

Han-Modular®

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Han® CC-
Protected module



Han® EEE module

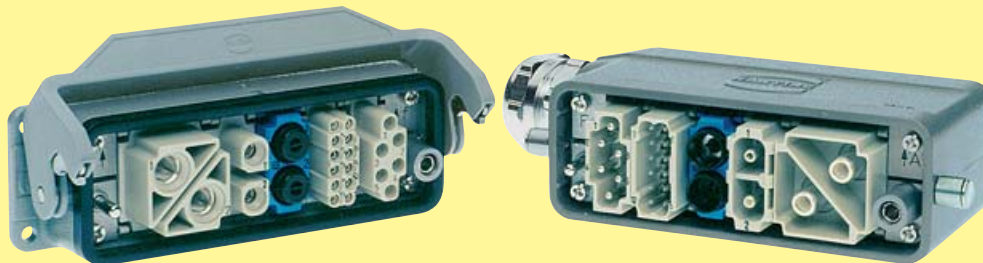


Han® USB +FireWire
module



New!

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.

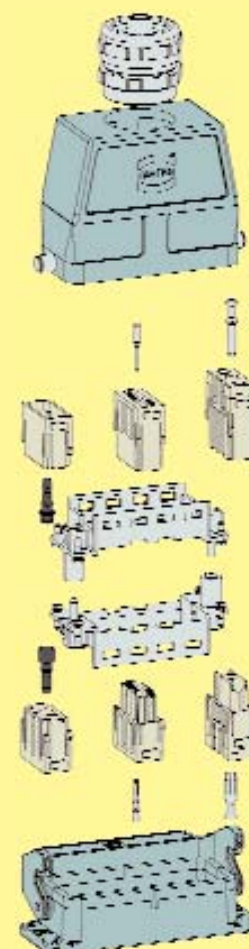
The individual contacts used in this system are all from existing well proven ranges and it is possible to use combinations of 1 to 12 modules depending on the size of the hoods and housings chosen.

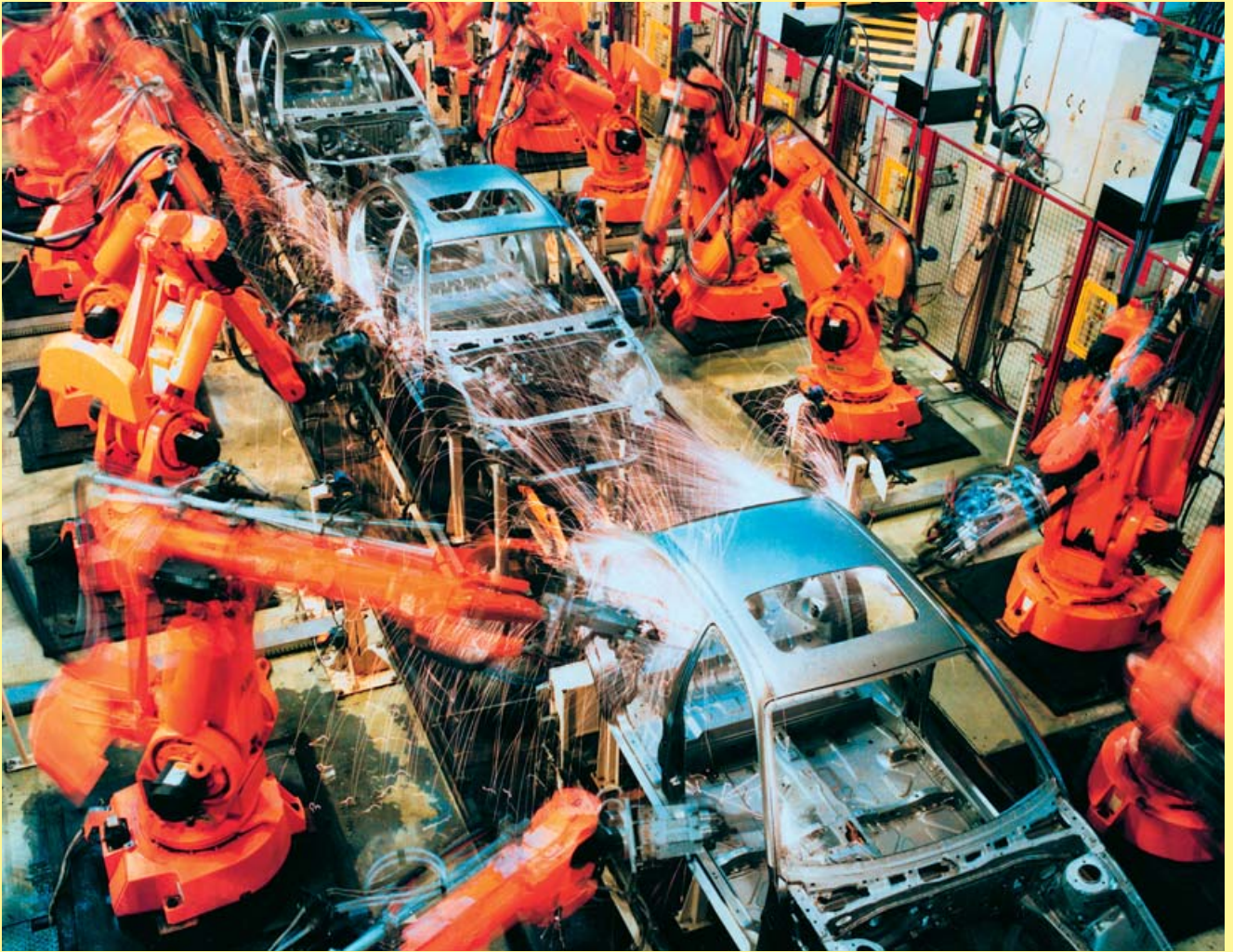
The basic modules snap into a mounting frame and can be exchanged separately at any time.

Advantages:

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

Assembly details

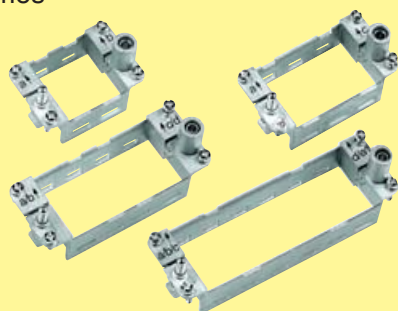




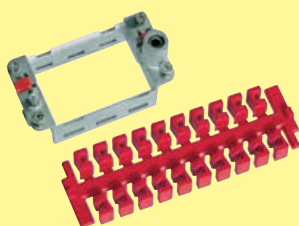
Welding robots in automotive production
ABB Robotics AB, Västerås, Sweden

Hinged frames

No tool
necessary
to remove
modules



Locking Element



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

Page 06.09

Series	Han® Axial screw module 200 A	Han® Axial screw module 100 A	Han® Axial screw module 40 A	Han® C Axial screw module
Number of contacts	1	2	2	3
Modules	Axial screw terminal 	Axial screw terminal 	Axial screw terminal 	Axial screw terminal 
Working current	200 A	100 A	40 A	40 A
Working voltage	1000 V	1000 V	1000 V	690 V
Wire gauge	25 - 70 mm²	10 - 38 mm²	2.5 - 10 mm²	2.5 - 10 mm²
Page	06.10	06.12	06.14	06.16

Series	Han® C-module	Han® CC-protected-module	Han E®-module	Han® EE-module
Number of contacts	3	4	6	8
Modules	Crimp terminal 	Crimp terminal 	Crimp terminal 	Crimp terminal 
Working current	40 A	40 A	16 A	16 A
Working voltage	400 / 690 V	830 V	500 V	400 V
Wire gauge	1.5 - 6 mm²	1.5 - 6 mm²	0.5 - 4.0 mm²	0.5 - 4.0 mm²
Page	06.16	06.18	06.20	06.22

Series	Han® E-protected-module	Han® EEE-double module	Han® ES-module	Han® HV-module
Number of contacts	6	20	5	2
Modules	Crimp terminal 	Crimp terminal 	Cage-clamp terminal 	Crimp terminal 
Working current	16 A	16 A	16 A	16 A
Working voltage	830 V	500 V	400 V	2900 / 5000 V
Wire gauge	0.5 - 4.0 mm²	0.5 - 4.0 mm²	0.14 - 2.5 mm²	0.5 - 4.0 mm²
Page	06.24	06.26	06.28	06.36

Series	Han DD®-module	Han DDD®-module	Han® High Density-module	Han® D-Sub-module
Number of contacts	12	17	25	9
Modules	Crimp terminal	Crimp terminal	Crimp terminal	Crimp terminal
Working current	10 A	10 A	5 A	5 A
Working voltage	250 V	160 V	50 V	50 V
Wire gauge	0.14 - 2.5 mm ²	0.14 - 2.5 mm ²	0.09 - 0.56 mm ²	0.09 - 0.56 mm ²
Page	06.30	06.32	06.34	06.44

Series	Han® ID-module	Han® Dummy-module	Han® SC-module	Han® FireWire-module	Han® USB-module
Number of contacts	6		4	1	1
Modules	electronic storage of data max. 128 Byte	to fill unused module spaces in the frame			
Page	06.42	06.52	06.40	06.51	06.50

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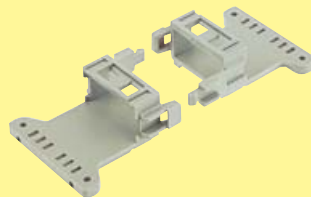
Series	Han Quintax® module			Han® Multicontact-module		Han® Pneumatik-module	
Number of contacts	2			4		2	3
Modules							
Page	06.48			06.38		06.46	06.46
Contacts	Quintax contact 4 + shielding	Koax contact 1 + shielding	High Density Quintax contacts 8 + shielding	Koaxial contacts	FOC contacts	Pneumatic contacts	Pneumatic contacts
							
	3 - 9.5 mm	3 - 9.5 mm	3 - 9.5 mm	50 Ω RG 58 50 Ω RG 174 75 Ω RG 179		ø 6 mm	ø 1.6 mm ø 3 mm ø 4 mm

Accessories Han-Modular®

Module clamp
without strain relief
Page 06.52



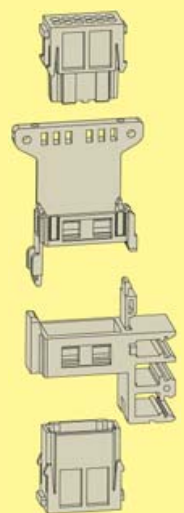
Module clamp
with strain relief
Page 06.52



Module clamp
for rail
Page 06.52



Assembly
details



Features

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

Technical characteristics

Hoods/housings

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

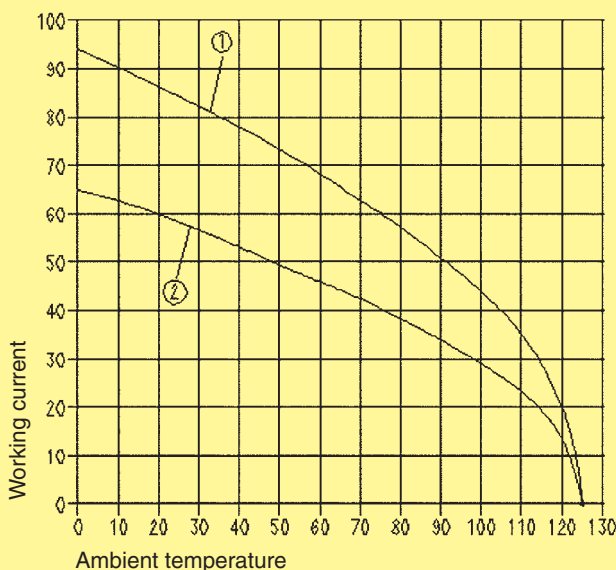
Protection cover

Material	Polycarbonate
Locking lever	Polyamide
Seal	NBR
Limiting temperatures	- 40 °C / +125 °C
Degree of protection acc. to DIN EN 40 050 for coupled connector	IP 65
Flammability acc. to UL 94	V0

Current carrying capacity

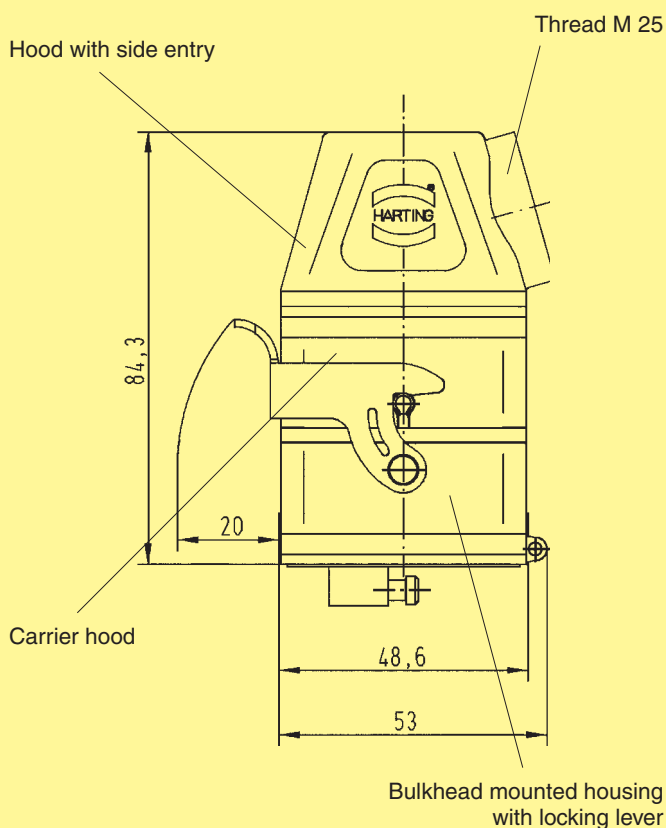
The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the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

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

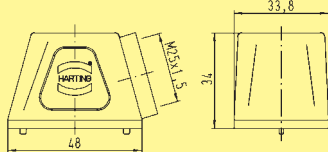
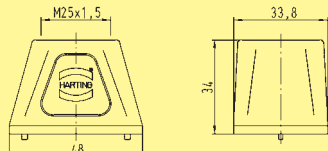
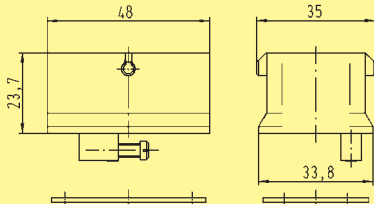
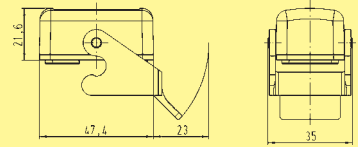
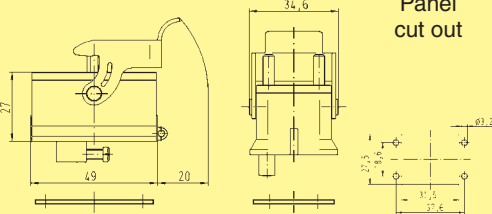
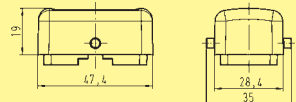
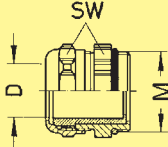


