

## Han-Modular®

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Han  
Modular

Han® CC-  
Protected module



Han® EEE module

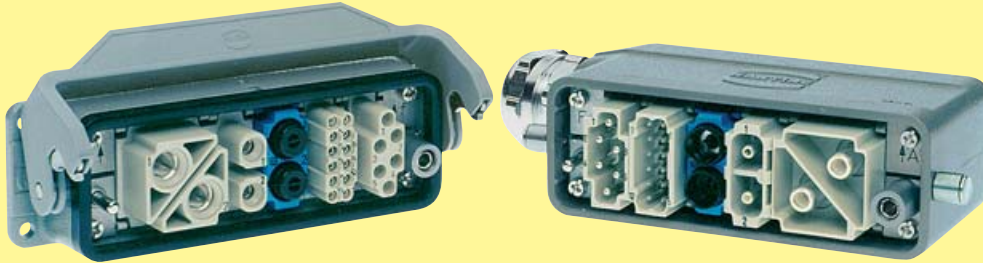


Han® USB +FireWire  
module



**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.

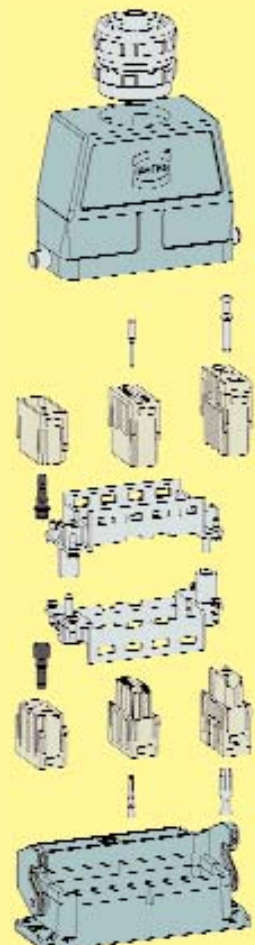
The individual contacts used in this system are all from existing well proven ranges and it is possible to use combinations of 1 to 12 modules depending on the size of the hoods and housings chosen.

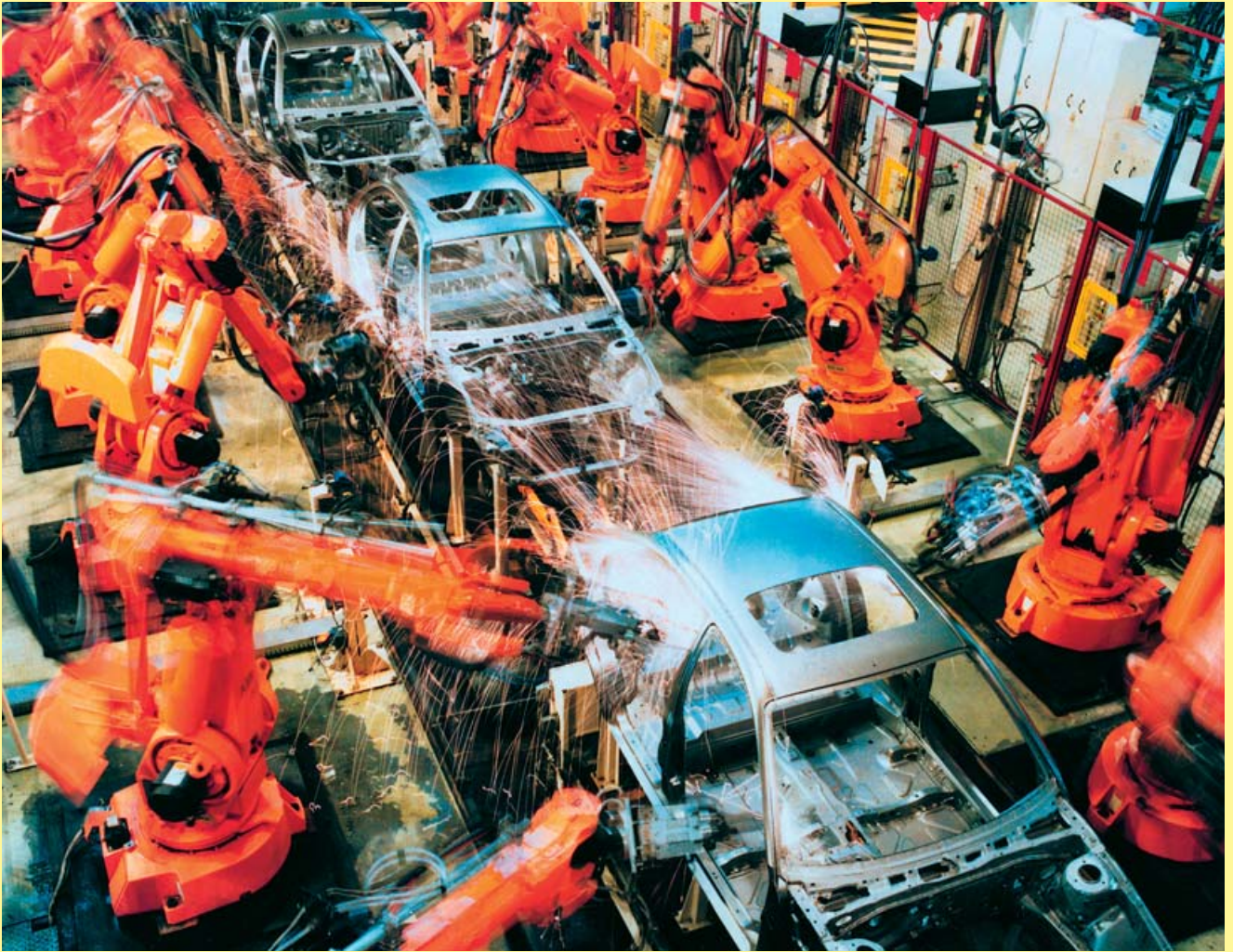
The basic modules snap into a mounting frame and can be exchanged separately at any time.

### Advantages:

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

### Assembly details



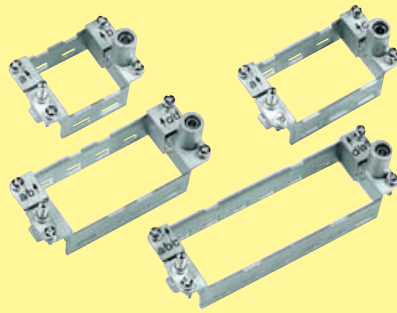


Han  
Modular

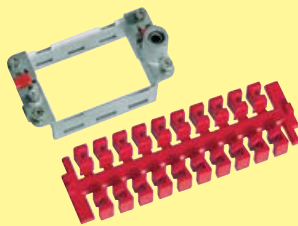
Welding robots in automotive production  
ABB Robotics AB, Västerås, Sweden

## 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

Han Modular





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 mm <sup>2</sup>	10 - 38 mm <sup>2</sup>	2.5 - 10 mm <sup>2</sup>	2.5 - 10 mm <sup>2</sup>
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 mm <sup>2</sup>	1.5 - 6 mm <sup>2</sup>	0.5 - 4.0 mm <sup>2</sup>	0.5 - 4.0 mm <sup>2</sup>
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 mm <sup>2</sup>	0.5 - 4.0 mm <sup>2</sup>	0.14 - 2.5 mm <sup>2</sup>	0.5 - 4.0 mm <sup>2</sup>
Page	06.24	06.26	06.28	06.36












# Summary Han-Modular®



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 <sup>2</sup>	0.14 - 2.5 mm <sup>2</sup>	0.09 - 0.56 mm <sup>2</sup>	0.09 - 0.56 mm <sup>2</sup>
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

Han Modular

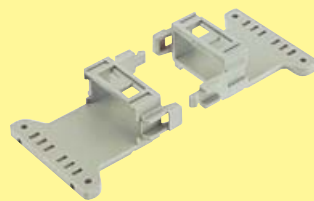
Series	Han Quintax® module			Han® Multicontact-module		Han® Pneumatik-module	
Number of contacts	2			4		2	3
Modules							
Page	06.48			06.38		06.46	06.46
Contacts	Quintax contact 4 + shielding  3 - 9.5 mm	Koax contact 1 + shielding  3 - 9.5 mm	High Density Quintax contacts 8 + shielding  3 - 9.5 mm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

## Accessories Han-Modular®

Module clamp  
without strain relief  
Page 06.52



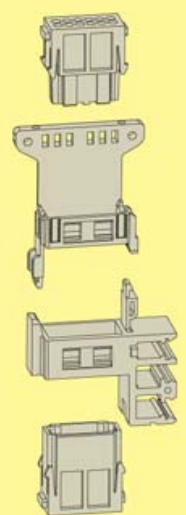
Module clamp  
with strain relief  
Page 06.52



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 <sup>2</sup> / AWG 8
Stripping length	10 mm
Tightening torque	1 Nm

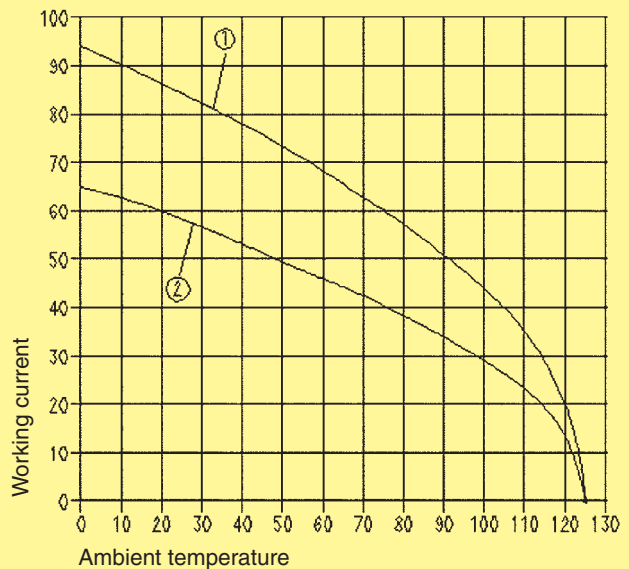
### Protection cover

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

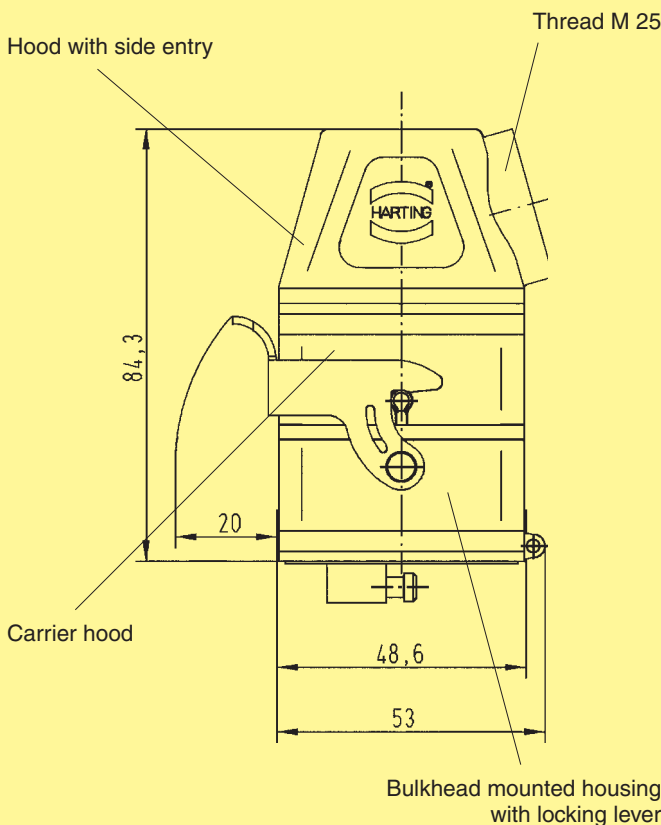
The current carrying capacity is limited by maximum temperature of materials for inserts and contacts including terminals. The current capacity-curve is valid for continuous, not interrupted current-loaded contacts of connectors when simultaneous power on all contacts is given, without exceeding the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

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



① Han<sup>®</sup> Axial screw module, Wire gauge: 10 mm<sup>2</sup>

② Han<sup>®</sup> C module, Wire gauge: 6 mm<sup>2</sup>





Identification

Part No.

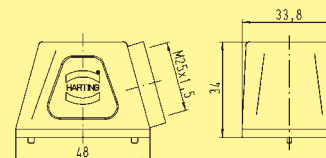
Drawing

Dimensions in mm

Hood  
side entry  
M 25



**19 14 001 0501**

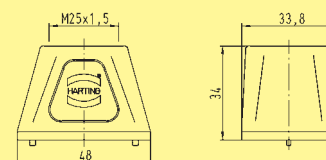


4 screws are included in the delivery range

Hood  
top entry  
M 25



**19 14 001 0401**

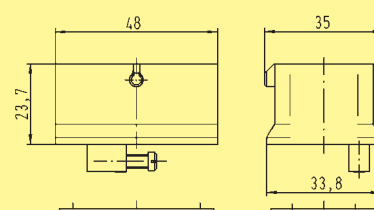


4 screws are included in the delivery range

Carrier hood



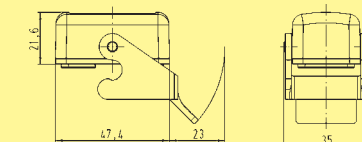
**09 14 001 0311**



Protection cover  
with lever  
and seal



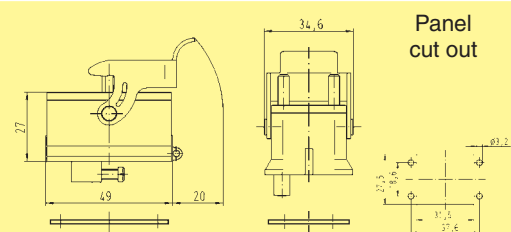
**09 14 001 5402**



Housing  
bulkhead  
mounting



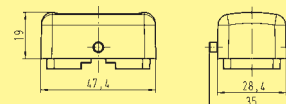
**09 14 001 0301**



Protection cover



**09 14 001 5401**



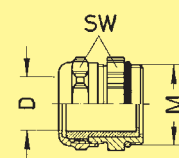
Cable glands  
M 25



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



Han  
Modular

06  
07

Stock items in bold type

## 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 <sup>2</sup> (10 mm <sup>2</sup> )*
	AWG 12 - 10 (AWG 8)*
- Signal side	1 - 2.5 mm <sup>2</sup>
	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


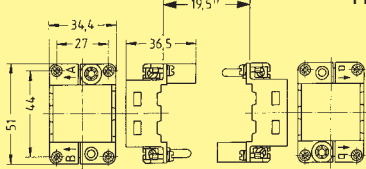

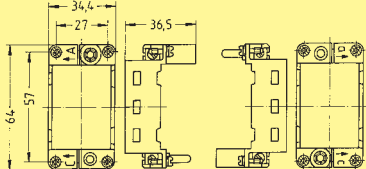

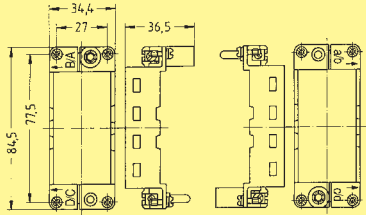

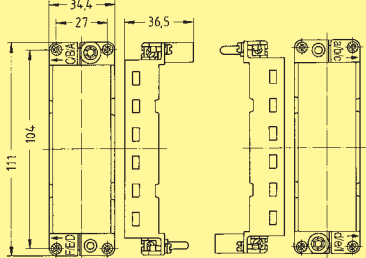
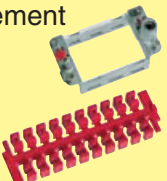
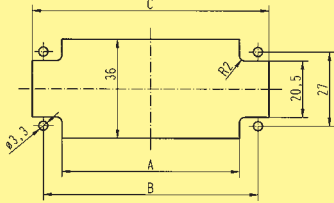
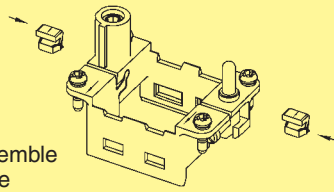
Crimping Tools	chapter 99
Cable clamps	chapter 40
Coding of Hoods/Housings	chapter 40
Label acc. to CSA-approval	chapter 40

