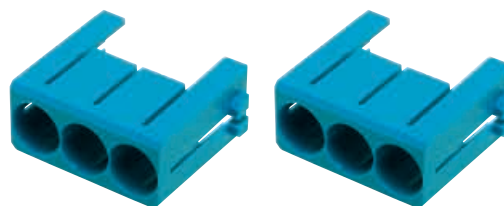
Material	NBR / PU
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Shut off valve

Material	PVDF
Shut off valve spring	stainless steel

Number of contacts

3



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
for 3; 4; 6 mm Order contacts separately for 3; 4; 6 mm	09 14 003 4502	09 14 003 4502	Contact arrangement View from termination side	

Han
Modular

Identification	ID (mm)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Pneumatic contacts without shut off for tube internal diameter (ID)					
	3.0	09 14 000 6162	09 14 000 6262		
	4.0	09 14 000 6163	09 14 000 6263		
	6.0	09 14 000 6164	09 14 000 6264		
Pneumatic contacts with shut off for tube internal diameter (ID)					
	3.0		09 14 000 6267		
	4.0		09 14 000 6268		
	6.0		09 14 000 6269		

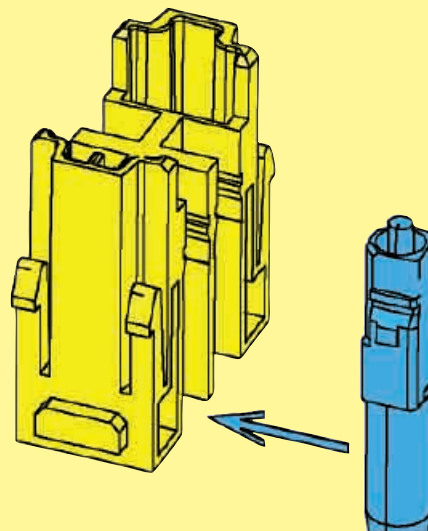
Stock items in bold type

Features

- Suitable for SC contacts
- For GI-Fibre 50 - 62.5 / 125µm

Assembly instructions

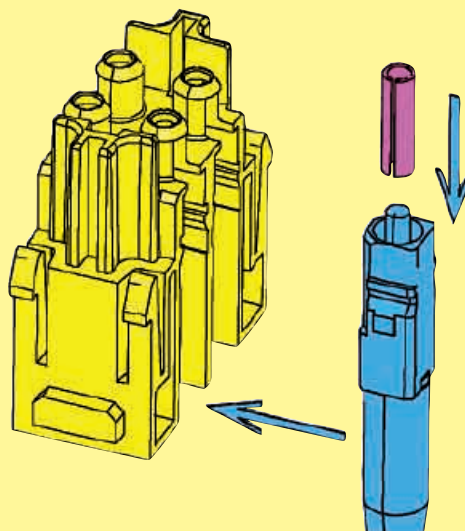
Male insert (09 14 004 4701)



Assemble the SC contact

Push the SC contact from the side into the relevant insert

Female insert (09 14 004 4711)



