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Features

- High current rated compact designed connector for hoods/housings size Han® 3 A
- Mating compatible to the axial screw version and provides 16 coding options
- Using of standard Han C crimp contacts and crimp tools which allows a cost optimised production of high quantities
- Finger protected male and female contacts

Remark

- By using in Han® 3 A HPR hoods/housings the sealing on the insert has to be removed.

Technical characteristics

Inserts

Number of contacts	2 + PE
Electrical data	
acc. to EN 61 984	40 A 400 V 6 kV 3
Rated current	40 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3

Rated voltage	
acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 µm Ag
Contact resistance	≤ 1 mΩ
Crimp termination	
- mm ²	1.5 ... 10 mm ²
- AWG	16 ... 8

Tools

see chapter 99

Hoods/Housings

Selection of hoods/housings see chapter 31

Plastic hoods/housings

Material	polycarbonate
Flammability acc. to UL 94	V 0
Degree of protection	
acc. to DIN EN 60 529	
for coupled connector	IP 67

Metal hoods/housings

Material	zinc die-cast
Degree of protection	
acc. to DIN EN 60 529	
for coupled connector	IP 44
	IP 67 is achieved with seal screw 09 20 000 9918

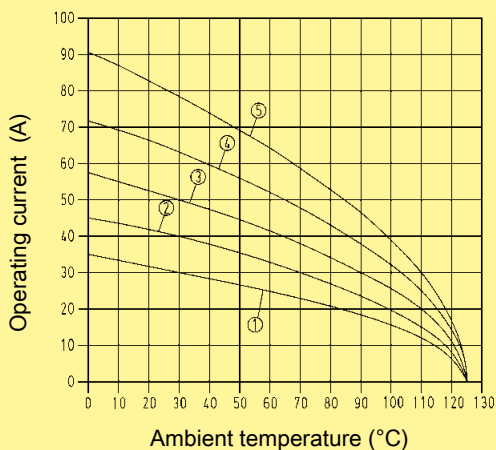
Accessories

Cable clamps	chapter 95
Sealing screw	chapter 95

Current Carrying Capacity

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

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

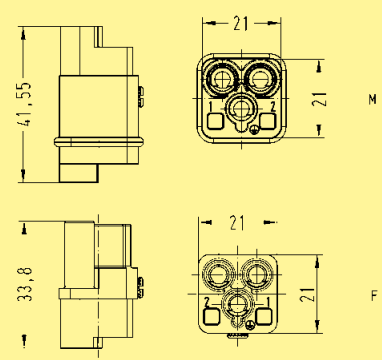
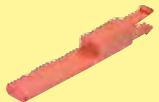



- ① wire gauge: 1.5 mm²
- ② wire gauge: 2.5 mm²
- ③ wire gauge: 4 mm²
- ④ wire gauge: 6 mm²
- ⑤ wire gauge: 10 mm²


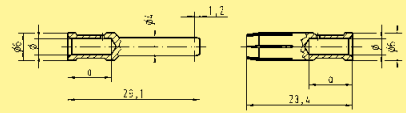
Number of contacts

2 + 



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 12 002 3051	09 12 002 3151	 <p>41,55 21 21 33,8 21 21</p> <p>M F</p> <p>Contact arrangement view from termination side</p>	
Coding element 	09 12 000 9922	09 12 000 9922	 <p>30,1 4,3 4,3</p>	

Han Q

Identification	Wire gauge (mm ²)	Part number		Drawing	Dimensions in mm																														
		Male contact	Female contact																																
Crimp contacts Power contacts silver plated 	1.5 2.5 4 6 10	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108 09 32 000 6109	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208 09 32 000 6209	 <p>1,2 1,1 23,1 23,6</p>	<table border="1"> <thead> <tr> <th colspan="3">Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5</td> <td>mm²</td> <td>AWG 16</td> <td>1.75</td> <td>9.5 mm</td> </tr> <tr> <td>2.5</td> <td>mm²</td> <td>AWG 14</td> <td>2.25</td> <td>9.5 mm</td> </tr> <tr> <td>4</td> <td>mm²</td> <td>AWG 12</td> <td>2.85</td> <td>9.5 mm</td> </tr> <tr> <td>6</td> <td>mm²</td> <td>AWG 10</td> <td>3.5</td> <td>9.5 mm</td> </tr> <tr> <td>10</td> <td>mm²</td> <td>AWG 8</td> <td>4.3</td> <td>12 mm</td> </tr> </tbody> </table>	Wire gauge			∅	Stripping length	1.5	mm ²	AWG 16	1.75	9.5 mm	2.5	mm ²	AWG 14	2.25	9.5 mm	4	mm ²	AWG 12	2.85	9.5 mm	6	mm ²	AWG 10	3.5	9.5 mm	10	mm ²	AWG 8	4.3	12 mm
Wire gauge			∅	Stripping length																															
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10	mm ²	AWG 8	4.3	12 mm																															

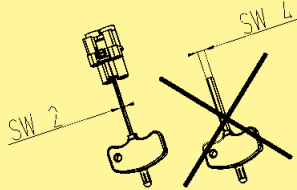
Stock items in bold type

Features

- Compact designed connector for high current ratings
- 16 coding options
- For hoods/housings size Han® 3 A
- Finger protected male and female contacts
- Assembly without special tool by axial screw termination

Attention

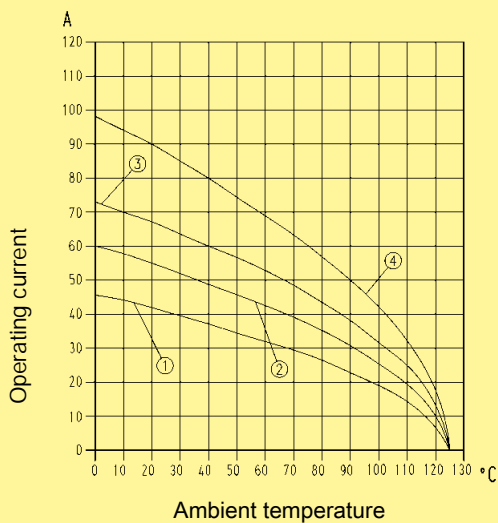
- By using in Han® 3 A HPR hoods/housings the sealing on the insert has to be removed.
- For termination please use only hexagonal screw driver with wrench size SW 2.
- If PE contact is not used:
Please screw the PE contact maximal on both sides clockwise with a hexagonal screwdriver, wrench size SW 2.



Current carrying capacity

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

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



Wire gauge:

- ① 2.5 mm²
- ② 4 mm²
- ③ 6 mm²
- ④ 10 mm²

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

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

Contacts

Material	copper alloy
Surface	- hard-silver plated
Contact resistance	3 μm Ag
Axial screw termination	≤ 1 mΩ
- mm ²	2.5 ... 10 mm ²
- AWG	14 ... 8
Tightening torque	1.8 Nm
Stripping length	8 mm +1

Hoods/Housings

Selection of hoods/housings see chapter 31

Plastic hoods/housings

Material polycarbonate
Flammability acc. to UL 94 V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector IP 67

Hoods/Housings, metal

Material zinc die-cast
Degree of protection acc. to DIN EN 60 529 for coupled connector IP 44
IP 67 is achieved with seal screw 09 20 000 9918

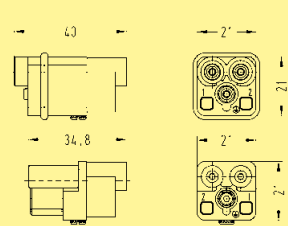
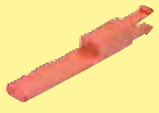
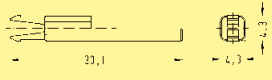
Accessories

Cable clamps chapter 95
Sealing screw chapter 95



Number of contacts

2 + 



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Axial screw terminal				
2.5 ... 6 mm ²	09 12 002 2653	09 12 002 2753		
4 ... 10 mm ²	09 12 002 2651	09 12 002 2751		
Coding element				
	09 12 000 9922	09 12 000 9922		

Han Q

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

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05

Stock items in bold type

Features

- High current rated compact designed connector for hoods/housings size Han® 3 A
- Mating compatible to the axial screw version and provides 16 coding options
- Using of standard Han C crimp contacts and crimp tools which allows a cost optimised production of high quantities
- For high voltages, please use heat shrink tube
- Finger protected male and female contacts

Remark

- By using in Han® 3 A HPR hoods/housings the sealing on the insert has to be removed.

