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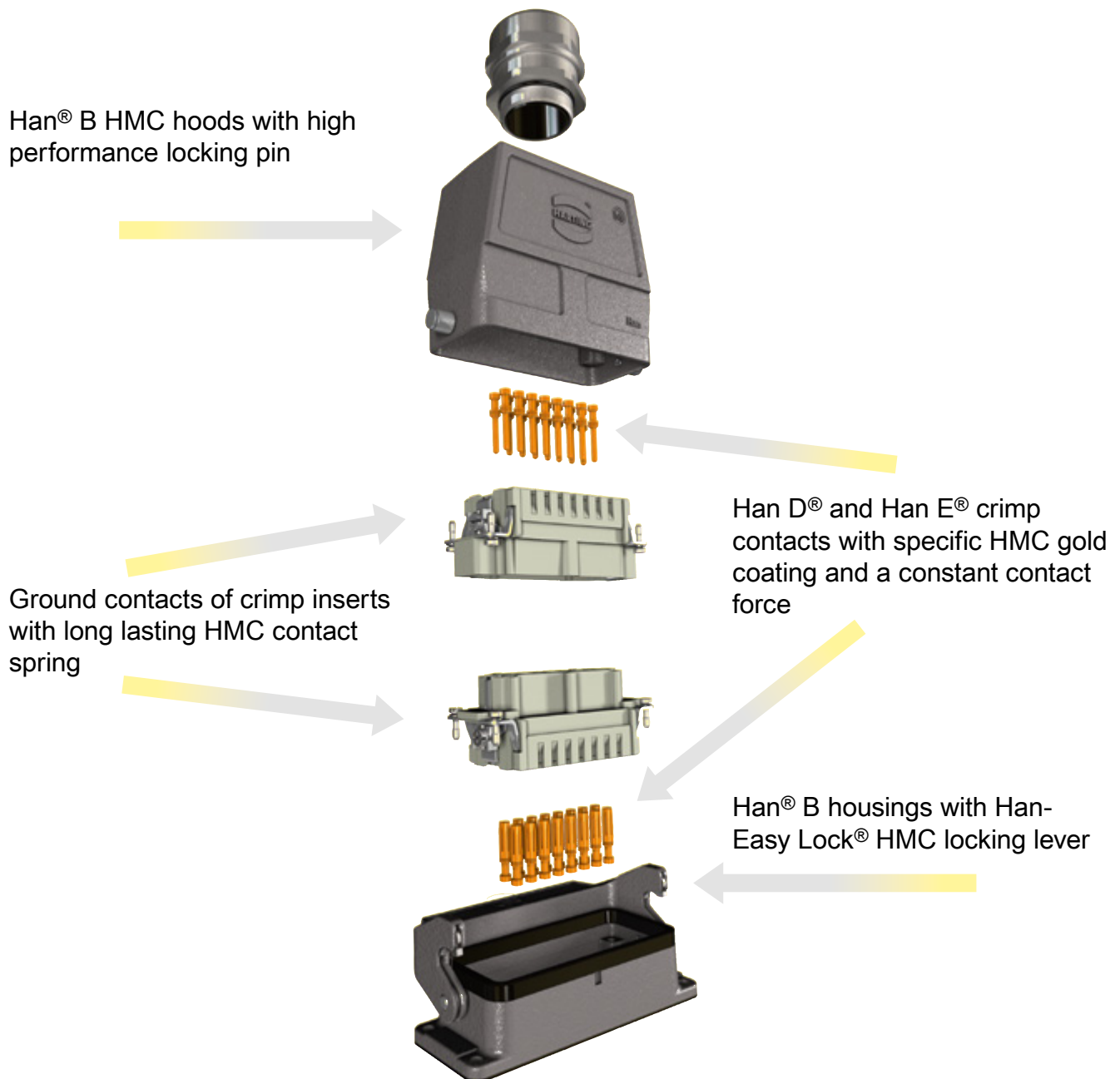
Features

This series Han® HMC (High Mating Cycles) is a connector series specifically aiming at industrial applications for 10,000 mating cycles.

Benefits:

- High mechanical robustness
- Simple and easy understandable design
- Optimized concept for signal and power transmission
- Low mating and unmating forces
- High contact density

General Description



Features

- Modules can be assembled/removed without tools
- Easy handling
- Two leading PE contacts
- Very robust mechanical characteristics

Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥10000
Material (frames)	Zinc die-cast
RoHS	compliant with exemption

Specifications and approvals

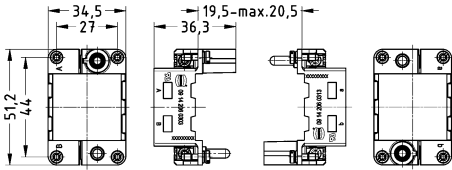
EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076

Details

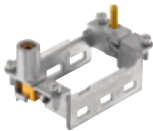
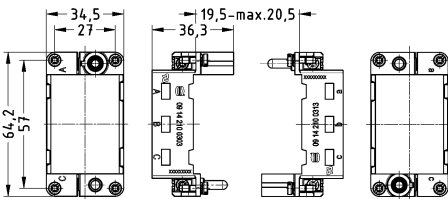
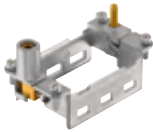
Both different markings must be used for one connector!

Locking element 09 14 000 9960 see accessories in chapter Han 06

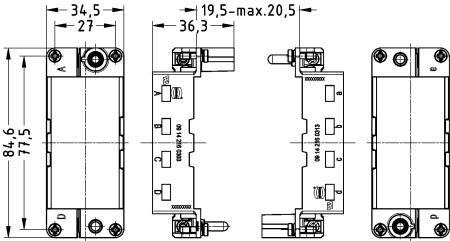


Identification	Part number	Drawing (dimensions in mm)
Han-Modular®, Hinged frame, HMC version, for 2 modules, A ... B 	09 14 206 0303	
Han-Modular®, Hinged frame, HMC version, for 2 modules, a ... b 	09 14 206 0313	

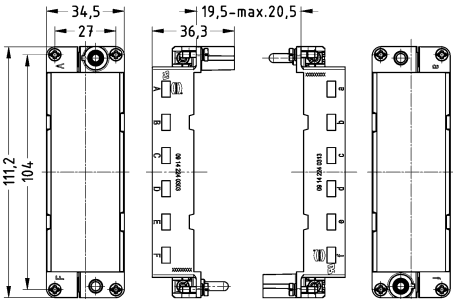
Han
HMC

Identification	Part number	Drawing (dimensions in mm)
Han-Modular®, Hinged frame, HMC version, for 3 modules, A ... C 	09 14 210 0303	
Han-Modular®, Hinged frame, HMC version, for 3 modules, a ... c 	09 14 210 0313	



Identification	Part number	Drawing (dimensions in mm)
Han-Modular®, Hinged frame, HMC version, for 4 modules, A ... D 	09 14 216 0303	
Han-Modular®, Hinged frame, HMC version, for 4 modules, a ... d 	09 14 216 0313	

Han
HMC

Identification	Part number	Drawing (dimensions in mm)
Han-Modular®, Hinged frame, HMC version, for 6 modules, A ... F 	09 14 224 0303	

Han-Modular®, Hinged frame, HMC version, for 6 modules, a ... f 	09 14 224 0313	
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Features

- Standard module for power up to 16 A

Technical characteristics

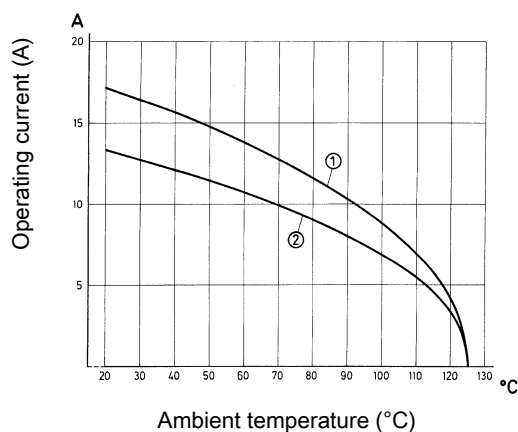
Number of contacts	6
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
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 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm²

② 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm²

Specifications and approvals

EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
CSA-C22.2 No. 182.3 ECBT8.E235076
UL 2237 PVVA2.E318390
CSA-C22.2 No. 182.3 PVVA8.E318390
DNV GL

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.