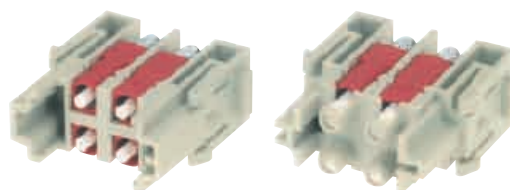
Assemble the SC contact

Push the centering ferrule (included in delivery) on the SC contact

Push the SC contact from the side into the relevant insert

Number of contacts

4



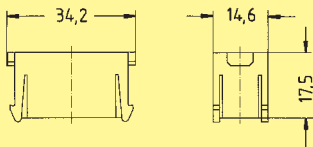
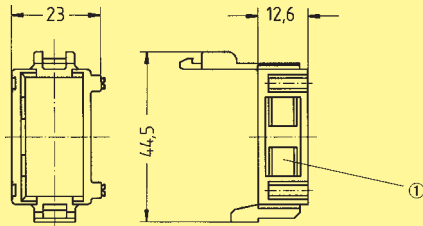
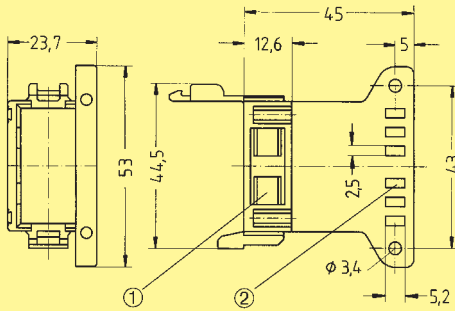
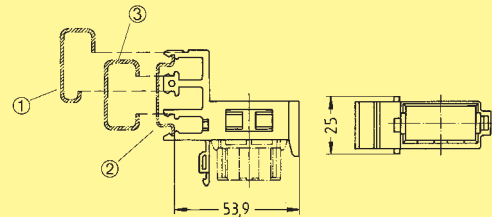
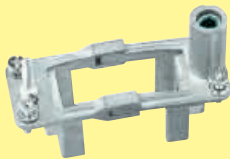
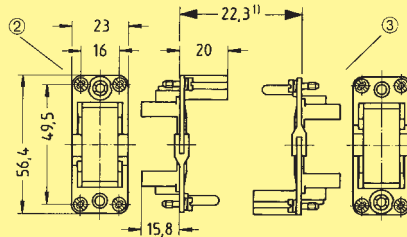
Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
SC module Order contacts separately	09 14 004 4701	09 14 004 4711	Contact arrangement View from termination side The female contacts are equipped with centering ferrules. 4 ferrules are included in delivery range.	

Han
Modular

Identification	Part number		Drawing	Dimensions in mm
	Male contact	Female contact		
SC contact for GI fibre 50/125 µm or 62.5/125 µm ceramic ferrule	20 10 125 5211	20 10 125 5211		
for SI fibre (HCS®) 200/230 µm	20 10 230 5211	20 10 230 5211		
with quick assembly technique for 1 mm POF	20 10 001 5217	20 10 001 5217		

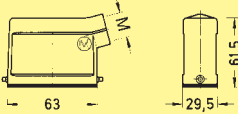
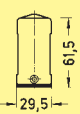
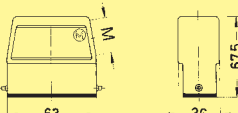
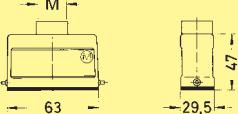
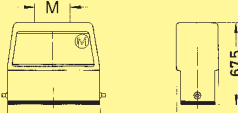
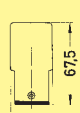
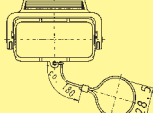
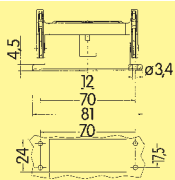
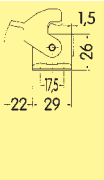
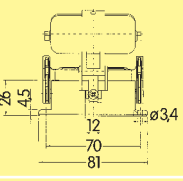
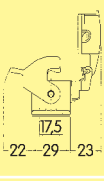
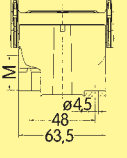
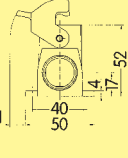
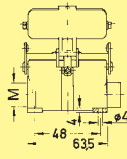
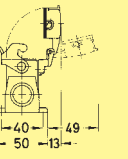
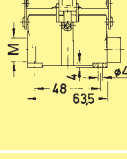
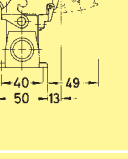
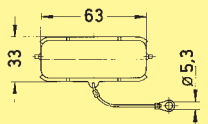
06
69

Stock items in bold type

Identification	Part number	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	 1 Slot for identification strip	
Module clamp with strain relief *  Delivery comprises 2 module clamps.	09 14 000 0302	 1 Slot for identification strip 2 For cable ties with max. 5 mm width	
Module clamp for rail *  Delivery comprises 2 module clamps.	09 14 000 0303	 1 G-rail EN 50 035-G32 2 rail EN 50 022 -35 x 7.5 with 1 mm thickness or -35 x 15 with 1.5 mm thickness 3 C-rail EN 50 024-C30	
Frame for 1 module  in housing Han® 10 A	09 14 000 0304	 1 Distance for electrical and F.O. contacts max. 24 mm; for pneumatic contacts max. 23.5 mm 2 Hoods 3 Housings	