Technical characteristics

Inserts

Number of contacts	2 + PE
Electrical data	
acc. to EN 61 984	40 A 830 V 6 kV 3
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	6 kV
Pollution degree	3

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

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
Contact resistance	$\leq 1 \text{ m}\Omega$
Crimp termination	
- mm^2	1.5 ... 10 mm^2
- AWG	16 ... 8

Tools

see chapter 99

Hoods/Housings

Selection of hoods/housings see chapter 31

Plastic hoods/housings

Material	polycarbonate
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 67

Metal hoods/housings

Material	zinc die-cast
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 44 IP 67 is achieved with seal screw 09 20 000 9918

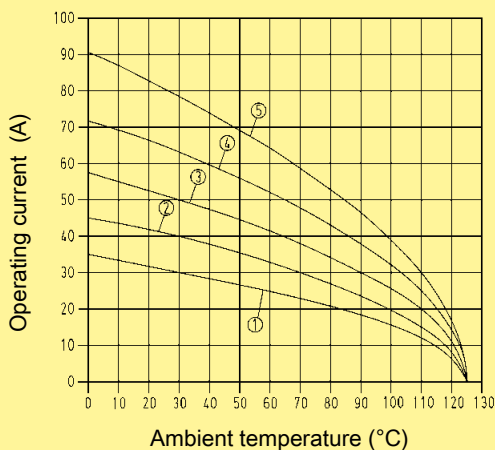
Accessories

Cable clamps	chapter 95
Sealing screw	chapter 95

Current Carrying Capacity

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

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



- ① wire gauge: 1.5 mm^2
- ② wire gauge: 2.5 mm^2
- ③ wire gauge: 4 mm^2
- ④ wire gauge: 6 mm^2
- ⑤ wire gauge: 10 mm^2

Number of contacts

2 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal with heat shrink tube order crimp contacts separately	09 12 002 3052	09 12 002 3152		M
Coding element	09 12 000 9922	09 12 000 9922		F

Han Q

Identification	Wire gauge (mm ²)	Part number		Drawing	Dimensions in mm																														
		Male contact	Female contact																																
Crimp contacts Power contacts silver plated	1.5 2.5 4 6 10	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108 09 32 000 6109	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208 09 32 000 6209		<table border="1"> <thead> <tr> <th colspan="3">Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5</td> <td>mm²</td> <td>AWG 16</td> <td>1.75</td> <td>9.5 mm</td> </tr> <tr> <td>2.5</td> <td>mm²</td> <td>AWG 14</td> <td>2.25</td> <td>9.5 mm</td> </tr> <tr> <td>4</td> <td>mm²</td> <td>AWG 12</td> <td>2.85</td> <td>9.5 mm</td> </tr> <tr> <td>6</td> <td>mm²</td> <td>AWG 10</td> <td>3.5</td> <td>9.5 mm</td> </tr> <tr> <td>10</td> <td>mm²</td> <td>AWG 8</td> <td>4.3</td> <td>12 mm</td> </tr> </tbody> </table>	Wire gauge			∅	Stripping length	1.5	mm ²	AWG 16	1.75	9.5 mm	2.5	mm ²	AWG 14	2.25	9.5 mm	4	mm ²	AWG 12	2.85	9.5 mm	6	mm ²	AWG 10	3.5	9.5 mm	10	mm ²	AWG 8	4.3	12 mm
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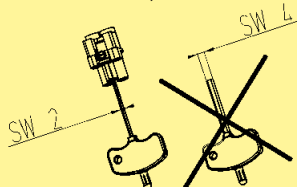
13
07

Features

- Compact designed connector for high current ratings with axial screw terminal
- 16 coding options
- For hoods/housings size Han® 3 A
- Finger protected male and female contacts
- For high voltages please use heat shrink tube (included in delivery range)

Attention

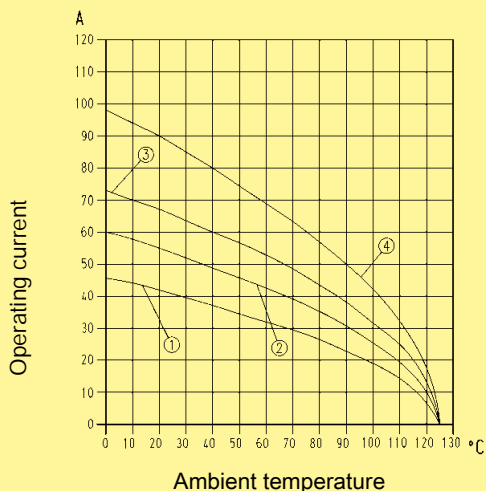
- By using in Han® 3 A HPR hoods/housings the sealing on the insert has to be removed.
- For termination please use only hexagonal screw driver with wrench size SW 2.
- If PE contact is not used:
Please screw the PE contact maximal on both sides clockwise with a hexagonal screwdriver, wrench size SW 2.



Current carrying capacity

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

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



- Wire gauge:
- ① 2.5 mm²
 - ② 4 mm²
 - ③ 6 mm²
 - ④ 10 mm²

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	2 + PE
Electrical data acc. to EN 61 984	40 A 830 V 6 kV 3
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts	
Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
Contact resistance	≤ 1 mΩ
Axial screw termination	
- mm ²	2.5 ... 10 mm ²
- AWG	14 ... 8
Tightening torque	1.8 Nm
Stripping length	8 mm ⁺¹

Hoods/Housings	
Selection of hoods/housings	see chapter 31

Plastic hoods/housings	
Material	polycarbonate
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 67
Hoods/Housings, metal	
Material	zinc die-cast
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 44 IP 67 is achieved with seal screw 09 20 000 9918

Accessories	
Cable clamps	chapter 95
Sealing screw	chapter 95

Number of contacts

2 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Axial screw terminal with heat shrink tube				
2.5 ... 6 mm ²	09 12 002 2654	09 12 002 2754		
4 ... 10 mm ²	09 12 002 2652	09 12 002 2752		
Coding element				

Han Q

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

13
09

Stock items in bold type

Features

- 5 contact chambers for crimp contacts of Han E® series
- Space-saving and compact design
- Leading protective ground with screw terminal
- Compatible with plastic and metal hoods of series Han® 3 A

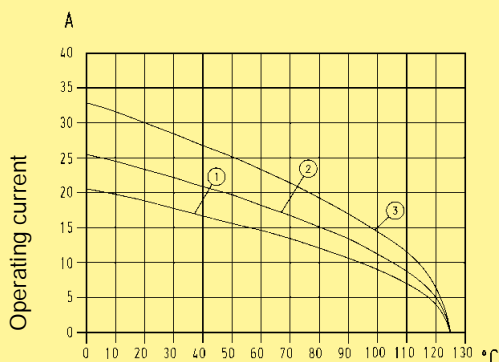
Attention

By using in Han® 3 A HPR hoods/housings the sealing on the insert has to be removed.