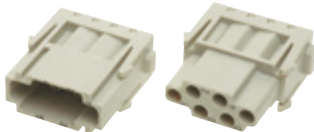
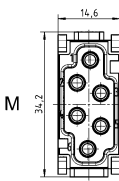
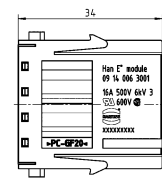
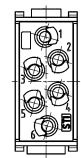
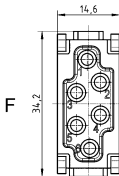
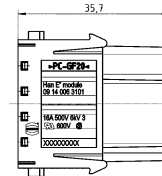
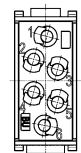
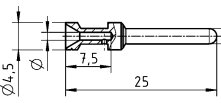
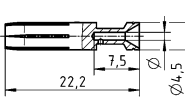
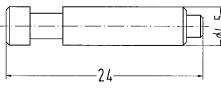
Coding pin

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.

Number of contacts

6

16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han E® module, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 14 006 3001	09 14 006 3101	      Contact arrangement (view from termination side)																		
Han E® HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 200 6117 09 33 200 6122 09 33 200 6115 09 33 200 6118 09 33 200 6116 09 33 200 6123 09 33 200 6119	09 33 200 6217 09 33 200 6222 09 33 200 6215 09 33 200 6218 09 33 200 6216 09 33 200 6223 09 33 200 6221	  <table><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> * on the back crimp collar	Conductor cross-section	Identification	0.14-0.37 mm² AWG 26-22	no groove	0.5 mm² AWG 20	no groove	0.75 mm² AWG 18	1 groove*	1 mm² AWG 18	1 groove	1.5 mm² AWG 16	2 groove	2.5 mm² AWG 14	3 groove	3 mm² AWG 12	wide groove	4 mm² AWG 12	no groove
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4 mm² AWG 12	no groove																					
Han E®, Han® EE, Han® EEE, Coding pin  for crimp inserts only With loss of one contact			09 33 000 9954																			

Features

- High packing density

Technical characteristics

Number of contacts	8
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

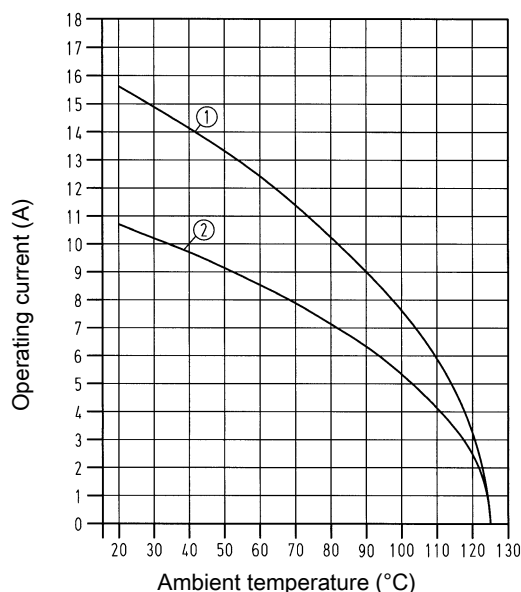
Derating

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

Crimp termination



① 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm²

② 24 B hoods/housings with 6 modules Conductor cross-section 1.5 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

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.

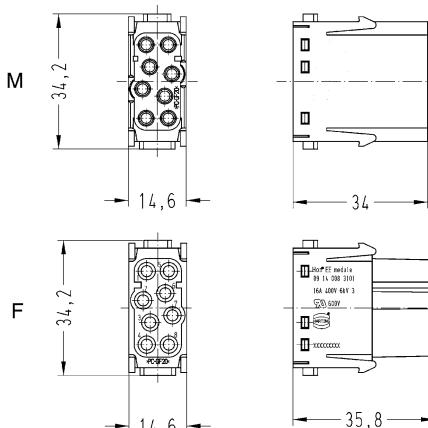
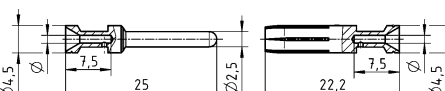
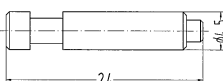
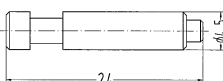
Coding pin

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.

Number of contacts

8

16 A 400 V 6 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han® EE module, Crimp termination	0.14 ... 4	09 14 008 3001	09 14 008 3101	  <table><tr><th>Conductor cross-section</th><th>Identification</th></tr><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></table> * on the back crimp collar	Conductor cross-section	Identification	0.14-0.37 mm² AWG 26-22	no groove	0.5 mm² AWG 20	no groove	0.75 mm² AWG 18	1 groove*	1 mm² AWG 18	1 groove	1.5 mm² AWG 16	2 groove	2.5 mm² AWG 14	3 groove	3 mm² AWG 12	wide groove	4 mm² AWG 12	no groove
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Han E® HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 200 6117 09 33 200 6122 09 33 200 6115 09 33 200 6118 09 33 200 6116 09 33 200 6123 09 33 200 6119	09 33 200 6217 09 33 200 6222 09 33 200 6215 09 33 200 6218 09 33 200 6216 09 33 200 6223 09 33 200 6221																			
Han E®, Han® EE, Han® EEE, Coding pin			09 33 000 9954																			



for crimp inserts only
With loss of one contact

Features

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

Technical characteristics

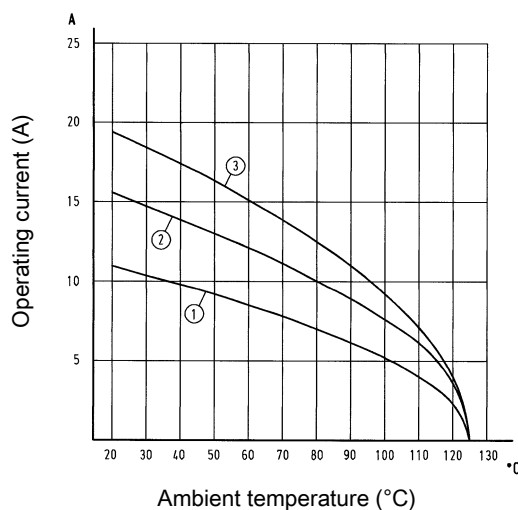
Number of contacts	6
Rated current	16 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
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 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm²
 ② 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm²
 ③ 24 B hoods/housings with 6 modules Conductor cross-section 4 mm²

Specifications and approvals

EN 60664-1
 IEC 61984
 UL 1977 ECBT2.E235076
 CSA-C22.2 No. 182.3 ECBT8.E235076
 UL 2237 PVVA2.E318390
 CSA-C22.2 No. 182.3 PVVA8.E318390
 DNV GL

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.

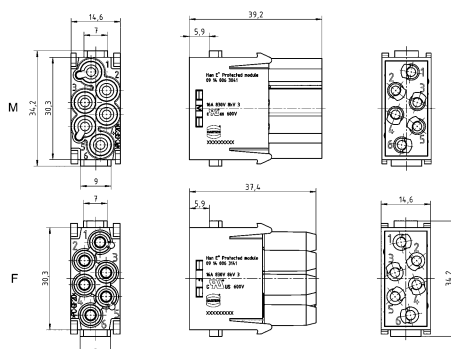
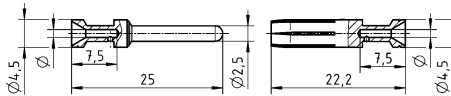
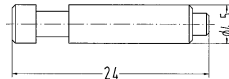
Coding pin

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.