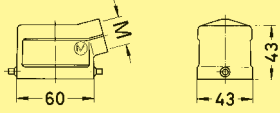
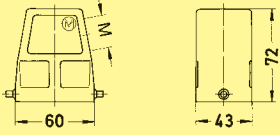
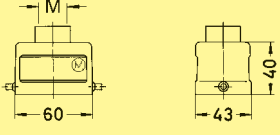
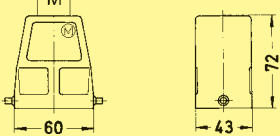
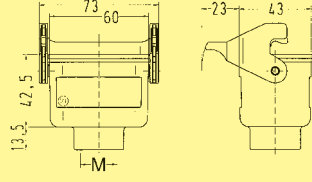
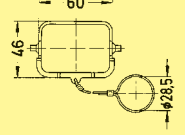
* Suitable for most of the single modules (excepting Han® ES, Han® DDD, Han® CC, Han® CD, Han® 70 A, Han® RJ45 and Han® Pneumatik modules)

for 1 module

		Part No.		M	Drawing	Dimensions in mm
Identification		Low construction	High construction			
Hoods	Hoods side-entry 	19 20 010 1540		20		
			19 20 010 0546	25		
	Hoods top-entry 	19 20 010 1440		20		
			19 20 010 0446	25		
	Protection covers for hoods 	09 20 010 5423				
Housings	Housings bulkhead mounting 	09 20 010 0301		—		
		with thermo-plastic cover 09 20 010 0321¹⁾		—		
	Housings surface mounting 	19 20 010 0251		1 x 25		
	1 side-entry	19 20 010 0251		1 x 25		
	2 side-entries 	19 20 010 0290		2 x 20		
	2 side-entries	19 20 010 0290		2 x 20		
	with thermo-plastic cover 19 20 010 0295	19 20 010 0295		2 x 20		
	Protection covers for housings 	09 20 010 5425				

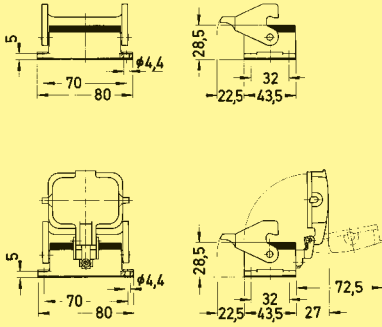
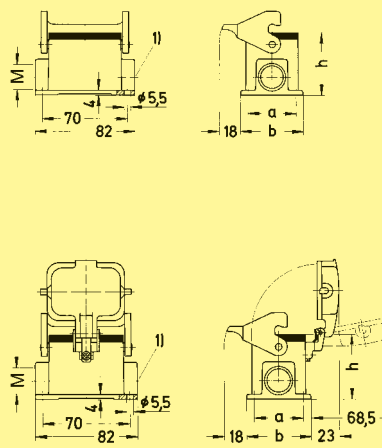
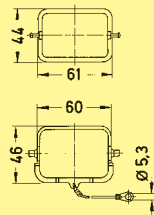
¹⁾ for female insert

for 2 modules

Identification	Part No.		M	Drawing	Dimensions in mm
	Low construction	High construction			
Hoods side-entry 	19 30 006 1540 19 30 006 1541		20 25		
		19 30 006 0546 19 30 006 0547	25 32		
	Hoods top-entry 	19 30 006 1440	20		
		19 30 006 0446 19 30 006 0447	25 32		
		Protection covers for hoods metal 			
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	 09 30 006 0301 with thermo-plastic cover 09 30 006 0302 with metal cover 09 30 006 0318		— — —	Panel cut out 48 x 35 mm 													
	Housings surface mounting	 19 30 006 1250 19 30 006 1290 with thermo-plastic cover 19 30 006 1255 19 30 006 1295 with metal cover 19 30 006 2255 19 30 006 2295	19 30 006 0291 19 30 006 0292 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 2 x 32 1 x 20 2 x 20 2 x 25	 1) Blind way for one cable entry <table border="1"><thead><tr><th></th><th>a</th><th>b</th><th>h</th></tr></thead><tbody><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></tbody></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	plastic  metal 	09 30 006 5404 09 30 006 5425																

Han
Modular

for 3 modules

		Part No.																
Identification		Low construction	High construction	M	Drawing	Dimensions in mm												
Hoods	Hoods side-entry	19 30 010 1520 19 30 010 1521	19 30 010 0527	20 25 32														
	Hoods top-entry	19 30 010 1420 19 30 010 1421	19 30 010 0427	20 25 32														
	Protection covers for hoods thermoplastic/metal	09 30 010 5401 09 30 010 5423																
Housings	Housing bulkhead mounting	09 30 010 0301		—	Panel cut out 60 x 35 mm 													
	Housings surface mounting	1 side-entry 19 30 010 1230 19 30 010 1231 2 side-entries 19 30 010 1270	19 30 010 0231 19 30 010 0271 19 30 010 0272	20 25 20 25 32	 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>54</td></tr><tr><td>High construction</td><td>45</td><td>57</td><td>81</td></tr></table>		a	b	h	Low construction	40	52	54	High construction	45	57	81	
		a	b	h														
	Low construction	40	52	54														
	High construction	45	57	81														
Protection covers for housings bulkhead/surface mounting thermoplastic/metal	09 30 010 5407 09 30 010 5425																	
Hoods cable to cable	19 30 010 1730	19 30 010 0736 19 30 010 0737	20 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>74.5</td></tr></table>		h	Low construction	47.5	High construction	74.5								
	h																	
Low construction	47.5																	
High construction	74.5																	
	Protection cover for hoods cable to cable metal	09 30 010 5427																