Current carrying capacity

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

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



Ambient temperature

- Wire gauge:
- ① 1.0 mm²
 - ② 1.5 mm²
 - ③ 2.5 mm²

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

Number of contacts	5 + PE
Electrical data acc. to EN 61 984	16 A 230/400 V 4 kV 3
Rated current	16 A
Rated voltage conductor - ground	230 V
Rated voltage conductor - conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Pollution degree 2 also	16 A 320/500 V 4 kV 2
Rated voltage acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	≤ 1 mΩ
Crimp terminal	
- mm ²	0.14 ... 2.5 mm ²
- AWG	26 ... 14
PE screw terminal	
- mm ²	2.5 mm ²
- AWG	14

Hoods/Housings

Selection of hoods/housings see chapter 31

Plastic hoods/housings

Material polycarbonate
Flammability acc. to UL 94 V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector IP 67

Hoods/Housings, metal

Material zinc die-cast
Degree of protection acc. to DIN EN 60 529 for coupled connector IP 44
IP 67 is achieved with seal screw 09 20 000 9918

Accessories

Crimping tools chapter 99
Cable clamps chapter 95
Sealing screw chapter 95

Number of contacts

5 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 12 005 3001	09 12 005 3101	<p>Contact arrangement view from termination side</p>	
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.

Han Q

Identification	Wire gauge (mm ²)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Crimp contacts Power contacts silver plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202		
gold plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	09 33 000 6117 09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123	09 33 000 6217 09 33 000 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223		
Relay contact silver plated 	0.75-1 1.5 2.5	09 33 000 6109 09 33 000 6110 09 33 000 6111			
F.O. contacts for 1 mm plastic fibre		20 10 001 3311	20 10 001 3321		

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

* on the back crimp collar

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

Stock items in bold type

Features

- Innovative Han-Quick Lock® termination technology with up to 20% reduced wiring times
- Field assembly without special tools
- Compatible with Han® Q 5/0 standard crimp inserts
- Compatible with plastic and metal hoods of series Han® 3 A
- Vibration and shock resistant

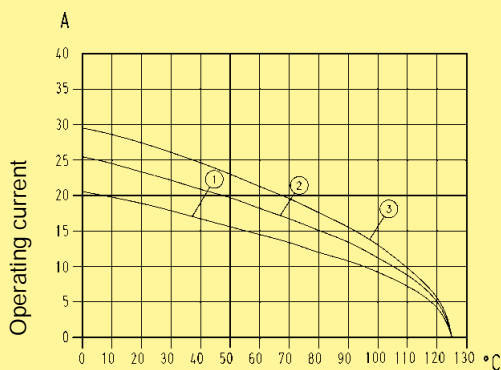
Attention

By using in Han® 3 A HPR hoods/housings the sealing on the insert has to be removed.

Current carrying capacity

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


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



Ambient temperature

- Wire gauge:
- ① 1.0 mm²
 - ② 1.5 mm²
 - ③ 2.5 mm²

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	5 + PE
Electrical data	
acc. to EN 61 984	16 A 230/400 V 4 kV 3
Rated current	16 A
Rated voltage conductor - ground	230 V
Rated voltage conductor - conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage	
acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts	
Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
Contact resistance	≤ 1 mΩ
Termination	Han-Quick Lock®
<u>blue slide</u>	
Terminal wire gauge	0.5 ... 2.5 mm ² (AWG 20 - 14)
max. Insulation diameter	3.6 mm
<u>black slide</u>	
Terminal wire gauge	0.25 ... 1.5 mm ² (AWG 23 - 16)
max. Insulation diameter	3.0 mm

Hoods/Housings	
Selection of hoods/housings	see chapter 31
Plastic hoods/housings	
Material	polycarbonate
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 67
Hoods/Housings, metal	
Material	zinc die-cast
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 44
	IP 67 is achieved with seal screw 09 20 000 9918

Accessories	
Cable clamps	chapter 95
Sealing screw	chapter 95

Number of contacts

5 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han-Quick Lock® 				
0.5 ... 2.5 mm ²	09 12 005 2633	09 12 005 2733		
0.25 ... 1.5 mm ²	09 12 005 2634	09 12 005 2734		

Han
Q

Features

- 7 contact chambers for crimp contacts of Han D® series
- Space-saving and compact design
- Leading protective ground with screw terminal
- Compatible with plastic and metal hoods of series Han® 3 A
- provides 6 coding positions by using separate coding pins

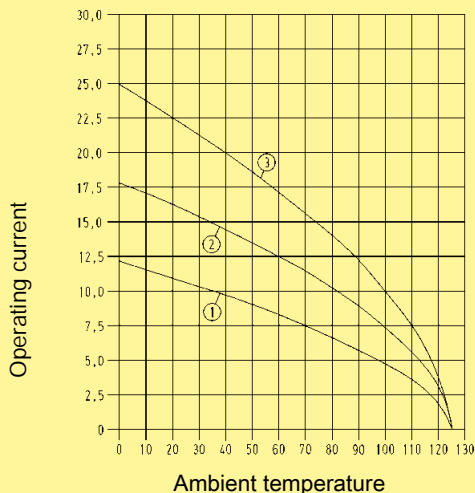
Attention

By using in Han® 3 A HPR hoods/housings the sealing on the insert has to be removed.

Current carrying capacity

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

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



- Wire gauge:
- ① 0.75 mm²
 - ② 1.5 mm²
 - ③ 2.5 mm²

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	7 + PE
Electrical data acc. to EN 61 984	10 A 400 V 6 kV 3
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Pollution degree 2 also	10 A 400/690 V 6 kV 2
Rated voltage acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts	
Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	≤ 3 mΩ
Crimp terminal	
- mm ²	0.14 ... 2.5 mm ²
- AWG	26 ... 14
PE screw terminal	
- mm ²	2.5 mm ²
- AWG	14

Hoods/Housings	
Selection of hoods/housings	see chapter 31
Plastic hoods/housings	
Material	polycarbonate
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 67
Hoods/Housings, metal	
Material	zinc die-cast
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 44 IP 67 is achieved with seal screw 09 20 000 9918

Accessories	
Crimping tools	chapter 99
Cable clamps	chapter 95
Sealing screw	chapter 95

Number of contacts

7 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 12 007 3001	09 12 007 3101	<p>Contact arrangement view from termination side</p>	
Coding pins 	09 12 000 9901	09 12 000 9902		

Han Q

Identification	Wire gauge (mm ²)	Part number		Drawing	Dimensions in mm																																			
		Male contact	Female contact																																					
Crimp contacts Power contacts silver plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206																																					
gold plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226	<table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>Ø</th> <th colspan="2">Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37</td> <td>mm²</td> <td>AWG 26-22</td> <td>0.9</td> <td>8 mm</td> </tr> <tr> <td>0.5</td> <td>mm²</td> <td>AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75</td> <td>mm²</td> <td>AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1</td> <td>mm²</td> <td>AWG 16</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5</td> <td>mm²</td> <td>AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5</td> <td>mm²</td> <td>AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table>	Wire gauge		Ø	Stripping length		0.14-0.37	mm ²	AWG 26-22	0.9	8 mm	0.5	mm ²	AWG 20	1.1	8 mm	0.75	mm ²	AWG 18	1.3	8 mm	1	mm ²	AWG 16	1.45	8 mm	1.5	mm ²	AWG 16	1.75	8 mm	2.5	mm ²	AWG 14	2.25	6 mm	
Wire gauge		Ø	Stripping length																																					
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1.5	mm ²	AWG 16	1.75	8 mm																																				
2.5	mm ²	AWG 14	2.25	6 mm																																				
F.O. contacts for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221																																					

Stock items in bold type


Features

- 12 contact chambers for crimp contacts of Han D® series
- 1 PE contact with innovative Han-Quick Lock® termination technology
- 2 coding pins offering 16 coding possibilities
- Inserts suitable for metal and plastic hoods and housings of the series Han® 3 A

Attention

By using in Han® 3 A HPR hoods/housings the sealing on the insert has to be removed.