Han  
Modular



# Han-Modular® Hinged frames



Identification	Size	Part No. for Hoods / Housings <sup>2)</sup>		Drawing	Dimensions in mm																				
		Marking A ... F	Marking a ... f																						
Hinged frame for 2 modules 	6 B	<b>09 14 006 0303</b>	<b>09 14 006 0313</b>	Hood 	Housing																				
Hinged frame for 3 modules 	10 B	<b>09 14 010 0303</b>	<b>09 14 010 0313</b>																						
Hinged frame for 4 modules 	16 B	<b>09 14 016 0303</b>	<b>09 14 016 0313</b>																						
Hinged frame for 6 modules 	24 B	<b>09 14 024 0303</b>	<b>09 14 024 0313</b>																						
Locking Element for hinged frames (20 pieces per bloc) 		<b>09 14 000 9960</b>		Panel cut out 																					
																									
				<table border="1"> <thead> <tr> <th>Size</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <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> </tbody> </table>	Size	A	B	C	6 B	35	44	52	10 B	49	57	66	16 B	64	77.5	85.5	24 B	94	104	112	
Size	A	B	C																						
6 B	35	44	52																						
10 B	49	57	66																						
16 B	64	77.5	85.5																						
24 B	94	104	112																						

Han Modular

06  
09

<sup>1)</sup> Distance for electrical and FOC contacts max. 21 mm; for pneumatic contacts max. 20.5 mm  
<sup>2)</sup> 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

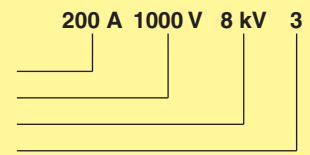
## Technical characteristics

Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

### Inserts

Number of contacts 1

Electrical data  
 acc. to DIN EN 61 984



Working current  
 Working voltage  
 Rated impulse voltage  
 Pollution degree

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  $\geq 500$

### Contacts

Material copper alloy  
 Surface  
 - hard-silver plated 3  $\mu\text{m}$  Ag  
 Contact resistance 0.2 m $\Omega$   
 Screw terminal  
 - Wire gauge<sup>1)</sup> 25 - 70 mm<sup>2</sup>  
 - AWG 2 - 00

- Tightening torque

mm <sup>2</sup>	25	35	50	70
Nm	8	8	9	10

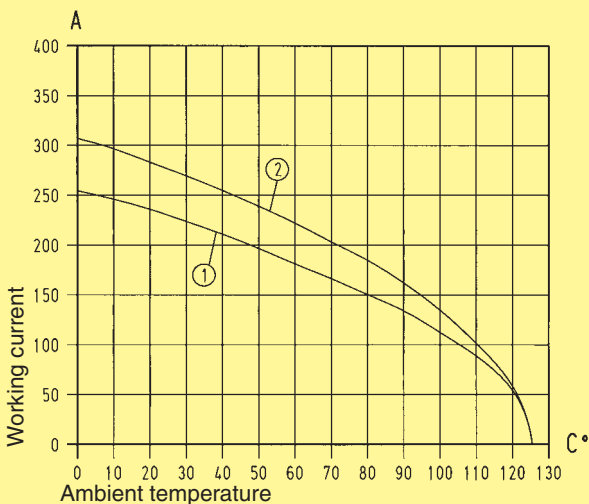
- Hexagonal driver  
 - Stripping length

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.



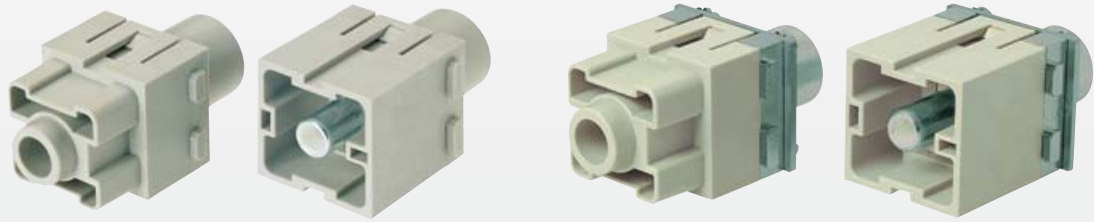
① 24 B hood/housing with 3 modules; wire gauge: 50 mm<sup>2</sup>

② 24 B hood/housing with 3 modules; wire gauge: 70 mm<sup>2</sup>

<sup>1)</sup> geometrical diameter

Number of contacts

**1**



Part Numbers

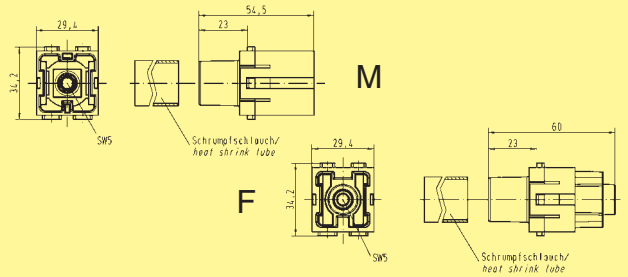
Identification      Male insert (M)      Female insert (F)      Drawing      Dimensions in mm

**Axial Screw Termination  
200 A**

25 – 40 mm<sup>2</sup>  
40 – 70 mm<sup>2</sup>

**09 14 001 2663**  
**09 14 001 2662**

**09 14 001 2763**  
**09 14 001 2762**

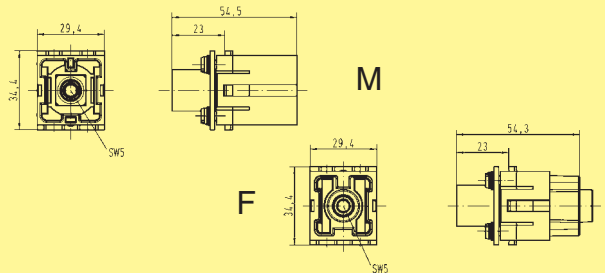


**Axial Screw Termination  
200 A PE**

25 – 40 mm<sup>2</sup>  
40 – 70 mm<sup>2</sup>

**09 14 001 2668**  
**09 14 001 2667**

**09 14 001 2768**  
**09 14 001 2767**



Han  
Modular

Identification      Part Number      Drawing      Dimensions in mm

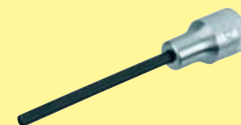
**Hex Key SW 4**  
for axial setscrew  
with grip

**09 99 000 0364**



adapter 3/8"

**09 99 000 0371**



## Features

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

- Polarized insert

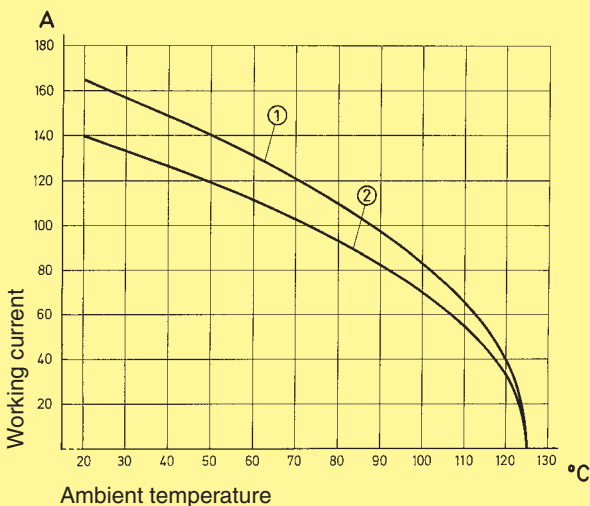
### Remarks

- 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 60 512-3.



- ① 24 B hood/housing with 3 modules; wire gauge: 35 mm<sup>2</sup>
- ② 24 B hood/housing with 3 modules; wire gauge: 25 mm<sup>2</sup>

## Technical characteristics

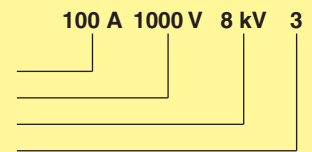
Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

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 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 - mating cycles  $\geq 500$

### Contacts

Material copper alloy  
 Surface - hard-silver plated 3  $\mu\text{m}$  Ag  
 Contact resistance  $\leq 0.3 \text{ m}\Omega$   
 Screw terminal - Wire gauge<sup>1)</sup> 10 - 38 mm<sup>2</sup>  
 - AWG 6 - 2

- Tightening torque

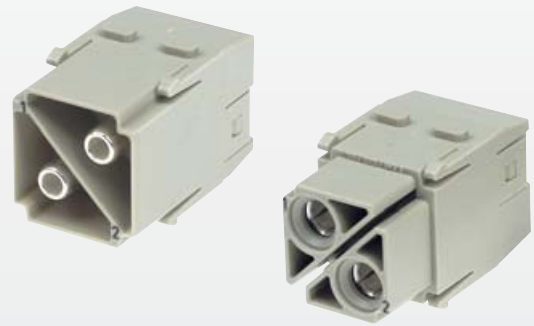
mm <sup>2</sup>	10	16	25	35
Nm	6	6	7	8

- Hexagonal driver  
 - Stripping length

SW 4  
 13 mm

Number of contacts

# 2



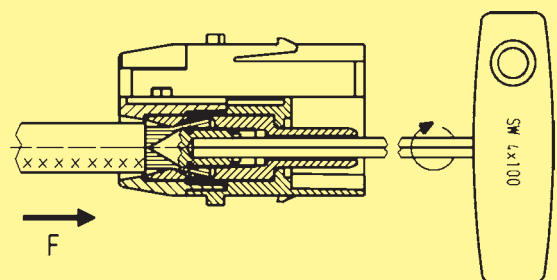
Identification	Part Numbers		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
<b>Axial Screw Termination</b>				
10 – 25 mm <sup>2</sup>	<b>09 14 002 2653</b>	<b>09 14 002 2753</b>	<p>M</p> <p>F</p> <p>Contact arrangement View from termination side</p>	
16 – 35 mm <sup>2</sup>	<b>09 14 002 2651</b>	<b>09 14 002 2751</b>		
38 mm <sup>2</sup>	<b>09 14 002 2650</b>	<b>09 14 002 2750</b>		

Han Modular

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

## 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.



## 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

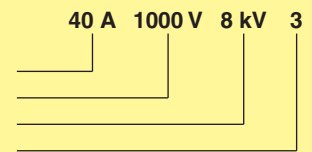
Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

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 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  $\geq 500$

### Contacts

Material copper alloy

Surface - hard-silver plated

3  $\mu\text{m}$  Ag

Contact resistance

$\leq 0.5 \text{ m}\Omega$

Screw terminal

- Wire gauge<sup>1)</sup>

2.5 - 10 mm<sup>2</sup>

- AWG

14 - 8

- Tightening torque

mm <sup>2</sup>	2.5	4	6	10
Nm	1.5	1.5	2	2

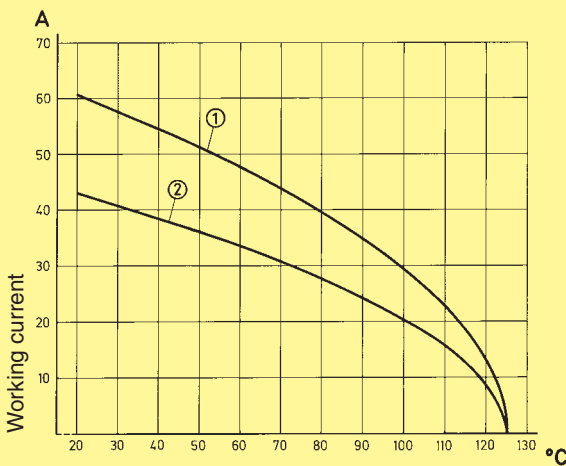
- Stripping length

mm <sup>2</sup>	2.5	4	6	10
mm	5 <sup>+1</sup>	5 <sup>+1</sup>	8 <sup>+1</sup>	8 <sup>+1</sup>

### 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 mm<sup>2</sup>

② 24 B hood/housing with 6 modules; wire gauge: 6 mm<sup>2</sup>

<sup>1)</sup> geometrical diameter

Number of contacts

# 2



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

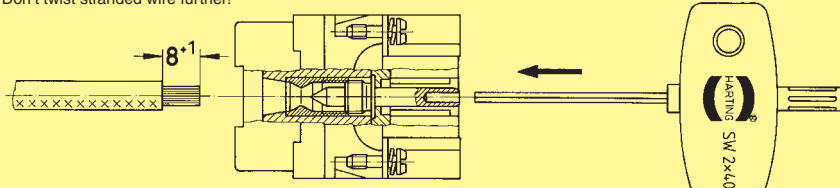
Han Modular

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

### Working instructions for axial setscrew

For stranded wire 2.5 ... 10 mm<sup>2</sup> fine wire (superfine wire 2.5 ... 6 mm<sup>2</sup>)  
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

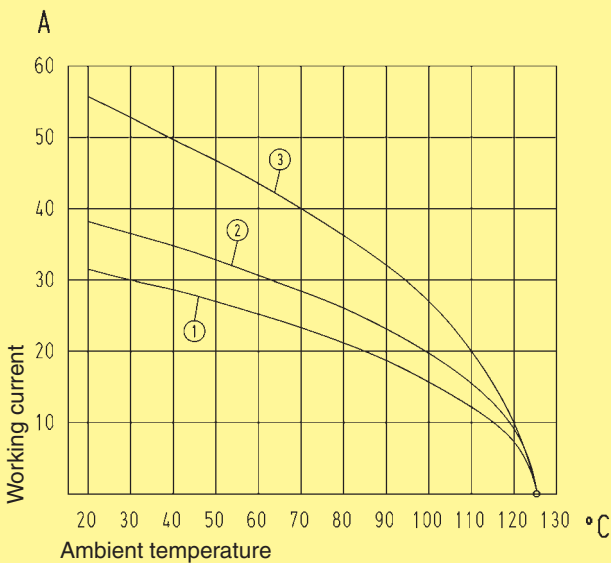
## Features

- ❑ 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 mm<sup>2</sup>
- ② 24 B hood/housing with 6 modules; wire gauge: 6 mm<sup>2</sup>
- ③ 24 B hood/housing with 6 modules; wire gauge: 10 mm<sup>2</sup>

## Technical characteristics

Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

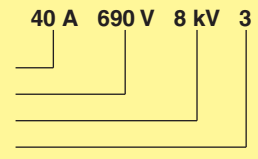
Approvals

### Inserts

Number of contacts 3

#### Axial screw terminal

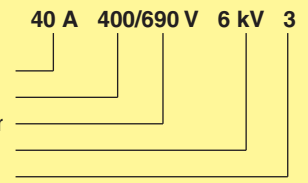
Electrical data  
 acc. to DIN EN 61 984