Number of contacts

6

16 A 830 V 8 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han E® Protected module, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 14 006 3041	09 14 006 3141	 Contact arrangement (view from termination side)																		
Han E® HMC, Crimp contact, Contact surface: HMC gold plated 0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4		09 33 200 6117 09 33 200 6122 09 33 200 6115 09 33 200 6118 09 33 200 6116 09 33 200 6123 09 33 200 6119	09 33 200 6217 09 33 200 6222 09 33 200 6215 09 33 200 6218 09 33 200 6216 09 33 200 6223 09 33 200 6221	 <table><tr><th>Conductor cross-section</th><th>Identification</th></tr><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></table> * on the back crimp collar Stripping length 7.5 mm	Conductor cross-section	Identification	0.14-0.37 mm² AWG 26-22	no groove	0.5 mm² AWG 20	no groove	0.75 mm² AWG 18	1 groove*	1 mm² AWG 18	1 groove	1.5 mm² AWG 16	2 groove	2.5 mm² AWG 14	3 groove	3 mm² AWG 12	wide groove	4 mm² AWG 12	no groove
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Han E®, Han® EE, Han® EEE, Coding pin  for crimp inserts only With loss of one contact			09 33 000 9954																			

Han
HMC

Features

- Suitable for Han E® crimp contacts
- Higher density of crimping contacts
- Standard module for power up to 16 A
- Also suitable as a reliable signal connector

Technical characteristics

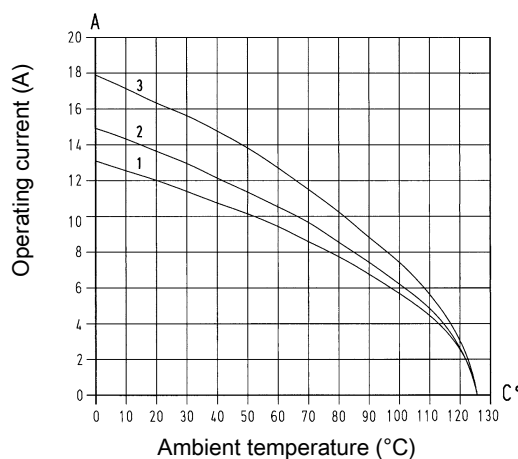
Number of contacts	20
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
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 24 B hoods/housings with 3 modules Conductor cross-section 1.5 mm²
- ② 24 B hoods/housings with 3 modules Conductor cross-section 2.5 mm²
- ③ 24 B hoods/housings with 3 modules Conductor cross-section 4 mm²

Specifications and approvals

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

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.

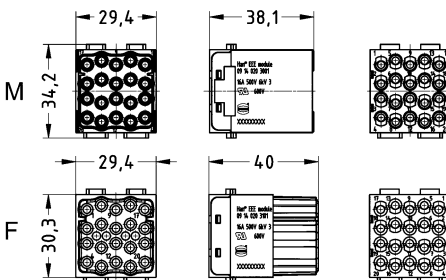
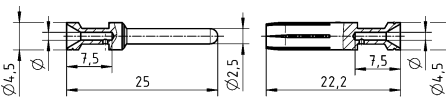
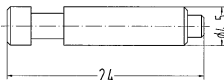
Coding pin

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.

Number of contacts

20

16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																											
		Male	Female																												
Han-Modular®, Han® EEE module, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 14 020 3001	09 14 020 3101	 Contact arrangement (view from termination side)																											
Han E® HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 200 6117 09 33 200 6122 09 33 200 6115 09 33 200 6118 09 33 200 6116 09 33 200 6123 09 33 200 6119	09 33 200 6217 09 33 200 6222 09 33 200 6215 09 33 200 6218 09 33 200 6216 09 33 200 6223 09 33 200 6221	 <table><thead><tr><th colspan="2">Conductor cross-section</th><th>Identification</th></tr></thead><tbody><tr><td>0.14-0.37 mm²</td><td>AWG 26-22</td><td>no groove</td></tr><tr><td>0.5 mm²</td><td>AWG 20</td><td>no groove</td></tr><tr><td>0.75 mm²</td><td>AWG 18</td><td>1 groove*</td></tr><tr><td>1 mm²</td><td>AWG 18</td><td>1 groove</td></tr><tr><td>1.5 mm²</td><td>AWG 16</td><td>2 groove</td></tr><tr><td>2.5 mm²</td><td>AWG 14</td><td>3 groove</td></tr><tr><td>3 mm²</td><td>AWG 12</td><td>wide groove</td></tr><tr><td>4 mm²</td><td>AWG 12</td><td>no groove</td></tr></tbody></table> * on the back crimp collar	Conductor cross-section		Identification	0.14-0.37 mm²	AWG 26-22	no groove	0.5 mm²	AWG 20	no groove	0.75 mm²	AWG 18	1 groove*	1 mm²	AWG 18	1 groove	1.5 mm²	AWG 16	2 groove	2.5 mm²	AWG 14	3 groove	3 mm²	AWG 12	wide groove	4 mm²	AWG 12	no groove
Conductor cross-section		Identification																													
0.14-0.37 mm²	AWG 26-22	no groove																													
0.5 mm²	AWG 20	no groove																													
0.75 mm²	AWG 18	1 groove*																													
1 mm²	AWG 18	1 groove																													
1.5 mm²	AWG 16	2 groove																													
2.5 mm²	AWG 14	3 groove																													
3 mm²	AWG 12	wide groove																													
4 mm²	AWG 12	no groove																													
Han E®, Han® EE, Han® EEE, Coding pin  for crimp inserts only With loss of one contact			09 33 000 9954																												

Han
HMC

Han
16
·
15

Features

- Standard module for signal up to 10 A

Technical characteristics

Number of contacts	12
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

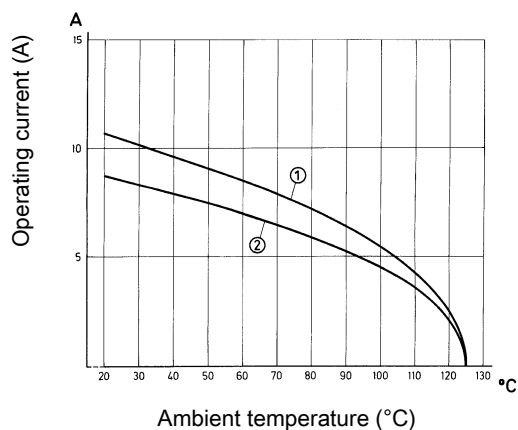
Derating

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

Crimp termination



① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm²

② 24 B hoods/housings with 6 modules Conductor cross-section 1 mm²

Specifications and approvals

EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
DNV GL

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.

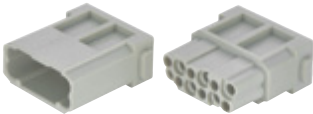
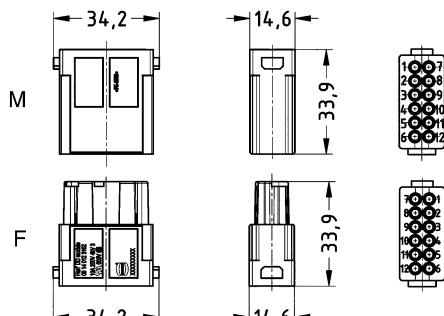
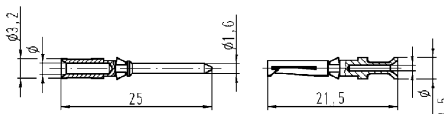
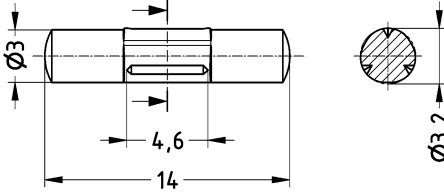
Coding pin

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.

Number of contacts

12

10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Modular®, Han DD® module, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 14 012 3002	09 14 012 3102	 Contact arrangement (view from termination side)																					
Han D® HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table><tr><th>Conductor cross-section</th><th>ø</th><th>Stripping length</th></tr><tr><td>0.14-0.37 mm² AWG 26-22</td><td>0.9 mm</td><td>8 mm</td></tr><tr><td>0.5 mm² AWG 20</td><td>1.1 mm</td><td>8 mm</td></tr><tr><td>0.75 mm² AWG 18</td><td>1.3 mm</td><td>8 mm</td></tr><tr><td>1 mm² AWG 18</td><td>1.45 mm</td><td>8 mm</td></tr><tr><td>1.5 mm² AWG 16</td><td>1.75 mm</td><td>8 mm</td></tr><tr><td>2.5 mm² AWG 14</td><td>2.25 mm</td><td>6 mm</td></tr></table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm	0.5 mm² AWG 20	1.1 mm	8 mm	0.75 mm² AWG 18	1.3 mm	8 mm	1 mm² AWG 18	1.45 mm	8 mm	1.5 mm² AWG 16	1.75 mm	8 mm	2.5 mm² AWG 14	2.25 mm	6 mm
Conductor cross-section	ø	Stripping length																							
0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm																							
0.5 mm² AWG 20	1.1 mm	8 mm																							
0.75 mm² AWG 18	1.3 mm	8 mm																							
1 mm² AWG 18	1.45 mm	8 mm																							
1.5 mm² AWG 16	1.75 mm	8 mm																							
2.5 mm² AWG 14	2.25 mm	6 mm																							
Han D®, Han DD®, Han® DDD, Coding pin  Only for crimp termination With loss of one contact			09 33 000 9915																						

Han
HMC

Features

- 36 Han D[®] contacts up to 400 V
- Suitable for transmitting power (10 A) and signals in one module
- e.g. for three phase AC motors including feedback for all six axes of a robot

Technical characteristics

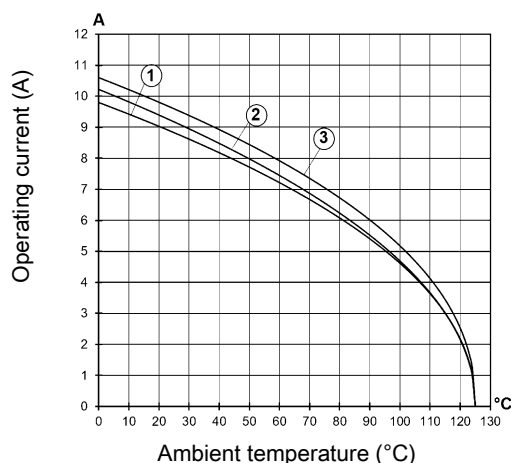
Number of contacts	36
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

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 24 B hoods/housings with 3 modules Conductor cross-section 1 mm²
- ② 24 B hoods/housings with 3 modules Conductor cross-section 1.5 mm²
- ③ 24 B hoods/housings with 3 modules Conductor cross-section 2.5 mm²

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.