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	12 + PE
Electrical data acc. to EN 61 984	10 A 400 V 6 kV 3
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Pollution degree 2 also	10 A 400/690 V 6 kV 2
Rated voltage acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts	
Material	copper alloy
Surface	
- hard-silver plated	3 µm Ag
- hard-gold plated	2 µm Au over 3 µm Ni
Contact resistance	≤ 3 mΩ
Crimp terminal	
- mm ²	0.14 ... 2.5 mm ²
- AWG	26 ... 14
Termination PE contact	Han-Quick Lock®
<u>blue slide</u>	
Terminal wire gauge	0.5 ... 2.5 mm ² (AWG 20 - 14)
max. Insulation diameter	3.6 mm
<u>black slide</u>	
Terminal wire gauge	0.25 ... 1.5 mm ² (AWG 23 - 16)
max. Insulation diameter	3.0 mm

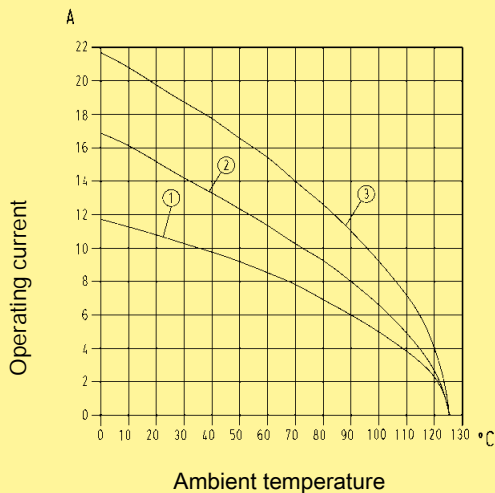
Hoods/Housings	
Selection of hoods/housings	see chapter 31
Plastic hoods/housings	
Material	polycarbonate
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 67
Hoods/Housings, metal	
Material	zinc die-cast
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 44 IP 67 is achieved with seal screw 09 20 000 9918

Accessories	
Crimping tools	chapter 99
Cable clamps	chapter 95
Sealing screw	chapter 95

Current carrying capacity


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

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


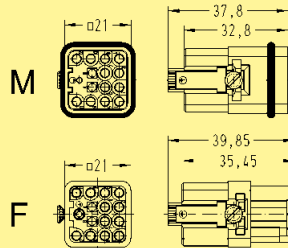

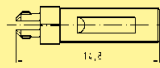


- Wire gauge:
- ① 0.75 mm²
 - ② 1.5 mm²
 - ③ 2.5 mm²



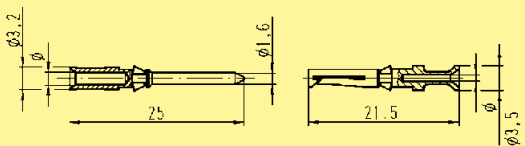
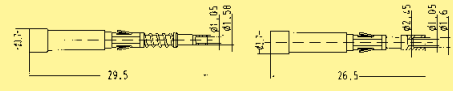
Number of contacts

12 + 



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp termination/ Han-Quick Lock® Order crimp contacts separately PE contact: Quick Lock termination  Han-Quick Lock® 0.5 ... 2.5 mm² 0.25 ... 1.5 mm²				
Coding pins 	09 12 000 9924	09 12 000 9924		Range of delivery: 20 pieces per frame

Han Q

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																												
		Male contact	Female contact																														
Crimp contacts Power contacts silver plated  gold plated 	0.14-0.37 0.5 0.75 1 1.5 2.5 0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106 09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206 09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226		<table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37</td> <td>mm² AWG 26-22</td> <td>0.9</td> <td>8 mm</td> </tr> <tr> <td>0.5</td> <td>mm² AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75</td> <td>mm² AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1</td> <td>mm² AWG 18</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5</td> <td>mm² AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5</td> <td>mm² AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table>	Wire gauge		Ø	Stripping length	0.14-0.37	mm² AWG 26-22	0.9	8 mm	0.5	mm² AWG 20	1.1	8 mm	0.75	mm² AWG 18	1.3	8 mm	1	mm² AWG 18	1.45	8 mm	1.5	mm² AWG 16	1.75	8 mm	2.5	mm² AWG 14	2.25	6 mm
Wire gauge		Ø	Stripping length																														
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1	mm² AWG 18	1.45	8 mm																														
1.5	mm² AWG 16	1.75	8 mm																														
2.5	mm² AWG 14	2.25	6 mm																														
F.O. contacts for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221																														

Stock items in bold type

Features

- 8 contact chambers for crimp contacts of Han E® series
- Space-saving and compact design
- Leading protective ground with crimp terminal
- Inserts suitable for metal and plastic hoods and housings of Han-Compact® series
- ISO 23 570 / DESINA conform product



Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

Number of contacts	8 + PE
Electrical data acc. to EN 61 984	
Mounted plastic hood	16 A 500 V 6 kV 3
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Pollution degree 2 also	16 A 400/690 V 6 kV 2
Mounted metal hood	16 A 230/400 V 4 kV 3
Rated voltage acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	≤ 1 mΩ
Crimp terminal	
- mm ²	0.14 ... 4 mm ² partly loaded up to 4 mm ² is possible
- AWG	26 ... 12

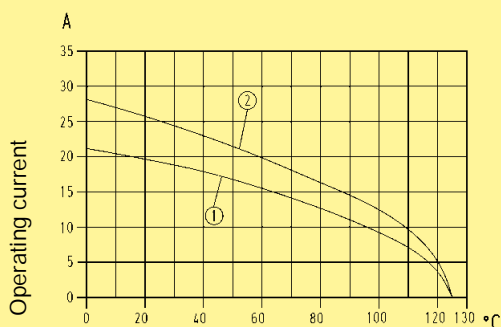
Hoods/Housings

Plastic hoods/housings	
Material	thermoplastic
Locking element	Polyamide
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 65
Hoods/Housings, metal	
Material	metal
Locking element	Stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 65

Current carrying capacity

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

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



Ambient temperature

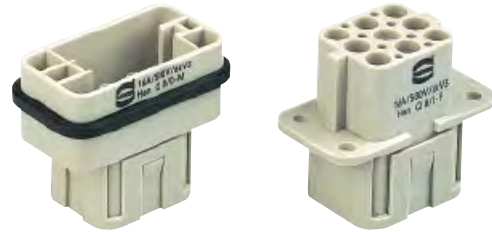
Wire gauge: ① 1.5 mm²
 ② 2.5 mm²

Accessories

Crimping tools chapter 99

Number of contacts

8 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 12 008 3001	09 12 008 3101		
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.