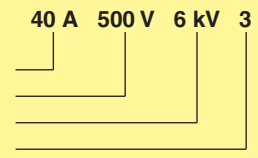
#### Crimp terminal

Electrical data  
 acc. to DIN EN 61 984

Cable diameter up to 5 mm



Cable diameter up to 7.5 mm



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  $\geq 500$

### Contacts

Material copper alloy  
 Surface 3  $\mu\text{m}$  Ag  
 Contact resistance  $\leq 0.3 \text{ m}\Omega$   
 Crimp terminal  
 - mm<sup>2</sup> 1.5 - 6 mm<sup>2</sup>  
 - AWG 16 - 10  
 Screw terminal  
 - Wire gauge<sup>1)</sup> 2.5 - 10 mm<sup>2</sup>  
 - AWG 14 - 8

- Tightening torque

mm <sup>2</sup>	2.5	4	6	10
Nm	1.5	1.5	2	2

- Stripping length

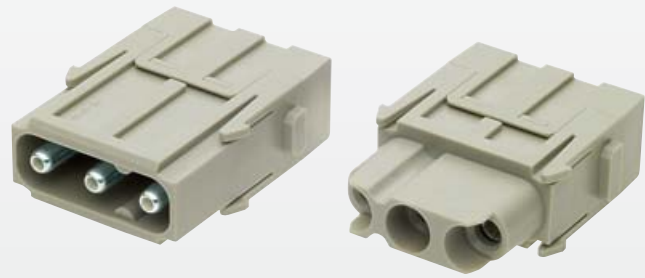
mm <sup>2</sup>	2.5	4	6	10
mm	5 <sup>+1</sup>	5 <sup>+1</sup>	8 <sup>+1</sup>	8 <sup>+1</sup>


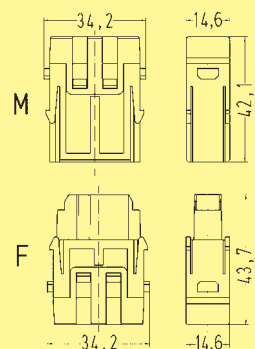
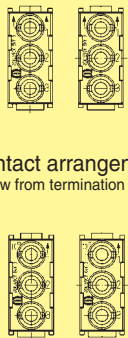
<sup>1)</sup> geometrical diameter




Number of contacts


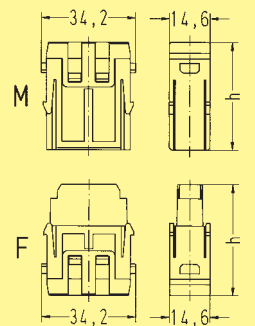
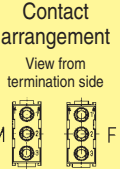
# 3


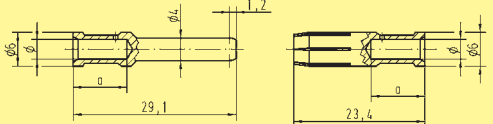


Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
<b>Han® C-module</b> with axial screw terminal  2.5 - 8 mm <sup>2</sup> 6 - 10 mm <sup>2</sup>	<b>09 14 003 2601</b>  <b>09 14 003 2602</b>	<b>09 14 003 2701</b>  <b>09 14 003 2702</b>		 Contact arrangement View from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

Han Modular

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

Identification	Part No.		Drawing	Dimensions in mm												
	Male insert (M)	Female insert (F)														
<b>Crimp terminal</b>  Order contacts separately Cable ø up to 5 mm Cable ø up to 7.5 mm	<b>09 14 003 3001</b>  <b>09 14 003 3002</b>	<b>09 14 003 3101</b>  <b>09 14 003 3102</b>		<table border="1"> <thead> <tr> <th>Cable Ø</th> <th>h</th> </tr> </thead> <tbody> <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> </tbody> </table> <table border="1"> <thead> <tr> <th>Cable Ø</th> <th>h</th> </tr> </thead> <tbody> <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> </tbody> </table> 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
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															

Identification	Wire gauge (mm <sup>2</sup> )	Part No.		Drawing	Dimensions in mm															
		Male contacts	Female contacts																	
<b>Crimp contacts</b> Power contacts silver plated 	<b>1.5</b> <b>2.5</b> <b>4.0</b> <b>6.0</b>	<b>09 32 000 6104</b> <b>09 32 000 6105</b> <b>09 32 000 6107</b> <b>09 32 000 6108</b>	<b>09 32 000 6204</b> <b>09 32 000 6205</b> <b>09 32 000 6207</b> <b>09 32 000 6208</b>		<table border="1"> <thead> <tr> <th>ø</th> <th>Wire gauge</th> <th>Stripping length of the stranded wire a</th> </tr> </thead> <tbody> <tr> <td>1.75</td> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>9</td> </tr> <tr> <td>2.25</td> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>9</td> </tr> <tr> <td>2.85</td> <td>4 mm<sup>2</sup> AWG 12</td> <td>9.6</td> </tr> <tr> <td>3.5</td> <td>6 mm<sup>2</sup> AWG 10</td> <td>9.6</td> </tr> </tbody> </table>	ø	Wire gauge	Stripping length of the stranded wire a	1.75	1.5 mm <sup>2</sup> AWG 16	9	2.25	2.5 mm <sup>2</sup> AWG 14	9	2.85	4 mm <sup>2</sup> AWG 12	9.6	3.5	6 mm <sup>2</sup> AWG 10	9.6
ø	Wire gauge	Stripping length of the stranded wire a																		
1.75	1.5 mm <sup>2</sup> AWG 16	9																		
2.25	2.5 mm <sup>2</sup> AWG 14	9																		
2.85	4 mm <sup>2</sup> AWG 12	9.6																		
3.5	6 mm <sup>2</sup> AWG 10	9.6																		

18 mm stripping length for wired  $\geq 5$  mm  $\phi$

## 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

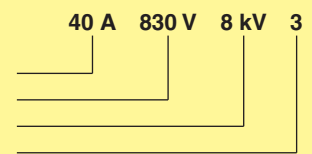
Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

Approvals 

### Inserts

Number of contacts 4

Electrical data  
 acc. to DIN EN 61 984



Working current  
 Working voltage  
 Rated impulse voltage  
 Pollution degree

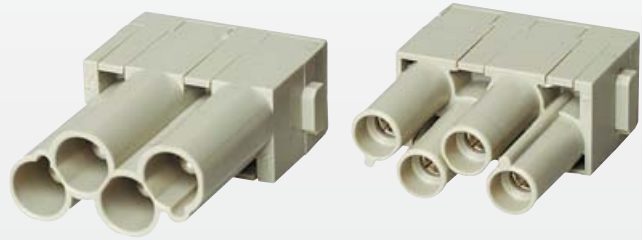
– Pollution degree 2 also 40 A 1000 V 8 kV 2

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

Han  
 Modular

Number of contacts

# 4

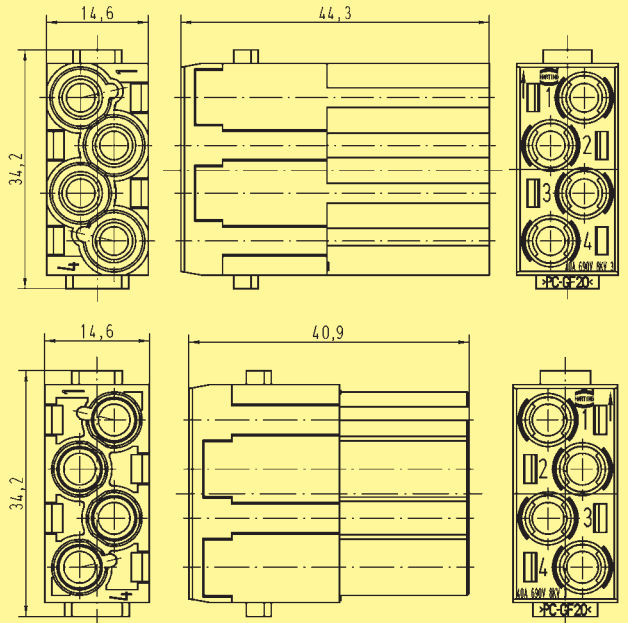


Part No. Identification Male insert (M) Female insert (F) Drawing Dimensions in mm

Han® CC Protected module for crimp connection

**09 14 004 3041**

**09 14 004 31341**



Contact arrangement View from termination side

Order crimp contacts separately

Han Modular

Wire gauge Part No.

Identification (mm²) Male contacts Female contacts Drawing Dimensions in mm

Crimp contacts Power contacts

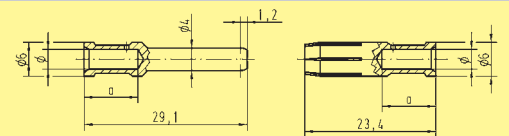
silver plated



1.5  
2.5  
4.0  
6.0

**09 32 000 6104**  
**09 32 000 6105**  
**09 32 000 6107**  
**09 32 000 6108**

**09 32 000 6204**  
**09 32 000 6205**  
**09 32 000 6207**  
**09 32 000 6208**



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

## 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

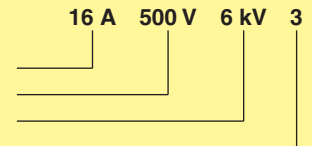
Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

Approvals

### Inserts

Number of contacts 6

Electrical data  
 acc. to DIN EN 61 984



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  $\geq 500$

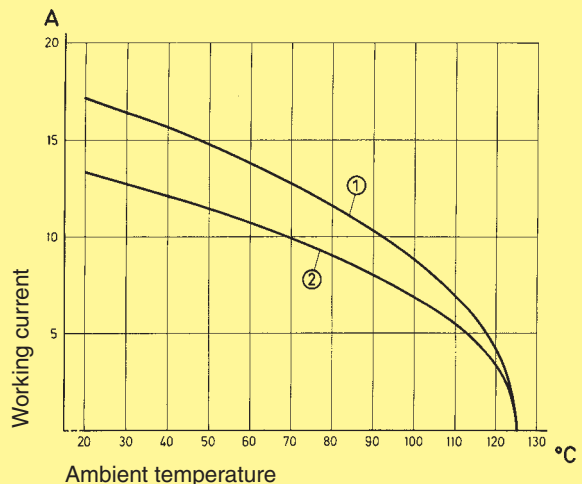
### Contacts

Material copper alloy  
 Surface  
 - hard-silver plated 3  $\mu\text{m}$  Ag  
 - hard-gold plated 2  $\mu\text{m}$  Au over 3  $\mu\text{m}$  Ni  
 Contact resistance  $\leq 1 \text{ m}\Omega$   
 Crimp terminal  
 -  $\text{mm}^2$  0.5 - 4.0  $\text{mm}^2$   
 - 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.



- ① 24 B hood/housing with 6 modules; wire gauge: 2.5  $\text{mm}^2$
- ② 24 B hood/housing with 6 modules; wire gauge: 1.5  $\text{mm}^2$

Number of contacts

# 6



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

Han Modular

Identification	Wire gauge (mm²)	Part No.		Drawing	Dimensions in mm
		Male contacts	Female contacts		
<b>Crimp contacts</b> Power contacts  silver plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5 3 4	<b>09 33 000 6127*</b> <b>09 33 000 6121</b> <b>09 33 000 6114</b> <b>09 33 000 6105</b> <b>09 33 000 6104</b> <b>09 33 000 6102</b> <b>09 33 000 6106</b> <b>09 33 000 6107</b>	<b>09 33 000 6227*</b> <b>09 33 000 6220</b> <b>09 33 000 6214</b> <b>09 33 000 6205</b> <b>09 33 000 6204</b> <b>09 33 000 6202</b> <b>09 33 000 6206</b> <b>09 33 000 6207</b>		
gold plated  Relay contact silver plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5 4.0  0.75-1 1.5 2.5	<b>09 33 000 6117*</b> <b>09 33 000 6122</b> <b>09 33 000 6115</b> <b>09 33 000 6118</b> <b>09 33 000 6116</b> <b>09 33 000 6123</b> <b>09 33 000 6119</b>  <b>09 33 000 6109</b> <b>09 33 000 6110</b> <b>09 33 000 6111</b>	<b>09 33 000 6217*</b> <b>09 33 000 6222</b> <b>09 33 000 6215</b> <b>09 33 000 6218</b> <b>09 33 000 6216</b> <b>09 33 000 6223</b> <b>09 33 000 6221</b>		

Identification	Wire gauge	Stripping length
no groove	0.14-0.37 mm²	AWG 26-22
no groove	0.5 mm²	AWG 20
1 groove*	0.75 mm²	AWG 18
1 groove	1 mm²	AWG 18
2 grooves	1.5 mm²	AWG 16
3 grooves	2.5 mm²	AWG 14
wide groove	3.0 mm²	AWG 12
no groove	4 mm²	AWG 12

\* on the back crimp collar

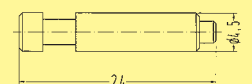
Coding pin



**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.



\* 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

- ❑ 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

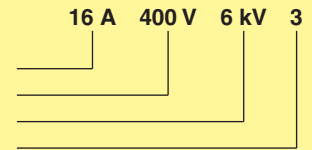
Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

Approvals

### Inserts

Number of contacts 8

Electrical data  
 acc. to DIN EN 61 984



Working current  
 Working voltage  
 Rated impulse voltage  
 Pollution degree

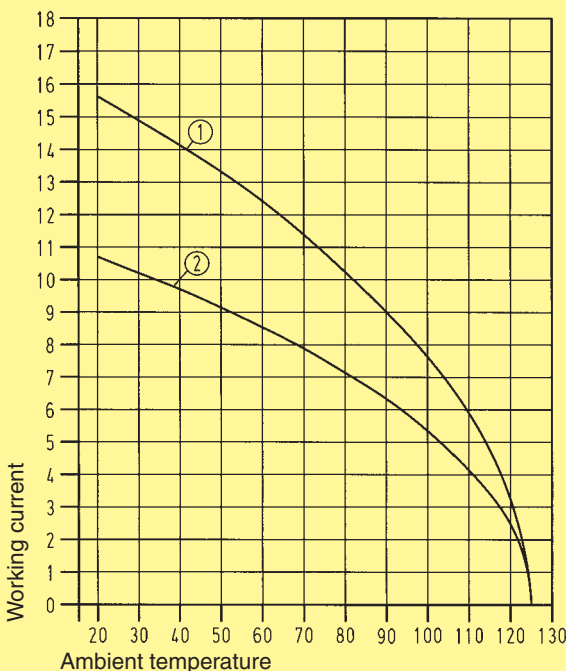
– Pollution degree 2 also 16 A 400/690 V 6 kV 2

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  $\geq 500$

### 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.



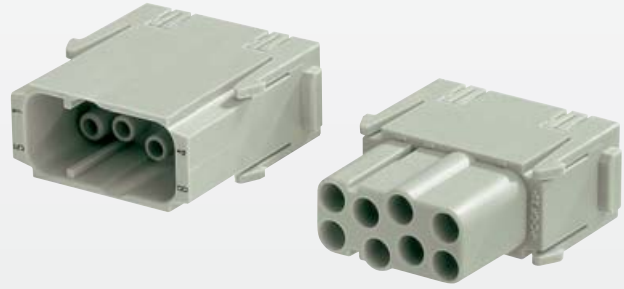
- ① 24 B hood/housing with 6 modules; wire gauge: 2.5 mm<sup>2</sup>
- ② 24 B hood/housing with 6 modules; wire gauge: 1.5 mm<sup>2</sup>

