

Contents

Page

Han® 3 A.....	Han 01.2
Han® 3 A with <i>HARAX</i> ® connection technology	Han 01.4
Han® 4 A.....	Han 01.6
Han® 10 A / Han® 16 A / Han® 32 A.....	Han 01.8
Contacts	Han 01.14

Features

- Innovative Han-Quick Lock® termination with reduced wiring times
- No special tools required
- Suitable for all metal and plastic hoods and housings of the series Han® 3 A
- for currents up to 10 A

Technical characteristics

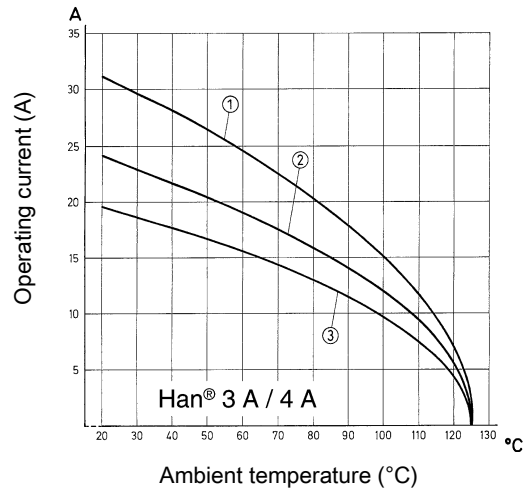
Number of contacts	3
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

Derating

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 acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm²
- ② Conductor cross-section 1.5 mm²
- ③ Conductor cross-section 1 mm²

Specifications and approvals

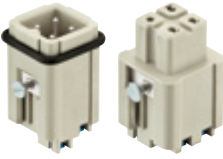
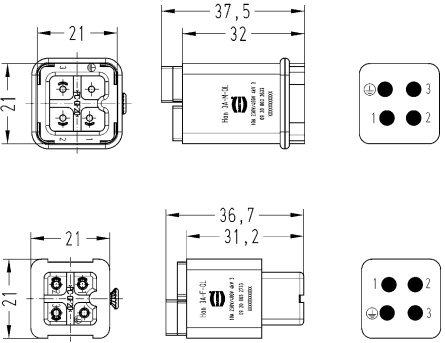
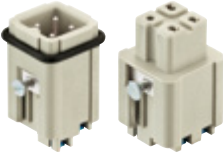
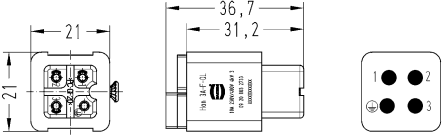
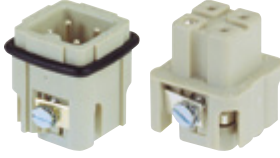
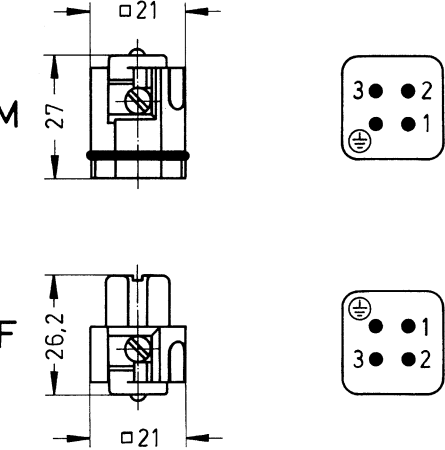
EN 60664-1
 IEC 61984
 UL 1977 ECBT2.E235076
 CSA-C22.2 No. 182.3 ECBT8.E235076
 DNV GL

Number of contacts

3+

10 A 230/400 V 4 kV 3
10 A 250 V 4 kV 3

Han A

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han A®, Han-Quick Lock® termination, Contact surface: Silver plated  Blue slide	0.5 ... 2.5	09 20 003 2633	09 20 003 2733	
Han A®, Han-Quick Lock® termination, Contact surface: Silver plated  Black slide	0.25 ... 1.5	09 20 003 2634	09 20 003 2734	
Han A®, Screw termination, Contact surface: Silver plated 	0.75 ... 1.5	09 20 003 2611	09 20 003 2711	 <p> Contact arrangement (view from termination side) Stripping length 4.5 mm Tightening torque 0.25 Nm </p>