① Han® Axial screw module, Wire gauge: 10 mm²

② Han® C module, Wire gauge: 6 mm²





Identification	Part No.		Drawing	Dimensions in mm
Hood side entry M 25 	19 14 001 0501		 4 screws are included in the delivery range	
Hood top entry M 25 	19 14 001 0401		 4 screws are included in the delivery range	
Carrier hood 	09 14 001 0311			
Protection cover with lever and seal 	09 14 001 5402			
Housing bulkhead mounting 	09 14 001 0301		 Panel cut out	
Protection cover 	09 14 001 5401			
Cable glands M 25 	Metal 19 00 000 5090 19 00 000 5092	Plastic 19 00 000 5190 19 00 000 5192	cable Ø 9 – 16 mm 13 – 18 mm 	

Features

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

Technical characteristics

Specifications DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals  

Hinged frames

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

Hoods/Housings

Material	die cast aluminium
Surface	powder-coated RAL 7037
Locking elements	Han-Easy Lock®
Hoods/Housings seal	NBR
Limiting temperatures	- 40 °C / +125 °C
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65
Further selection of hoods/housings	chapter 30 / chapter 31

Accessories

Crimping Tools	chapter 99
Cable clamps	chapter 40
Coding of Hoods/Housings	chapter 40
Label acc. to CSA-approval	chapter 40

Han-Modular® Hinged frames



Part No. for Hoods / Housings ²⁾																					
Identification	Size	Marking A ... F	Marking a ... f	Drawing	Dimensions in mm																
Hinged frame for 2 modules	6 B	09 14 006 0303	09 14 006 0313	Hood	Housing																
Hinged frame for 3 modules	10 B	09 14 010 0303	09 14 010 0313																		
Hinged frame for 4 modules	16 B	09 14 016 0303	09 14 016 0313																		
Hinged frame for 6 modules	24 B	09 14 024 0303	09 14 024 0313																		
Locking Element for hinged frames (20 pieces per bloc)		09 14 000 9960		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
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																		
				Ideal to pre-assemble the hinged frame																	

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06
09

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

Stock items in bold type

Features

- ❑ 1 contact (200 A) for power circuits
- ❑ PE module with metallic contact to the hinged frame
- ❑ Combination with Han-Modular® and all Han®-Modules possible

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Inserts

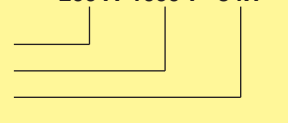
Number of contacts

1

Electrical data
acc. to DIN EN 61 984

200 A 1000 V 8 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- mating cycles

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

Contacts

Material
Surface
- hard-silver plated
Contact resistance
Screw terminal
- Wire gauge¹⁾
- AWG

copper alloy
3 μm Ag
0.2 m Ω
25 - 70 mm²
2 - 00

- Tightening torque

mm ²	25	35	50	70
Nm	8	8	9	10

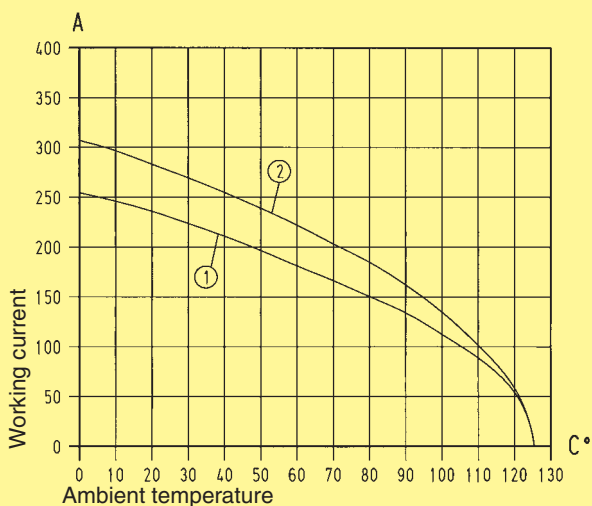
- Hexagonal driver
- Stripping length

SW 5
16 mm

Current carrying capacity

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

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



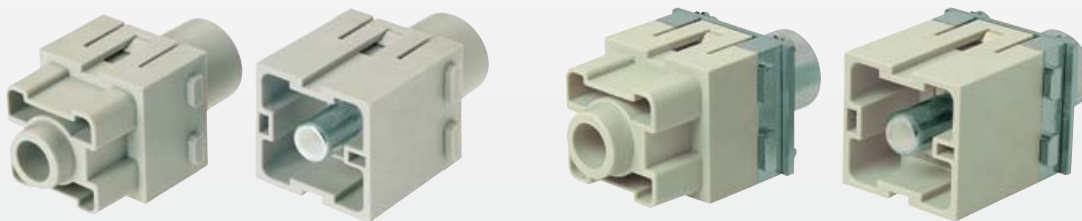
① 24 B hood/housing with 3 modules; wire gauge: 50 mm²

② 24 B hood/housing with 3 modules; wire gauge: 70 mm²

¹⁾ geometrical diameter

Number of contacts

1



Identification	Part Numbers		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Axial Screw Termination 200 A 25 – 40 mm ² 40 – 70 mm ²	09 14 001 2663 09 14 001 2662	09 14 001 2763 09 14 001 2762		
Axial Screw Termination 200 A PE 25 – 40 mm ² 40 – 70 mm ²	09 14 001 2668 09 14 001 2667	09 14 001 2768 09 14 001 2767		

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Identification	Part Number	Drawing	Dimensions in mm
Hex Key SW 4 for axial setscrew with grip	09 99 000 0364		
adapter 3/8"	09 99 000 0371		

Stock items in bold type

Features

- ❑ 2 contacts (100 A) for power circuits
- ❑ Male insert with additional protection collar
- ❑ Axial screw termination for 16 – 35 mm²
- ❑ Combination with Han-Modular® and all Han®-Modules possible

- ❑ Polarized insert

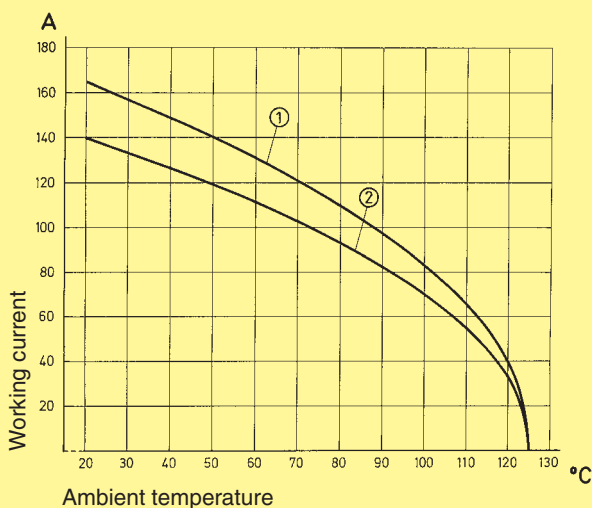
Remarks

- ❑ Connect PE-contact with special cable shoe
- ❑ Suitable for housings bulkhead mounting and hoods high construction

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-3.



① 24 B hood/housing with 3 modules; wire gauge: 35 mm²

② 24 B hood/housing with 3 modules; wire gauge: 25 mm²

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals



Inserts

Number of contacts

2

Electrical data
acc. to DIN EN 61984

100 A 1000 V 8 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



– Pollution degree 2 also

100 A 920/1600 V 8 kV 2

Insulation resistance

$\geq 10^{10} \Omega$

Material

Polycarbonate

Limiting temperatures

- 40 °C / + 125 °C

Flammability acc. to UL 94

V0

Mechanical working life

≥ 500

- mating cycles

Contacts

Material

copper alloy

Surface

- hard-silver plated

3 μm Ag

Contact resistance

$\leq 0.3 \text{ m}\Omega$

Screw terminal

- Wire gauge¹⁾

10 - 38 mm²

- AWG

6 - 2

- Tightening torque

mm ²	10	16	25	35
Nm	6	6	7	8

- Hexagonal driver

SW 4

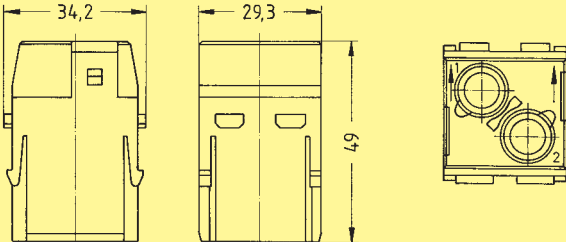
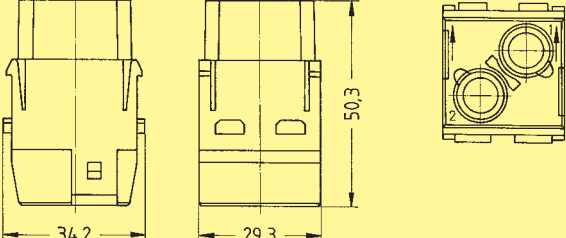
- Stripping length

13 mm

Number of contacts

2



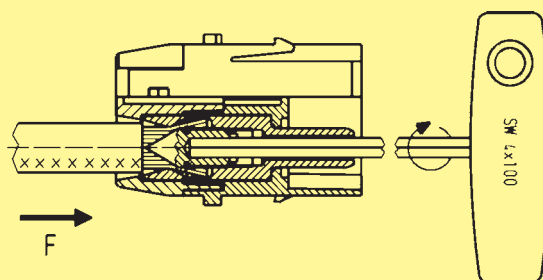
Part Numbers				
Identification	Male insert (M)	Female insert (F)	Drawing	Dimensions in mm
Axial Screw Termination				
10 – 25 mm²	09 14 002 2653	09 14 002 2753	M	
16 – 35 mm²	09 14 002 2651	09 14 002 2751	F	
38 mm²	09 14 002 2650	09 14 002 2750		
Contact arrangement View from termination side				

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Identification	Part Number	Drawing	Dimensions in mm
Cable shoe 16 mm² for PE extension	09 14 000 9912	Please use pressing tools for non-insulated cable shoes following DIN 46 230 with 16 mm ² range (eg. K25, co. Klauke)	
Hex Key SW 4 for axial setscrew with grip adapter ³ / ₈ "	09 99 000 0363 09 99 000 0370		

Assembly Manual

Strip insulation 13 mm from stranded wire. Insert stranded wire into contact chamber until insulation is flush with contact. Hold the stranded wire in position and secure by hexagonal driver from the mating side.



Stock items in bold type

Features

- ❑ 2 contacts (40 A) for power circuits
- ❑ Male insert with additional protection collar
- ❑ Polarization of module
- ❑ Axial screw termination
- ❑ Wide outer cable $\varnothing$ inclusive insulation of max. 10.5 mm

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals

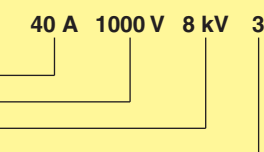


Inserts

Number of contacts

2

Electrical data
acc. to DIN EN 61 984



Working current
Working voltage
Rated impulse voltage
Pollution degree

– Pollution degree 2 also

40 A 1600 V 12 kV 2

Working voltage
according to UL/CSA
Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- mating cycles

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

Contacts

Material
Surface
- hard-silver plated
Contact resistance
Screw terminal
- Wire gauge¹⁾
- AWG

copper alloy

3 μm Ag
 $\leq 0.5 \text{ m}\Omega$

- Tightening torque

2.5 - 10 mm²
14 - 8

mm ²	2.5	4	6	10
Nm	1.5	1.5	2	2

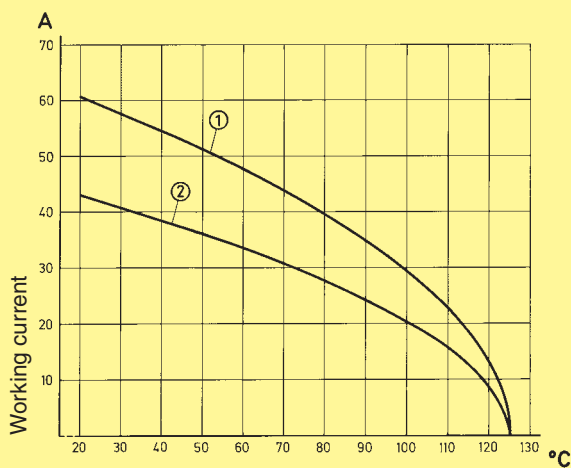
- Stripping length

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

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-3.



Ambient temperature

① 24 B hood/housing with 6 modules; wire gauge: 10 mm²

② 24 B hood/housing with 6 modules; wire gauge: 6 mm²

¹⁾ geometrical diameter

Number of contacts

2



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Axial screw terminal				
2.5 – 8 mm ² Ø 4.0 mm	09 14 002 2601	09 14 002 2701		
6 – 10 mm ² Ø 4.8 mm	09 14 002 2602	09 14 002 2702		

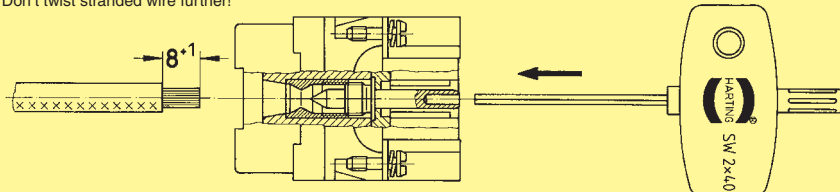
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Identification	Part No.	Drawing	Dimensions in mm
Hex Key SW 2 for axial setscrew			
with grip	09 99 000 0313		
Bit 1/4"	09 99 000 0369		

Working instructions
for axial setscrew

For stranded wire 2.5 ... 10 mm² fine wire
(superfine wire 2.5 ... 6 mm²)
Don't twist stranded wire further!

Example: Male insert Han® K 6/12



Insert stranded wire in contact chamber.

During tightening the lock nut, hold stranded wire in position.