### 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<sup>2</sup> 0.5 - 4.0 mm<sup>2</sup>  
 - AWG 20 - 12

Number of contacts

8



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

Contact arrangement View from termination side

Identification	Wire gauge (mm <sup>2</sup> )	Part No.		Drawing	Dimensions in mm																											
		Male contacts	Female contacts																													
<b>Crimp contacts</b> Power contacts  silver plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5 3 4	<b>09 33 000 6127*</b> <b>09 33 000 6121</b> <b>09 33 000 6114</b> <b>09 33 000 6105</b> <b>09 33 000 6104</b> <b>09 33 000 6102</b> <b>09 33 000 6106</b> <b>09 33 000 6107</b>	<b>09 33 000 6227*</b> <b>09 33 000 6220</b> <b>09 33 000 6214</b> <b>09 33 000 6205</b> <b>09 33 000 6204</b> <b>09 33 000 6202</b> <b>09 33 000 6206</b> <b>09 33 000 6207</b>		Operating contact Identification Relay contact																											
gold plated  Relay contact silver plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5 4.0  0.75-1 1.5 2.5	<b>09 33 000 6117*</b> <b>09 33 000 6122</b> <b>09 33 000 6115</b> <b>09 33 000 6118</b> <b>09 33 000 6116</b> <b>09 33 000 6123</b> <b>09 33 000 6119</b>  <b>09 33 000 6109</b> <b>09 33 000 6110</b> <b>09 33 000 6111</b>	<b>09 33 000 6217*</b> <b>09 33 000 6222</b> <b>09 33 000 6215</b> <b>09 33 000 6218</b> <b>09 33 000 6216</b> <b>09 33 000 6223</b> <b>09 33 000 6221</b>		<table border="1"> <thead> <tr> <th>Identification</th> <th>Wire gauge</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>no groove</td> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> </tr> <tr> <td>no groove</td> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> </tr> <tr> <td>1 groove*</td> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> </tr> <tr> <td>1 groove</td> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> </tr> <tr> <td>2 grooves</td> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> </tr> <tr> <td>3 grooves</td> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> </tr> <tr> <td>wide groove</td> <td>3.0 mm<sup>2</sup></td> <td>AWG 12</td> </tr> <tr> <td>no groove</td> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> </tr> </tbody> </table>	Identification	Wire gauge	Stripping length	no groove	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	1 groove*	0.75 mm <sup>2</sup>	AWG 18	1 groove	1 mm <sup>2</sup>	AWG 18	2 grooves	1.5 mm <sup>2</sup>	AWG 16	3 grooves	2.5 mm <sup>2</sup>	AWG 14	wide groove	3.0 mm <sup>2</sup>	AWG 12	no groove	4 mm <sup>2</sup>	AWG 12
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Crimp contact identification

Identification	Wire gauge	Stripping length
no groove	0.14-0.37 mm <sup>2</sup>	AWG 26-22
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1 groove*	0.75 mm <sup>2</sup>	AWG 18
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2 grooves	1.5 mm <sup>2</sup>	AWG 16
3 grooves	2.5 mm <sup>2</sup>	AWG 14
wide groove	3.0 mm <sup>2</sup>	AWG 12
no groove	4 mm <sup>2</sup>	AWG 12

\* on the back crimp collar

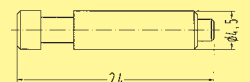
Coding pin



**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.



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

## 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

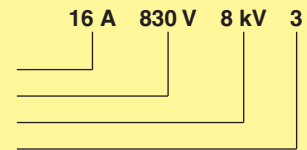
Approvals

### 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 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  $\geq 500$

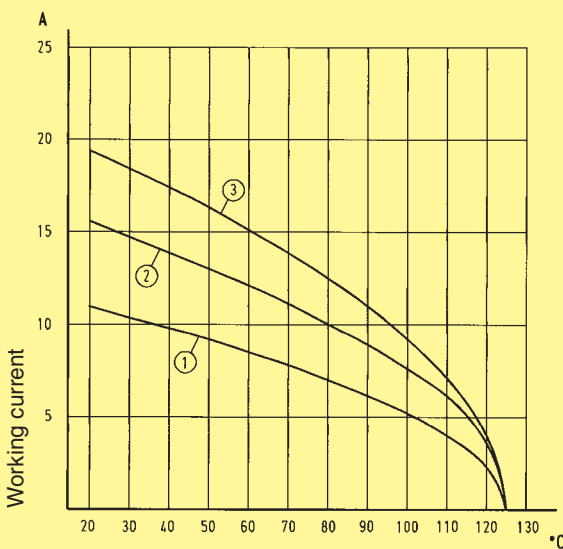
### Contacts

Material copper alloy  
 Surface  
 - hard-silver plated 3  $\mu\text{m}$  Ag  
 - hard-gold plated 2  $\mu\text{m}$  Au over 3  $\mu\text{m}$  Ni  
 Contact resistance  $\leq 1 \text{ m}\Omega$   
 Crimp terminal  
 -  $\text{mm}^2$  0.5 - 4.0  $\text{mm}^2$   
 - 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.



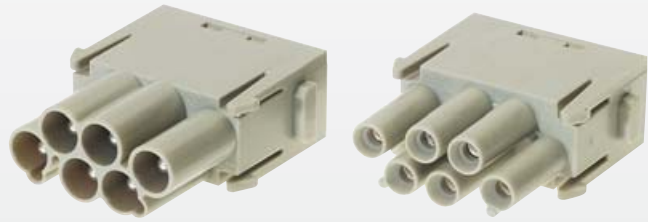
Ambient temperature

- ① 24 B hood/housing with 6 modules; wire gauge: 1,5  $\text{mm}^2$
- ② 24 B hood/housing with 6 modules; wire gauge: 2,5  $\text{mm}^2$
- ③ 24 B hood/housing with 6 modules; wire gauge: 4,0  $\text{mm}^2$



Number of contacts

# 6



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

Han Modular

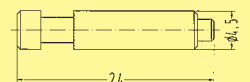
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\* on the back crimp collar

<b>Coding pin</b>  	<b>09 33 000 9954</b>
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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.



06  
25

\* 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

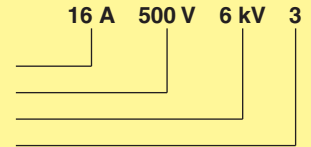
Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

Approvals

### Inserts

Number of contacts 20

Electrical data  
 acc. to DIN EN 61 984



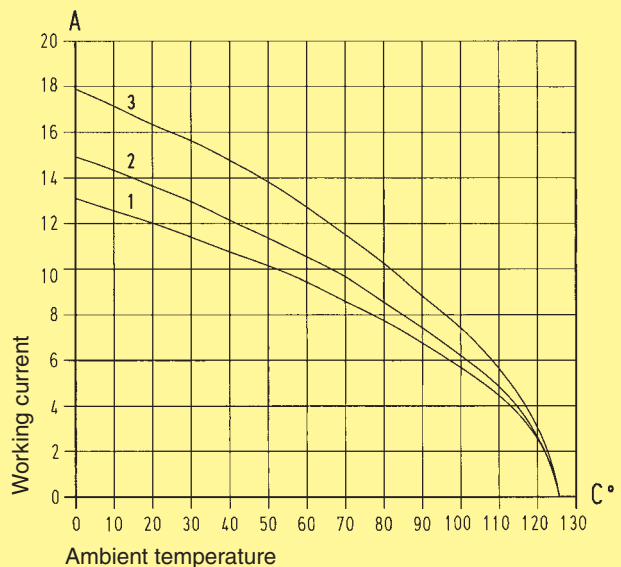
– Pollution degree 2 also 16 A 830 V 8 kV 2

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

### 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 mm<sup>2</sup>
- ② 24 B hood/housing with 3 modules; wire gauge: 2.5 mm<sup>2</sup>
- ③ 24 B hood/housing with 3 modules; wire gauge: 4.0 mm<sup>2</sup>

Number of contacts

20



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

Han Modular

Identification	Wire gauge (mm <sup>2</sup> )	Part No.		Drawing	Dimensions in mm
		Male contacts	Female contacts		
<b>Crimp contacts</b>					
Power contacts	0.14-0.37 0.5 0.75 1.0 1.5 2.5 3 4	<b>09 33 000 6127*</b> <b>09 33 000 6121</b> <b>09 33 000 6114</b> <b>09 33 000 6105</b> <b>09 33 000 6104</b> <b>09 33 000 6102</b> <b>09 33 000 6106</b> <b>09 33 000 6107</b>	<b>09 33 000 6227*</b> <b>09 33 000 6220</b> <b>09 33 000 6214</b> <b>09 33 000 6205</b> <b>09 33 000 6204</b> <b>09 33 000 6202</b> <b>09 33 000 6206</b> <b>09 33 000 6207</b>		
silver plated					
gold plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5 4.0	<b>09 33 000 6117*</b> <b>09 33 000 6122</b> <b>09 33 000 6115</b> <b>09 33 000 6118</b> <b>09 33 000 6116</b> <b>09 33 000 6123</b> <b>09 33 000 6119</b>	<b>09 33 000 6217*</b> <b>09 33 000 6222</b> <b>09 33 000 6215</b> <b>09 33 000 6218</b> <b>09 33 000 6216</b> <b>09 33 000 6223</b> <b>09 33 000 6221</b>		
Relay contact silver plated	0.75-1 1.5 2.5	<b>09 33 000 6109</b> <b>09 33 000 6110</b> <b>09 33 000 6111</b>			
<b>Coding pin</b>		<b>09 33 000 9954</b>			
				<p>Use of the coding pin prevents incorrect mating to other connectors of the same type.</p> <p>The male pin should be omitted from the opposing cavity in the male insert.</p>	

Crimp contact identification

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

\* 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

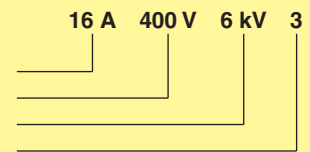
Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

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 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  $\geq 500$

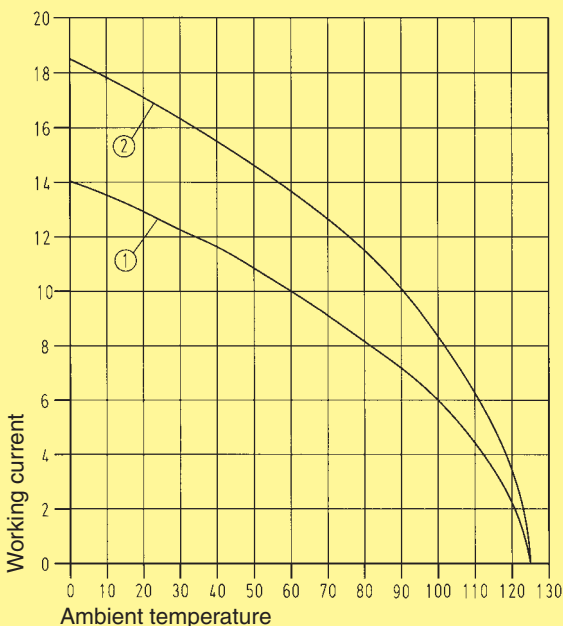
### Contacts

Material copper alloy  
 Surface - hard-silver plated 3  $\mu\text{m}$  Ag  
 Contact resistance  $\leq 3 \text{ m}\Omega$   
 Cage-clamp terminal - mm<sup>2</sup> 0.14 - 2.5 mm<sup>2</sup>  
 - AWG 26 - 14

### 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.

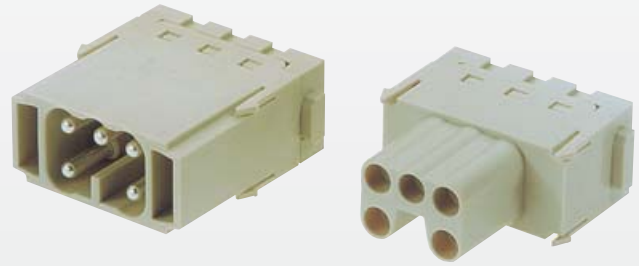
Control and test procedures according to DIN IEC 60 512-3.



- ① 24 B hood/housing with 6 modules; wire gauge: 2.5 mm<sup>2</sup>
- ② 24 B hood/housing with 6 modules; wire gauge: 1.5 mm<sup>2</sup>

Number of contacts

5



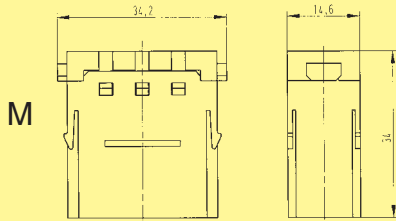
Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		

Cage-clamp terminal

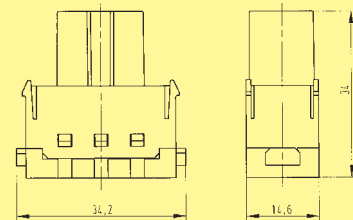
**09 14 005 2616**

**09 14 005 2716**

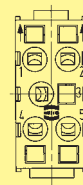
M



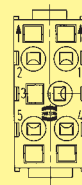
F



M



F



Han Modular

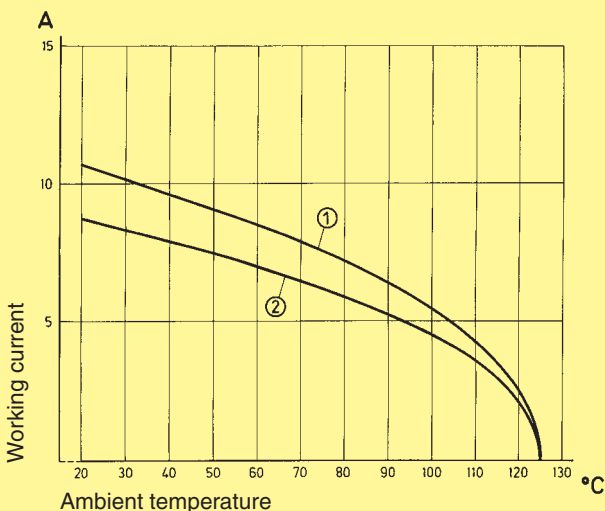
## Features

- ❑ 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 60 512-3.