Technical characteristics

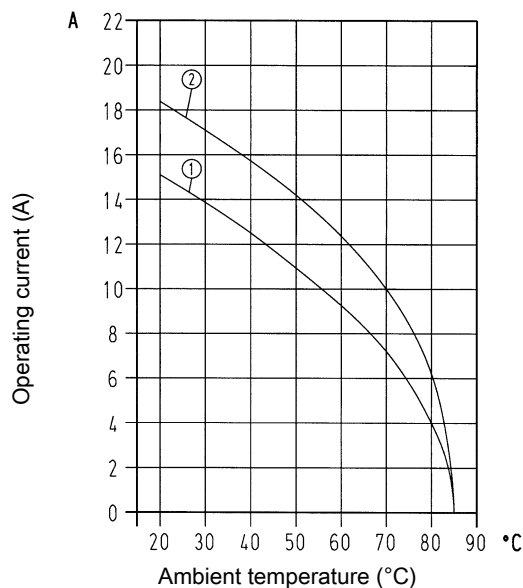
Number of contacts	3
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles	≥ 500
Degree of protection acc. to IEC 60529	IP65, IP67
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

Derating

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 acc. to IEC 60512-5-2



- ① Conductor cross-section 1 mm²
- ② Conductor cross-section 1.5 mm²

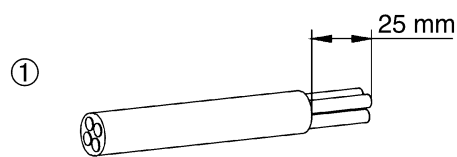
Specifications and approvals

EN 60664-1
IEC 61984
DNV GL

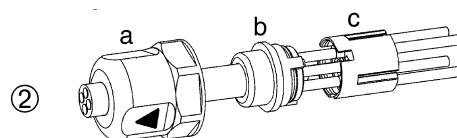


Details

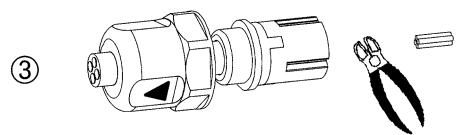
Assembly instructions



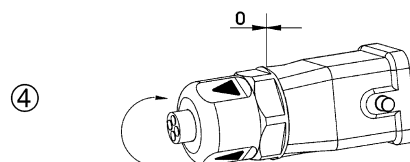
Strip off cable mantle



Assemble HARAX® elements
Screw cap, splice ring, seal



Cut off cable ends


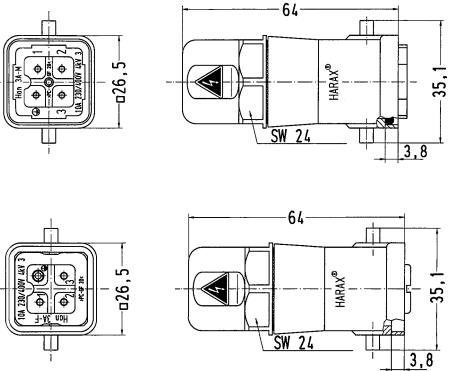

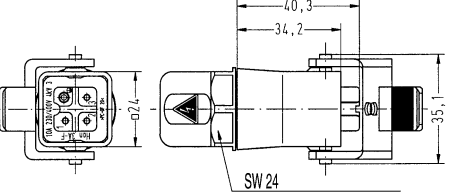


The nut must be screwed completely down until the notches engage on the contact carrier nutlatch

Number of contacts

3+

10 A 230/400 V 4 kV 3

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Hood, HARAX® connection technology, Top entry, IP65, IP67</p> <p>Contact surface: Silver plated</p> 	0.75 ... 1.5	09 20 003 0440	09 20 003 0445	
<p>Han A®, Cable to cable housing, HARAX® connection technology, Top entry, IP65, IP67</p> <p>Contact surface: Silver plated</p> 	1 ... 1.5		09 20 003 0745	

Features

- Innovative Han-Quick Lock® termination with reduced wiring times
- No special tools required
- Suitable for all metal and plastic hoods and housings of the series Han® 3 A
- for currents up to 10 A