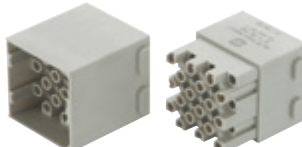
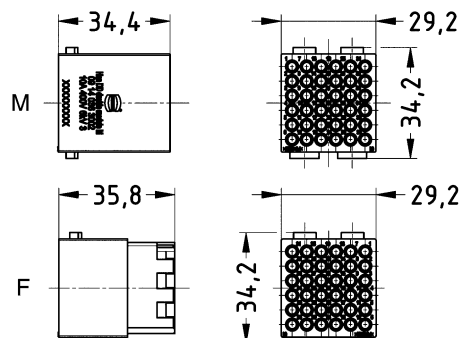
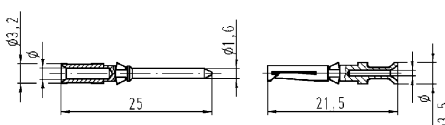
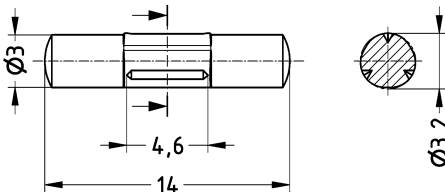
Coding pin

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.

Number of contacts

36

10 A 400 V 6 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Modular®, Han DD® module, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 14 036 3002	09 14 036 3102	 Contact arrangement (view from termination side)																					
Han D® HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table><tr><th>Conductor cross-section</th><th>ø</th><th>Stripping length</th></tr><tr><td>0.14-0.37 mm² AWG 26-22</td><td>0.9 mm</td><td>8 mm</td></tr><tr><td>0.5 mm² AWG 20</td><td>1.1 mm</td><td>8 mm</td></tr><tr><td>0.75 mm² AWG 18</td><td>1.3 mm</td><td>8 mm</td></tr><tr><td>1 mm² AWG 18</td><td>1.45 mm</td><td>8 mm</td></tr><tr><td>1.5 mm² AWG 16</td><td>1.75 mm</td><td>8 mm</td></tr><tr><td>2.5 mm² AWG 14</td><td>2.25 mm</td><td>6 mm</td></tr></table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm	0.5 mm² AWG 20	1.1 mm	8 mm	0.75 mm² AWG 18	1.3 mm	8 mm	1 mm² AWG 18	1.45 mm	8 mm	1.5 mm² AWG 16	1.75 mm	8 mm	2.5 mm² AWG 14	2.25 mm	6 mm
Conductor cross-section	ø	Stripping length																							
0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm																							
0.5 mm² AWG 20	1.1 mm	8 mm																							
0.75 mm² AWG 18	1.3 mm	8 mm																							
1 mm² AWG 18	1.45 mm	8 mm																							
1.5 mm² AWG 16	1.75 mm	8 mm																							
2.5 mm² AWG 14	2.25 mm	6 mm																							
Han D®, Han DD®, Han® DDD, Coding pin  Only for crimp termination With loss of one contact			09 33 000 9915																						

Han
HMC

Features

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

Technical characteristics

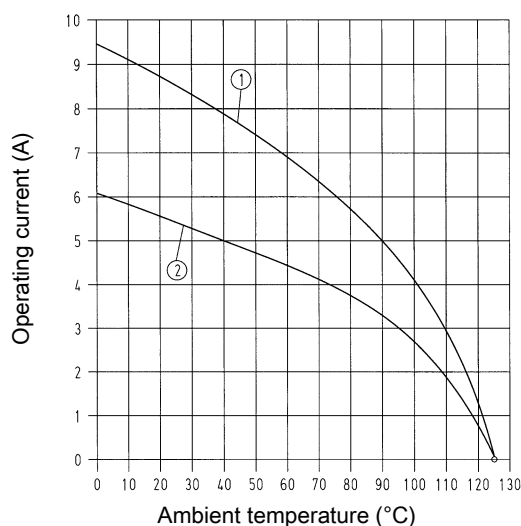
Number of contacts	17
Rated current	10 A
Rated voltage	160 V
Rated impulse voltage	2.5 kV
Pollution degree	3
Rated voltage acc. to UL	250 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
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 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm²
 ② 24 B hoods/housings with 6 modules 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

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.

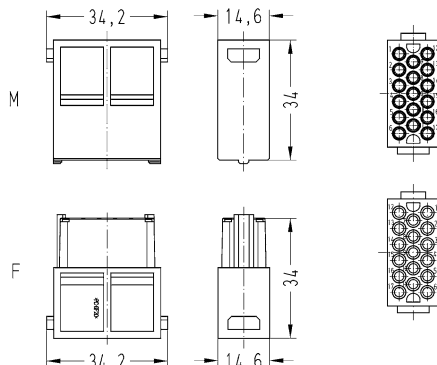
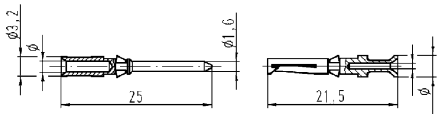
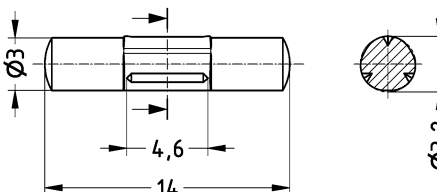
Coding pin

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.

Number of contacts

17

10 A 160 V 2.5 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Modular®, Han® DDD module, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 14 017 3001	09 14 017 3101	 Contact arrangement (view from termination side)																					
Han D® HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table><thead><tr><th>Conductor cross-section</th><th>ø</th><th>Stripping length</th></tr></thead><tbody><tr><td>0.14-0.37 mm² AWG 26-22</td><td>0.9 mm</td><td>8 mm</td></tr><tr><td>0.5 mm² AWG 20</td><td>1.1 mm</td><td>8 mm</td></tr><tr><td>0.75 mm² AWG 18</td><td>1.3 mm</td><td>8 mm</td></tr><tr><td>1 mm² AWG 18</td><td>1.45 mm</td><td>8 mm</td></tr><tr><td>1.5 mm² AWG 16</td><td>1.75 mm</td><td>8 mm</td></tr><tr><td>2.5 mm² AWG 14</td><td>2.25 mm</td><td>6 mm</td></tr></tbody></table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm	0.5 mm² AWG 20	1.1 mm	8 mm	0.75 mm² AWG 18	1.3 mm	8 mm	1 mm² AWG 18	1.45 mm	8 mm	1.5 mm² AWG 16	1.75 mm	8 mm	2.5 mm² AWG 14	2.25 mm	6 mm
Conductor cross-section	ø	Stripping length																							
0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm																							
0.5 mm² AWG 20	1.1 mm	8 mm																							
0.75 mm² AWG 18	1.3 mm	8 mm																							
1 mm² AWG 18	1.45 mm	8 mm																							
1.5 mm² AWG 16	1.75 mm	8 mm																							
2.5 mm² AWG 14	2.25 mm	6 mm																							
Han D®, Han DD®, Han® DDD, Coding pin  Only for crimp termination With loss of one contact			09 33 000 9915																						