Stock items in bold type

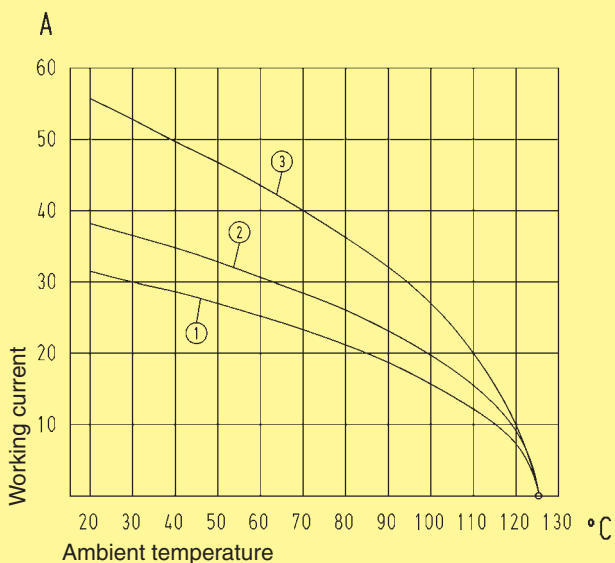
Features

- ❑ 3 contacts (40 A) for power circuits
- ❑ Male insert with protection collar
- ❑ Polarization of module
- ❑ Crimp termination / axial screw termination
- ❑ Both male and female modules may be mounted in the same frame

Current carrying capacity

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

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



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

Technical characteristics

Specifications

DIN VDE 0627
 DIN VDE 0110
 DIN EN 61 984

Approvals



Inserts

Number of contacts

3

Axial screw terminal

Electrical data
 acc. to DIN EN 61 984

40 A 690 V 8 kV 3

Working current
 Working voltage
 Rated impulse voltage
 Pollution degree

Crimp terminal

Electrical data
 acc. to DIN EN 61 984

Cable diameter up to 5 mm

40 A 400/690 V 6 kV 3

Working current
 Working voltage conductor – ground
 Working voltage conductor – conductor
 Rated impulse voltage
 Pollution degree

Cable diameter up to 7.5 mm

40 A 500 V 6 kV 3

Working current
 Working voltage
 Rated impulse voltage
 Pollution degree

Working voltage
 according to UL/CSA

600 V

Insulation resistance
 Material
 Limiting temperatures
 Flammability acc. to UL 94
 Mechanical working life
 - mating cycles

≥ 10¹⁰ Ω
 Polycarbonate
 - 40 °C / + 125 °C
 V0
 ≥ 500

Contacts

Material
 Surface
 - hard-silver plated
 Contact resistance
 Crimp terminal
 - mm²
 - AWG
 Screw terminal
 - Wire gauge¹⁾
 - AWG
 - Tightening torque

copper alloy

3 μm Ag
 ≤ 0.3 mΩ

1.5 - 6 mm²
 16 - 10

2.5 - 10 mm²
 14 - 8

mm ²	2.5	4	6	10
Nm	1.5	1.5	2	2

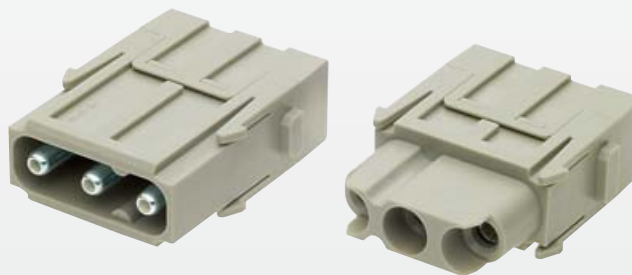
- Stripping length

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

¹⁾ geometrical diameter

Number of contacts

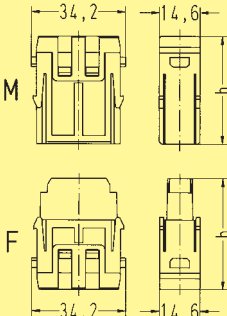
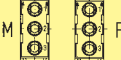
3

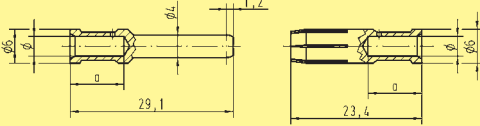


Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han® C-module with axial screw terminal 2.5 - 8 mm ² 6 - 10 mm ²				 Contact arrangement View from termination side
	09 14 003 2601	09 14 003 2701		
	09 14 003 2602	09 14 003 2702		

Han
Modular

Identification	Part No.	Drawing	Dimensions in mm
Hex Key SW 2 for axial setscrew with grip Bit 1/4"	09 99 000 0313 09 99 000 0369		

Part No.																
Identification	Male insert (M)	Female insert (F)	Drawing	Dimensions in mm												
Crimp terminal  Order contacts separately Cable ø up to 5 mm Cable ø up to 7.5 mm			 <table><tr><th>Cable Ø</th><th>h</th></tr><tr><td>up to 5 mm</td><td>39,1</td></tr><tr><td>up to 7,5 mm</td><td>43,1</td></tr></table> <table><tr><th>Cable Ø</th><th>h</th></tr><tr><td>up to 5 mm</td><td>40,7</td></tr><tr><td>up to 7,5 mm</td><td>44,7</td></tr></table>	Cable Ø	h	up to 5 mm	39,1	up to 7,5 mm	43,1	Cable Ø	h	up to 5 mm	40,7	up to 7,5 mm	44,7	Contact arrangement View from termination side 
Cable Ø	h															
up to 5 mm	39,1															
up to 7,5 mm	43,1															
Cable Ø	h															
up to 5 mm	40,7															
up to 7,5 mm	44,7															
	09 14 003 3001	09 14 003 3101														
	09 14 003 3002	09 14 003 3102														

Identification		Wire gauge (mm ²)	Part No.		Drawing	Dimensions in mm																				
Crimp contacts																										
Power contacts		1.5	09 32 000 6104	09 32 000 6204																						
		2.5	09 32 000 6105	09 32 000 6205																						
silver		4.0	09 32 000 6107	09 32 000 6207																						
plated		6.0	09 32 000 6108	09 32 000 6208																						
					<table><tr><th>ø</th><th colspan="2">Wire gauge</th><th>Stripping length of the stranded wire a</th></tr><tr><td>1.75</td><td>1.5 mm²</td><td>AWG 16</td><td>9</td></tr><tr><td>2.25</td><td>2.5 mm²</td><td>AWG 14</td><td>9</td></tr><tr><td>2.85</td><td>4 mm²</td><td>AWG 12</td><td>9.6</td></tr><tr><td>3.5</td><td>6 mm²</td><td>AWG 10</td><td>9.6</td></tr></table>	ø	Wire gauge		Stripping length of the stranded wire a	1.75	1.5 mm ²	AWG 16	9	2.25	2.5 mm ²	AWG 14	9	2.85	4 mm ²	AWG 12	9.6	3.5	6 mm ²	AWG 10	9.6	
ø	Wire gauge		Stripping length of the stranded wire a																							
1.75	1.5 mm ²	AWG 16	9																							
2.25	2.5 mm ²	AWG 14	9																							
2.85	4 mm ²	AWG 12	9.6																							
3.5	6 mm ²	AWG 10	9.6																							
						18 mm stripping length for wired ≥ 5 mm ø																				

Stock items in bold type

Features

- ❑ Finger safe male and female contacts
- ❑ Designed for high working voltage of 830 V
- ❑ Compatible with all hoods, style Han® B and Han-Modular® Compact (excepting Han® 6 B low construction)

Technical characteristics

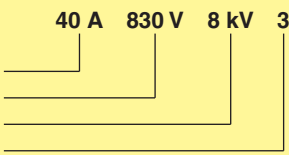
Specifications
DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals 

Inserts

Number of contacts 4

Electrical data
acc. to DIN EN 61 984



Working current
Working voltage
Rated impulse voltage
Pollution degree

– Pollution degree 2 also 40 A 1000 V 8 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

Han
Modular

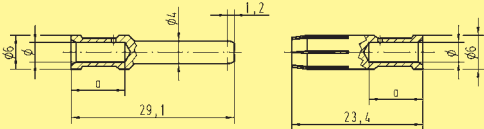
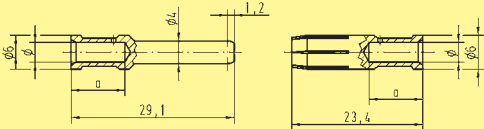
Number of contacts

4



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han® CC Protected module for crimp connection Order crimp contacts separately	09 14 004 3041	09 14 004 3141		Contact arrangement View from termination side

Han
Modular

Wire gauge		Part No.		Drawing	Dimensions in mm																				
Identification	(mm²)	Male contacts	Female contacts																						
Crimp contacts																									
Power contacts	1.5	09 32 000 6104	09 32 000 6204																						
	2.5	09 32 000 6105	09 32 000 6205																						
silver plated	4.0	09 32 000 6107	09 32 000 6207																						
plated	6.0	09 32 000 6108	09 32 000 6208																						
				<table><tr><th>ø</th><th colspan="2">Wire gauge</th><th>Stripping length of the stranded wire a</th></tr><tr><td>1.75</td><td>1.5 mm²</td><td>AWG 16</td><td>9</td></tr><tr><td>2.25</td><td>2.5 mm²</td><td>AWG 14</td><td>9</td></tr><tr><td>2.85</td><td>4 mm²</td><td>AWG 12</td><td>9.6</td></tr><tr><td>3.5</td><td>6 mm²</td><td>AWG 10</td><td>9.6</td></tr></table>	ø	Wire gauge		Stripping length of the stranded wire a	1.75	1.5 mm²	AWG 16	9	2.25	2.5 mm²	AWG 14	9	2.85	4 mm²	AWG 12	9.6	3.5	6 mm²	AWG 10	9.6	
ø	Wire gauge		Stripping length of the stranded wire a																						
1.75	1.5 mm²	AWG 16	9																						
2.25	2.5 mm²	AWG 14	9																						
2.85	4 mm²	AWG 12	9.6																						
3.5	6 mm²	AWG 10	9.6																						

Stock items in bold type

Features

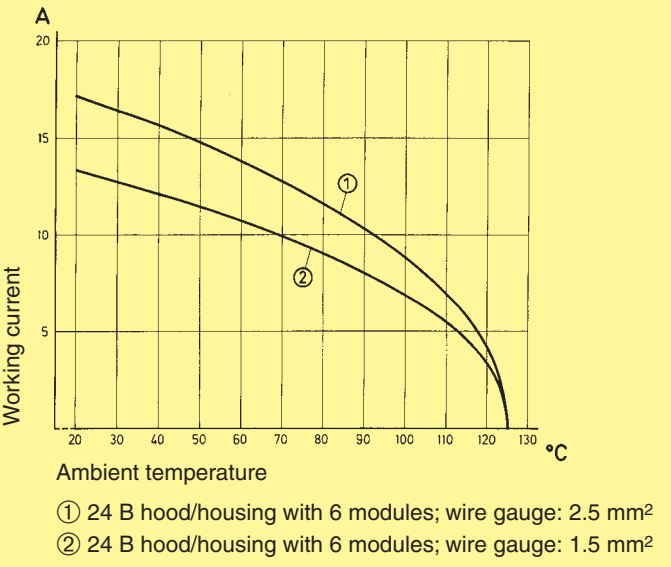
- ❑ 6 contacts (16 A) for power circuits
- ❑ Male insert with protection collar
- ❑ Polarization of module
- ❑ Crimp termination
- ❑ Contacts with silver and gold plated surface
- ❑ Both male and female modules may be mounted in the same frame

Technical characteristics

Specifications	DIN VDE 0627 DIN VDE 0110 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	6
Electrical data acc. to DIN EN 61 984	16 A 500 V 6 kV 3
Working current	
Working voltage	
Rated impulse voltage	
Pollution degree	
– Pollution degree 2 also	16 A 400/690 V 6 kV 2
Working voltage according to UL/CSA	600 V
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate
Limiting temperatures	- 40 °C / + 125 °C
Flammability acc. to UL 94	V0
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 - 4.0 mm ²
- AWG	20 - 12

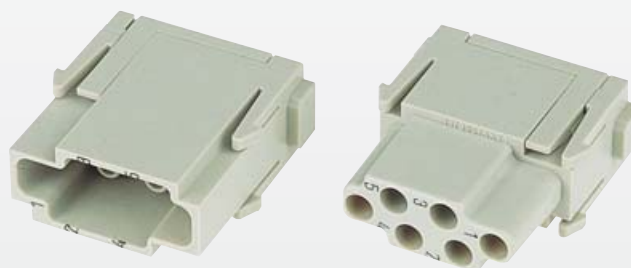
Current carrying capacity
The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given,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

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



Number of contacts

6



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order contacts separately	09 14 006 3001	09 14 006 3101		

Contact arrangement View from termination side

Identification	Wire gauge (mm ²)	Part No.		Drawing	Dimensions in mm
		Male contacts	Female contacts		
Crimp contacts Power contacts silver plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5 3 4	09 33 000 6127* 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227* 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207		
gold plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5 4.0	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		
Relay contact silver plated	0.75-1 1.5 2.5	09 33 000 6109 09 33 000 6110 09 33 000 6111			
Coding pin		09 33 000 9954			

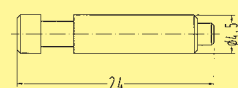
Crimp contact identification

Identification	Wire gauge		Stripping length
no groove	0.14-0.37 mm ²	AWG 26-22	7,5 mm
no groove	0.5 mm ²	AWG 20	7,5 mm
1 groove*	0.75 mm ²	AWG 18	7,5 mm
1 groove	1 mm ²	AWG 18	7,5 mm
2 grooves	1.5 mm ²	AWG 16	7,5 mm
3 grooves	2.5 mm ²	AWG 14	7,5 mm
wide groove	3.0 mm ²	AWG 12	7,5 mm
no groove	4 mm ²	AWG 12	7,5 mm

* on the back crimp collar

Use of the coding pin prevents incorrect mating to other connectors of the same type.

The male pin should be omitted from the opposing cavity in the male insert.