Technical characteristics

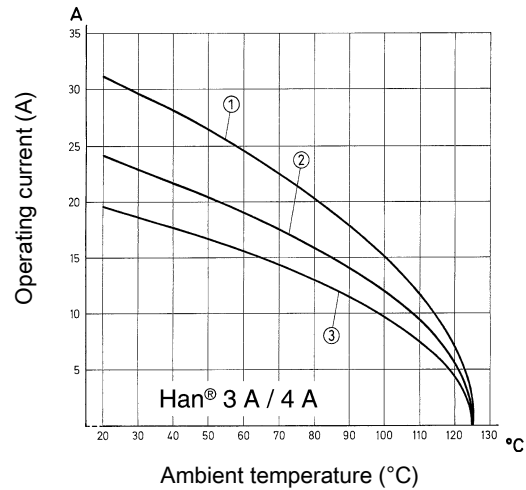
Number of contacts	4
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 ¹⁰ Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

Derating

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 acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm²
- ② Conductor cross-section 1.5 mm²
- ③ Conductor cross-section 1 mm²

Specifications and approvals


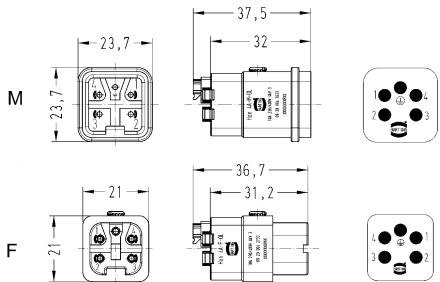


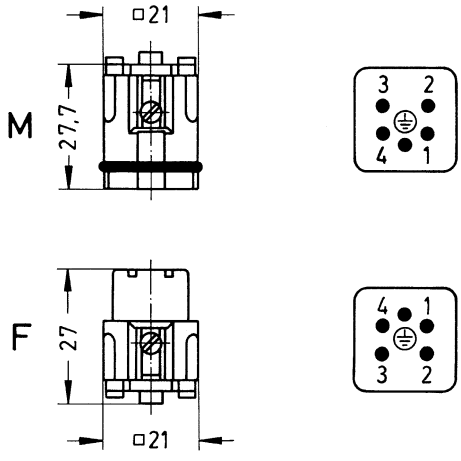
EN 60664-1
 IEC 61984
 UL 1977 ECBT2.E235076
 CSA-C22.2 No. 182.3 ECBT8.E235076
 DNV GL

Number of contacts

4+

10 A 230/400 V 4 kV 3
10 A 250 V 4 kV 3

Han A

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Han-Quick Lock® termination, Contact surface: Silver plated</p>  <p>Blue slide</p>	0.5 ... 2.5	09 20 004 2633	09 20 004 2733	 <p>Contact arrangement (view from termination side)</p>
<p>Han A®, Han-Quick Lock® termination, Contact surface: Silver plated</p>  <p>Black slide</p>	0.25 ... 1.5	09 20 004 2634	09 20 004 2734	
<p>Han A®, Screw termination, Contact surface: Silver plated</p> 	0.75 ... 1.5	09 20 004 2611	09 20 004 2711	 <p>Contact arrangement (view from termination side) Stripping length 4.5 mm Tightening torque 0.25 Nm</p>

Han A

Features

- Small size
- Available with crimp and screw termination
- Screw termination also available with wire protection

Technical characteristics

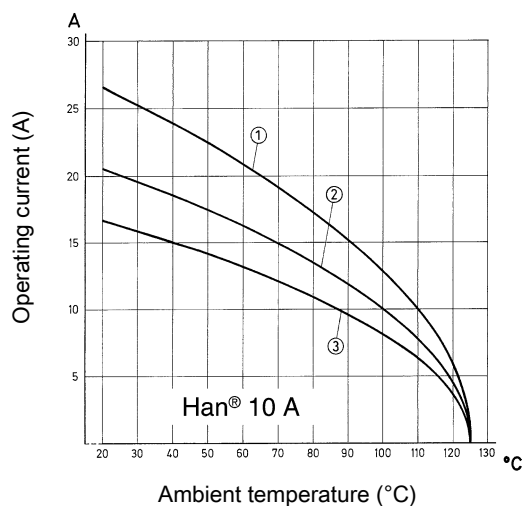
Number of contacts	10, 16, 32
Rated current	16 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 ¹⁰ Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