Features

- Suitable for standard D-Sub crimp contacts
- High packing density

Technical characteristics

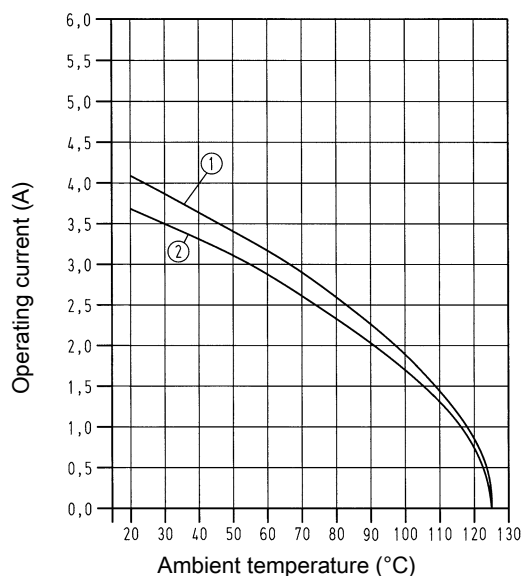
Number of contacts	25
Rated current	4 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage acc. to UL	30 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
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 24 B hoods/housings with 6 modules; turned contacts Conductor cross-section 0.5 mm²
- ② 24 B hoods/housings with 6 modules; stamped contacts Conductor cross-section 0.5 mm²

Specifications and approvals

EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076

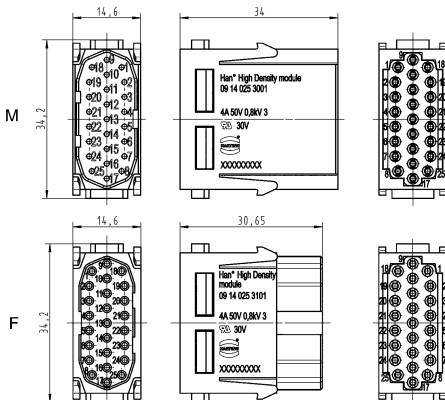
Details

Guide pins and bushes are recommended (see chapter Han 80).

Number of contacts

25

4 A 50 V 0.8 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)												
		Male	Female													
Han-Modular®, Han® High Density module, Crimp termination  Please order crimp contacts separately.	0.09 ... 0.52	09 14 025 3001	09 14 025 3101	 Contact arrangement (view from termination side) <table><tr><th>Conductor cross-section</th><th>Ø</th><th>Stripping length</th></tr><tr><td>0.08 - 0.21 mm²</td><td>AWG 28-24</td><td>4 mm</td></tr><tr><td>0.13 - 0.33 mm²</td><td>AWG 26-22</td><td>4 mm</td></tr><tr><td>0.33 - 0.52 mm²</td><td>AWG 22-20</td><td>4 mm</td></tr></table>	Conductor cross-section	Ø	Stripping length	0.08 - 0.21 mm²	AWG 28-24	4 mm	0.13 - 0.33 mm²	AWG 26-22	4 mm	0.33 - 0.52 mm²	AWG 22-20	4 mm
Conductor cross-section	Ø	Stripping length														
0.08 - 0.21 mm²	AWG 28-24	4 mm														
0.13 - 0.33 mm²	AWG 26-22	4 mm														
0.33 - 0.52 mm²	AWG 22-20	4 mm														
D-Sub, Crimp contact, Contact surface: HMC gold plated 	0.08 ... 0.21 0.13 ... 0.33 0.33 ... 0.52	09 67 000 7570 09 67 000 5570 09 67 000 8570	09 67 000 7470 09 67 000 5470 09 67 000 8470													

Technical characteristics

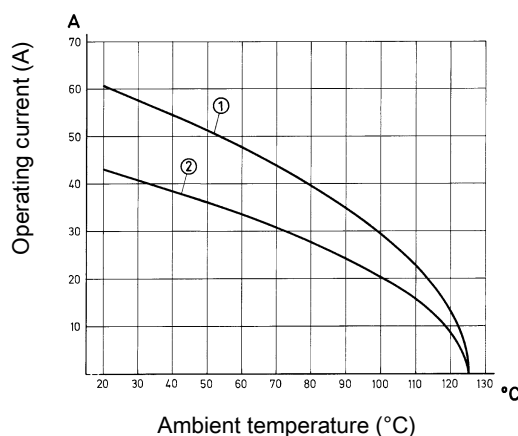
Number of contacts	2
Rated current	40 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
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 24 B hoods/housings with 6 modules Conductor cross-section 10 mm²

② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm²

Specifications and approvals

EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
DNV GL

Details

Contact resistance Han® C crimp contact: $\leq 1 \text{ m}\Omega$

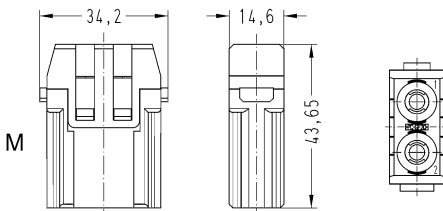
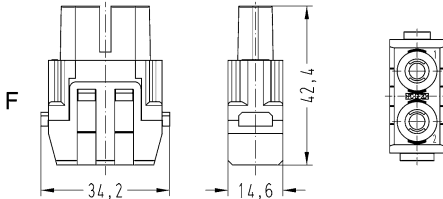
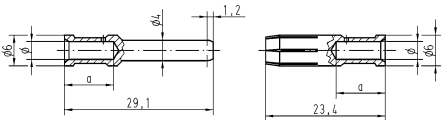
Crimping tools see chapter Han 90

Remarks on the crimp technique

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

Number of contacts

2
40 A 1.000 V 8 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Modular®, Han® 40 A module, Crimp termination, UL: 600 V  Please order crimp contacts separately.	1.5 ... 10	09 14 002 3002	09 14 002 3102	M  F  Contact arrangement (view from termination side) 																								
Han® C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5 2.5 4 6 10	09 32 200 6114 09 32 200 6115 09 32 200 6119 09 32 200 6118 09 32 200 6117	09 32 200 6224 09 32 200 6225 09 32 200 6229 09 32 200 6228 09 32 200 6227	<table><tr><th colspan="2">Wire gauge</th><th>ø</th><th>Stripping length</th></tr><tr><td>1.5 mm²</td><td>AWG 16</td><td>1.75 mm</td><td>9.5 mm</td></tr><tr><td>2.5 mm²</td><td>AWG 14</td><td>2.25 mm</td><td>9.5 mm</td></tr><tr><td>4 mm²</td><td>AWG 12</td><td>2.85 mm</td><td>9.5 mm</td></tr><tr><td>6 mm²</td><td>AWG 10</td><td>3.5 mm</td><td>9.5 mm</td></tr><tr><td>10 mm²</td><td>AWG 8</td><td>4.3 mm</td><td>15 mm</td></tr></table>	Wire gauge		ø	Stripping length	1.5 mm²	AWG 16	1.75 mm	9.5 mm	2.5 mm²	AWG 14	2.25 mm	9.5 mm	4 mm²	AWG 12	2.85 mm	9.5 mm	6 mm²	AWG 10	3.5 mm	9.5 mm	10 mm²	AWG 8	4.3 mm	15 mm
Wire gauge		ø	Stripping length																									
1.5 mm²	AWG 16	1.75 mm	9.5 mm																									
2.5 mm²	AWG 14	2.25 mm	9.5 mm																									
4 mm²	AWG 12	2.85 mm	9.5 mm																									
6 mm²	AWG 10	3.5 mm	9.5 mm																									
10 mm²	AWG 8	4.3 mm	15 mm																									

Han
HMC

Technical characteristics

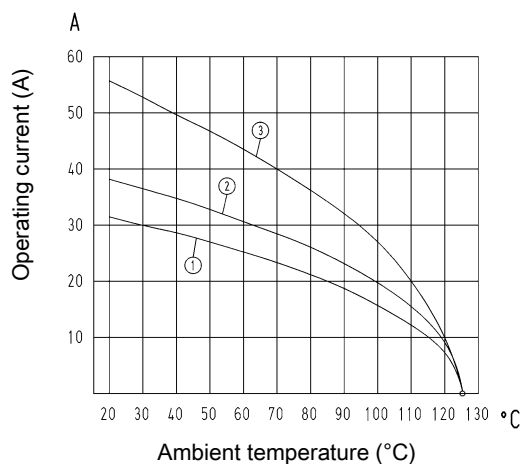
Number of contacts	3
Rated current	40 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current acc. to UL	40 A
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
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 24 B hoods/housings with 6 modules Conductor cross-section 4 mm²
- ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm²
- ③ 24 B hoods/housings with 6 modules Conductor cross-section 10 mm²