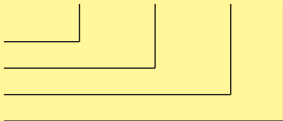
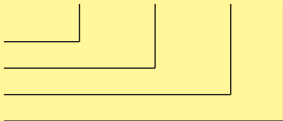
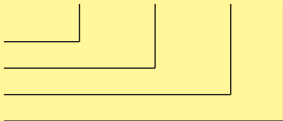


* only to be used with BUCHANAN crimping tool 09 99 000 0001 and adjustment gauge 09 99 000 0203

Features

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

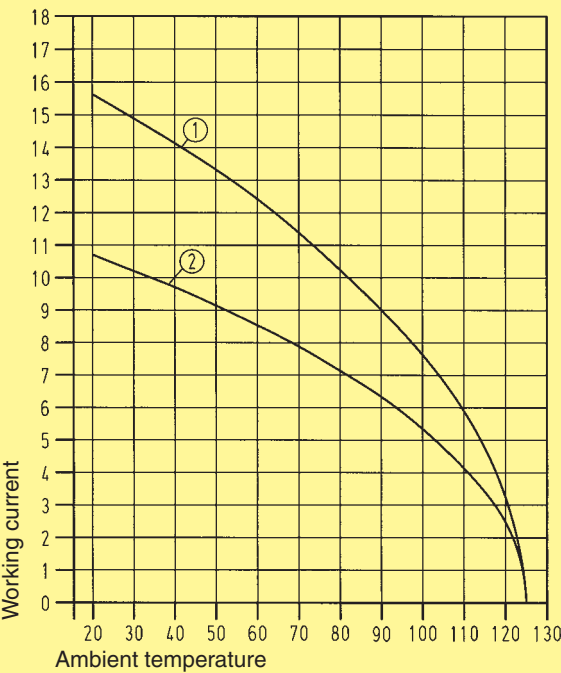
Technical characteristics

Specifications	DIN VDE 0627 DIN VDE 0110 DIN EN 61 984								
Approvals									
Inserts									
Number of contacts	8								
Electrical data acc. to DIN EN 61 984	<table><tr><td>16 A</td><td>400 V</td><td>6 kV</td><td>3</td></tr><tr><td colspan="4"></td></tr></table>	16 A	400 V	6 kV	3				
16 A	400 V	6 kV	3						
									
Working current									
Working voltage									
Rated impulse voltage									
Pollution degree									
– Pollution degree 2 also	16 A 400/690 V 6 kV 2								
Working voltage according 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								

Current carrying capacity

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

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



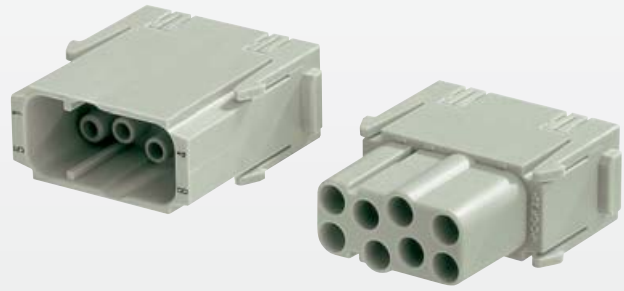
- ① 24 B hood/housing with 6 modules; wire gauge: 2.5 mm²
- ② 24 B hood/housing with 6 modules; wire gauge: 1.5 mm²

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 - 4.0 mm ²
- AWG	20 - 12

Number of contacts

8



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

Contact arrangement View from termination side

Wire gauge		Part No.	
Identification	(mm²)	Male contacts	Female contacts
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
silver plated	1.0	09 33 000 6105	09 33 000 6205
	1.5	09 33 000 6104	09 33 000 6204
	2.5	09 33 000 6102	09 33 000 6202
	3	09 33 000 6106	09 33 000 6206
	4	09 33 000 6107	09 33 000 6207
gold plated	0.14-0.37	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
	1.0	09 33 000 6118	09 33 000 6218
	1.5	09 33 000 6116	09 33 000 6216
	2.5	09 33 000 6123	09 33 000 6223
	4.0	09 33 000 6119	09 33 000 6221
Relay contact silver plated	0.75-1	09 33 000 6109	
	1.5	09 33 000 6110	
	2.5	09 33 000 6111	
Coding pin			
		09 33 000 9954	

Drawing		Dimensions in mm	
Crimp contact identification			
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 groove	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	3.0 mm²	AWG 12	7,5 mm
no groove	4 mm²	AWG 12	7,5 mm

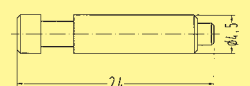
* on the back crimp collar

Use of the coding pin prevents incorrect mating to other connectors of the same type.	
The male pin should be omitted from the opposing cavity in the male insert.	

* on the back crimp collar

Use of the coding pin prevents incorrect mating to other connectors of the same type.

The male pin should be omitted from the opposing cavity in the male insert.



* only to be used with BUCHANAN crimping tool 09 99 000 0001 and adjustment gauge 09 99 000 0203

Stock items in bold type

Features

- ❑ Finger protected male and female contacts
- ❑ Suitable for high working voltage of 830 V
- ❑ Combination with all Han® modules is possible
- ❑ Suitable for all Han® B hoods and housings as well as in Han-Modular® Compact housings (except for Han® 6 B low construction)

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals

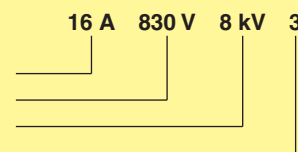


Inserts

Number of contacts

6

Electrical data
acc. to DIN EN 61 984



Working current
Working voltage
Rated impulse voltage
Pollution degree

– Pollution degree 2 also

16 A 1250 V 10 kV 2

Working voltage
according to UL/CSA
Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- mating cycles

600 V
≥ 10¹⁰ Ω
Polycarbonate
- 40 °C / + 125 °C
V0
≥ 500

Contacts

Material
Surface

copper alloy

- hard-silver plated
- hard-gold plated

3 μm Ag
2 μm Au over 3 μm Ni
≤ 1 mΩ

Contact resistance
Crimp terminal

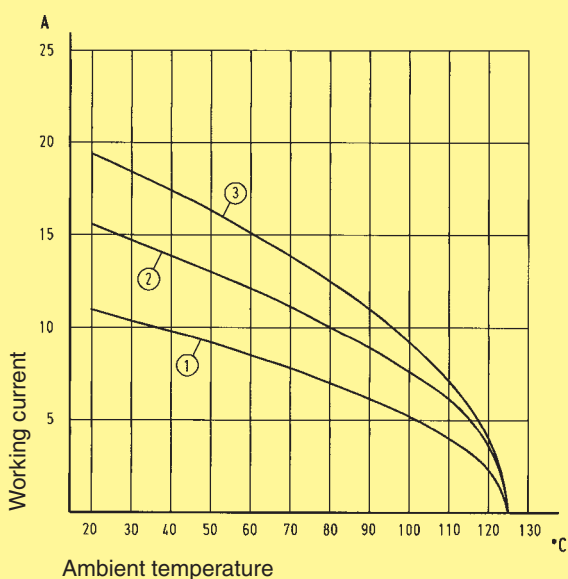
- mm²
- AWG

0.5 - 4.0 mm²
20 - 12

Current carrying capacity

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

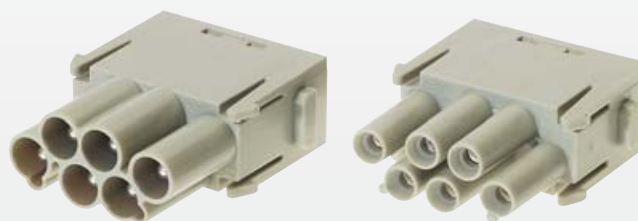
Control and test procedures according to DIN IEC 60 512-3.



- ① 24 B hood/housing with 6 modules; wire gauge: 1,5 mm²
② 24 B hood/housing with 6 modules; wire gauge: 2,5 mm²
③ 24 B hood/housing with 6 modules; wire gauge: 4,0 mm²

Number of contacts

6



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order contacts separately	09 14 006 3041	09 14 006 3141		

Contact arrangement View from termination side

Identification	Wire gauge (mm²)	Part No.		Drawing	Dimensions in mm
		Male contacts	Female contacts		
Crimp contacts Power contacts silver plated 	0.14-0.37 0.5 0.75 1.0 1.5 2.5 3 4	09 33 000 6127* 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227* 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207		
gold plated 	0.14-0.37 0.5 0.75 1.0 1.5 2.5 4.0	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		
Relay contact silver plated 	0.75-1 1.5 2.5	09 33 000 6109 09 33 000 6110 09 33 000 6111			
Coding pin 		09 33 000 9954		Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.	

Crimp contact identification

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 groove	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	3.0 mm²	AWG 12	7,5 mm
no groove	4 mm²	AWG 12	7,5 mm

* on the back crimp collar

* only to be used with BUCHANAN crimping tool 09 99 000 0001 and adjustment gauge 09 99 000 0203

Features

- ❑ Compatible with all hoods, style Han® B
- ❑ 66 % higher contact density compared to Han® E module

Technical characteristics

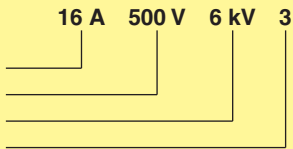
Specifications
DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals

Inserts

Number of contacts 20

Electrical data
acc. to DIN EN 61 984



Working current
Working voltage
Rated impulse voltage
Pollution degree

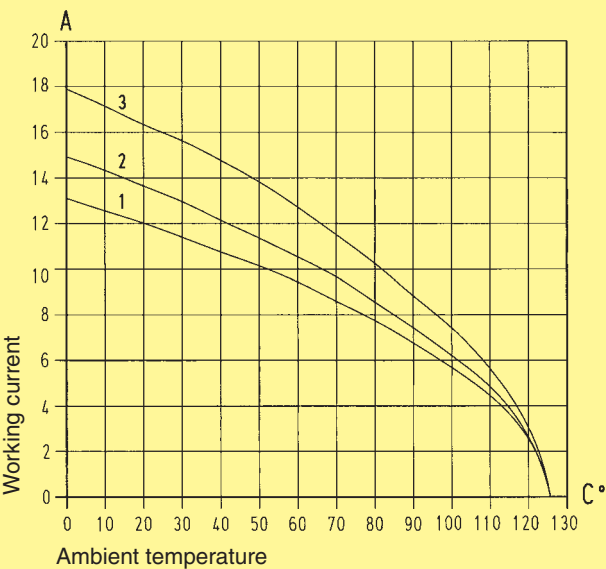
– Pollution degree 2 also 16 A 830 V 8 kV 2

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

Current carrying capacity

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

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



- ① 24 B hood/housing with 3 modules; wire gauge: 1.5 mm²
- ② 24 B hood/housing with 3 modules; wire gauge: 2.5 mm²
- ③ 24 B hood/housing with 3 modules; wire gauge: 4.0 mm²

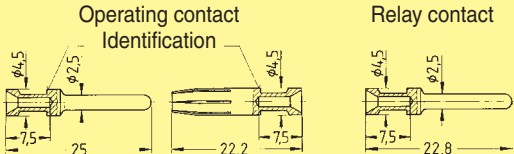
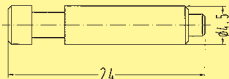
Number of contacts

20



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han® EEE module for crimp connection	09 14 020 3001	09 14 020 3101		View from termination side
Order crimp contacts separately				

Han
Modular

Wire gauge		Part No.																																					
Identification	(mm ²)	Male contacts	Female contacts																																				
Crimp contacts																																							
Power contacts	0.14-0.37 0.5 0.75 1.0 1.5 2.5 3 4	09 33 000 6127* 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227* 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207																																				
silver plated																																							
gold plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5 4.0	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																																				
Relay contact silver plated	0.75-1 1.5 2.5	09 33 000 6109 09 33 000 6110 09 33 000 6111																																					
																																							
Coding pin																																							
		09 33 000 9954																																					
																																							
Drawing																																							
																																							
Crimp contact identification																																							
<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 mm²</td><td>AWG 26-22</td><td>7,5 mm</td></tr><tr><td>no groove</td><td>0.5 mm²</td><td>AWG 20</td><td>7.5 mm</td></tr><tr><td>1 groove*</td><td>0.75 mm²</td><td>AWG 18</td><td>7.5 mm</td></tr><tr><td>1 groove</td><td>1 mm²</td><td>AWG 18</td><td>7.5 mm</td></tr><tr><td>2 grooves</td><td>1.5 mm²</td><td>AWG 16</td><td>7.5 mm</td></tr><tr><td>3 grooves</td><td>2.5 mm²</td><td>AWG 14</td><td>7.5 mm</td></tr><tr><td>wide groove</td><td>3.0 mm²</td><td>AWG 12</td><td>7.5 mm</td></tr><tr><td>no groove</td><td>4 mm²</td><td>AWG 12</td><td>7.5 mm</td></tr></table>				Identification	Wire gauge		Stripping length	no groove	0.14-0.37 mm ²	AWG 26-22	7,5 mm	no groove	0.5 mm ²	AWG 20	7.5 mm	1 groove*	0.75 mm ²	AWG 18	7.5 mm	1 groove	1 mm ²	AWG 18	7.5 mm	2 grooves	1.5 mm ²	AWG 16	7.5 mm	3 grooves	2.5 mm ²	AWG 14	7.5 mm	wide groove	3.0 mm ²	AWG 12	7.5 mm	no groove	4 mm ²	AWG 12	7.5 mm
Identification	Wire gauge		Stripping length																																				
no groove	0.14-0.37 mm ²	AWG 26-22	7,5 mm																																				
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1 groove	1 mm ²	AWG 18	7.5 mm																																				
2 grooves	1.5 mm ²	AWG 16	7.5 mm																																				
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wide groove	3.0 mm ²	AWG 12	7.5 mm																																				
no groove	4 mm ²	AWG 12	7.5 mm																																				
* on the back crimp collar																																							
Use of the coding pin prevents incorrect mating to other connectors of the same type.																																							
The male pin should be omitted from the opposing cavity in the male insert.																																							
																																							

Identification	Wire gauge		Stripping length
no groove	0.14-0.37 mm ²	AWG 26-22	7,5 mm
no groove	0.5 mm ²	AWG 20	7,5 mm
1 groove*	0.75 mm ²	AWG 18	7,5 mm
1 groove	1 mm ²	AWG 18	7,5 mm
2 grooves	1.5 mm ²	AWG 16	7,5 mm
3 grooves	2.5 mm ²	AWG 14	7,5 mm
wide groove	3.0 mm ²	AWG 12	7,5 mm
no groove	4 mm ²	AWG 12	7,5 mm

* on the back crimp collar

* only to be used with BUCHANAN crimping tool 09 99 000 0001 and adjustment gauge 09 99 000 0203

Stock items in bold type

Features

- ❑ 5 contacts (16 A) for power circuits
- ❑ Male insert with protection collar
- ❑ Polarization of module
- ❑ Cage-clamp terminal
- ❑ Both male and female modules may be mounted in the same frame