Derating

Current carrying capacity

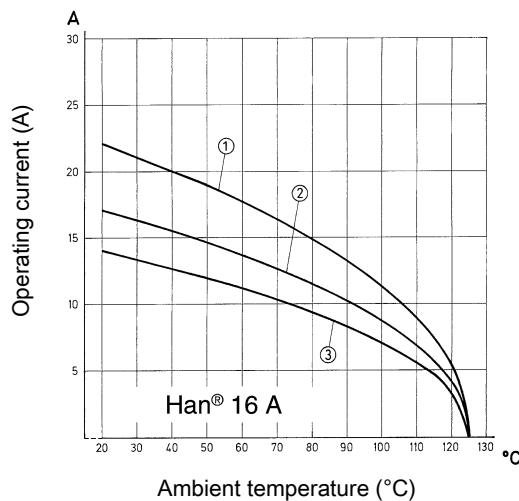
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the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

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm²
- ② Conductor cross-section 1.5 mm²
- ③ Conductor cross-section 1 mm²

Derating



- ① Conductor cross-section 2.5 mm²
- ② Conductor cross-section 1.5 mm²
- ③ Conductor cross-section 1 mm²

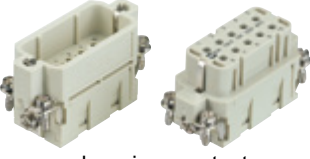
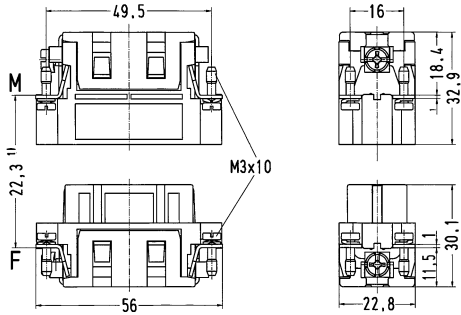
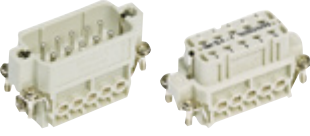
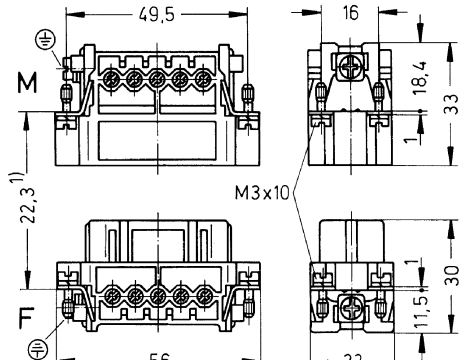

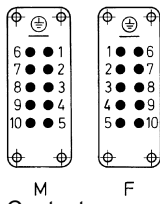
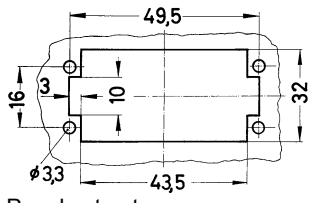
Specifications and approvals

EN 60664-1
 IEC 61984
 UL 1977 ECBT2.E235076
 UL 2237 PVVA2.E318390
 CSA-C22.2 No. 182.3 PVVA8.E318390
 DNV GL

Number of contacts

10+

16 A 250 V 4 kV 3


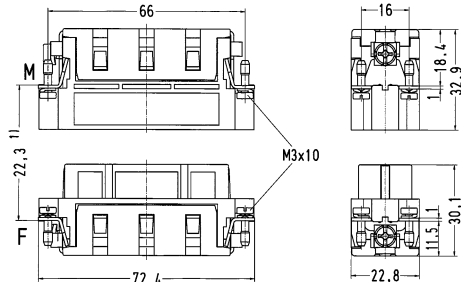

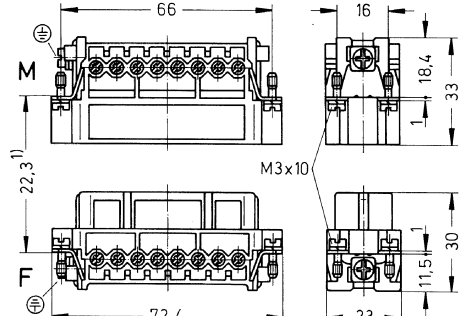

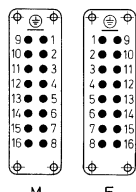
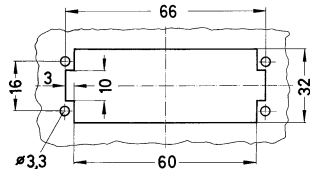
Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 20 010 3001	09 20 010 3101	 <p>1) Distance for contact max. 24 mm</p>
<p>Han A®, Screw termination, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 20 010 2612	09 20 010 2812	 <p>1) Distance for contact max. 24 mm Stripping length 7.5 mm Tightening torque 0.5 Nm</p>
<p>Han A®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 20 010 2614	09 20 010 2814	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