Han Q

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm
		Male contact	Female contact		
Crimp contacts Power contacts					
silver plated 	0.14-0.37 0.5 0.75 1 1.5 2.5 4	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6107	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6207		
gold plated 	0.14-0.37 0.5 0.75 1 1.5 2.5 4	09 33 000 6117 09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123 09 33 000 6119	09 33 000 6217 09 33 000 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223 09 33 000 6221		
Relay contact silver plated 	0.75-1 1.5 2.5	09 33 000 6109 09 33 000 6110 09 33 000 6111			
F.O. contacts for 1 mm plastic fibre		20 10 001 3311	20 10 001 3321		

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

* on the back crimp collar

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

Stock items in bold type

Features

- Innovative Han-Quick Lock® termination
- Reduced wiring times; field assembly without special tools
- Compatible to Han® Q 8/0 inserts with crimp terminal
- Insert suitable for standard plastic hoods/housings and metal hoods/housings with additional PE contact of the size Han-Compact®
- Leading protective ground contact

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Inserts

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

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 µm Ag
Contact resistance	≤ 3 mΩ
Termination	Han-Quick Lock®

blue slide

Terminal wire gauge	0.5 ... 2.5 mm ² (AWG 20 - 14)
max. insulation diameter	3.6 mm

black slide

Terminal wire gauge	0.25 ... 1.5 mm ² (AWG 23 - 16)
max. insulation diameter	3.0 mm

Hoods/Housings

Plastic hoods/housings

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

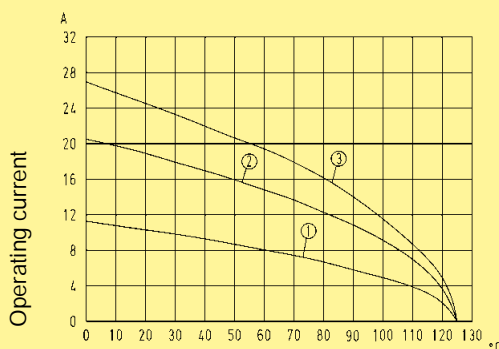
Hoods/Housings, metal, with additional PE contact

Material	metal
Locking element	Stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65

Current carrying capacity

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

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



Ambient temperature

Wire gauge: ① 0.5 mm²
 ② 1.5 mm²
 ③ 2.5 mm²

Number of contacts

8 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han-Quick Lock® 				
0.5 ... 2.5 mm ²	09 12 008 2633	09 12 008 2733		
0.25 ... 1.5 mm ²	09 12 008 2634	09 12 008 2734		

Han
Q

Features

- 17 contact chambers for crimp contacts of Han D® series
- Space-saving and compact design
- Leading protective ground with crimp terminal
- Inserts suitable for metal and plastic hoods and housings of Han-Compact® series

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

Number of contacts	17 + PE
Electrical data acc. to EN 61 984	10 A 250 V 4 kV 2
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	2
Rated voltage acc. to UL/CSA	250 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	≤ 3 mΩ
Crimp terminal	
- mm ²	0.14 ... 2.5 mm ²
- AWG	26 ... 14

Hoods/Housings

Plastic hoods/housings	
Material	thermoplastic
Locking element	Polyamide
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65
Hoods/Housings, metal	
Material	metal
Locking element	Stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65

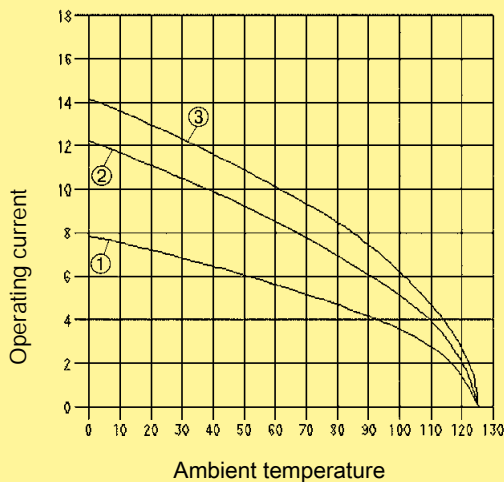
Accessories

Crimping tools chapter 99

Current carrying capacity

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

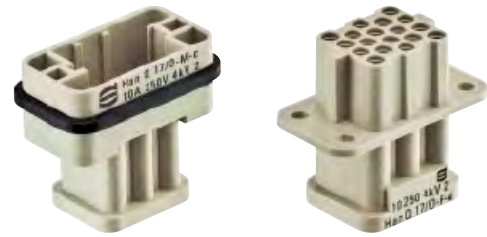
Measuring and testing techniques according to DIN EN 60 512-5



Wire gauge: ① 0.5 mm²
② 1.0 mm²
③ 1.5 mm²

Number of contacts

17 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 12 017 3001	09 12 017 3101	<p>Contact arrangement view from termination side</p>	

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																																			
		Male contact	Female contact																																					
Crimp contacts Power contacts silver plated	0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206																																					
gold plated	0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226	<table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>Ø</th> <th colspan="2">Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37</td> <td>mm² AWG 26-22</td> <td>0.9</td> <td colspan="2">8 mm</td> </tr> <tr> <td>0.5</td> <td>mm² AWG 20</td> <td>1.1</td> <td colspan="2">8 mm</td> </tr> <tr> <td>0.75</td> <td>mm² AWG 18</td> <td>1.3</td> <td colspan="2">8 mm</td> </tr> <tr> <td>1</td> <td>mm² AWG 18</td> <td>1.45</td> <td colspan="2">8 mm</td> </tr> <tr> <td>1.5</td> <td>mm² AWG 16</td> <td>1.75</td> <td colspan="2">8 mm</td> </tr> <tr> <td>2.5</td> <td>mm² AWG 14</td> <td>2.25</td> <td colspan="2">6 mm</td> </tr> </tbody> </table>	Wire gauge		Ø	Stripping length		0.14-0.37	mm² AWG 26-22	0.9	8 mm		0.5	mm² AWG 20	1.1	8 mm		0.75	mm² AWG 18	1.3	8 mm		1	mm² AWG 18	1.45	8 mm		1.5	mm² AWG 16	1.75	8 mm		2.5	mm² AWG 14	2.25	6 mm		
Wire gauge		Ø	Stripping length																																					
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1.5	mm² AWG 16	1.75	8 mm																																					
2.5	mm² AWG 14	2.25	6 mm																																					
F.O. contacts for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221																																					

Han Q

Features

- 4 power contacts Han® C and 2 signal contacts Han D®
- Finger protection
- Leading protective ground with crimp terminal
- Inserts suitable for standard plastic and metal hoods/housings with additional PE contact from the Han-Compact® size

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	4 / 2 + PE
Electrical data acc. to EN 61 984	
<u>Power side</u>	40 A 400/690 V 6 kV 3
Rated current	40 A
Rated voltage conductor - ground	400 V
Rated voltage conductor - conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	3
<u>Signal side</u>	10 A 250 V 4 kV 3
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL/CSA	600 / 250 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts	
Material	copper alloy
Surface	
- hard-silver plated	3 μm Ag
- hard-gold plated	2 μm Au over 3 μm Ni
Contact resistance	≤ 0.3 mΩ
Crimp terminal	
- mm ²	1.5 ... 6 mm ² / 0.14 ... 2.5 mm ²
- AWG	16 ... 10 / 26 ... 14
Max. insulation diameter - Power contacts	5 mm

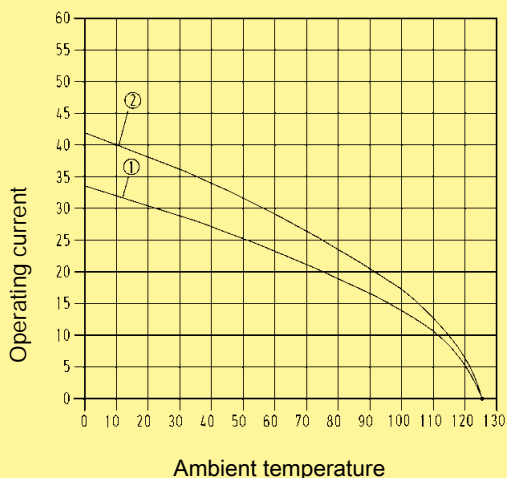
Hoods/Housings	
Plastic hoods/housings	
Material	thermoplastic
Locking element	Polyamide
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65
Hoods/Housings, metal, with additional PE contact	
Material	metal
Locking element	Stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65

Accessories	
Crimping tools	chapter 99

Current carrying capacity

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

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



Wire gauge: ① 2.5 mm²

 ② 4 mm²

Number of contacts

4/2 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	09 12 006 3041	09 12 006 3141	<p>Contact arrangement view from termination side</p>	

Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm																																			
		Male contact	Female contact																																					
Crimp contacts Han® C contacts Power contacts silver plated 	1.5 2.5 4 6	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		<table border="1"> <thead> <tr> <th colspan="3">Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5</td> <td>mm²</td> <td>AWG 16</td> <td>1.75</td> <td>9.5 mm</td> </tr> <tr> <td>2.5</td> <td>mm²</td> <td>AWG 14</td> <td>2.25</td> <td>9.5 mm</td> </tr> <tr> <td>4</td> <td>mm²</td> <td>AWG 12</td> <td>2.85</td> <td>9.5 mm</td> </tr> <tr> <td>6</td> <td>mm²</td> <td>AWG 10</td> <td>3.5</td> <td>9.5 mm</td> </tr> </tbody> </table>	Wire gauge			∅	Stripping length	1.5	mm²	AWG 16	1.75	9.5 mm	2.5	mm²	AWG 14	2.25	9.5 mm	4	mm²	AWG 12	2.85	9.5 mm	6	mm²	AWG 10	3.5	9.5 mm										
Wire gauge			∅	Stripping length																																				
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2.5	mm²	AWG 14	2.25	9.5 mm																																				
4	mm²	AWG 12	2.85	9.5 mm																																				
6	mm²	AWG 10	3.5	9.5 mm																																				
Han D® contacts Signal contacts silver plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206		<table border="1"> <thead> <tr> <th colspan="3">Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37</td> <td>mm²</td> <td>AWG 26-22</td> <td>0.9</td> <td>8 mm</td> </tr> <tr> <td>0.5</td> <td>mm²</td> <td>AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75</td> <td>mm²</td> <td>AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1</td> <td>mm²</td> <td>AWG 18</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5</td> <td>mm²</td> <td>AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5</td> <td>mm²</td> <td>AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table>	Wire gauge			∅	Stripping length	0.14-0.37	mm²	AWG 26-22	0.9	8 mm	0.5	mm²	AWG 20	1.1	8 mm	0.75	mm²	AWG 18	1.3	8 mm	1	mm²	AWG 18	1.45	8 mm	1.5	mm²	AWG 16	1.75	8 mm	2.5	mm²	AWG 14	2.25	6 mm
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2.5	mm²	AWG 14	2.25	6 mm																																				
gold plated 	0.14-0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226		<table border="1"> <thead> <tr> <th colspan="3">Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37</td> <td>mm²</td> <td>AWG 26-22</td> <td>0.9</td> <td>8 mm</td> </tr> <tr> <td>0.5</td> <td>mm²</td> <td>AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75</td> <td>mm²</td> <td>AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1</td> <td>mm²</td> <td>AWG 18</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5</td> <td>mm²</td> <td>AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5</td> <td>mm²</td> <td>AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table>	Wire gauge			∅	Stripping length	0.14-0.37	mm²	AWG 26-22	0.9	8 mm	0.5	mm²	AWG 20	1.1	8 mm	0.75	mm²	AWG 18	1.3	8 mm	1	mm²	AWG 18	1.45	8 mm	1.5	mm²	AWG 16	1.75	8 mm	2.5	mm²	AWG 14	2.25	6 mm
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Stock items in bold type

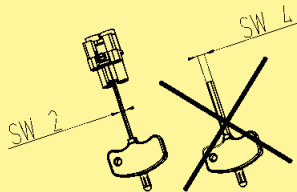
Han Q

Features

- Field assembly without special tools - reduced wiring times
- Compatible with Han® Q 4/2 standard inserts with crimp terminations
- Space-saving and compact design
- Inserts suitable for standard plastic and metal hoods/housings with additional PE contact from the Han-Compact® size
- With or without Han-Quick Lock® signal contacts as an option

Attention

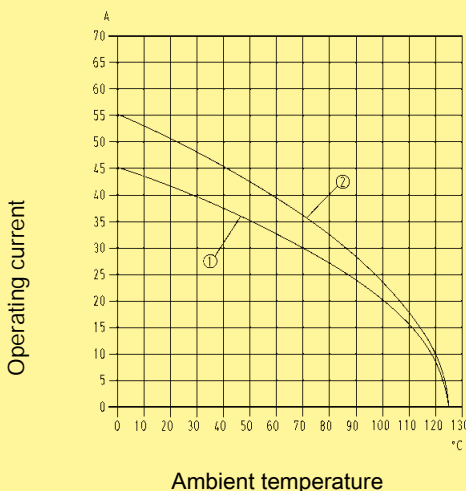
- For termination please use only hexagonal screw driver with wrench size SW 2.
- If PE contact is not used:
Please screw the PE contact maximal on both sides clockwise with a hexagonal screwdriver, wrench size SW 2.



Current carrying capacity

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

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



- Wire gauge: ① 4 mm²
 ② 6 mm²

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984
Inserts	
Number of contacts	4 / 2 + PE
Electrical data acc. to EN 61 984	
<u>Power side</u>	40 A 400/690 V 6 kV 3
Rated current	40 A
Rated voltage conductor - ground	400 V
Rated voltage conductor - conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	3
<u>Signal side</u>	10 A 250 V 4 kV 3
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500
Contacts	
Material	copper alloy
Surface	
- hard-silver plated	3 µm Ag
<u>Power contacts</u>	
Contact resistance	≤ 0.3 mΩ
Axial screw termination	
- mm ²	4 ... 10 mm ²
- AWG	12 ... 8
Max. insulation diameter	7.3 mm
Stripping length	8 mm
Tightening torque	1.8 Nm
<u>Signal contacts</u>	
Contact resistance	≤ 3 mΩ
Han-Quick Lock®	
- mm ²	0.25 ... 1.5 mm ²
- AWG	23 ... 16
Max. insulation diameter	3 mm
Stripping length	10 mm
Hoods/Housings	
Plastic hoods/housings	
Material	thermoplastic
Locking element	Polyamide
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 65
Hoods/Housings, metal, with additional PE contact	
Material	metal
Locking element	Stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529	
for coupled connector	IP 65

Number of contacts

4/2 +



Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Axial screw terminal				
with Han-Quick Lock® signal contacts	09 12 006 2663	09 12 006 2763		
Han-Quick Lock®				
without Han-Quick Lock® signal contacts	09 12 006 2666	09 12 006 2766		

Han Q

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

13
27

Stock items in bold type

Features

- Combination connector / Ethernet connector based on RJ45 / additionally maximum 10 signal D-Sub contacts, crimp terminal
- Compact design
- High contact density
- Turned D-Sub contacts of performance level 1*
- Suitable for hoods and housings of series Han-Compact®

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984
----------------	----------------------------------

Inserts

Ethernet connector

Terminal	RJ45 acc. to IEC 60 603-7
Wire gauge	- flexible
Transmission features	Cat. 5e
Number of contacts	8

Signal side

Number of contacts	10
Electrical data	
acc. to EN 61 984	5 A 50 V 0.8 kV 3
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3

Insulation resistance	$\geq 10^{10} \Omega$
Material	polycarbonate
Limiting temperatures	-40 °C ... 85 °C
Flammability acc. to UL 94	V 0
Mechanical working life	
- mating cycles	≥ 500

Contacts

Crimp terminal	
- mm ²	0.13 ... 0.52 mm ²
- AWG	26 ... 20
turned contacts	Performance level 1 as per CECC 75 301-802, 500 mating cycles, 10 days 4 mixed gas test - IEC 60 512

Hoods/Housings

Plastic hoods/housings

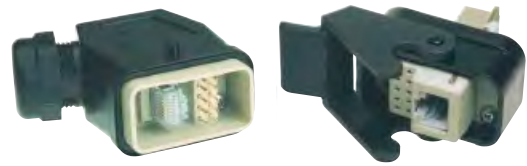
Material	thermoplastic
Locking element	Polyamide
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65

Hoods/Housings, metal

Material	metal
Locking element	Stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... 125 °C
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP 65