Specifications and approvals

EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
DNV GL

Details

Contact resistance Han® C crimp contact: $\leq 1 \text{ m}\Omega$

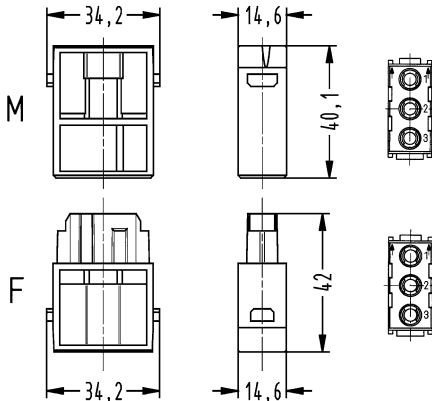
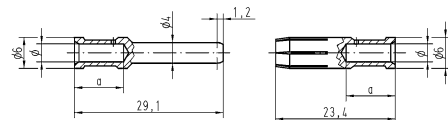
Crimping tools see chapter Han 90

Remarks on the crimp technique

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

Number of contacts

3
40 A 690 V 8 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Modular®, Han® C module, Crimp termination  Please order crimp contacts separately.	1.5 ... 6	09 14 003 3001	09 14 003 3101	M F  Contact arrangement (view from termination side)																								
Han® C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5 2.5 4 6 10	09 32 200 6114 09 32 200 6115 09 32 200 6119 09 32 200 6118 09 32 200 6117	09 32 200 6224 09 32 200 6225 09 32 200 6229 09 32 200 6228 09 32 200 6227	 <table><tr><th colspan="2">Wire gauge</th><th>ø</th><th>Stripping length</th></tr><tr><td>1.5 mm²</td><td>AWG 16</td><td>1.75 mm</td><td>9.5 mm</td></tr><tr><td>2.5 mm²</td><td>AWG 14</td><td>2.25 mm</td><td>9.5 mm</td></tr><tr><td>4 mm²</td><td>AWG 12</td><td>2.85 mm</td><td>9.5 mm</td></tr><tr><td>6 mm²</td><td>AWG 10</td><td>3.5 mm</td><td>9.5 mm</td></tr><tr><td>10 mm²</td><td>AWG 8</td><td>4.3 mm</td><td>15 mm</td></tr></table>	Wire gauge		ø	Stripping length	1.5 mm²	AWG 16	1.75 mm	9.5 mm	2.5 mm²	AWG 14	2.25 mm	9.5 mm	4 mm²	AWG 12	2.85 mm	9.5 mm	6 mm²	AWG 10	3.5 mm	9.5 mm	10 mm²	AWG 8	4.3 mm	15 mm
Wire gauge		ø	Stripping length																									
1.5 mm²	AWG 16	1.75 mm	9.5 mm																									
2.5 mm²	AWG 14	2.25 mm	9.5 mm																									
4 mm²	AWG 12	2.85 mm	9.5 mm																									
6 mm²	AWG 10	3.5 mm	9.5 mm																									
10 mm²	AWG 8	4.3 mm	15 mm																									

Han
HMC

Features

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

Technical characteristics

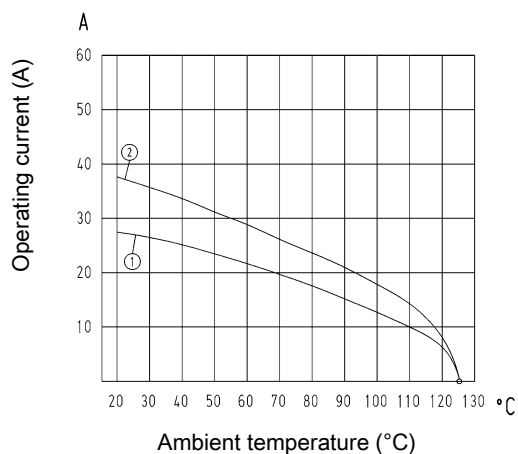
Number of contacts	4
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
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 24 B hoods/housings with 6 modules Conductor cross-section 4 mm²
 ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm²

Specifications and approvals

EN 60664-1
 IEC 61984
 UL 1977 ECBT2.E235076
 DNV GL

Details

Crimping tools see chapter Han 90

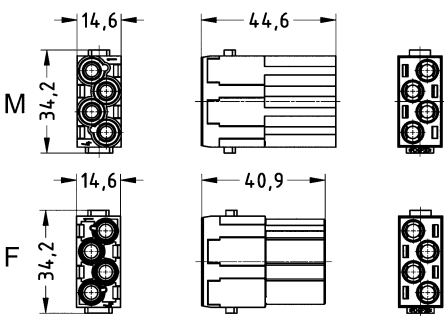
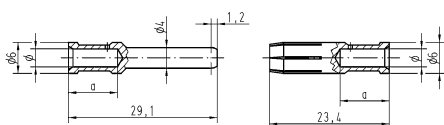
Remarks on the crimp technique

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

Number of contacts

4

40 A 830 V 8 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Modular®, Han® CC Protected module, Crimp termination  Please order crimp contacts separately.	1.5 ... 6	09 14 004 3041	09 14 004 3141	 Contact arrangement (view from termination side)																								
Han® C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5 2.5 4 6 10	09 32 200 6114 09 32 200 6115 09 32 200 6119 09 32 200 6118 09 32 200 6117	09 32 200 6224 09 32 200 6225 09 32 200 6229 09 32 200 6228 09 32 200 6227	 <table><tr><th colspan="2">Wire gauge</th><th>ø</th><th>Stripping length</th></tr><tr><td>1.5 mm²</td><td>AWG 16</td><td>1.75 mm</td><td>9.5 mm</td></tr><tr><td>2.5 mm²</td><td>AWG 14</td><td>2.25 mm</td><td>9.5 mm</td></tr><tr><td>4 mm²</td><td>AWG 12</td><td>2.85 mm</td><td>9.5 mm</td></tr><tr><td>6 mm²</td><td>AWG 10</td><td>3.5 mm</td><td>9.5 mm</td></tr><tr><td>10 mm²</td><td>AWG 8</td><td>4.3 mm</td><td>15 mm</td></tr></table>	Wire gauge		ø	Stripping length	1.5 mm²	AWG 16	1.75 mm	9.5 mm	2.5 mm²	AWG 14	2.25 mm	9.5 mm	4 mm²	AWG 12	2.85 mm	9.5 mm	6 mm²	AWG 10	3.5 mm	9.5 mm	10 mm²	AWG 8	4.3 mm	15 mm
Wire gauge		ø	Stripping length																									
1.5 mm²	AWG 16	1.75 mm	9.5 mm																									
2.5 mm²	AWG 14	2.25 mm	9.5 mm																									
4 mm²	AWG 12	2.85 mm	9.5 mm																									
6 mm²	AWG 10	3.5 mm	9.5 mm																									
10 mm²	AWG 8	4.3 mm	15 mm																									

Features

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

Technical characteristics

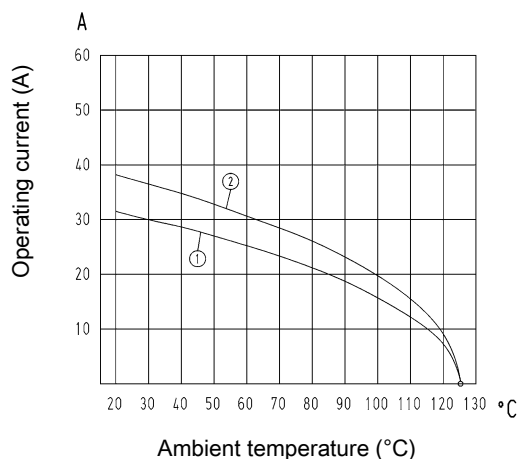
Number of contacts	3
Additional contacts	+ 4 additional signal contacts
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	830 V
Rated impulse voltage (signal)	8 kV
Pollution degree (signal)	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega, \leq 3 \text{ m}\Omega$
Limiting temperature	$-40 \dots +125^\circ\text{C}$
Mating cycles	≥ 500
Mating cycles with other HMC components	≥ 10000
Wire outer diameter	$\leq 5 \text{ mm}$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
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 24 B hoods/housings with 6 modules Conductor cross-section 4 mm²

② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm²

Specifications and approvals

EN 60664-1
IEC 61984
UL 1977 ECBT2.E235076
DNV GL

Details

Contact resistance Han D® crimp contact: $\leq 3 \text{ m}\Omega$

Contact resistance Han® C crimp contact: $\leq 1 \text{ m}\Omega$

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.