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals

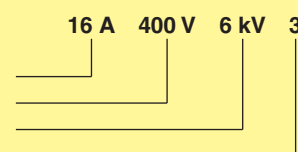


Inserts

Number of contacts

5

Electrical data
acc. to DIN EN 61 984



Working current
Working voltage
Rated impulse voltage
Pollution degree

– Pollution degree 2 also

16 A 500 V 6 kV 2

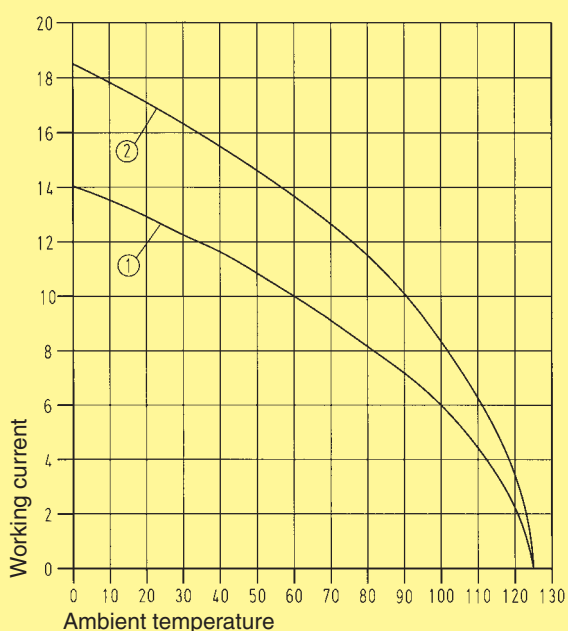
Working voltage
according to UL/CSA
Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- mating cycles

600 V
≥ 10¹⁰ Ω
Polycarbonate
- 40 °C / + 125 °C
V0
≥ 500

Current carrying capacity

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

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



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

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

Contacts

Material
Surface

copper alloy

- hard-silver plated

3 μm Ag

Contact resistance

≤ 3 mΩ

Cage-clamp terminal

- mm²

0.14 - 2.5 mm²

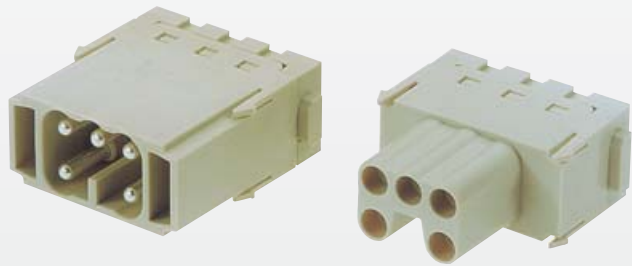
- AWG

26 - 14



Number of contacts

5



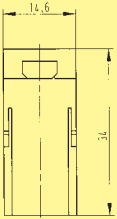
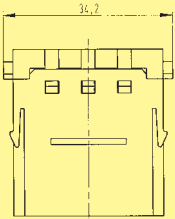
Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		

Cage-clamp terminal

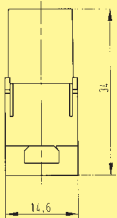
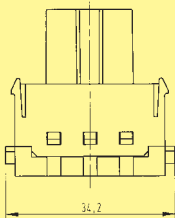
09 14 005 2616

09 14 005 2716

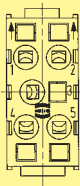
M



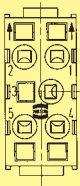
F



M



F



Han
Modular

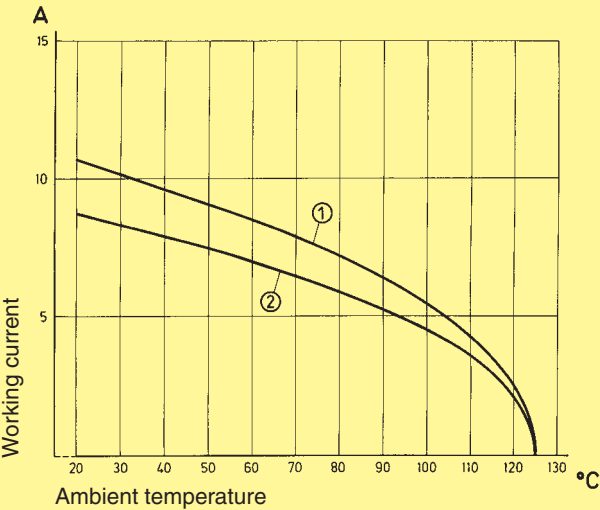
Features

- ❑ 12 contact chambers for
 - Signal contacts (10 A)
 - FOC contacts for 1 mm plastic fibre
- ❑ Male insert with protection collar
- ❑ Polarization of module
- ❑ Crimp termination
- ❑ Signal contacts with either silver or gold plated surface
- ❑ Both male and female modules may be mounted in the same frame
- ❑ Contact spacing enables the use of pcb-adaptors (see chapter 20)

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-3.



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

Technical characteristics

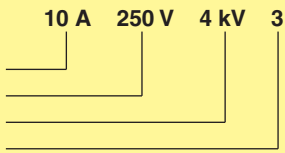
Specifications
DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals

Inserts

Number of contacts 12

Electrical data
acc. to DIN EN 61984



Working current
Working voltage
Rated impulse voltage
Pollution degree

Working voltage according to UL/CSA 600 V
Insulation resistance $\geq 10^{10} \Omega$
Material Polycarbonate
Limiting temperatures - 40 °C / + 125 °C
Flammability acc. to UL 94 V0
Mechanical working life - mating cycles ≥ 500

Contacts

Material copper alloy
Surface

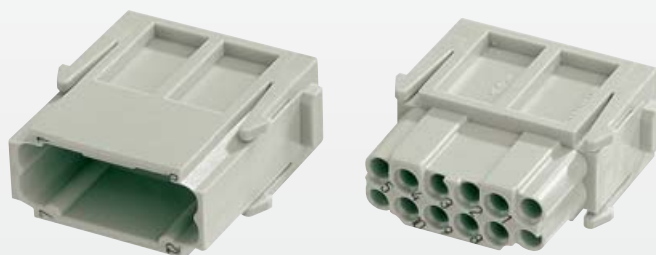
- hard-silver plated 3 μm Ag
- hard-gold plated 2 μm Au over 3 μm Ni

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

- mm² 0.14 - 2.5 mm²
- AWG 26 - 14

Number of contacts

12



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order contacts separately	09 14 012 3001	09 14 012 3101		

Contact arrangement View from termination side

Identification	Wire gauge (mm ²)	Part No.		Drawing	Dimensions in mm
		Male contacts	Female contacts		
Crimp contacts silver plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206		
gold plated	0.14-0.37 0.5 0.75 1.0 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		
FOC contacts for 1 mm plastic fibre 		20 10 001 3211	20 10 001 3221	For cable see catalogue „Fibre Optic Data Link Systems“ 	
Coding system with loss of contact 		09 33 000 9915		Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.	

Stock items in bold type

Han
Modular06
31

Features

- ❑ High contact density
- ❑ Combination with all Han® modules possible
- ❑ Suitable for all Han® B hoods and housings as well as for Han-Modular® Compact hoods and housings

Technical characteristics

Specifications	DIN VDE 0627 DIN VDE 0110 DIN EN 61 984																				
Approvals																					
Inserts																					
Number of contacts	17																				
Electrical data acc. to DIN VDE 0627	<table><tr><td>10 A</td><td>160 V</td><td>2.5 kV</td><td>3</td></tr><tr><td>Working current</td><td></td><td></td><td></td></tr><tr><td>Working voltage</td><td></td><td></td><td></td></tr><tr><td>Rated impulse voltage</td><td></td><td></td><td></td></tr><tr><td>Pollution degree</td><td></td><td></td><td></td></tr></table>	10 A	160 V	2.5 kV	3	Working current				Working voltage				Rated impulse voltage				Pollution degree			
10 A	160 V	2.5 kV	3																		
Working current																					
Working voltage																					
Rated impulse voltage																					
Pollution degree																					
– Pollution degree 2 also	10 A 250 V 4 kV 2																				
Working voltage according 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																				

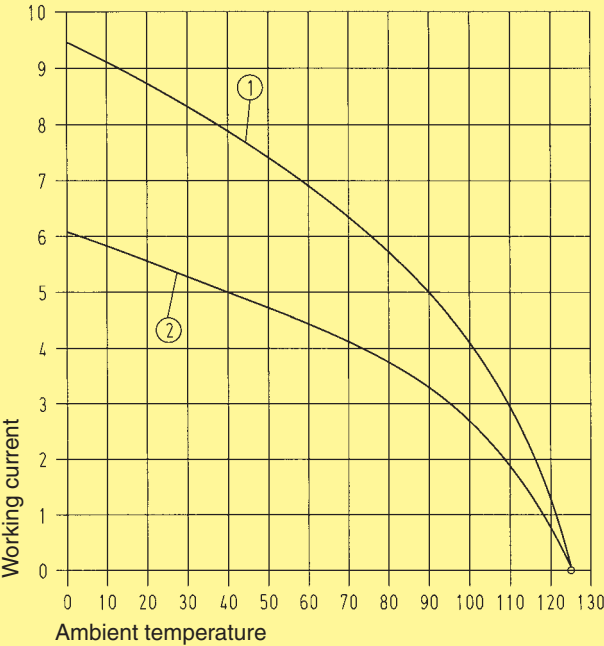
Current carrying capacity

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

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

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



- ① 24 B hood/housing with 6 modules; wire gauge: 1.5 mm^2
- ② 24 B hood/housing with 6 modules; wire gauge: 1.0 mm^2

Number of contacts

17



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order contacts separately	09 14 017 3001	09 14 017 3101		

Han
Modular

Identification	Wire gauge (mm²)	Male contacts	Female contacts	Drawing	Dimensions in mm																												
Crimp contacts																																	
silver plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206																														
gold plated	0.14-0.37 0.5 0.75 1.0 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	<table><tr><th colspan="2">Wire gauge</th><th>ø</th><th>Stripping length</th></tr><tr><td>0.14-0.37 mm²</td><td>AWG 26-22</td><td>0.90 mm</td><td>8 mm</td></tr><tr><td>0.5 mm²</td><td>AWG 20</td><td>1.10 mm</td><td>8 mm</td></tr><tr><td>0.75 mm²</td><td>AWG 18</td><td>1.30 mm</td><td>8 mm</td></tr><tr><td>1 mm²</td><td>AWG 18</td><td>1.45 mm</td><td>8 mm</td></tr><tr><td>1.5 mm²</td><td>AWG 16</td><td>1.75 mm</td><td>8 mm</td></tr><tr><td>2.5 mm²</td><td>AWG 14</td><td>2.25 mm</td><td>6 mm</td></tr></table>	Wire gauge		ø	Stripping length	0.14-0.37 mm²	AWG 26-22	0.90 mm	8 mm	0.5 mm²	AWG 20	1.10 mm	8 mm	0.75 mm²	AWG 18	1.30 mm	8 mm	1 mm²	AWG 18	1.45 mm	8 mm	1.5 mm²	AWG 16	1.75 mm	8 mm	2.5 mm²	AWG 14	2.25 mm	6 mm	
Wire gauge		ø	Stripping length																														
0.14-0.37 mm²	AWG 26-22	0.90 mm	8 mm																														
0.5 mm²	AWG 20	1.10 mm	8 mm																														
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1.5 mm²	AWG 16	1.75 mm	8 mm																														
2.5 mm²	AWG 14	2.25 mm	6 mm																														
FOC contacts for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221	For cable see catalogue „Fibre Optic Data Link Systems“																													
Coding system with loss of contact		09 33 000 9915		Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.																													

Stock items in bold type

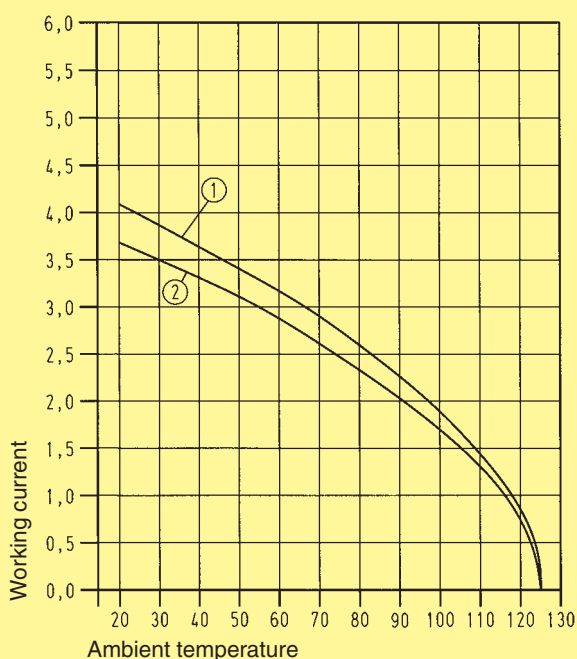
Features

- ☐ Male insert with protection collar
- ☐ Polarization of module
- ☐ Crimp termination
- ☐ High contact density
- ☐ Both male and female modules may be mounted in the same frame
- ☐ Guide pins and bushes are recommended

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-3.



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

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Inserts

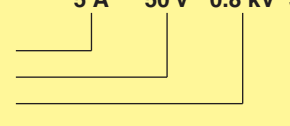
Number of contacts

25

Electrical data
acc. to DIN EN 61 984

5 A 50 V 0.8 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree

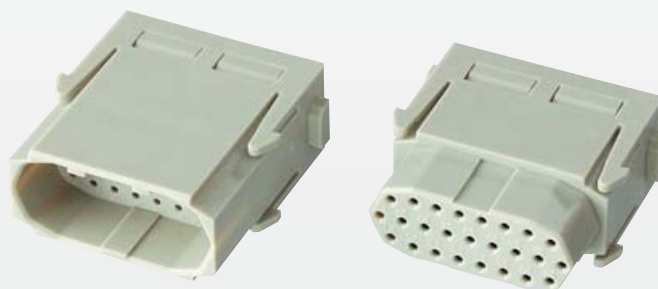


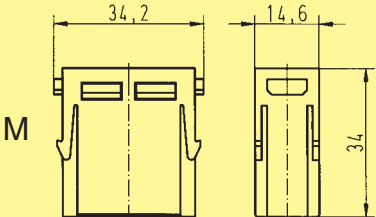
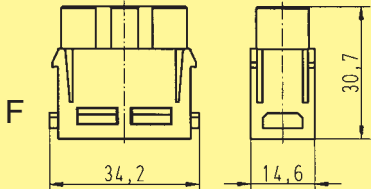
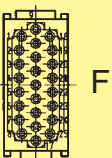
Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- mating cycles

≥ 10¹⁰ Ω
Polycarbonate
- 40 °C / + 125 °C
V0
≥ 500

Number of contacts

25



Identification		Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)			
Crimp terminal	09 14 025 3001	09 14 025 3101			
					
					
				Contact arrangement View from termination side	

Han
Modular

Identification		Wire gauge (mm ²)	Part No.	
			turned male contacts	turned female contacts
			Performance level 1*	Performance level 1*
Individual contacts		AWG 22-20 0.33-0.52	61 03 000 0073	61 03 000 0074
		AWG 26-22 0.13-0.33	61 03 000 0094	61 03 000 0096

* Performance level 1 as per CECC 75 301-802, 500 mating cycles, 10 days 4 mixed gas test – IEC 60 512

Stock items in bold type

Features

- ❑ 2 contacts up to 5 000 V
- ❑ Crimp termination technology
- ❑ Male and female inserts can be combined in one frame
- ❑ Suitable for all Han® hoods and housings high construction
- ❑ For large cable outer diameters including insulation of max. 8 mm
- ❑ Combination of all other modules possible (pneumatic, signals etc.)