16+

16 A 250 V 4 kV 3

Han A

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 20 016 3001	09 20 016 3101	 <p>1) Distance for contact max. 24 mm</p>
<p>Han A®, Screw termination, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 20 016 2612	09 20 016 2812	 <p>1) Distance for contact max. 24 mm Stripping length 7.5 mm Tightening torque 0.5 Nm</p>
<p>Han A®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 20 016 2614	09 20 016 2814	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

32+

16 A 250 V 4 kV 3

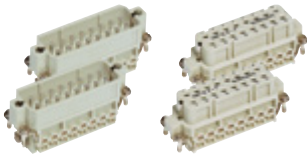
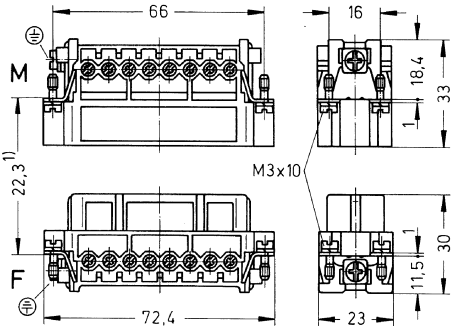
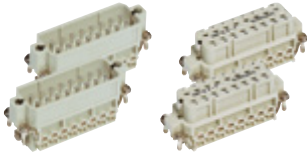
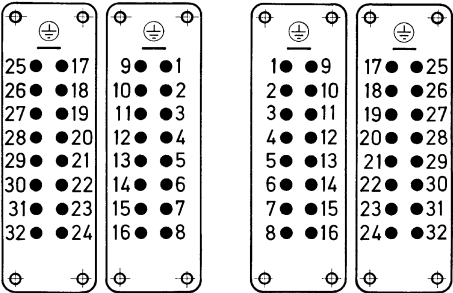
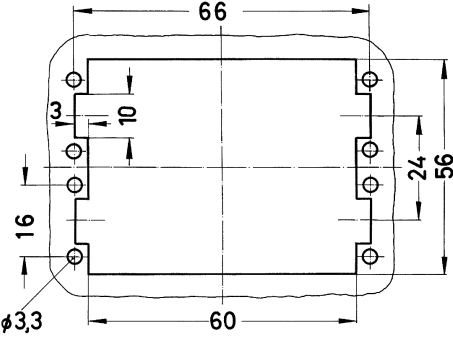
Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Crimp termination, 1 ... 16</p> <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 20 016 3001	09 20 016 3101	<p>1) Distance for contact max. 24 mm</p>
<p>Han A®, Continuing marking, Crimp termination, 17 ... 32</p> <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 20 016 3011	09 20 016 3111	<p>17 ● 25 18 ● 26 19 ● 27 20 ● 28 21 ● 29 22 ● 30 23 ● 31 24 ● 32</p> <p>M F</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

32+

16 A 250 V 4 kV 3

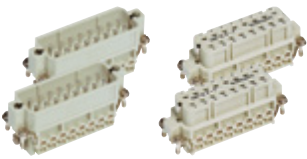
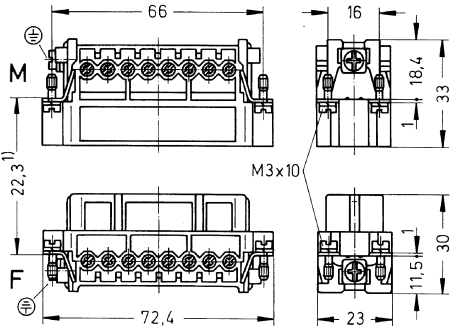
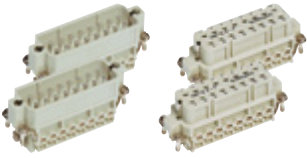
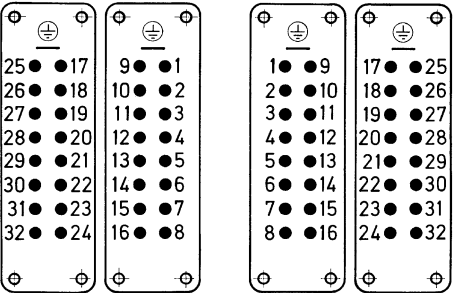
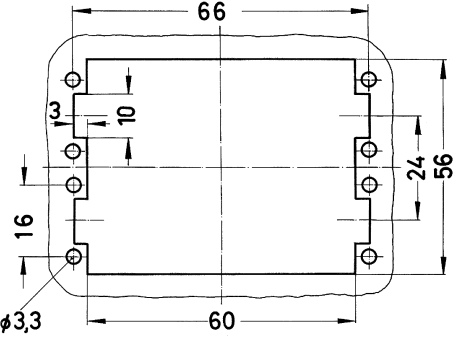
Han A