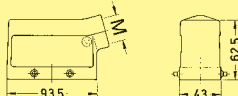
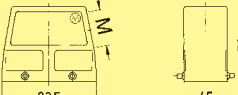
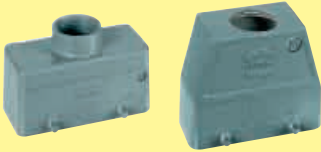
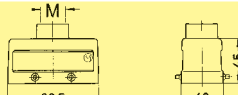
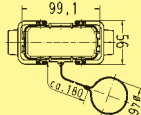
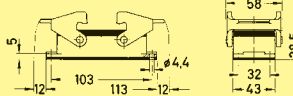
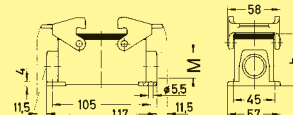
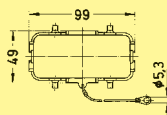
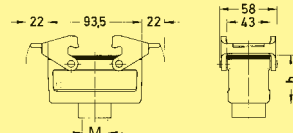
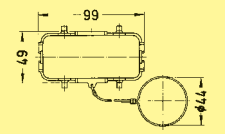
Stock items in bold type

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		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		— — —													
	Housings surface mounting	1 side-entry 19 30 010 1250 2 side-entries 19 30 010 1290	19 30 010 0291 19 30 010 0292	20 20 25 32													
		1 side-entry 19 30 010 1255 2 side-entries 19 30 010 1295	with thermo-plastic cover 19 30 010 0296 19 30 010 0297	20 20 25 32													
		with metal cover 19 30 010 2295	with metal cover 19 30 010 7296	20 25	1) Blind way for one cable entry <table><tr><th></th><th>a</th><th>b</th><th>h</th></tr><tr><td>Low construction</td><td>40</td><td>52</td><td>54</td></tr><tr><td>High construction</td><td>45</td><td>57</td><td>81</td></tr></table>		a	b	h	Low construction	40	52	54	High construction	45	57	81
	a	b	h														
Low construction	40	52	54														
High construction	45	57	81														
	Hoods cable to cable	19 30 010 1750	19 30 010 0756 19 30 010 0757	20 25 32		<table><tr><th></th><th>h</th></tr><tr><td>Low construction</td><td>47.5</td></tr><tr><td>High construction</td><td>74.5</td></tr></table>		h	Low construction	47.5	High construction	74.5					
	h																
Low construction	47.5																
High construction	74.5																
	Dust protection cover	09 30 010 5406															

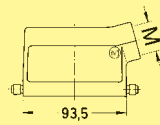
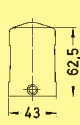
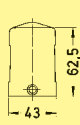
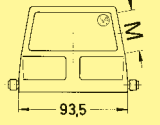
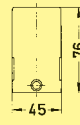
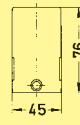
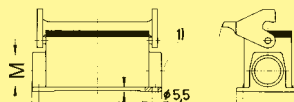
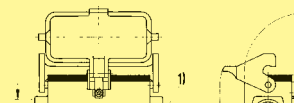
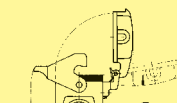
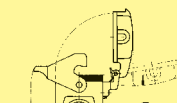
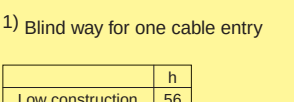
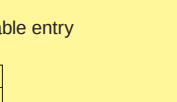
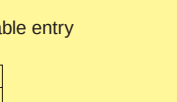
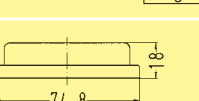
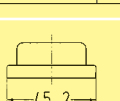
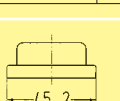
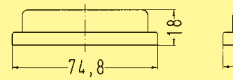
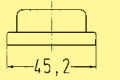
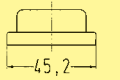
Han
Modular

for 4 modules

		Part No.			Drawing	Dimensions in mm					
Identification		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 32 40	 						
	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	 <table border="1"><thead><tr><th></th><th>h</th></tr></thead><tbody><tr><td>Low construction</td><td>47.5</td></tr><tr><td>High construction</td><td>78.5</td></tr></tbody></table>		h	Low construction	47.5	High construction	78.5	
	h										
Low construction	47.5										
High construction	78.5										
	Protection cover for hoods cable to cable metal 	09 30 016 5426									