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984
DIN VDE 0115

Inserts

Number of contacts

2

Electrical data
acc. to DIN EN 61 984

16 A 2900/5000 V 15 kV 3

Working current

Working voltage conductor – ground

Working voltage conductor – conductor

Rated impulse current

Pollution degree

Insulation resistance

$\geq 10^{10} \Omega$

Material

Polycarbonate/Teflon (PTFE)

Limiting temperatures

- 40 °C / +125 °C

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

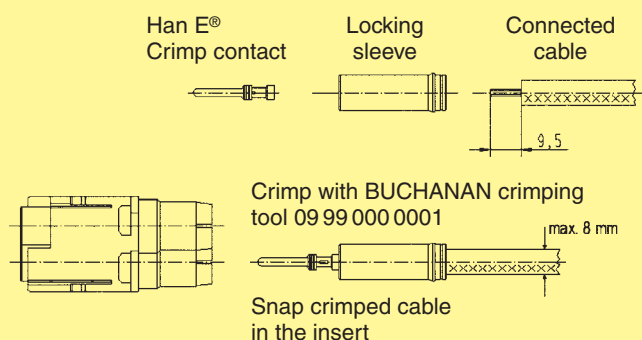
- mm^2

0.5 - 4.0 mm^2

- AWG

20 - 12

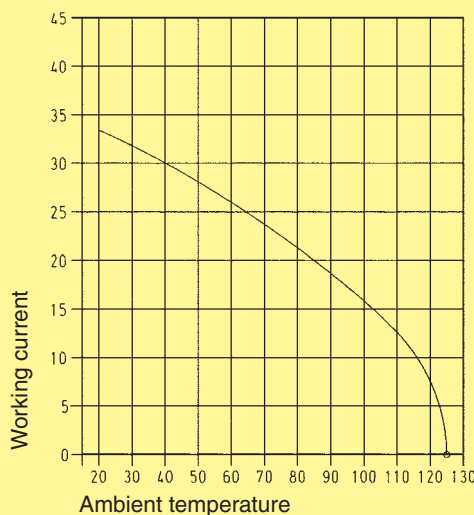
Assembly details



Current carrying capacity

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

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



Han® 16 B housing with 1 HV-module, wire gauge = 2.5 mm^2



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Range of delivery: - 1 module and - 2 locking sleeves - 2 heat shrink tubes	09 14 002 3021	09 14 002 3121		
Removal tool for locking sleeve 	09 99 000 0327			

Han Modular

Identification	Wire gauge (mm²)	Part No.		Drawing	Dimensions in mm
		Male contacts (M)	Female contacts (F)		
Crimp contacts Han E® order separately silver plated	0.5 0.75 1 1.5 2.5 3 4	09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207		
Crimp contact identification					
Identification	Wire gauge			Stripping length	
no groove	0.5 mm²	AWG 20		9.5 mm	
1 groove*	0.75 mm²	AWG 18		9.5 mm	
1 groove	1.0 mm²	AWG 18		9.5 mm	
2 grooves	1.5 mm²	AWG 16		9.5 mm	
3 grooves	2.5 mm²	AWG 14		9.5 mm	
wide groove	3.0 mm²	AWG 12		9.5 mm	
no groove	4.0 mm²	AWG 12		9.5 mm	

* on the back crimp collar

Stock items in bold type

Features

- ❑ 4 contact chambers for
 - Coaxial contacts
 - FOC contacts
- ❑ Male insert with protection collar
- ❑ Polarization of module
- ❑ Both male and female modules may be mounted in the same frame

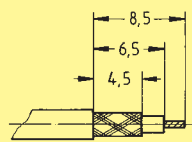
Contact arrangement
according to table below:

Contacts	Male insert (M) 09 14 004 4501	Female insert (F) ¹⁾ 09 14 004 4512
Coaxial contacts	09 14 000 62 ..	09 14 000 61 ..
FOC contacts	20 10 ... 421 .	20 10 ... 422 .

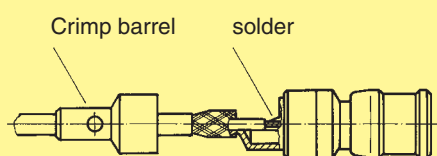
Coaxial cables (group 2)

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

Stripping
description:



Assembly details
for coaxial contacts



Technical characteristics

Specifications
DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

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 V0
Mechanical working life
- mating cycles ≥ 500

Contacts

Coaxial contact
- Material copper alloy
- Contact surface hard-gold plated
- Impedance Performance level 2
50 Ω / 75 Ω
- Contact resistance
centre conductor $\leq 10 \text{ m}\Omega$
outer conductor $\leq 3 \text{ m}\Omega$
- max. working current 1.5 A
- Working voltage 50 V

FOC contact²⁾
- Fibre type glass fibre (GI)
- Attenuation < 1.5 dB

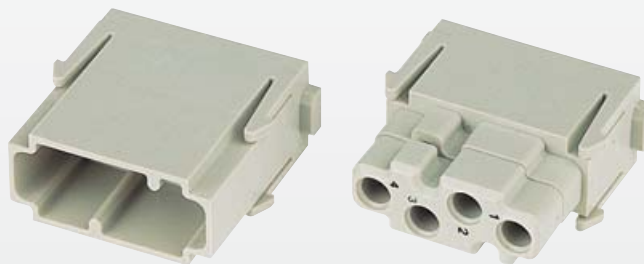
FOC contact²⁾
- Fibre type polymer optical fibre
- Attenuation < 2.5 dB

¹⁾ 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

²⁾ See catalogue „Fibre Optic Data Link Systems“

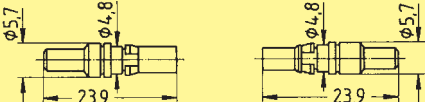
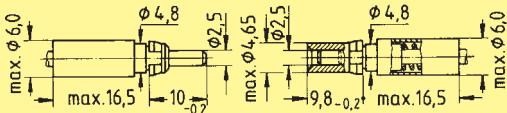
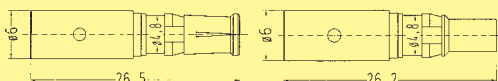
Number of contacts

4



Identification		Part No.		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		
Multicontact-module acc. to Sub-D Order contacts separately		09 14 004 4501	09 14 004 4513		

Han
Modular

Identification	Part No.		Drawing	Dimensions in mm
Coaxial contacts acc. to DIN 41 626 for straight solder and/or crimp terminations  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 (see remarks on page 06.38)	
FOC contacts acc. to DIN 41 626 for GI-fibre 50/125 μm or 62.5/125 μm ceramic ferrule for SI-fibre (HCS) 200/230 μm  for 1 mm (POF)	20 10 125 4212 20 10 230 4211 20 10 001 4211	20 10 125 4222 20 10 230 4221 20 10 001 4221		
Coaxial contacts acc. to Sub-D¹⁾ for straight solder terminations RG 58 / 50 Ω 	09 14 000 6215	09 14 000 6115		

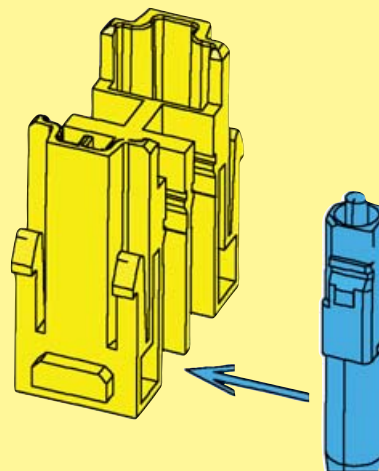
1) Further D-Sub Coaxial contacts see also catalogue „Interface Connectors“

Features

- ❑ Suitable for Han-Modular®
- ❑ For FO-SC-Kontakte
- ❑ For GI Fibre 50 - 62.5 / 125 µm

Assembly details

①

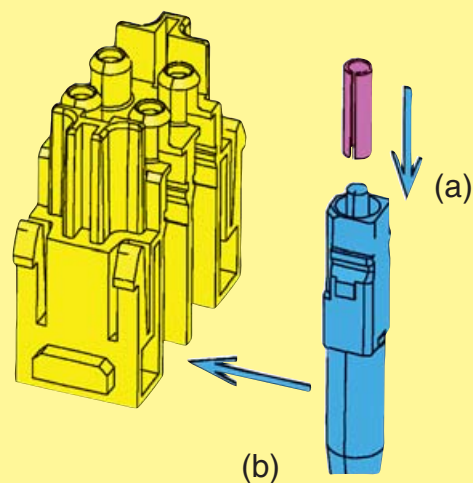


1. Male insert (09 14 004 4701)

Assemble the SC contact

Push the SC contact from the side into the relevant insert.

②



2. Female insert (09 14 004 4711)

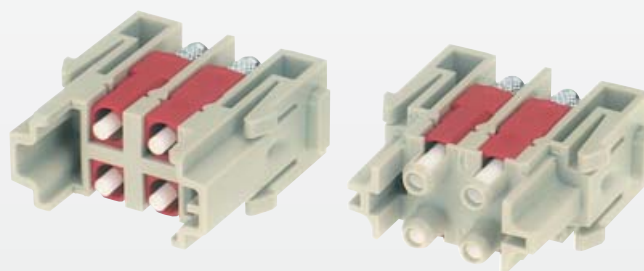
Assemble the SC contact

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

Push the SC contact from the side into the relevant insert (b)

Number of contacts

4



Identification

Part No.

Drawing

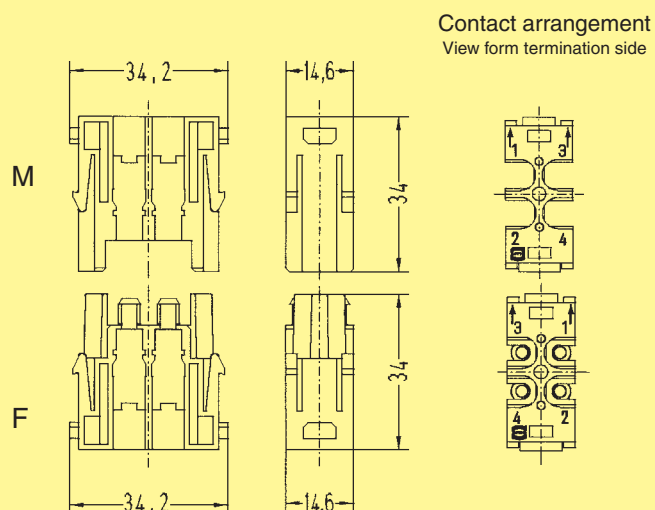
Dimensions in mm

SC module male

SC contacts order separately



09 14 004 4701



SC module female

SC contacts order separately



09 14 004 4711

The female contacts are equipped with centering ferrules.
4 ferrules are included in delivery range.

Identification

Part No.

Drawing

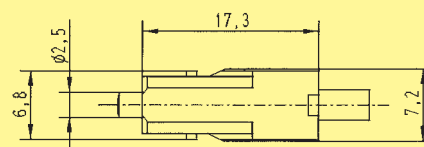
Dimensions in mm

SC contact

for GI Fibre 50 - 62.5 / 125 µm



20 10 125 5211



Han
Modular

Features

- ❑ Coding of tools possible (i. e. press tools) by means of an alpha numeric identification
- ❑ I²C Bus EEPROM as memory medium
- ❑ Communication with SPS via conventional digital E/As
- ❑ Physical connection of SPS by means of well-proven Han® contacts
- ❑ Suitable for industrial applications
- ❑ Assembly of the module to the device by means of a Han® industrial connector

Technical characteristics

Code length	max. 128 Byte														
Ambient temperature	0 ... + 70 °C in operation 0 ... + 85 °C in stocks														
Power supply	24 V via Digital I/O device														
Electrical connector 24 V	Han E® module														
Degree of protection	IP 20 IP 65 / 68 within mated connector														
Dimensions	approx. 30 x 53 x 15 mm (incl. connector)														
Max. length recommended between I/O device and ID-module	100 m*														
Pinning	<table> <tr> <th>Pin-No.</th><th>Function</th></tr> <tr> <td>1</td><td>Data IN</td></tr> <tr> <td>2</td><td>DC 24 V</td></tr> <tr> <td>3</td><td>Data OUT</td></tr> <tr> <td>4</td><td>GND</td></tr> <tr> <td>5</td><td>CLK</td></tr> <tr> <td>6</td><td>Connection</td></tr> </table>	Pin-No.	Function	1	Data IN	2	DC 24 V	3	Data OUT	4	GND	5	CLK	6	Connection
Pin-No.	Function														
1	Data IN														
2	DC 24 V														
3	Data OUT														
4	GND														
5	CLK														
6	Connection														

* The use of the shielded cable is recommended for longer distances or EMC loaded environments.

General description

The HARTING connector identification module (ID-module) is suitable for storing of data and for coding of connectors. It is integrated in a Han-Modular® standard E module.

The module can be connected to a 24 V digital I/O device of a PLC. Two digital inputs are used for detecting the module connection and the data input. Two digital outputs are used for the data output and system clock. Furthermore the module must be connected with 24 V and GND. Communication is carried out with voltage levels of 24 V according to the I²C bus standard. The total memory capacity is 128 byte, e. g. for storing part numbers to identify the module. It is also possible to store the start parameters or operating data for machine components.

A typical data structure is displayed in the following table:

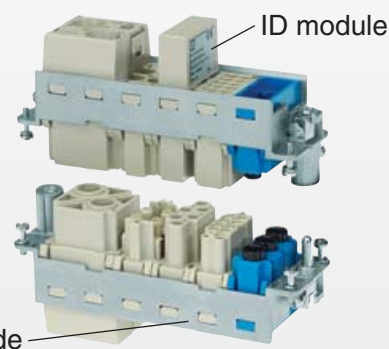
Byte No.