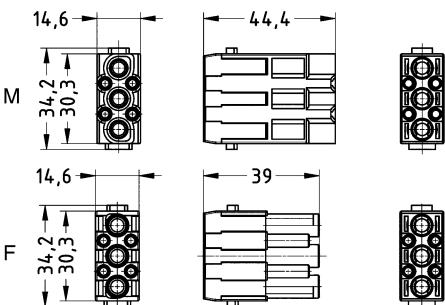
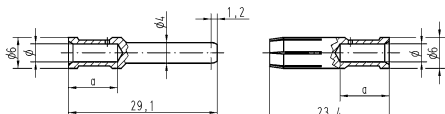
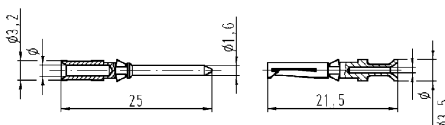
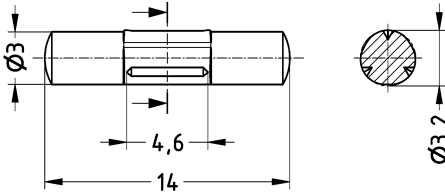
Coding pin

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.

Number of contacts

3

40 A 830 V 8 kV 3
10 A 830 V 8 kV 3
+ 4 additional signal contacts

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Modular®, Han® CD module, Crimp termination  Please order crimp contacts separately.	0.14 ... 6	09 14 007 3001	09 14 007 3101	 Contact arrangement (view from termination side)																												
Han® C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5 2.5 4 6 10	09 32 200 6114 09 32 200 6115 09 32 200 6119 09 32 200 6118 09 32 200 6117	09 32 200 6224 09 32 200 6225 09 32 200 6229 09 32 200 6228 09 32 200 6227	 <table><tr><th colspan="2">Wire gauge</th><th>ø</th><th>Stripping length</th></tr><tr><td>1.5 mm²</td><td>AWG 16</td><td>1.75 mm</td><td>9.5 mm</td></tr><tr><td>2.5 mm²</td><td>AWG 14</td><td>2.25 mm</td><td>9.5 mm</td></tr><tr><td>4 mm²</td><td>AWG 12</td><td>2.85 mm</td><td>9.5 mm</td></tr><tr><td>6 mm²</td><td>AWG 10</td><td>3.5 mm</td><td>9.5 mm</td></tr><tr><td>10 mm²</td><td>AWG 8</td><td>4.3 mm</td><td>15 mm</td></tr></table>	Wire gauge		ø	Stripping length	1.5 mm²	AWG 16	1.75 mm	9.5 mm	2.5 mm²	AWG 14	2.25 mm	9.5 mm	4 mm²	AWG 12	2.85 mm	9.5 mm	6 mm²	AWG 10	3.5 mm	9.5 mm	10 mm²	AWG 8	4.3 mm	15 mm				
Wire gauge		ø	Stripping length																													
1.5 mm²	AWG 16	1.75 mm	9.5 mm																													
2.5 mm²	AWG 14	2.25 mm	9.5 mm																													
4 mm²	AWG 12	2.85 mm	9.5 mm																													
6 mm²	AWG 10	3.5 mm	9.5 mm																													
10 mm²	AWG 8	4.3 mm	15 mm																													
Han D® HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table><tr><th colspan="2">Conductor cross-section</th><th>ø</th><th>Stripping length</th></tr><tr><td>0.14-0.37 mm²</td><td>AWG 26-22</td><td>0.9 mm</td><td>8 mm</td></tr><tr><td>0.5 mm²</td><td>AWG 20</td><td>1.1 mm</td><td>8 mm</td></tr><tr><td>0.75 mm²</td><td>AWG 18</td><td>1.3 mm</td><td>8 mm</td></tr><tr><td>1 mm²</td><td>AWG 18</td><td>1.45 mm</td><td>8 mm</td></tr><tr><td>1.5 mm²</td><td>AWG 16</td><td>1.75 mm</td><td>8 mm</td></tr><tr><td>2.5 mm²</td><td>AWG 14</td><td>2.25 mm</td><td>6 mm</td></tr></table>	Conductor cross-section		ø	Stripping length	0.14-0.37 mm²	AWG 26-22	0.9 mm	8 mm	0.5 mm²	AWG 20	1.1 mm	8 mm	0.75 mm²	AWG 18	1.3 mm	8 mm	1 mm²	AWG 18	1.45 mm	8 mm	1.5 mm²	AWG 16	1.75 mm	8 mm	2.5 mm²	AWG 14	2.25 mm	6 mm
Conductor cross-section		ø	Stripping length																													
0.14-0.37 mm²	AWG 26-22	0.9 mm	8 mm																													
0.5 mm²	AWG 20	1.1 mm	8 mm																													
0.75 mm²	AWG 18	1.3 mm	8 mm																													
1 mm²	AWG 18	1.45 mm	8 mm																													
1.5 mm²	AWG 16	1.75 mm	8 mm																													
2.5 mm²	AWG 14	2.25 mm	6 mm																													
Han D®, Han DD®, Han® DDD, Coding pin  Only for crimp termination With loss of one contact			09 33 000 9915																													

Han
HMC

Han
16
-
31



Features

- Suitable for PoE++

Technical characteristics

Number of contacts	8
Additional contacts	+ shielding
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage	50 V AC, 60 V DC
Rated voltage acc. to UL	30 V
Insulation resistance	>10 ¹⁰ Ω
Contact resistance	≤10 mΩ
Contact resistance, shielding	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles with other HMC components	≥10000
Transmission characteristics	Cat. 6 _A , Class E _A up to 500 MHz, Cat. 7 _A , Class F _A up to 1,000 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 10 Gbit/s
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

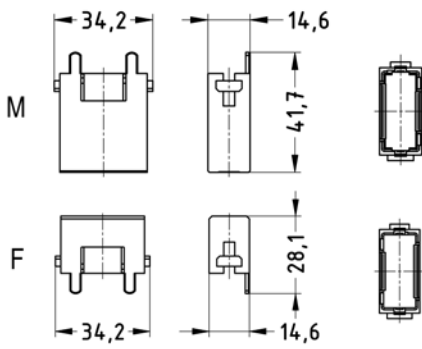
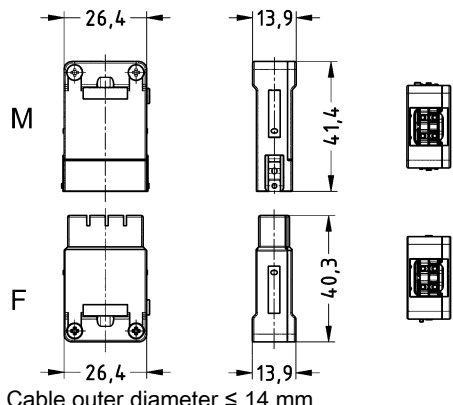
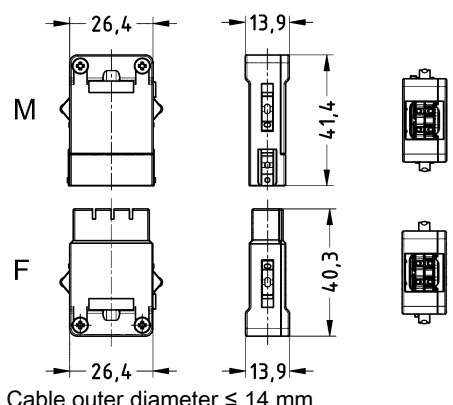
Specifications and approvals

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

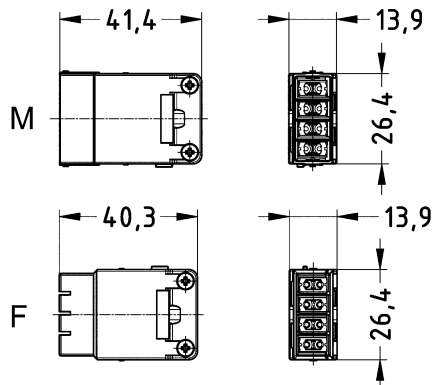
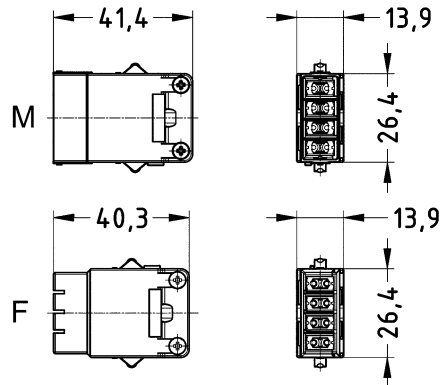
Number of contacts