Number of contacts

8




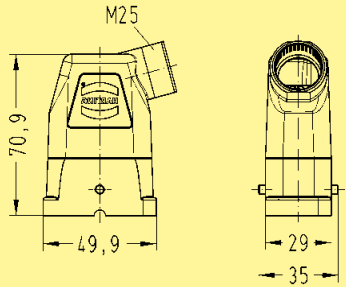

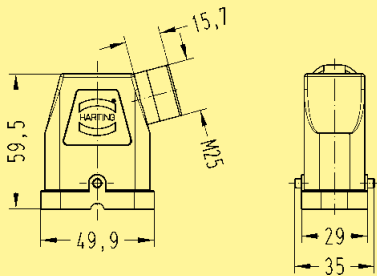

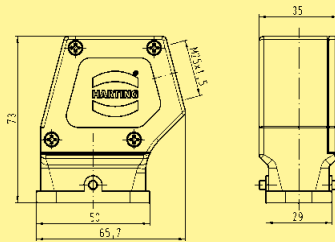

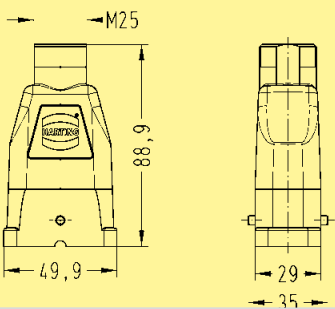

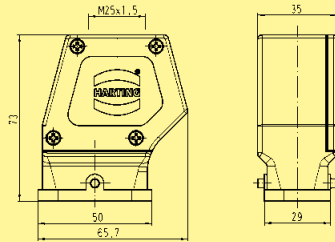
Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
<p>Han® Q Data RJ45</p> <p>Order crimp contacts separately female insert usable for panel feed through for patch cables</p>	09 12 011 3001	09 12 011 3111		

Han
Q


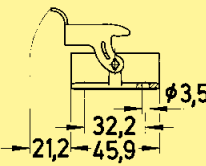
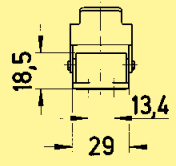
Identification	Wire gauge (mm²)	Part number		Drawing	Dimensions in mm												
		Male contact	Female contact														
<p>Individual contacts, turned</p> <p>Performance level 1</p>	0.13-0.33 0.25-0.52	09 67 000 5576 09 67 000 8576	09 67 000 5476 09 67 000 8476	<table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>Ø*</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.13-0.33 mm²</td> <td>AWG 26-22</td> <td>1.7</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm²</td> <td>AWG 24-20</td> <td>1.7</td> <td>4 mm</td> </tr> </tbody> </table>	Wire gauge		Ø*	Stripping length	0.13-0.33 mm²	AWG 26-22	1.7	4 mm	0.25-0.52 mm²	AWG 24-20	1.7	4 mm	
Wire gauge		Ø*	Stripping length														
0.13-0.33 mm²	AWG 26-22	1.7	4 mm														
0.25-0.52 mm²	AWG 24-20	1.7	4 mm														
<p>RJ45 plug AMP (for replacement)</p> <p>AWG 24 ... 26 Ø 0.89 mm ... 0.99 mm</p>		09 12 000 9958															

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Metal

Identification	Part number	Drawing	Dimensions in mm
<p>Hoods</p> <ul style="list-style-type: none"> side-entry for Han-Compact® half gland with separate PE termination for all inserts of size Han-Compact® 	<p>black powder coated 19 12 708 0511</p> <p>black chromated 19 12 008 0511</p>	<p>M25</p> 	
<p>Hoods</p> <ul style="list-style-type: none"> side-entry for Han-Compact® half gland for Han® Q 8/0 Crimp, Han® Q 17/0 and Han® Q Data RJ45 	<p>black powder coated 19 12 708 0501</p> <p>black chromated 19 12 008 0501</p>	<p>M25</p> 	
<p>Hoods</p> <ul style="list-style-type: none"> side-entry for standard cable glands with separate PE termination for all inserts of size Han-Compact® 	<p>black powder coated 19 12 008 0526</p>	<p>M25</p> 	
<p>Hoods</p> <ul style="list-style-type: none"> top-entry for Han-Compact® half gland with separate PE termination for all inserts of size Han-Compact® 	<p>black powder coated 19 12 708 0411</p> <p>black chromated 19 12 008 0411</p>	<p>M25</p> 	
<p>Hoods</p> <ul style="list-style-type: none"> top-entry for standard cable glands with separate PE termination for all inserts of size Han-Compact® 	<p>black powder coated 19 12 008 0426</p>	<p>M25x1,5</p> 	

Metal

Identification	Part number		Drawing	Dimensions in mm
<p>Housings, bulkhead mounting</p> 	<p>black powder coated 09 12 708 0301</p> <p>black chromated 09 12 008 0301</p>			


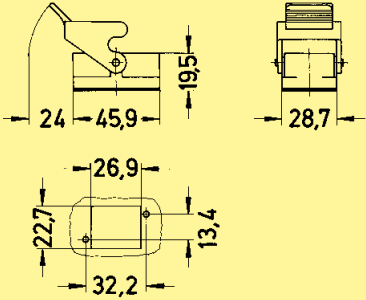

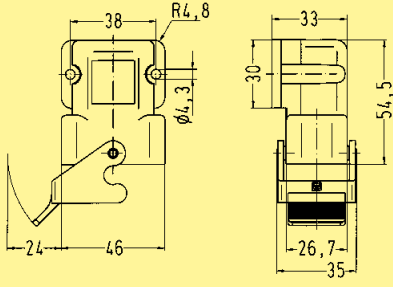

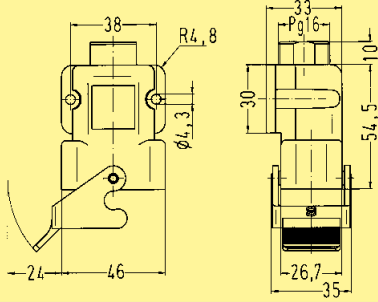

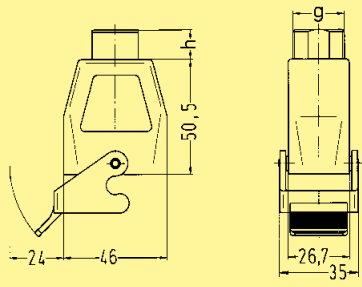

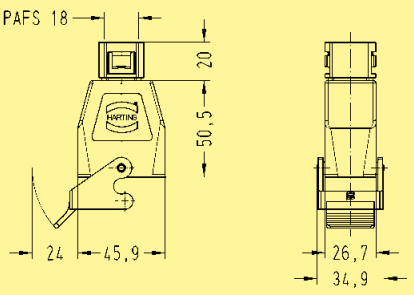
Han
Q

Thermoplastic

Identification	Part number		Drawing	Dimensions in mm
<p>Hoods</p> <ul style="list-style-type: none"> side-entry for Han-Compact® half gland 	<p>09 12 008 0527</p>	<p>Pg 16</p>		
<p>Hoods</p> <ul style="list-style-type: none"> top-entry for Han-Compact® half gland 	<p>19 12 008 0429 09 12 008 0427 09 12 008 0429</p>	<p>M25 Pg 16 Pg 21</p>		
<p>Hoods</p> <ul style="list-style-type: none"> top-entry for flexible conduits Adaptaflex PAFS18 	<p>09 12 008 0428</p>	<p>PAFS 18</p>		