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

## Technical characteristics

Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

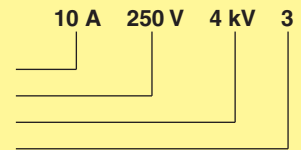
Approvals

### Inserts

Number of contacts 12

Electrical data  
 acc. to DIN EN 61 984

Working current  
 Working voltage  
 Rated impulse voltage  
 Pollution degree



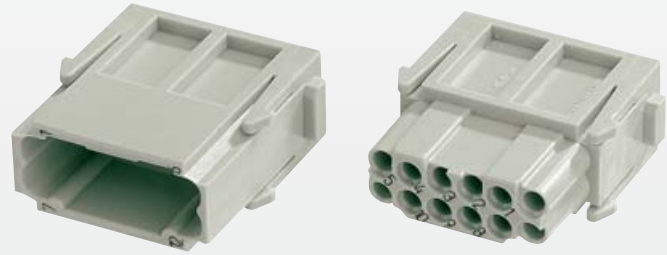
Working voltage according to UL/CSA 600 V  
 Insulation resistance  $\geq 10^{10} \Omega$   
 Material Polycarbonate  
 Limiting temperatures - 40 °C / + 125 °C  
 Flammability acc. to UL 94 V0  
 Mechanical working life - mating cycles  $\geq 500$

### Contacts

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

Number of contacts

# 12



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
<b>Crimp terminal</b>  Order contacts separately	<b>09 14 012 3001</b>	<b>09 14 012 3101</b>		
				<p>Contact arrangement View from termination side</p>

Identification	Wire gauge (mm <sup>2</sup> )	Part No.		Drawing	Dimensions in mm																												
		Male contacts	Female contacts																														
<b>Crimp contacts</b>																																	
silver plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5	<b>09 15 000 6104</b> <b>09 15 000 6103</b> <b>09 15 000 6105</b> <b>09 15 000 6102</b> <b>09 15 000 6101</b> <b>09 15 000 6106</b>	<b>09 15 000 6204</b> <b>09 15 000 6203</b> <b>09 15 000 6205</b> <b>09 15 000 6202</b> <b>09 15 000 6201</b> <b>09 15 000 6206</b>																														
gold plated	0.14-0.37 0.5 0.75 1.0 1.5 2.5	<b>09 15 000 6124</b> <b>09 15 000 6123</b> <b>09 15 000 6125</b> <b>09 15 000 6122</b> <b>09 15 000 6121</b> <b>09 15 000 6126</b>	<b>09 15 000 6224</b> <b>09 15 000 6223</b> <b>09 15 000 6225</b> <b>09 15 000 6222</b> <b>09 15 000 6221</b> <b>09 15 000 6226</b>	<table border="1"> <thead> <tr> <th>Wire gauge</th> <th></th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.90 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.10 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.30 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Wire gauge		∅	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.90 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.10 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.30 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm	
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<b>FOC contacts</b> for 1 mm plastic fibre		<b>20 10 001 3211</b>	20 10 001 3221		<p>For cable see catalogue „Fibre Optic Data Link Systems“</p>																												
<b>Coding system with loss of contact</b>		<b>09 33 000 9915</b>			<p>Use of the coding pin prevents incorrect mating to other connectors of the same type.</p> <p>The male pin should be omitted from the opposing cavity in the male insert.</p>																												

Han Modular

## 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

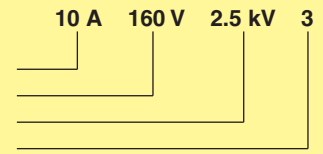
Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

Approvals

### Inserts

Number of contacts 17

Electrical data  
 acc. to DIN VDE 0627



Working current  
 Working voltage  
 Rated impulse voltage  
 Pollution degree

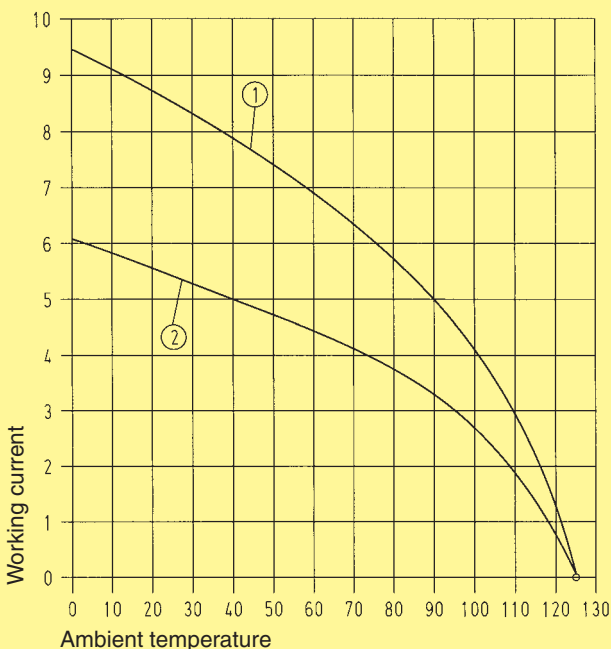
– Pollution degree 2 also 10 A 250 V 4 kV 2

Working voltage according to UL/CSA 250 V  
 Insulation resistance  $\geq 10^{10} \Omega$   
 Material Polycarbonate  
 Limiting temperatures  $-40 \text{ }^\circ\text{C} / +125 \text{ }^\circ\text{C}$   
 Flammability acc. to UL 94 V0  
 Mechanical working life - mating cycles  $\geq 500$

### 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: 1.5 mm<sup>2</sup>
- ② 24 B hood/housing with 6 modules; wire gauge: 1.0 mm<sup>2</sup>

### Contacts

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



Number of contacts

17



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

Kontaktanordnung Ansicht Anschlusseite

Identification	Wire gauge (mm <sup>2</sup> )	Part No.		Drawing	Dimensions in mm																					
		Male contacts	Female contacts																							
<p><b>Crimp contacts</b></p> <p>silver plated </p> <p>gold plated </p>	<p>0.14-0.37</p> <p>0.5</p> <p>0.75</p> <p>1.0</p> <p>1.5</p> <p>2.5</p>	<p><b>09 15 000 6104</b></p> <p><b>09 15 000 6103</b></p> <p><b>09 15 000 6105</b></p> <p><b>09 15 000 6102</b></p> <p><b>09 15 000 6101</b></p> <p><b>09 15 000 6106</b></p>	<p><b>09 15 000 6204</b></p> <p><b>09 15 000 6203</b></p> <p><b>09 15 000 6205</b></p> <p><b>09 15 000 6202</b></p> <p><b>09 15 000 6201</b></p> <p><b>09 15 000 6206</b></p>		<table border="1"> <thead> <tr> <th>Wire gauge</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.90 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.10 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.30 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> </tr> </tbody> </table>	Wire gauge	ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.90 mm	0.5 mm <sup>2</sup>	AWG 20	1.10 mm	0.75 mm <sup>2</sup>	AWG 18	1.30 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm
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<p><b>Coding system with loss of contact</b></p>		<b>09 33 000 9915</b>		<p>Use of the coding pin prevents incorrect mating to other connectors of the same type.</p> <p>The male pin should be omitted from the opposing cavity in the male insert.</p>																						

Han Modular

## 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

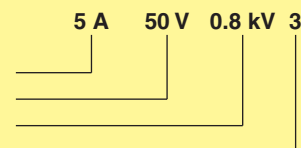
## Technical characteristics

Specifications  
 DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

### Inserts

Number of contacts 25

Electrical data  
 acc. to DIN EN 61 984



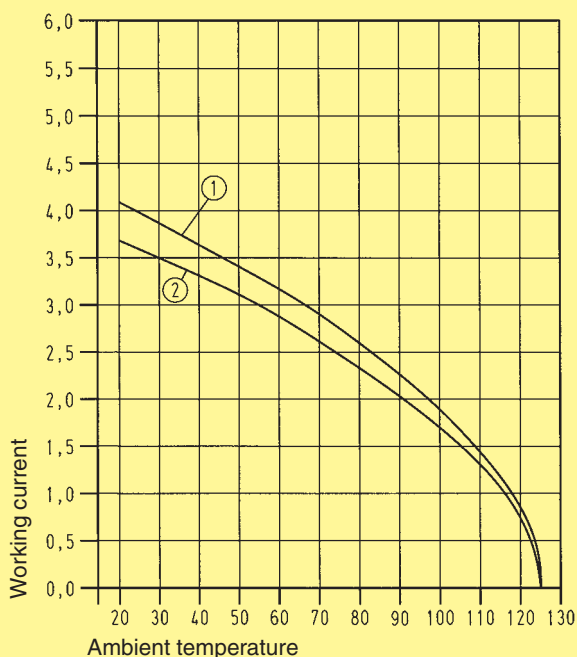
Working current  
 Working voltage  
 Rated impulse voltage  
 Pollution degree

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  $\geq 500$

### 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.

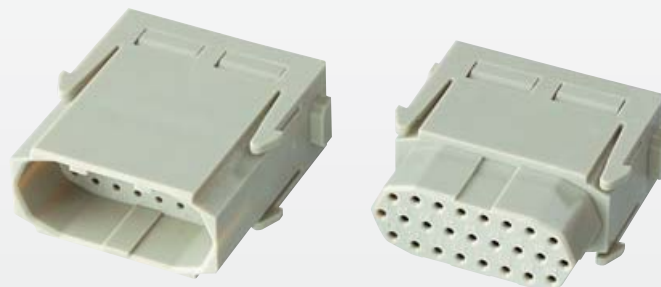
Control and test procedures according to DIN IEC 60 512-3.



- ① 24 B hood/housing with 6 modules; wire gauge: 0.5 mm<sup>2</sup> turned contacts
- ② 24 B hood/housing with 6 modules; wire gauge: 0.5 mm<sup>2</sup> stamped contacts

Number of contacts

# 25



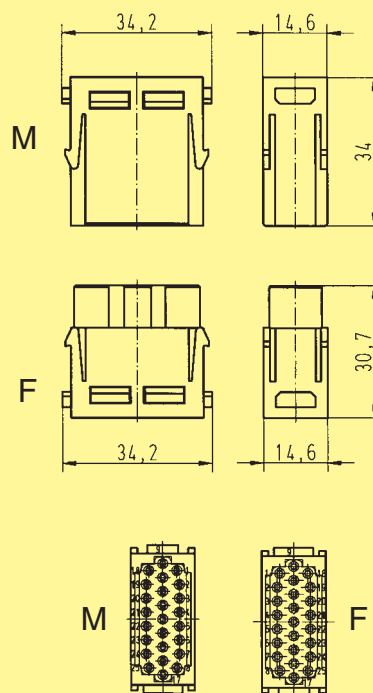
Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		

### Crimp terminal

Order contacts separately

**09 14 025 3001**

**09 14 025 3101**



Contact arrangement View from termination side

Identification	Wire gauge (mm <sup>2</sup> )	Part No.	
		turned male contacts	turned female contacts

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.)

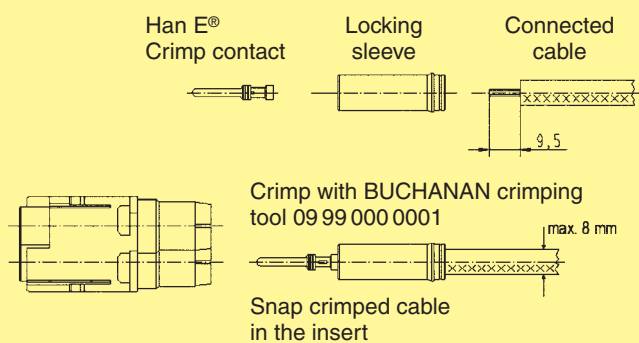
Han Modular

## Technical characteristics

Specifications	DIN VDE 0627 DIN VDE 0110 DIN EN 61 984 DIN VDE 0115
<b>Inserts</b>	
Number of contacts	2
<b>Electrical data</b> acc. to DIN EN 61 984	
	<b>16 A 2900/5000 V 15 kV 3</b>
Working current	16 A
Working voltage conductor – ground	2900 V
Working voltage conductor – conductor	5000 V
Rated impulse current	15 kV
Pollution degree	3
Insulation resistance	$\geq 10^{10} \Omega$
Material	Polycarbonate/Teflon (PTFE)
Limiting temperatures	- 40 °C / +125 °C
Mechanical working life	
- mating cycles	$\geq 500$

<b>Contacts</b>	
Material	copper alloy
Surface	
- hard silver plated	3 $\mu\text{m}$ Ag
- hard gold plated	2 $\mu\text{m}$ Au over 3 $\mu\text{m}$ Ni
Contact resistance	$\leq 1 \text{ m}\Omega$
Crimp terminal	
- $\text{mm}^2$	0.5 - 4.0 $\text{mm}^2$
- AWG	20 - 12

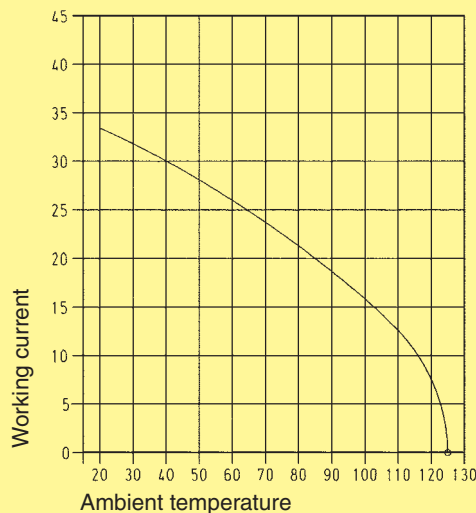
## Assembly details



## 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  $\text{mm}^2$



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

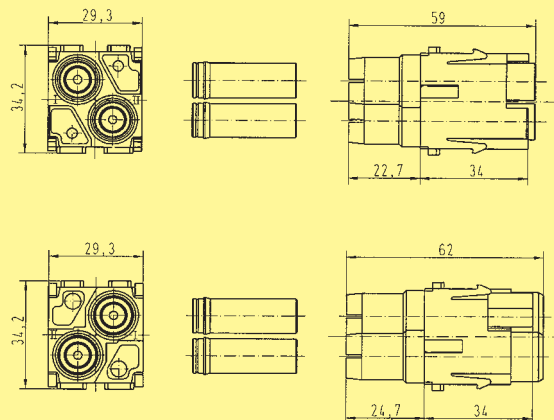
### Crimp terminal

**09 14 002 3021**

**09 14 002 3121**

M

F

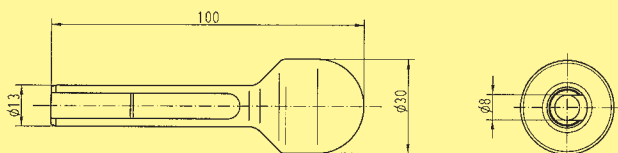


Range of delivery:  
- 1 module and  
- 2 locking sleeves  
- 2 heat shrink tubes

### Removal tool for locking sleeve



**09 99 000 0327**



Han Modular

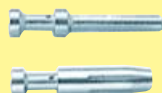
Wire gauge Part No.