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Check sum		Operating hours of tool				Start parameter				Part number					

Applications for the module can be found in modular machines and production lines. A great advantage of the module is the non volatile decentralized storing of e. g. operating data. When changing the location stored data can protect the machines from damages. In service cases of the equipment data can be analyzed to minimize service time.

Number of contacts

6



Identification

Part No.

Drawing

Dimensions in mm

Han® ID module

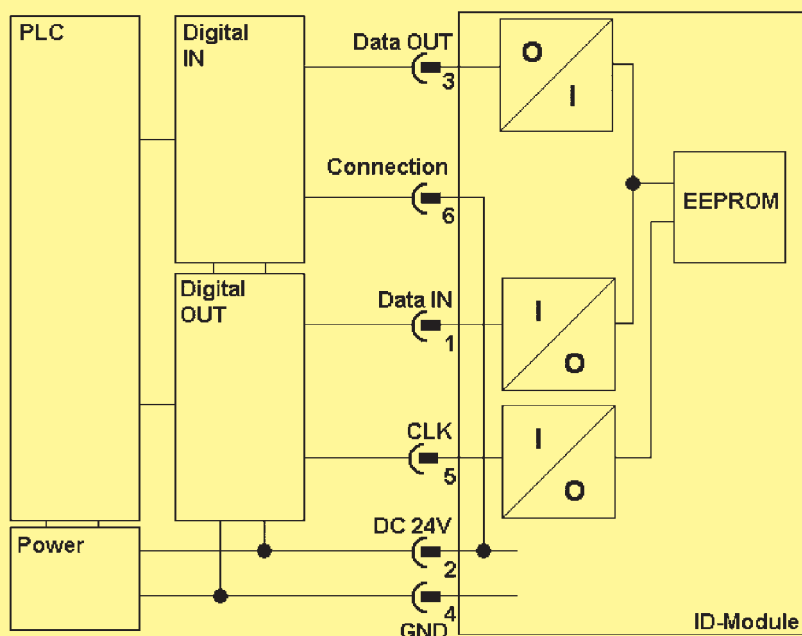
Electronic identification module



20 70 001 1001

Han
Modular

Block diagram / Wiring plan



Meaning of the connections

Pin No.	Name	Meaning/Function
1	Data IN	Input for data and control signals from PLC
2	DC 24 V	Power connection ID-module
3	Data OUT	Output for data signals from ID-module to PLC
4	GND	Ground
5	CLK	System clock for synchronization
6	Connection	Output of the module for connection detection

Features

- ❑ 9-pin D-Sub connector of the Han-Modular® system
- ❑ For crimping, solder or IDC terminals
- ❑ Crimping contacts for: 0.09 - 0.5 mm²
AWG 28 - 20
- ❑ To combine with all Han® modules
- ❑ Ideal for transmission of sensitive signals
- ❑ Suitable for industrial applications as well
Han® B as well as Han-Modular® Compact
hoods and housings can be used
- ❑ Suitable for turned or stamped crimping
contacts acc. to DIN 41 652 or
MIL-C-24 308
- ❑ Guiding pins are recommended
- ❑ 15-pins High Density D-Sub insert is suitable

Technical characteristics

Specifications	DIN VDE 0627 DIN VDE 0110 DIN EN 61 984
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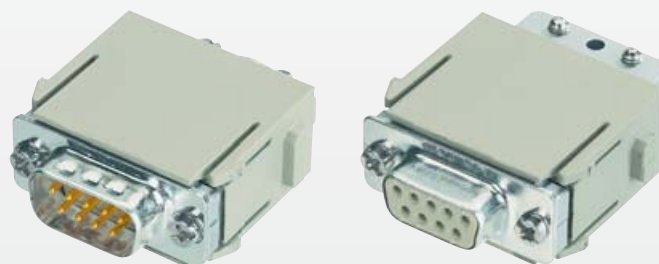
D-Sub module

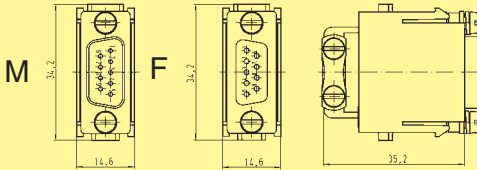
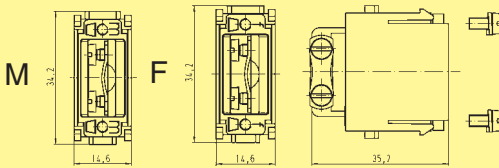
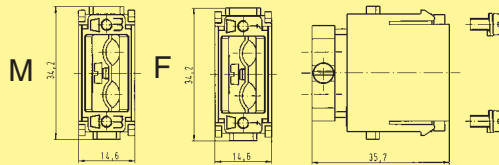
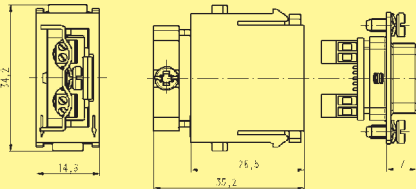
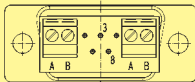
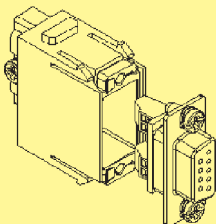
Number of contacts	9																				
Electrical data acc. to DIN EN 61 984	<table><tr><td>5 A</td><td>50 V</td><td>0.8 kV</td><td>3</td></tr><tr><td>Working current</td><td></td><td></td><td></td></tr><tr><td>Working voltage</td><td></td><td></td><td></td></tr><tr><td>Rated impulse voltage</td><td></td><td></td><td></td></tr><tr><td>Pollution degree</td><td></td><td></td><td></td></tr></table>	5 A	50 V	0.8 kV	3	Working current				Working voltage				Rated impulse voltage				Pollution degree			
5 A	50 V	0.8 kV	3																		
Working current																					
Working voltage																					
Rated impulse voltage																					
Pollution degree																					
Insulation resistance	≥ 10 ¹⁰ Ω																				
Material	Polycarbonate																				
- insert	Zinc die cast alloy																				
- shielding element																					
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



Part No.										
Identification	Male insert (M)	Female insert (F)	Drawing	Dimensions in mm						
D-Sub module Crimp insert Order crimp contacts separately (see page 06.35) 	09 14 009 3001	09 14 009 3101								
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								
Han® D-Sub module for RS485-based bus systems with T-functionality with screw terminal 		09 14 009 3151	 Contact arrangement View from termination side  <table><tr><th>Signal</th><th>Contact No.</th></tr><tr><td>A</td><td>8</td></tr><tr><td>B</td><td>3</td></tr></table> 	Signal	Contact No.	A	8	B	3	
Signal	Contact No.									
A	8									
B	3									

Features

- ❑ 2 or 3 contacts for transmission of clean and dry compressed air. Other gaseous and liquid media on request
- ❑ Termination of 1.6 mm, 3 mm, 4 mm and 6 mm ID-tubes
- ❑ Tube sizes may be mixed in module (Possible sizes 1.6 mm, 3 mm and 4 mm)
- ❑ Robust plastic contact
- ❑ Removal of tubes from pre-assembled pneumatic contacts is possible
- ❑ Female contacts with/without shut off
- ❑ 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 / 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
Colour	black
Tube termination	
- Internal diameter (ID):	1.6 mm / 1/16"
	3.0 mm
	4.0 mm / 1/8"
	6.0 mm / 1/4"
Working pressure	up to 8 bar / 116 psi

Sealing

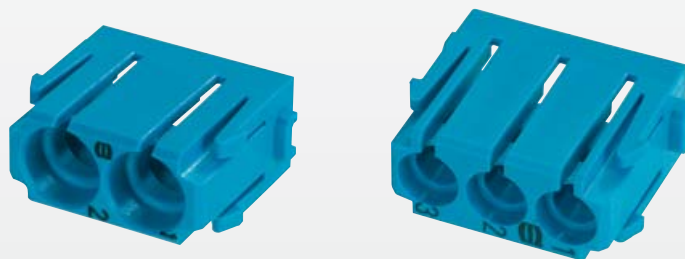
Material	Buna-N
----------	--------

Shut off valve

Material	Polypropylene
----------	---------------

Number of contacts

2/3



Identification		Part No.		Drawing		Dimensions in mm
		Male insert ²⁾	Female insert ²⁾			
Pneumatic-module¹⁾ Order contacts separately for 1.6; 3; 4 mm I/D tube						
		09 14 003 4501	09 14 003 4501			
Contacts¹⁾ without shut off for tube internal diameter 1.6 mm 3.0 mm 4.0 mm						
		09 14 000 6151 09 14 000 6152 09 14 000 6153	09 14 000 6251 09 14 000 6252 09 14 000 6253			
with shut off for tube internal diameter 1.6 mm 3.0 mm 4.0 mm		— — —	09 14 000 6256 09 14 000 6257 09 14 000 6258			
Identification		Part No.		Drawing		Dimensions in mm
		Male insert ²⁾	Female insert ²⁾			
Pneumatic-module¹⁾ Order contacts separately for 6 mm I/D tube						
		09 14 002 4501	09 14 002 4501			
Contacts¹⁾ without shut off for tube internal diameter 6 mm						
		09 14 000 6174	09 14 000 6274			
with shut off for tube internal diameter 6 mm		—	09 14 000 6279			

¹⁾ Assemble contacts before module is fixed into the frame

²⁾ Male and female module are identical

Technical characteristics

Specifications DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

Approvals

Module

Number of contacts 2

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

Material Polycarbonate

Limiting temperatures - 40 °C / + 125 °C

Flammability acc. UL 94 V 0

Mechanical working life - mating cycles ≥ 500

Quintax Contacts Z-version

Number of contacts

- Quintax 4 + Shielding
- Coax 1 + Shielding
- High Density Quintax 8 + Shielding

Electrical data
acc. to DIN EN 61 984

– Quintax	10 A	50 V	0.8 kV	3
– Coax	10 A	50 V	0.8 kV	3
– High Density Quintax	5 A	50 V	0.8 kV	3

Working current

Working voltage

Rated impulse voltage

Pollution degree

Material: – Insulator Polycarbonate

– Outer conductor zinc alloy

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

Limiting temperatures - 40 °C / + 85 °C

Flammability acc. UL 94 V 0

Outer surface finish Ni

Cable diameter 3 - 9.5 mm

Han D® Contacts

Material Copper alloy

Surface

- gold plated 2 μm Au over 3 μm Ni

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

Crimp termination

- mm² 0.14 - 2.5 mm²
- AWG 26 - 14

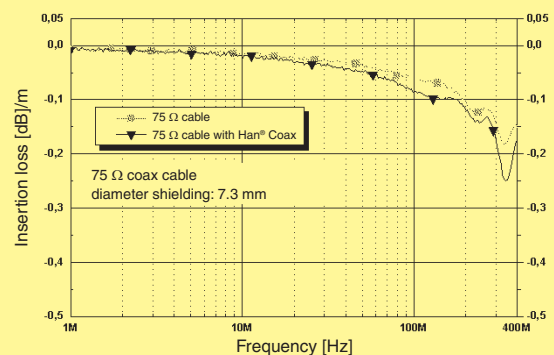
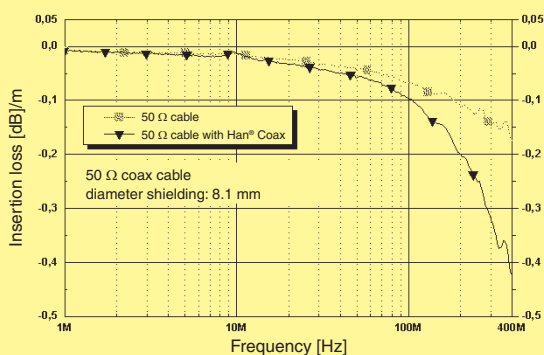
Features

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

Han® High Density Quintax-Contacts

- High contact density
- For D-Sub contacts up to 0.5 mm²
- Max. isolating diameter 2.4 mm

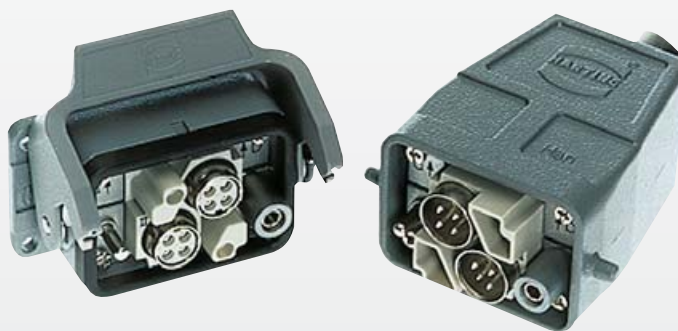
RF transmission characteristics Han® Coax



Number of contacts

2 Quintax Contacts

per Han Quintax® Module



Identification	Part number		Drawing	Dimensions in mm
	Male contact (M)	Female contact (F)		
Module 	09 14 002 3001	09 14 002 3101		
Quintax metal adapter (option) 	09 14 000 9915	09 14 000 9915		

Han Modular

Identification	Cable diameter mm	Part number		Drawing	Dimensions in mm
		Male contact (M)	Female contact (F)		
Quintax Z Contact (4 + Shielding) 		09 15 004 3013	09 15 004 3113		
Han D® Order contacts separately					
Coax Contact (1 + Shielding) 		09 15 001 3013	09 15 001 3113		
Han D® Order contacts separately					
High Density Quintax (8 + Shielding) 		09 15 008 3013	09 15 008 3113		
D-Sub Order contacts separately see page 06.35					

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
		Male contacts	Female contacts		
Han D® Crimp contacts 					
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		
	1.0	09 15 000 6122	09 15 000 6222		
	1.5	09 15 000 6121	09 15 000 6221		
	2.5	09 15 000 6126	09 15 000 6226		

Wire gauge	Ø	Stripping length
0.14-0.37 mm²	0.90 mm	8 mm
0.5 mm²	1.10 mm	8 mm
0.75 mm²	1.30 mm	8 mm
1 mm²	1.45 mm	8 mm
1.5 mm²	1.75 mm	8 mm
2.5 mm²	2.25 mm	6 mm

Stock items in bold type

Identification

Part No.