Han Q

Thermoplastic


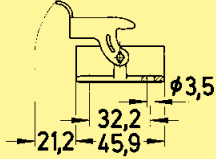
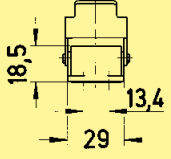
Identification	Part number		Drawing	Dimensions in mm
Housings, bulkhead mounting straight 	09 12 008 0327	-		
Housings, bulkhead mounting angled 	09 12 008 0902	-		
Housings, surface mounting • for Han-Compact® half gland 	09 12 008 0901	Pg 16		
Hoods, cable to cable • for Han-Compact® half gland 	19 12 008 0729 09 12 008 0727	M25 Pg 16		
Hoods, cable to cable • for flexible conduits Adaptaflex PAFS18 	09 12 008 0728	PAFS 18		

Han Q


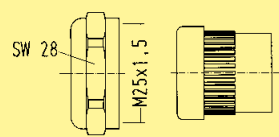

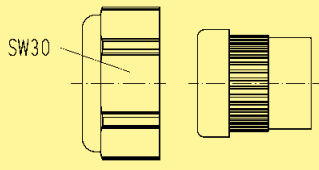

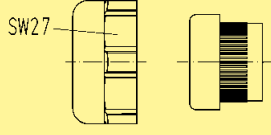

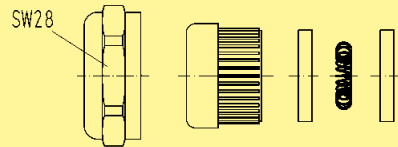
Metal nickel-plated for EMC applications


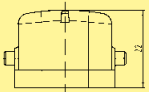

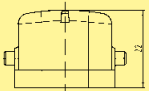

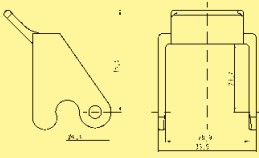

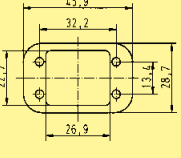

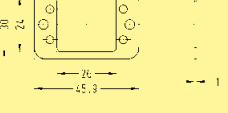
Identification	Part number		Drawing	Dimensions in mm
<p>Hoods</p> <ul style="list-style-type: none"> side-entry for Han-Compact® EMC half gland with separate PE termination for all inserts of size Han-Compact® 	19 12 008 0512	M25		
<p>Hoods</p> <ul style="list-style-type: none"> side-entry for Han-Compact® EMC half gland for Han® Q 8/0 Crimp, Han® Q 17/0 and Han® Q Data RJ45 	19 12 008 0502	M25		
<p>Hoods</p> <ul style="list-style-type: none"> side-entry for standard EMC cable glands with separate PE termination for all inserts of size Han-Compact® 	19 12 008 0528	M25		
<p>Hoods</p> <ul style="list-style-type: none"> top-entry for Han-Compact® EMC half gland with separate PE termination for all inserts of size Han-Compact® 	19 12 008 0412	M25		
<p>Hoods</p> <ul style="list-style-type: none"> top-entry for standard EMC cable glands with separate PE termination for all inserts of size Han-Compact® 	19 12 008 0428	M25		

Metal nickel-plated for EMC applications

Identification	Part number		Drawing	Dimensions in mm
<p>Housings, bulkhead mounting</p> 	<p>09 12 008 0303</p>			

Han
Q

Identification	Part number	Drawing	Dimensions in mm																																						
<p>Han-Compact® half gland</p> <ul style="list-style-type: none"> • Metal • for hoods 	<p>19 12 000 5057 19 12 000 5058</p>	<p>M25 M25</p> 	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">cable</th> <th rowspan="2">SW</th> </tr> <tr> <th>min.</th> <th>max.</th> </tr> </thead> <tbody> <tr> <td>19 12 000 5057</td> <td>10,5 mm</td> <td>14 mm</td> <td>28</td> </tr> <tr> <td>19 12 000 5058</td> <td>14 mm</td> <td>17 mm</td> <td>28</td> </tr> </tbody> </table>		cable		SW	min.	max.	19 12 000 5057	10,5 mm	14 mm	28	19 12 000 5058	14 mm	17 mm	28																								
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<p>Han-Compact® half gland</p> <ul style="list-style-type: none"> • Thermoplastic • for hoods 	<p>19 12 000 5156 19 12 000 5157 19 12 000 5158 09 00 000 5047 09 00 000 5059 09 00 000 5156 09 00 000 5157 09 00 000 5158</p>	<p>M25 M25 M25 Pg 16 Pg 16 Pg 16 Pg 21 Pg 21</p> 	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">cable</th> <th rowspan="2">SW</th> </tr> <tr> <th>min.</th> <th>max.</th> </tr> </thead> <tbody> <tr> <td>19 12 000 5156</td> <td>6,5 mm</td> <td>9,5 mm</td> <td>30</td> </tr> <tr> <td>19 12 000 5157</td> <td>10,5 mm</td> <td>14 mm</td> <td>30</td> </tr> <tr> <td>19 12 000 5158</td> <td>14 mm</td> <td>17 mm</td> <td>30</td> </tr> <tr> <td>09 00 000 5047</td> <td>6,5 mm</td> <td>9,5 mm</td> <td>27</td> </tr> <tr> <td>09 00 000 5059</td> <td>11,5 mm</td> <td>15,5 mm</td> <td>27</td> </tr> <tr> <td>09 00 000 5156</td> <td>9 mm</td> <td>13 mm</td> <td>27</td> </tr> <tr> <td>09 00 000 5157</td> <td>14 mm</td> <td>18 mm</td> <td>33</td> </tr> <tr> <td>09 00 000 5158</td> <td>17 mm</td> <td>20,5 mm</td> <td>33</td> </tr> </tbody> </table>		cable		SW	min.	max.	19 12 000 5156	6,5 mm	9,5 mm	30	19 12 000 5157	10,5 mm	14 mm	30	19 12 000 5158	14 mm	17 mm	30	09 00 000 5047	6,5 mm	9,5 mm	27	09 00 000 5059	11,5 mm	15,5 mm	27	09 00 000 5156	9 mm	13 mm	27	09 00 000 5157	14 mm	18 mm	33	09 00 000 5158	17 mm	20,5 mm	33
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<p>Han-Compact® half gland</p> <ul style="list-style-type: none"> • Thermoplastic • for housings 	<p>09 00 000 5058 09 00 000 5057</p>	<p>Pg 16 Pg 16</p> 	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">cable</th> <th rowspan="2">SW</th> </tr> <tr> <th>min.</th> <th>max.</th> </tr> </thead> <tbody> <tr> <td>09 00 000 5058</td> <td>11,5 mm</td> <td>15,5 mm</td> <td>27</td> </tr> <tr> <td>09 00 000 5057</td> <td>6,5 mm</td> <td>9,5 mm</td> <td>27</td> </tr> </tbody> </table>		cable		SW	min.	max.	09 00 000 5058	11,5 mm	15,5 mm	27	09 00 000 5057	6,5 mm	9,5 mm	27																								
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Identification	Part number		Drawing	Dimensions in mm
<p>Protection covers</p> <ul style="list-style-type: none"> • Thermoplastic • for housings for mounted male insert 	 <p>09 12 008 5407</p>			
<p>Protection covers</p> <ul style="list-style-type: none"> • Thermoplastic • for housings for mounted female insert 	 <p>09 12 008 5408</p>			
<p>Locking levers</p> <p>for thermoplastic housings bulkhead or surface mounting and hoods, cable to cable</p>	 <p>09 00 000 5244</p>			
<p>Gasket for plastic housings, bulkhead mounting, straight</p>	 <p>09 12 000 9912</p>			
<p>Gasket for plastic housings, bulkhead mounting, angled, and for housings, surface mounting</p>	 <p>09 12 000 9911</p>			

Han Q



Han
Q

ASML's TWINSKAN NXE platform using Han® Q connectors is the industry's first production platform for extreme ultraviolet lithography (EUVL).