Identification (mm<sup>2</sup>) Male contacts (M) Female contacts (F) Drawing Dimensions in mm

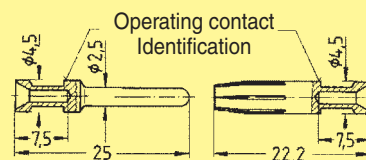
### Crimp contacts Han E®

order separately

silver plated



0.5	<b>09 33 000 6121</b>	<b>09 33 000 6220</b>
0.75	<b>09 33 000 6114</b>	<b>09 33 000 6214</b>
1	<b>09 33 000 6105</b>	<b>09 33 000 6205</b>
1.5	<b>09 33 000 6104</b>	<b>09 33 000 6204</b>
2.5	<b>09 33 000 6102</b>	<b>09 33 000 6202</b>
3	09 33 000 6106	09 33 000 6206
4	<b>09 33 000 6107</b>	<b>09 33 000 6207</b>



Crimp contact identification

Identification	Wire gauge		Stripping length
	mm <sup>2</sup>	AWG	
no groove	0.5 mm <sup>2</sup>	AWG 20	9.5 mm
1 groove*	0.75 mm <sup>2</sup>	AWG 18	9.5 mm
1 groove	1.0 mm <sup>2</sup>	AWG 18	9.5 mm
2 grooves	1.5 mm <sup>2</sup>	AWG 16	9.5 mm
3 grooves	2.5 mm <sup>2</sup>	AWG 14	9.5 mm
wide groove	3.0 mm <sup>2</sup>	AWG 12	9.5 mm
no groove	4.0 mm <sup>2</sup>	AWG 12	9.5 mm

\* on the back crimp collar

## 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

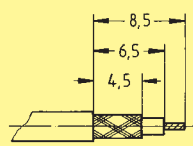
Contact arrangement according to table below:

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

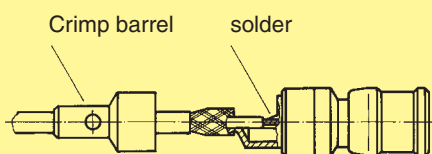
## Coaxial cables (group 2)

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 RG 188 A / U RG 316 / U	2.5 2.6 2.5	0.48 0.54 0.54	29	40 40	84
75 Ω wires RG 179 B / U RG 187 A / U	2.55 2.7	0.3 0.3		41 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  $\geq 500$

### 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 contact<sup>2)</sup>  
 - Fibre type glass fibre (GI)  
 - Attenuation < 1.5 dB

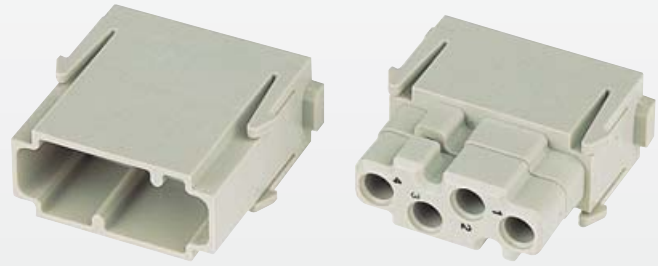
FOC contact<sup>2)</sup>  
 - Fibre type polymer optical fibre  
 - Attenuation < 2.5 dB

<sup>1)</sup> 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

<sup>2)</sup> See catalogue „Fibre Optic Data Link Systems“

Number of contacts

# 4



Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
<b>Multicontact-module acc. to DIN 41 626</b>  Order contacts separately	<b>09 14 004 4501</b>	<b>09 14 004 4512</b>		
<b>Multicontact-module acc. to Sub-D</b>  Order contacts separately	<b>09 14 004 4501</b>	<b>09 14 004 4513</b>		

Han Modular

Identification	Part No.		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
<b>Coaxial contacts acc. to DIN 41 626</b> for straight solder and/or crimp terminations  	<b>09 14 000 6211</b>  <b>09 14 000 6221</b>	<b>09 14 000 6111</b>  <b>09 14 000 6121</b>		For cable group 2 flexible wires (see remarks on page 06.38)
<b>FOC contacts acc. to DIN 41 626</b> 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		
<b>Coaxial contacts acc. to Sub-D<sup>1)</sup></b> for straight solder terminations RG 58 / 50 Ω  	<b>09 14 000 6215</b>	<b>09 14 000 6115</b>		

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

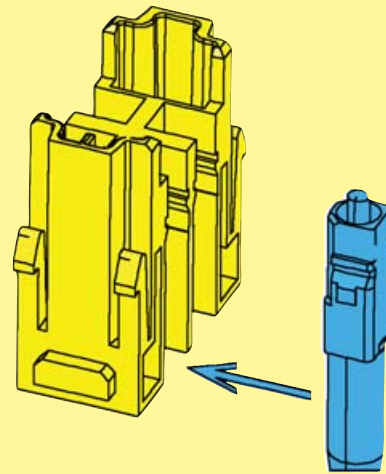
## Features

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

Han  
Modular

## Assembly details

①

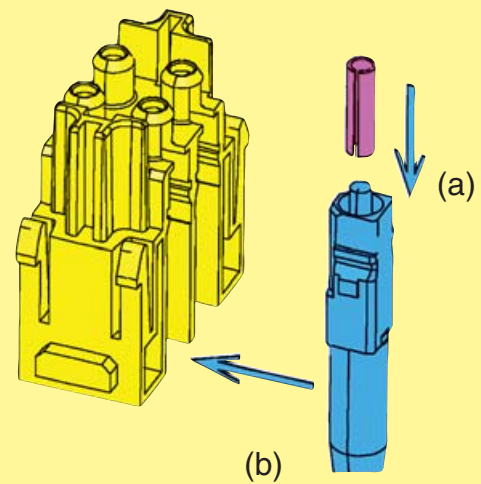


### 1. Male insert (09 14 004 4701)

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

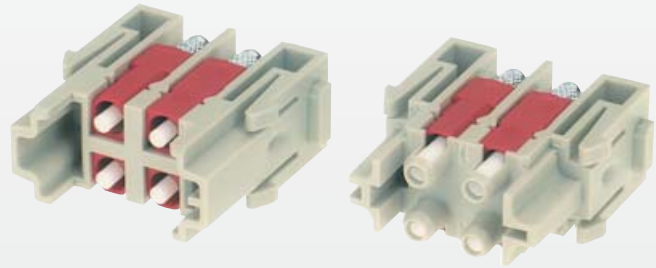
Push the centering ferrule (included in delivery) on the SC contact (a)

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



Number of contacts

# 4



Identification

Part No.

Drawing

Dimensions in mm

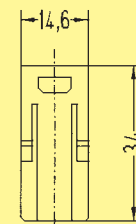
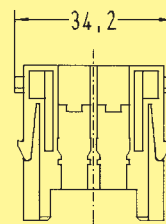
## SC module male

SC contacts order separately

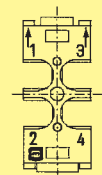


**09 14 004 4701**

M



Contact arrangement  
View form termination side



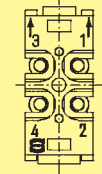
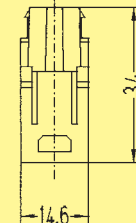
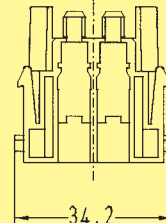
## SC module female

SC contacts order separately



**09 14 004 4711**

F



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

Identification

Part No.

Drawing

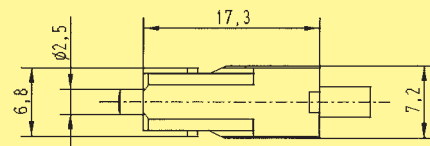
Dimensions in mm

## SC contact

for GI Fibre 50 - 62.5 / 125 µm



**20 10 125 5211**



## Features

- ❑ Coding of tools possible (i. e. press tools) by means of an alpha numeric identification
- ❑ I<sup>2</sup>C 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 border="0"> <thead> <tr> <th>Pin-No.</th> <th>Function</th> </tr> </thead> <tbody> <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> </tbody> </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 I<sup>2</sup>C 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.

Han  
Modular



## Features

- ❑ 9-pin D-Sub connector of the Han-Modular® system
- ❑ For crimping, solder or IDC terminals
- ❑ Crimping contacts for: 0.09 - 0.5 mm<sup>2</sup>  
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

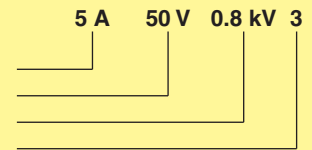
## Technical characteristics

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



Working current  
Working voltage  
Rated impulse voltage  
Pollution degree

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

Material

- insert Polycarbonate  
- shielding element Zinc die cast alloy

Limiting temperatures

- 40 °C / + 125 °C

Flammability acc. to UL 94

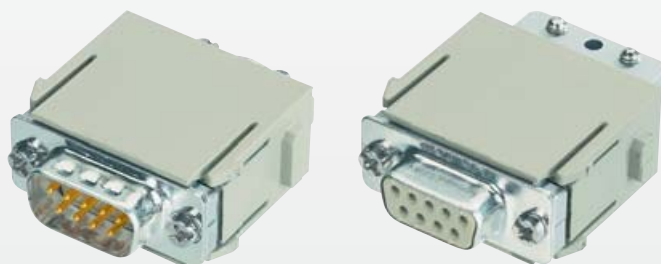
V0

Mechanical working life

- mating cycles  $\geq 500$

Number of contacts

# 9



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

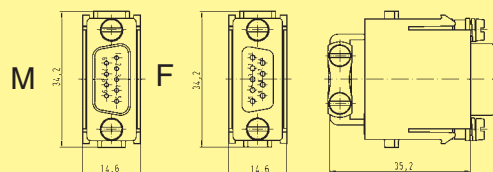
### D-Sub module Crimp insert

Order crimp contacts separately  
(see page 06.35)



**09 14 009 3001**

**09 14 009 3101**



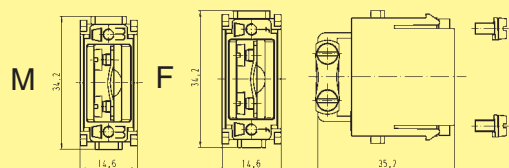
### Adapter module without D-Sub insert

for one cable



**09 14 000 9930**

**09 14 000 9931**

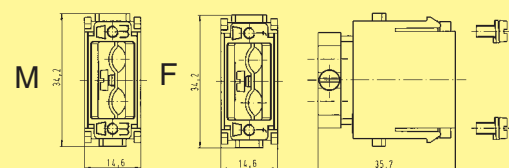


for two cables



**09 14 000 9932**

**09 14 000 9933**

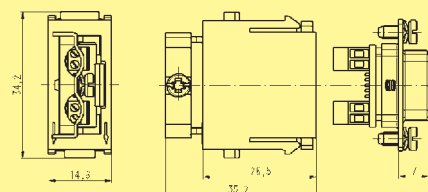


### Han® D-Sub module

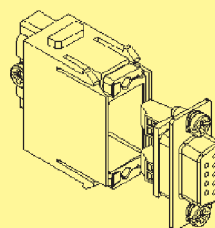
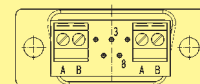
for RS485-based bus systems  
with T-functionality  
with screw terminal



**09 14 009 3151**



Contact arrangement  
View from termination side



Signal	Contact No.
A	8
B	3

Han  
Modular

## 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

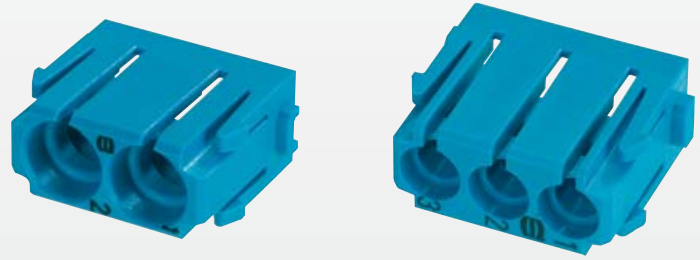
Material	Buna-N
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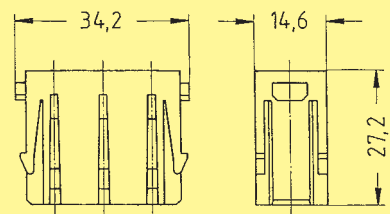
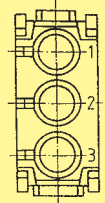
### Shut off valve


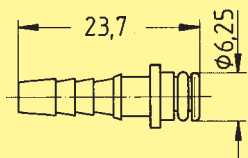
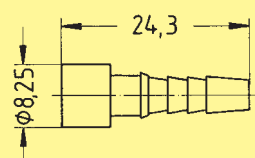

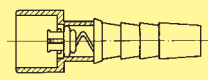
Material	Polypropylene
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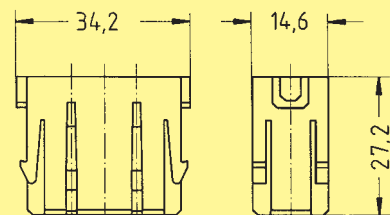
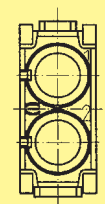
Number of contacts


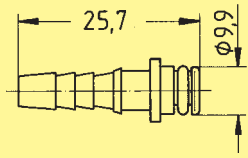
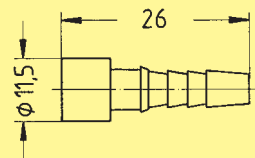

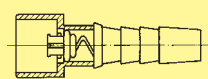
# 2/3



Identification	Part No.		Drawing	Dimensions in mm
	Male insert <sup>2)</sup>	Female insert <sup>2)</sup>		
<b>Pneumatic-module<sup>1)</sup></b> Order contacts separately  for 1.6; 3; 4 mm I/D tube 	<b>09 14 003 4501</b>	<b>09 14 003 4501</b>		 <p>Contact arrangement View from termination side</p>

Identification	Part No.		Drawing	Dimensions in mm
	Male insert <sup>2)</sup>	Female insert <sup>2)</sup>		
<b>Contacts<sup>1)</sup> without shut off</b> for tube internal diameter 1.6 mm 3.0 mm 4.0 mm 	09 14 000 6151 <b>09 14 000 6152</b> 09 14 000 6153	09 14 000 6251 <b>09 14 000 6252</b> 09 14 000 6253	 <p>Male contact</p>	 <p>Female contact</p>
<b>with shut off</b> for tube internal diameter 1.6 mm 3.0 mm 4.0 mm 	- - -	09 14 000 6256 <b>09 14 000 6257</b> <b>09 14 000 6258</b>		 <p>female contact with shut off in closed position</p>

Identification	Part No.		Drawing	Dimensions in mm
	Male insert <sup>2)</sup>	Female insert <sup>2)</sup>		
<b>Pneumatic-module<sup>1)</sup></b> Order contacts separately  for 6 mm I/D tube 	<b>09 14 002 4501</b>	<b>09 14 002 4501</b>		 <p>Contact arrangement View from termination side</p>

Identification	Part No.		Drawing	Dimensions in mm
	Male insert <sup>2)</sup>	Female insert <sup>2)</sup>		
<b>Contacts<sup>1)</sup> without shut off</b> for tube internal diameter 6 mm 	<b>09 14 000 6174</b>	<b>09 14 000 6274</b>	 <p>Male contact</p>	 <p>Female contact</p>
<b>with shut off</b> for tube internal diameter 6 mm 	-	<b>09 14 000 6279</b>		 <p>female contact with shut off in closed position</p>

<sup>1)</sup> Assemble contacts before module is fixed into the frame  
<sup>2)</sup> Male and female module are identical

## Technical characteristics

Specifications                   DIN VDE 0627  
 DIN VDE 0110  
 DIN EN 61 984

Approvals                         c US

**Module**  
 Number of contacts             2  
  
 Insulation resistance           ≥ 10<sup>10</sup> Ω  
 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             ≤ 4 mΩ  
 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             ≤ 3 mΩ  
 Crimp termination  
 - mm<sup>2</sup>                             0.14 - 2.5 mm<sup>2</sup>  
 - AWG                             26 - 14

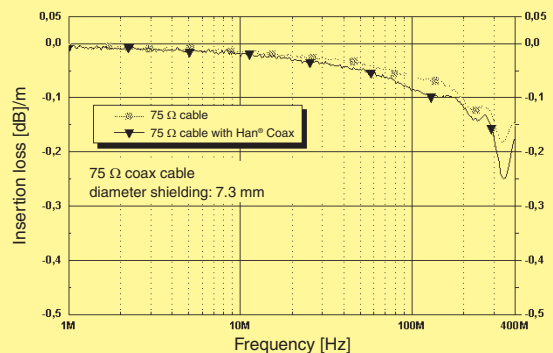
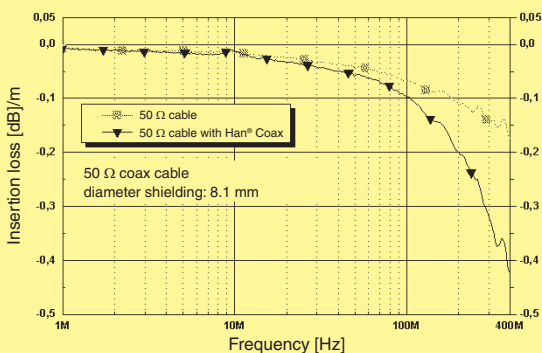
## Features