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Screw termination, 1 ... 16 Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 20 016 2612	09 20 016 2812	 <p>1) Distance for contact max. 24 mm Stripping length 7.5 mm Tightening torque 0.5 Nm</p>
<p>Han A®, Continuing marking, Screw termination, 17 ... 32 Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 20 016 2613	09 20 016 2813	 <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

32+

16 A 250 V 4 kV 3

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Screw termination, With wire protection, 1 ... 16</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 20 016 2614	09 20 016 2814	 <p>1) Distance for contact max. 24 mm Stripping length 7.5 mm Tightening torque 0.5 Nm</p>
<p>Han A®, Continuing marking, Screw termination, With wire protection, 17 ... 32</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 20 016 2615	09 20 016 2815	 <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Technical characteristics

Contact resistance	≤1 mΩ
Material (contacts)	Copper alloy
RoHS	compliant with exemption

Specifications and approvals


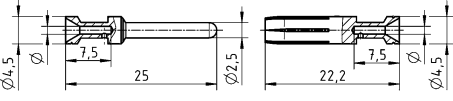

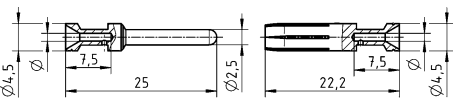
EN 60664-1
IEC 61984

Details

Crimping tools see chapter Han 90

Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37	09 33 000 6127	09 33 000 6227	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm² AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm² AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm² AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm² AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm² AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm² AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm² AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm² AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm ² AWG 26-22	no groove	0.5 mm ² AWG 20	no groove	0.75 mm ² AWG 18	1 groove*	1 mm ² AWG 18	1 groove	1.5 mm ² AWG 16	2 groove	2.5 mm ² AWG 14	3 groove	3 mm ² AWG 12	wide groove	4 mm ² AWG 12	no groove
	Conductor cross-section	Identification																				
	0.14-0.37 mm ² AWG 26-22	no groove																				
	0.5 mm ² AWG 20	no groove																				
	0.75 mm ² AWG 18	1 groove*																				
	1 mm ² AWG 18	1 groove																				
	1.5 mm ² AWG 16	2 groove																				
	2.5 mm ² AWG 14	3 groove																				
3 mm ² AWG 12	wide groove																					
4 mm ² AWG 12	no groove																					
0.5	09 33 000 6121	09 33 000 6220																				
0.75	09 33 000 6114	09 33 000 6214																				
1	09 33 000 6105	09 33 000 6205																				
1.5	09 33 000 6104	09 33 000 6204																				
2.5	09 33 000 6102	09 33 000 6202																				
3	09 33 000 6106	09 33 000 6206																				
4	09 33 000 6107	09 33 000 6207																				
Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 33 000 6117	09 33 000 6217	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm² AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm² AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm² AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm² AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm² AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm² AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm² AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm² AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm ² AWG 26-22	no groove	0.5 mm ² AWG 20	no groove	0.75 mm ² AWG 18	1 groove*	1 mm ² AWG 18	1 groove	1.5 mm ² AWG 16	2 groove	2.5 mm ² AWG 14	3 groove	3 mm ² AWG 12	wide groove	4 mm ² AWG 12	no groove
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1	09 33 000 6118	09 33 000 6218																				
1.5	09 33 000 6116	09 33 000 6216																				
2.5	09 33 000 6123	09 33 000 6223																				
3	09 33 000 6119	09 33 000 6221																				