Stock items in bold type

for 4 modules

Identification		Part No.		M	Drawing	Dimensions in mm					
		Low construction	High construction								
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		— — —	Panel cut out 82 x 35 mm  						
	Housings surface mounting 1 side-entry	19 30 016 1251	19 30 016 0252	25 32	 						
	2 side-entries	19 30 016 1291 with thermo-plastic cover 19 30 016 1256	19 30 016 0291 19 30 016 0292	25 32	 						
	1 side-entry	19 30 016 1296 with thermo-plastic cover 19 30 016 1296	with thermo-plastic cover 19 30 016 0297	25 32	 						
	2 side-entries	19 30 016 2296 with metal cover 19 30 016 2296	with metal cover 19 30 016 7297	25 32	1) Blind way for one cable entry <table data-bbox="1107 1666 1305 1744"><tr><td></td><td>h</td></tr><tr><td>Low construction</td><td>56</td></tr><tr><td>High construction</td><td>81</td></tr></table>		h	Low construction	56	High construction	81
	h										
Low construction	56										
High construction	81										
	Hoods cable to cable	19 30 016 1751	19 30 016 0757	25 32	 						
	Dust protection cover	09 30 016 5406			 						

Han
Modular

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"><tr><td></td><td>h</td></tr><tr><td>Low construction</td><td>56</td></tr><tr><td>High construction</td><td>81</td></tr></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 19 30 024 0738	32 40		<table border="1"><tr><td></td><td>h</td></tr><tr><td>Low construction</td><td>57.5</td></tr><tr><td>High construction</td><td>78.5</td></tr></table>		h	Low construction	57.5	High construction	78.5	
	h											
Low construction	57.5											
High construction	78.5											
	Protection cover for hoods metal	09 30 024 5426										

Stock items in bold type

for 6 modules

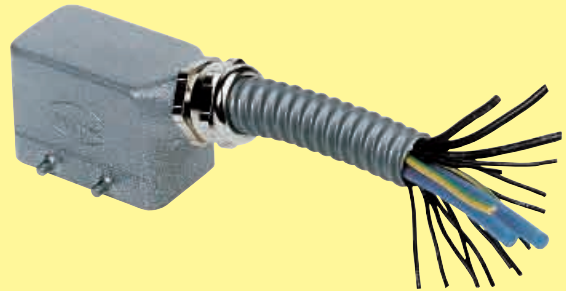
Identification		Part No.		M	Drawing	Dimensions in mm
		Low construction	High construction			
Hoods	Hoods side-entry	19 30 024 1541 19 30 024 1542		25 32		
			19 30 024 0547 19 30 024 0548	32 40		
	Hoods top-entry	19 30 024 1442	19 30 024 0447	32		
			19 30 024 0448	40		
Housings	Housings bulkhead mounting	09 30 024 0307 with thermo-plastic cover 09 30 024 0304 with metal cover 09 30 024 0318		— — —	Panel cut out 108 x 35 mm 	
	Housings surface mounting 1 side-entry	19 30 024 1251		25		
	2 side-entries	19 30 024 1291	19 30 024 0292	25 32		
	1 side-entry	with thermo-plastic cover 19 30 024 1256		25		
	2 side-entries	with thermo-plastic cover 19 30 024 1296	with thermo-plastic cover 19 30 024 0297	25 32		
	2 side-entries	with metal cover 19 30 024 2296	with metal cover 19 30 024 7297	25 32		
	Hoods cable to cable	19 30 024 1752	19 30 024 0757	32		
	Dust protection cover	09 30 024 5406				

Han
Modular

The integration of several electrical wires with different gauges, optical control lines and/or air tubes in one connector

Protective tube

- ❑ Single wires have more space to move
- ❑ Ideal for short-run production
- ❑ Easy maintenance/service



Special cable

- ❑ Optimal solution for large-scale production
- ❑ Professional design



Hood with several cable entries

- ❑ Single wires are less expensive than special wires
- ❑ Easy maintenance/service



Cable seal with several cable inlets

- ❑ Ideal for wires/tubes with approximately similar wire gauges
- ❑ Easy maintenance/service