- 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 mm<sup>2</sup>
- Max. isolating diameter 2.4 mm

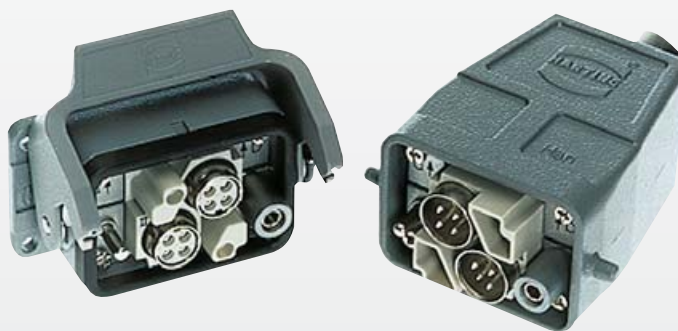
## RF transmission characteristics Han® Coax





Number of contacts

## 2 Quintax Contacts per Han Quintax® Module




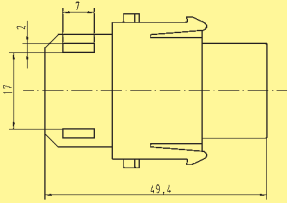
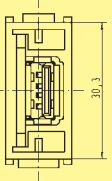

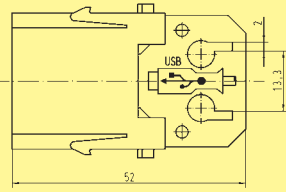
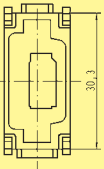

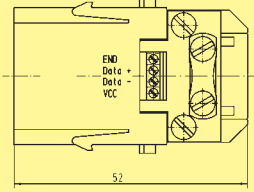
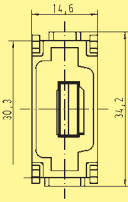

Identification	Part number		Drawing	Dimensions in mm
	Male contact (M)	Female contact (F)		
<b>Module</b> 	<b>09 14 002 3001</b>	<b>09 14 002 3101</b>		<b>Contact arrangement</b> View from the termination side
<b>Quintax metal adapter (option)</b> 	<b>09 14 000 9915</b>	<b>09 14 000 9915</b>		

Han Modular

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

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																					
		Male contacts	Female contacts																							
<b>Han D® Crimp contacts</b> gold plated 	0.14-0.37 0.5 0.75 1.0 1.5 2.5	<b>09 15 000 6124</b> <b>09 15 000 6123</b> <b>09 15 000 6125</b> <b>09 15 000 6122</b> <b>09 15 000 6121</b> <b>09 15 000 6126</b>	<b>09 15 000 6224</b> <b>09 15 000 6223</b> <b>09 15 000 6225</b> <b>09 15 000 6222</b> <b>09 15 000 6221</b> <b>09 15 000 6226</b>	<table border="1"> <thead> <tr> <th>Wire gauge</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm²</td> <td>AWG 26-22</td> <td>0.90 mm</td> </tr> <tr> <td>0.5 mm²</td> <td>AWG 20</td> <td>1.10 mm</td> </tr> <tr> <td>0.75 mm²</td> <td>AWG 18</td> <td>1.30 mm</td> </tr> <tr> <td>1 mm²</td> <td>AWG 18</td> <td>1.45 mm</td> </tr> <tr> <td>1.5 mm²</td> <td>AWG 16</td> <td>1.75 mm</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14</td> <td>2.25 mm</td> </tr> </tbody> </table>	Wire gauge	ø	Stripping length	0.14-0.37 mm²	AWG 26-22	0.90 mm	0.5 mm²	AWG 20	1.10 mm	0.75 mm²	AWG 18	1.30 mm	1 mm²	AWG 18	1.45 mm	1.5 mm²	AWG 16	1.75 mm	2.5 mm²	AWG 14	2.25 mm	
Wire gauge	ø	Stripping length																								
0.14-0.37 mm²	AWG 26-22	0.90 mm																								
0.5 mm²	AWG 20	1.10 mm																								
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1 mm²	AWG 18	1.45 mm																								
1.5 mm²	AWG 16	1.75 mm																								
2.5 mm²	AWG 14	2.25 mm																								

Stock items in bold type

Identification	Part No.	Drawing	Dimensions in mm
<b>Module for patch cable</b> – female 	<b>09 14 001 4701</b>		
<b>Module for patch cable</b> – male 	<b>09 14 001 4601</b>		
<b>Module for screw termination</b> – male 	<b>09 14 001 4651</b>		
<b>Patch cable USB</b> – male / male Style A 	Length: 2 m <b>39 50 903 0050</b> 5 m <b>39 50 903 0051</b>		

## 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

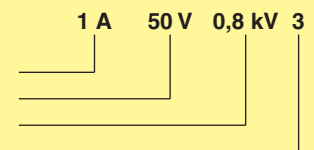
Specifications DIN VDE 0627  
DIN VDE 0110  
DIN EN 61 984

### Inserts

Number of contacts **4**

Electrical data  
acc. to DIN EN 61 984

Working current  
Working voltage  
Rated impulse voltage  
Pollution degree



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

**Stock items in bold type**

Identification

Part No.

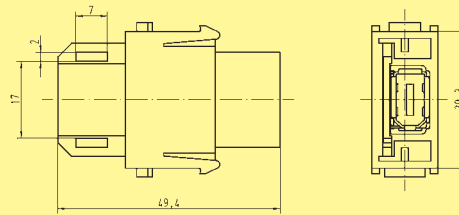
Drawing

Dimensions in mm

Module  
for patch cable  
– female



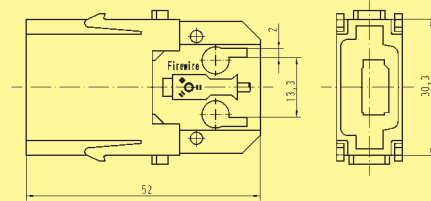
**09 14 001 4711**



Module  
for patch cable  
– male



**09 14 001 4611**



Han  
Modular

## 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
- Compatible to IEEE 1394

## Technical characteristics

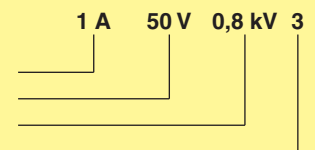
Specifications DIN VDE 0627  
DIN VDE 0110  
DIN EN 61 984

### Inserts

Number of contacts 6

Electrical data  
acc. to DIN EN 61 984


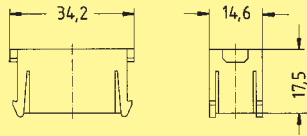
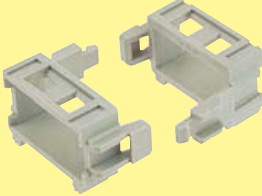
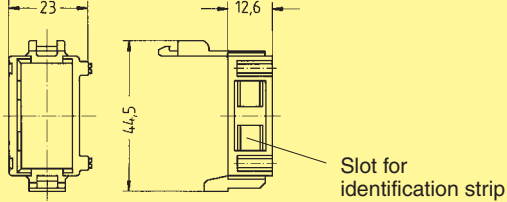
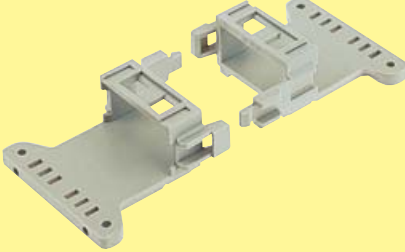
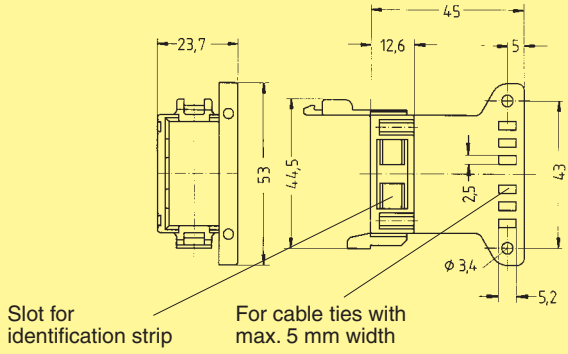
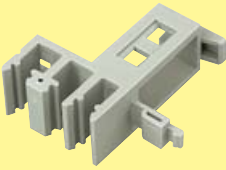
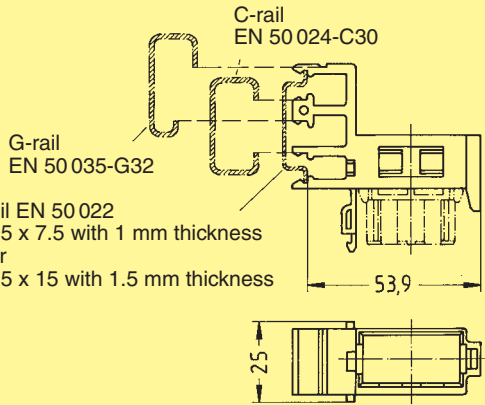
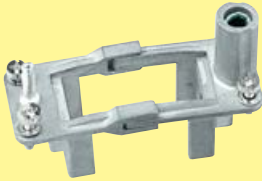
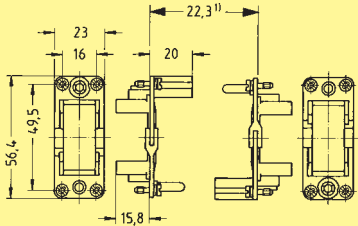
Working current  
Working voltage  
Rated impulse voltage  
Pollution degree




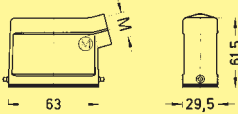
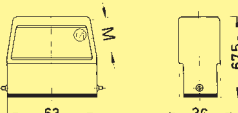

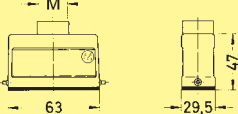
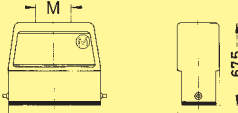

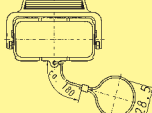

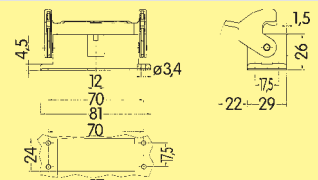
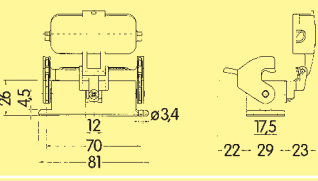

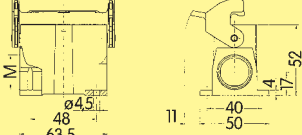
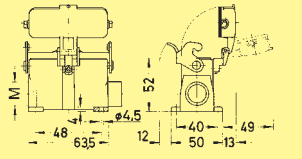
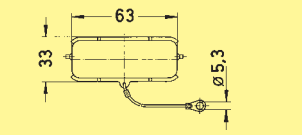

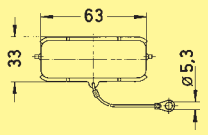
Insulation resistance ≥ 10<sup>10</sup> Ω  
Material Polycarbonate  
Limiting temperatures - 40 °C / + 125 °C  
Flammability acc. to UL 94 V 0  
Mechanical working life  
- mating cycles ≥ 500

Stock items in bold type

Han  
Modular

Identification	Part No.	Drawing
<p><b>Han-Modular® Dummy module</b> to fill up module spaces not in use in the frame</p> 	<p><b>09 14 000 9950</b></p>	
<p><b>Module clamp</b> without strain relief</p>  <p>Delivery comprises 2 module clamps</p>	<p><b>09 14 000 0301</b></p>	 <p>Slot for identification strip</p>
<p><b>Module clamp</b> with strain relief</p>  <p>Delivery comprises 2 module clamps</p>	<p><b>09 14 000 0302</b></p>	 <p>Slot for identification strip</p> <p>For cable ties with max. 5 mm width</p>
<p><b>Module clamp</b> for rail</p>  <p>Delivery comprises 2 module clamps</p>	<p><b>09 14 000 0303</b></p>	 <p>C-rail EN 50 024-C30</p> <p>G-rail EN 50 035-G32</p> <p>rail EN 50 022 -35 x 7.5 with 1 mm thickness or -35 x 15 with 1.5 mm thickness</p>
<p><b>Frame</b> for 1 module in Han® 10 A housing</p> 	<p><b>09 14 000 0304</b></p>	<p><b>Hood</b> <span style="float: right;"><b>Housing</b></span></p>  <p><sup>1)</sup> Distance for electrical and FOC contacts max. 24 mm; for pneumatic contacts max. 23.5 mm</p>
<p><b>Identification strips</b> 20 pieces in one block – 9 mm width 20 mm length</p>	<p><b>09 33 000 9982</b></p>	

for 1 module


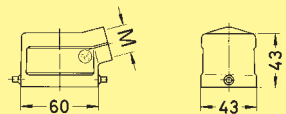


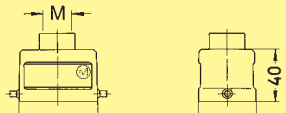


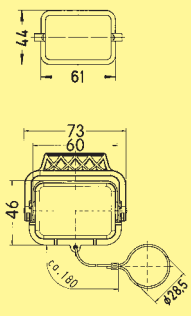

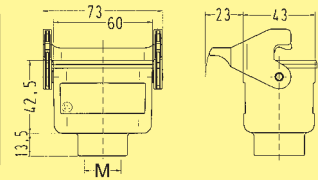

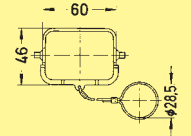
Identification	Part No.			Drawing	Dimensions in mm	
	Low construction	High construction	M			
Hoods	<b>Hoods side-entry</b> 	<b>19 20 010 1540</b>		20	 	
			<b>19 20 010 0546</b>	25		
	<b>Hoods top-entry</b> 	<b>19 20 010 1440</b>		20	 	
			<b>19 20 010 0446</b>	25		
	<b>Protection covers for hoods</b> 	<b>09 20 010 5423</b>				
	Housings	<b>Housings bulkhead mounting</b> 	<b>09 20 010 0301</b>		—	 
with thermo-plastic cover <b>09 20 010 0321<sup>1)</sup></b>				—		
<b>Housings surface mounting</b> 		1 side-entry	<b>19 20 010 0251</b>		1 x 25	  
		2 side-entries	19 20 010 0290		2 x 20	
		with thermo-plastic cover 19 20 010 0295		2 x 20		
<b>Protection covers for housings</b> 		<b>09 20 010 5425</b>				