Drawing

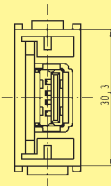
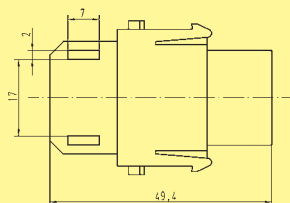
Dimensions in mm

Module for patch cable

– female

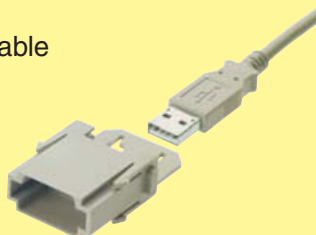


09 14 001 4701

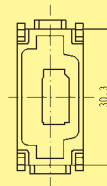
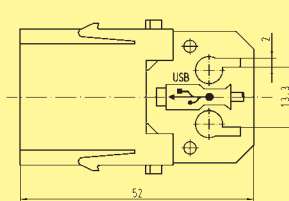


Module for patch cable

– male



09 14 001 4601

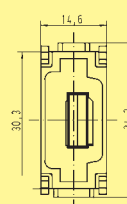
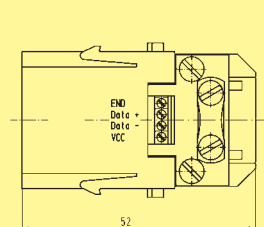


Module for screw termination

– male



09 14 001 4651



Patch cable USB

– male / male
Style A

Length: 2 m
5 m



39 50 903 0050
39 50 903 0051

Features

- ☐ Compatible with all housings, high construction version, and Han-Modular® Compact
- ☐ Simple and cost effective termination by plug-in patch cable
- ☐ Cable tie strain relief
- ☐ According to USB 2.0 specification

Technical characteristics

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61 984

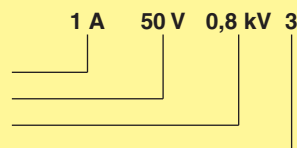
Inserts

Number of contacts

4

Electrical data
acc. to DIN EN 61 984

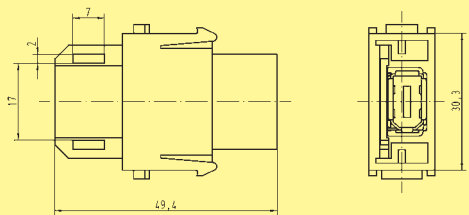
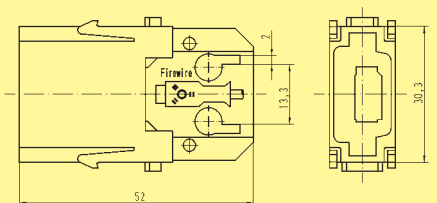
Working current
Working voltage
Rated impulse voltage
Pollution degree

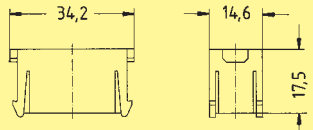
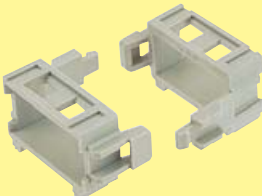
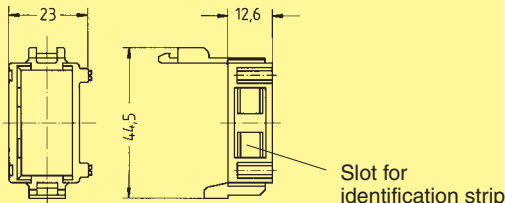
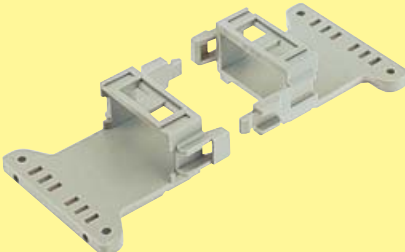
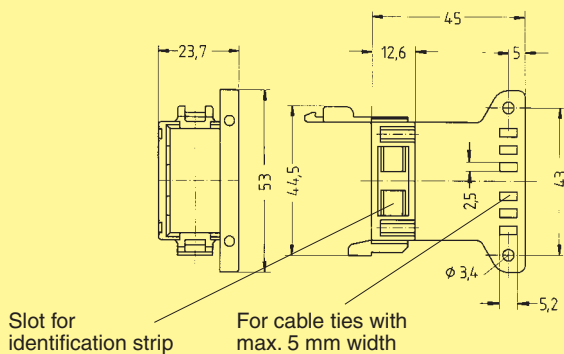
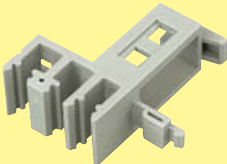
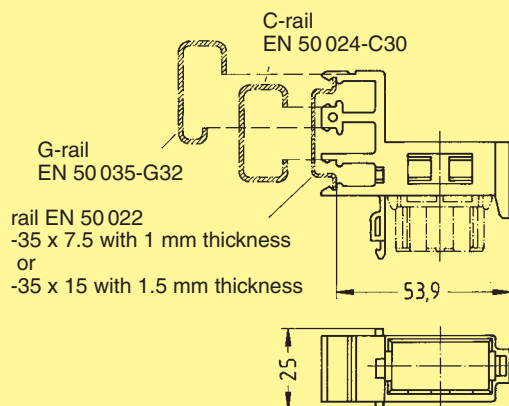
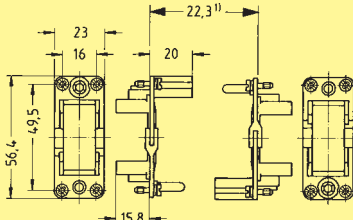


Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
– mating cycles

$\geq 10^{10} \Omega$
Polycarbonate
– 40 °C / + 125 °C
V0
 ≥ 500

Stock items in bold type

Identification	Part No.	Drawing	Dimensions in mm
Module for patch cable – female 	09 14 001 4711		
Module for patch cable – male 	09 14 001 4611		
Features		Technical characteristics	
☐ Compatible with all housings, high construction version, and Han-Modular® Compact ☐ Simple and cost effective termination by plug-in patch cable ☐ Cable tie strain relief ☐ Compatible to IEEE 1394		Specifications DIN VDE 0627 DIN VDE 0110 DIN EN 61 984 Inserts Number of contacts6 Electrical data acc. to DIN EN 61 984 Working current Working voltage Rated impulse voltage Pollution degree 1 A 50 V 0,8 kV 3 Insulation resistance Material Limiting temperatures Flammability acc. to UL 94 Mechanical working life - mating cycles ≥ 10¹⁰ Ω Polycarbonate - 40 °C / + 125 °C V 0 ≥ 500	

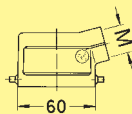
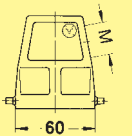
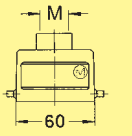
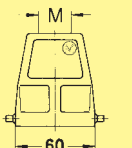
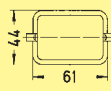
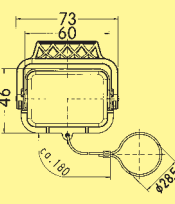
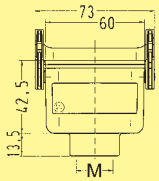
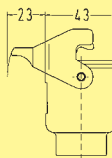
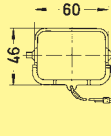
Identification	Part No.	Drawing	Dimensions in mm
Han-Modular® Dummy module to fill up module spaces not in use in the frame 	09 14 000 9950		
Module clamp without strain relief  Delivery comprises 2 module clamps	09 14 000 0301		
Module clamp with strain relief  Delivery comprises 2 module clamps	09 14 000 0302		
Module clamp for rail  Delivery comprises 2 module clamps	09 14 000 0303	 C-rail EN 50 024-C30 G-rail EN 50 035-G32 rail EN 50 022 -35 x 7.5 with 1 mm thickness or -35 x 15 with 1.5 mm thickness	
Frame for 1 module in Han® 10 A housing 	09 14 000 0304	Hood  Housing	1) Distance for electrical and FOC contacts max. 24 mm; for pneumatic contacts max. 23.5 mm
Identification strips 20 pieces in one block – 9 mm width 20 mm length	09 33 000 9982		

for 1 module

		Part No.			Drawing	Dimensions in mm
Identification		Low construction	High construction	M		
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					
	1 side-entry	19 20 010 0251		1 x 25		
	2 side-entries	19 20 010 0290 with thermo-plastic cover 19 20 010 0295		2 x 20 2 x 20		
	Protection covers for housings	09 20 010 5425				

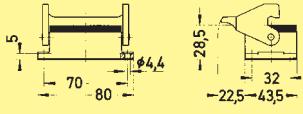
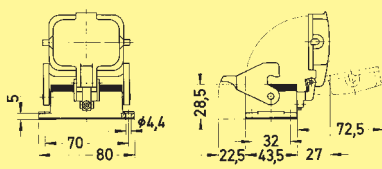
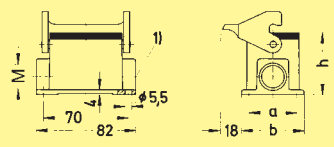
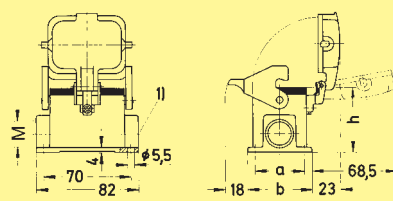
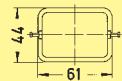
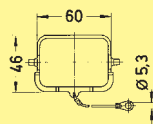
¹⁾ for female insert

for 2 modules

Identification	Part No.		M	Drawing	Dimensions in mm
	Low construction	High construction			
Hoods Hoods side-entry 	19 30 006 1540 19 30 006 1541	19 30 006 0546 19 30 006 0547	20 25 25 32	 	43 43 72 43
	19 30 006 1440	19 30 006 0446 19 30 006 0447	20 25 32	 	40 43 72 43
	09 30 006 5401 09 30 006 5423			 	44 61 73 60 46 ca. 180 ø28.5
	19 30 006 1750	19 30 006 0756	20 25	 	23 43 h 42.5 72.5 13.5 42.5 M
	09 30 006 5427				60 46 ø28.5

Stock items in bold type

for 2 modules

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

Han
Modular

Han Modular

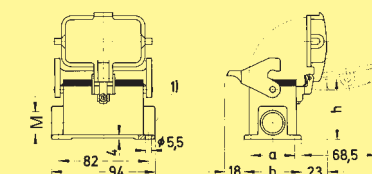
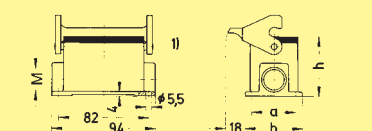
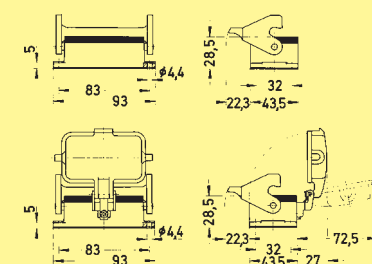
Stock items in bold type

for 3 modules

Identification		Part No.		M	Drawing	Dimensions in mm
		Low construction	High construction			
Hoods	Hoods side-entry	19 30 010 1540 19 30 010 1541	19 30 010 0547	20 25 32		
	Hoods top-entry	19 30 010 1440 19 30 010 1441	19 30 010 0447	20 25 32		
Housings	Housings bulkhead mounting	09 30 010 0305 with thermo-plastic cover 09 30 010 0303 with metal cover 09 30 010 0318		— — —		
	Housings surface mounting	1 side-entry 2 side-entries	19 30 010 1250 19 30 010 1290	20 20 25 32		
		1 side-entry 2 side-entries	with thermo-plastic cover 19 30 010 1255 with thermo-plastic cover 19 30 010 1295	20 20 25 32		
			with metal cover 19 30 010 2295	20 25		
			with thermo-plastic cover 19 30 010 0291 19 30 010 0292	20 25 32		
			with thermo-plastic cover 19 30 010 0296 19 30 010 0297	20 25 32		
			with metal cover 19 30 010 7296	20 25		
	Hoods cable to cable	19 30 010 1750	19 30 010 0756 19 30 010 0757	20 25 32		
	Dust protection cover	09 30 010 5406				

Han
Modular

Panel cut out 60 x 35 mm



1) Blind way for one cable entry

	a	b	h
Low construction	40	52	54
High construction	45	57	81

	h
Low construction	47.5
High construction	74.5

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							
	Hoods top-entry	19 30 016 1421 19 30 016 1422	19 30 016 0427 19 30 016 0428	25 32							
	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	 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									
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								
Protection covers for housings bulkhead mounting thermoplastic/metal	09 30 016 5405 09 30 016 5425										
Hoods	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		25 32								
			19 30 016 0547 19 30 016 0548	32 40								
	Hoods top-entry	19 30 016 1441 19 30 016 1442		25 32								
			19 30 016 0447 19 30 016 0448	32 40								
Housings	Housings bulkhead mounting	09 30 016 0307 with thermo-plastic cover 09 30 016 0306 with metal cover 09 30 016 0318		— — —								
	Housings surface mounting	1 side-entry 19 30 016 1251	19 30 016 0252	25 32								
		2 side-entries 19 30 016 1291	19 30 016 0291 19 30 016 0292	25 32								
		1 side-entry 19 30 016 1256		25								
		2 side-entries 19 30 016 1296	with thermo-plastic cover 19 30 016 0297	25 32								
		2 side-entries with metal cover 19 30 016 2296	with metal cover 19 30 016 7297	25 32		1) 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										
	Hoods cable to cable	19 30 016 1751	19 30 016 0757	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											
Dust protection cover	09 30 016 5406											

Han
Modular

¹⁾ Blind way for one cable entry

	h
Low construction	56
High construction	81

	h
Low construction	47.5
High construction	78.5

Stock items in bold type

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><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><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

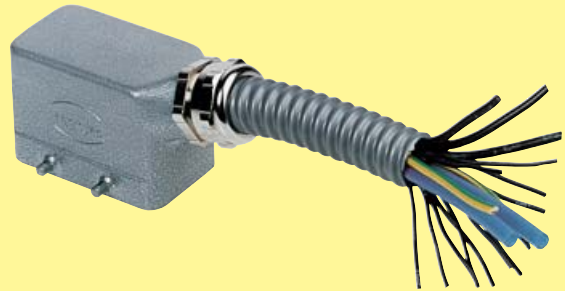
Identification		Part No.		M	Drawing	Dimensions in mm						
		Low construction	High construction									
Hoods	Hoods side-entry	19 30 024 1541 19 30 024 1542		25 32								
			19 30 024 0547 19 30 024 0548	32 40								
	Hoods top-entry	19 30 024 1442	19 30 024 0447	32								
			19 30 024 0448	40								
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								
		with thermo-plastic cover 19 30 024 1256		25								
		with thermo-plastic cover 19 30 024 1296	19 30 024 0297	25 32								
		with metal cover 19 30 024 2296	with metal cover 19 30 024 7297	25 32								
					¹⁾ Blind way for one cable entry							
					<table><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 30 024 1752	19 30 024 0757	32								
					<table><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											
	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