Han Modular

<sup>1)</sup> for female insert

Stock items in bold type

for 2 modules


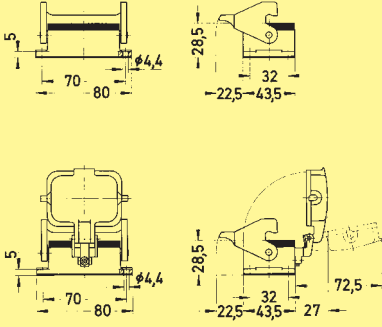

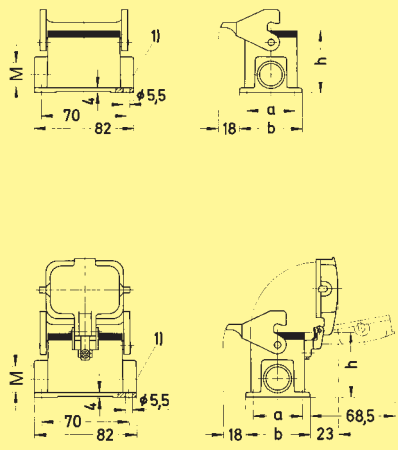


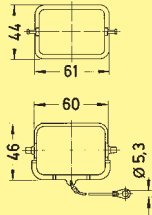
Identification	Part No.		M	Drawing	Dimensions in mm
	Low construction	High construction			
<b>Hoods side-entry</b> 	<b>19 30 006 1540</b> <b>19 30 006 1541</b>	<b>19 30 006 0546</b> <b>19 30 006 0547</b>	20		
			25		
<b>Hoods top-entry</b> 	<b>19 30 006 1440</b>	<b>19 30 006 0446</b> <b>19 30 006 0447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

Stock items in bold type

Han  
Modular

Hoods


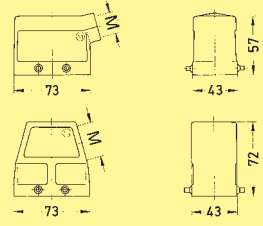

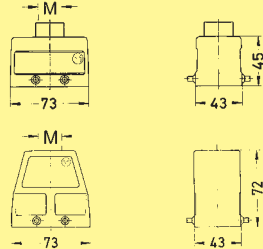

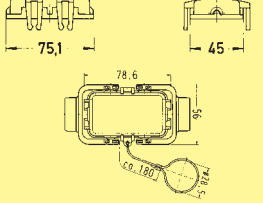

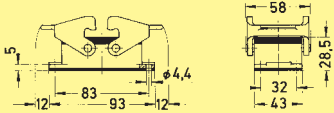

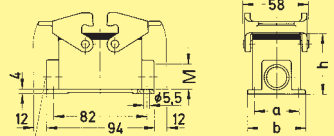

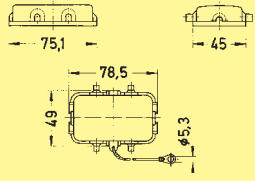

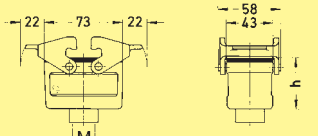

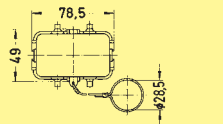
for 2 modules

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

Han Modular

Housings

for 3 modules

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

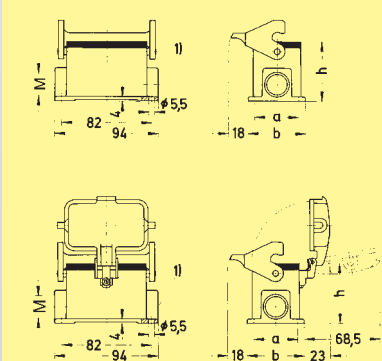
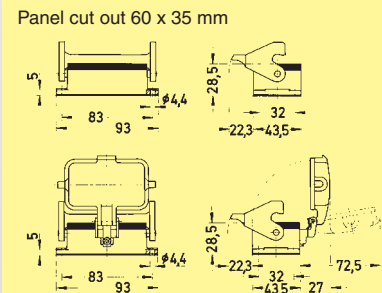
Stock items in bold type



for 3 modules

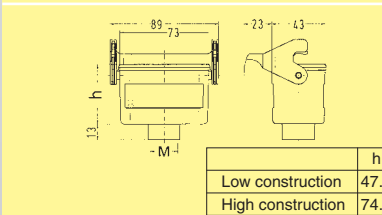
Identification	Part No.			Drawing	Dimensions in mm
	Low construction	High construction	M		
Hoods	Hoods side-entry 	<b>19 30 010 1540</b>		20	
		<b>19 30 010 1541</b>		25	
			<b>19 30 010 0547</b>	32	
	Hoods top-entry 	<b>19 30 010 1440</b>		20	
		<b>19 30 010 1441</b>		25	
			<b>19 30 010 0447</b>	32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

Han Modular




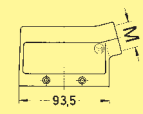

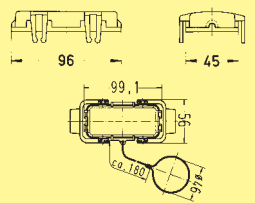

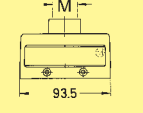


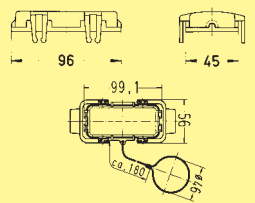

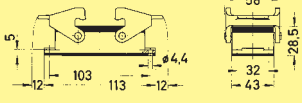
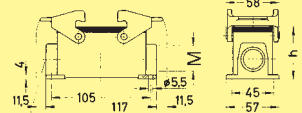

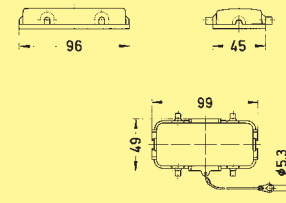

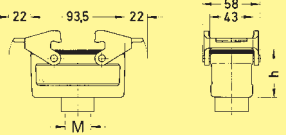

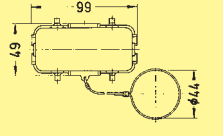
1) Blind way for one cable entry

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



Stock items in bold type

for 4 modules

Identification	Part No.			Drawing	Dimensions in mm					
	Low construction	High construction	M							
<b>Hoods</b> Hoods side-entry Hoods top-entry Protection covers for housings thermoplastic/metal	 <b>19 30 016 1521</b> <b>19 30 016 1522</b>	<b>19 30 016 0527</b> <b>19 30 016 0528</b>	25 32  32 40	  	62.5 43 76 45					
	 <b>19 30 016 1421</b> <b>19 30 016 1422</b>	<b>19 30 016 0427</b> <b>19 30 016 0428</b>	25 32  32 40	 	45 43 76 45					
	 <b>09 30 016 5401</b>  <b>09 30 016 5422</b>				96 45 99.1 35 180 37.4					
	<b>Housing bulkhead mounting</b> 	<b>09 30 016 0301</b>		Panel cut out 82 x 35 mm 	58 28.5 32 43					
	<b>Housings surface mounting</b>	<b>1 side-entry</b> <b>19 30 016 1231</b>	<b>19 30 016 0232</b>	25 32		58 45 57				
	<b>2 side-entries</b> <b>19 30 016 1271</b>	<b>19 30 016 0271</b> <b>19 30 016 0272</b> <b>19 30 016 0273</b>	25 32 40	Blind way for one cable entry <table border="1"> <thead> <tr> <th></th> <th>h</th> </tr> </thead> <tbody> <tr> <td>Low construction</td> <td>56</td> </tr> <tr> <td>High construction</td> <td>81</td> </tr> </tbody> </table>		h	Low construction	56	High construction	81
	h									
Low construction	56									
High construction	81									
<b>Housings</b> Protection covers for housings bulkhead mounting thermoplastic/metal Hoods cable to cable Protection cover for hoods cable to cable metal	 <b>09 30 016 5405</b>  <b>09 30 016 5425</b>				96 45 99 49 45.3					
	 <b>19 30 016 1731</b>	<b>19 30 016 0736</b> <b>19 30 016 0737</b>	25 32		22 93.5 22 58 43 h					
	 <b>09 30 016 5426</b>				99 49 44.4					




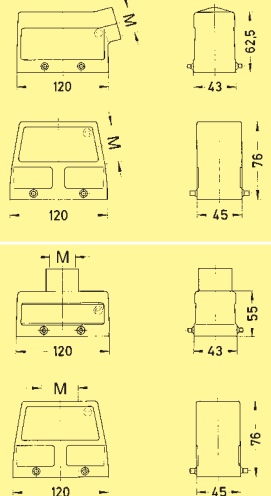
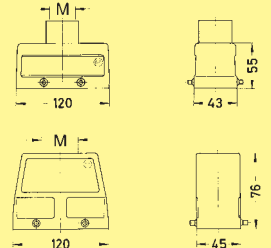
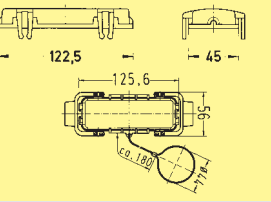






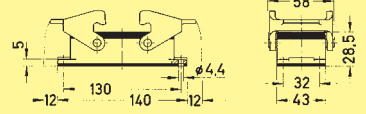
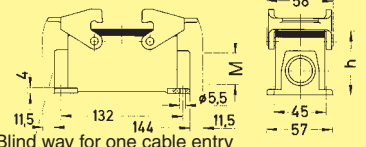
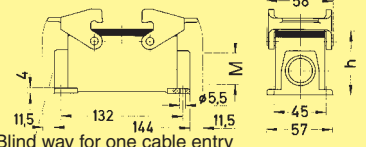
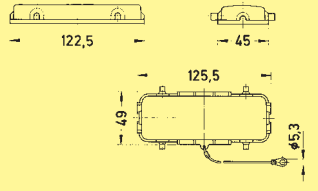
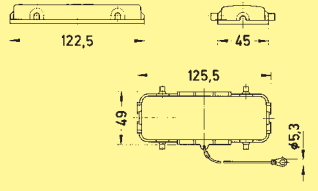
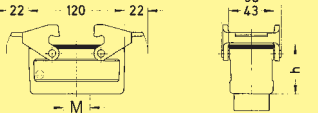
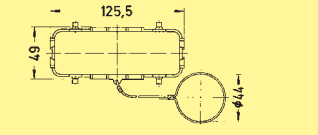
Stock items in bold type

for 4 modules

Identification	Part No.			Drawing	Dimensions in mm						
	Low construction	High construction	M								
Hoods	<b>Hoods side-entry</b> 	<b>19 30 016 1541</b> 19 30 016 1542		25 32							
			<b>19 30 016 0547</b> 19 30 016 0548	32 40							
	<b>Hoods top-entry</b> 	<b>19 30 016 1441</b> 19 30 016 1442		25 32							
			<b>19 30 016 0447</b> 19 30 016 0448	32 40							
Housings	<b>Housings bulkhead mounting</b> 		<b>09 30 016 0307</b>  with thermo- plastic cover <b>09 30 016 0306</b>  with metal cover <b>09 30 016 0318</b>	—	Panel cut out 82 x 35 mm 						
	<b>Housings surface mounting</b>	1 side-entry	<b>19 30 016 1251</b>	<b>19 30 016 0252</b>	25 32						
		2 side-entries	<b>19 30 016 1291</b>	<b>19 30 016 0291</b> <b>19 30 016 0292</b>	25 32						
		1 side-entry	with thermo- plastic cover <b>19 30 016 1256</b>		25						
		2 side-entries	with thermo- plastic cover <b>19 30 016 1296</b>	with thermo- plastic cover <b>19 30 016 0297</b>	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"> <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
		h									
	Low construction	56									
	High construction	81									
<b>Hoods cable to cable</b> 		<b>19 30 016 1751</b>	<b>19 30 016 0757</b>	25 32	<table border="1"> <tr><td></td><td>h</td></tr> <tr><td>Low construction</td><td>47.5</td></tr> <tr><td>High construction</td><td>78.5</td></tr> </table>		h	Low construction	47.5	High construction	78.5
	h										
Low construction	47.5										
High construction	78.5										
<b>Dust protection cover</b> 		<b>09 30 016 5406</b>									

Han Modular

for 6 modules

Identification	Part No.			Drawing	Dimensions in mm							
	Low construction	High construction	M									
<b>Hoods</b> Hoods side-entry  Hoods top-entry  Protection covers for hoods thermoplastic/metal 	<b>19 30 024 1521</b> <b>19 30 024 1522</b>	<b>19 30 024 0527</b> <b>19 30 024 0528</b>	25 32  32 40									
	<b>19 30 024 1422</b>	<b>19 30 024 0427</b>  <b>19 30 024 0428</b>	32  40									
	<b>09 30 024 5401</b>  <b>09 30 024 5422</b>											
<b>Housings</b> Housing bulkhead mounting  Housings surface mounting 1 side-entry  2 side-entries  Protection covers for housings bulkhead/surface mounting thermoplastic/metal  Hoods cable to cable  Protection cover for hoods metal 	<b>09 30 024 0301</b>		—	Panel cut out 108 x 35 mm 								
	<b>19 30 024 1231</b>	<b>19 30 024 0232</b>	25 32									
	<b>19 30 024 1271</b>	<b>19 30 024 0272</b> <b>19 30 024 0273</b>	25 32 40	Blind way for one cable entry <table border="1"> <thead> <tr> <th></th> <th>h</th> </tr> </thead> <tbody> <tr> <td>Low construction</td> <td>56</td> </tr> <tr> <td>High construction</td> <td>81</td> </tr> </tbody> </table>		h	Low construction	56	High construction	81		
		h										
	Low construction	56										
	High construction	81										
<b>09 30 024 5405</b>												
<b>09 30 024 5425</b>												
<b>19 30 024 1732</b>	<b>19 30 024 0737</b> <b>19 30 024 0738</b>	32 40		<table border="1"> <thead> <tr> <th></th> <th>h</th> </tr> </thead> <tbody> <tr> <td>Low construction</td> <td>57.5</td> </tr> <tr> <td>High construction</td> <td>78.5</td> </tr> </tbody> </table>		h	Low construction	57.5	High construction	78.5		
	h											
Low construction	57.5											
High construction	78.5											
<b>09 30 024 5426</b>												

Stock items in bold type

for 6 modules

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

Han Modular

	h
Low construction	56
High construction	81

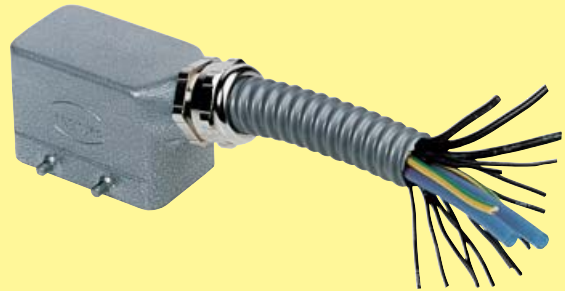
	h
Low construction	57.5
High construction	78.5

Stock items in bold type

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



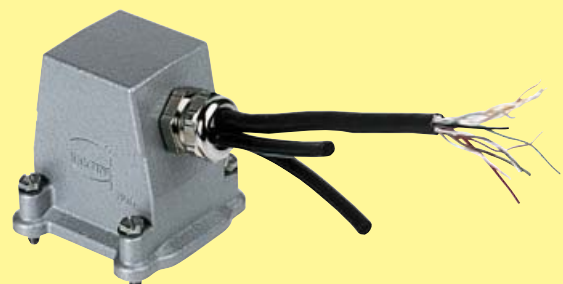
## Hood with several cable entries

- ❑ 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



Han  
Modular