8

5 A 50 V 0.8 kV 3
+ shielding

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module 		09 14 001 3011	09 14 001 3111	
Han® Gigabit HMC insert, Crimp termination, Cat. 6A  Please order crimp contacts separately. Please order adapter module separately.	0.09 ... 0.52	09 14 208 3011	09 14 208 3111	 Cable outer diameter ≤ 14 mm
Han® Gigabit HMC insert, Crimp termination, Cat. 6A  With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.	0.09 ... 0.52	09 14 208 3012	09 14 208 3112	 Cable outer diameter ≤ 14 mm

Han
HMC

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)												
		Male	Female													
Han® Gigabit HMC insert, Crimp termination, Cat. 7_A  Please order crimp contacts separately. Please order adapter module separately.	0.09 ... 0.52	09 14 208 3031	09 14 208 3131	 Cable outer diameter ≤ 14 mm												
Han® Gigabit HMC insert, Crimp termination, Cat. 7_A  With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.	0.09 ... 0.52	09 14 208 3032	09 14 208 3132	 Cable outer diameter ≤ 14 mm												
D-Sub, Crimp contact, Contact surface: HMC gold plated 	0.08 ... 0.21 0.13 ... 0.33 0.33 ... 0.52	09 67 000 7570 09 67 000 5570 09 67 000 8570	09 67 000 7470 09 67 000 5470 09 67 000 8470	<table><tr><th>Conductor cross-section</th><th>ø</th><th>Stripping length</th></tr><tr><td>0.08 - 0.21 mm²</td><td>AWG 28-24</td><td>4 mm</td></tr><tr><td>0.13 - 0.33 mm²</td><td>AWG 26-22</td><td>4 mm</td></tr><tr><td>0.33 - 0.52 mm²</td><td>AWG 22-20</td><td>4 mm</td></tr></table>	Conductor cross-section	ø	Stripping length	0.08 - 0.21 mm²	AWG 28-24	4 mm	0.13 - 0.33 mm²	AWG 26-22	4 mm	0.33 - 0.52 mm²	AWG 22-20	4 mm
Conductor cross-section	ø	Stripping length														
0.08 - 0.21 mm²	AWG 28-24	4 mm														
0.13 - 0.33 mm²	AWG 26-22	4 mm														
0.33 - 0.52 mm²	AWG 22-20	4 mm														

Technical characteristics

Number of contacts	8
Additional contacts	+ shielding
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage acc. to UL	30 V
Rated voltage acc. to CSA	30 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Contact resistance, shielding	$\leq 100 \text{ m}\Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles with other HMC components	≥ 10000
Transmission characteristics	Cat. 5, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy

Technical characteristics

Material flammability class acc. to UL 94 V-0

RoHS

compliant, compliant with exemption

Specifications and approvals

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

Details

Crimping tools see chapter Han 90

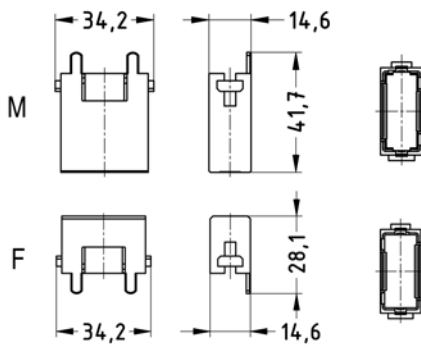
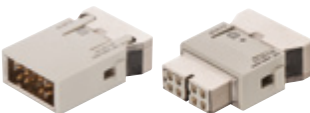
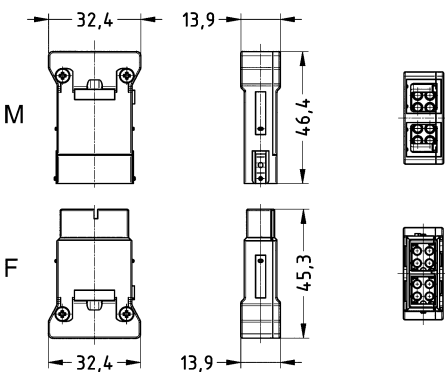
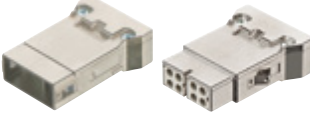
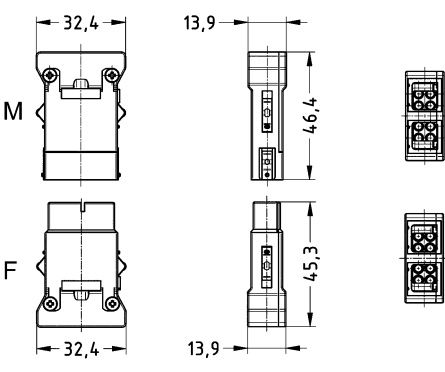
Remarks on the crimp technique

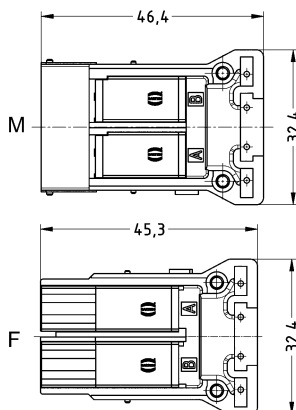
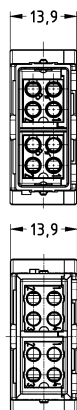
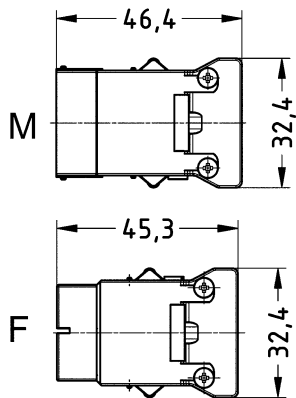
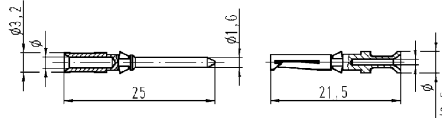
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

8

10 A 50 V 0.8 kV 3
+ shielding

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module 		09 14 001 3011	09 14 001 3111	
Han® Megabit HMC insert, 2x 4 contacts, 2 cable entries, Crimp termination  Please order crimp contacts separately. Please order adapter module separately.	0.14 ... 2.5	09 14 208 3016	09 14 208 3116	
Han® Megabit HMC insert, 2x 4 contacts, 2 cable entries, Crimp termination  With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.	0.14 ... 2.5	09 14 208 3017	09 14 208 3117	

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han® Megabit insert, 2x 4 contacts, One entry, Crimp termination  Please order crimp contacts separately. Please order adapter module separately.	0.14 ... 2.5	09 14 208 3021	09 14 208 3121	 																					
Han® Megabit insert, 2x 4 contacts, One entry, Crimp termination  With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.	0.14 ... 2.5	09 14 208 3022	09 14 208 3122	 																					
Han D® HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table><tr><th>Conductor cross-section</th><th>ø</th><th>Stripping length</th></tr><tr><td>0.14-0.37 mm² AWG 26-22</td><td>0.9 mm</td><td>8 mm</td></tr><tr><td>0.5 mm² AWG 20</td><td>1.1 mm</td><td>8 mm</td></tr><tr><td>0.75 mm² AWG 18</td><td>1.3 mm</td><td>8 mm</td></tr><tr><td>1 mm² AWG 18</td><td>1.45 mm</td><td>8 mm</td></tr><tr><td>1.5 mm² AWG 16</td><td>1.75 mm</td><td>8 mm</td></tr><tr><td>2.5 mm² AWG 14</td><td>2.25 mm</td><td>6 mm</td></tr></table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm	0.5 mm² AWG 20	1.1 mm	8 mm	0.75 mm² AWG 18	1.3 mm	8 mm	1 mm² AWG 18	1.45 mm	8 mm	1.5 mm² AWG 16	1.75 mm	8 mm	2.5 mm² AWG 14	2.25 mm	6 mm
Conductor cross-section	ø	Stripping length																							
0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm																							
0.5 mm² AWG 20	1.1 mm	8 mm																							
0.75 mm² AWG 18	1.3 mm	8 mm																							
1 mm² AWG 18	1.45 mm	8 mm																							
1.5 mm² AWG 16	1.75 mm	8 mm																							
2.5 mm² AWG 14	2.25 mm	6 mm																							

Features

- High density of contacts
- Time saving rapid termination by use of crimping contacts
- for requirements up to 250 V / 10 A
- for hoods/housings in the Han[®] B HMC series
- Han D[®] HMC contacts available with special HMC gold plating for 10,000 mating cycles

Technical characteristics

Number of contacts	40, 64
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 ¹⁰ Ω
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

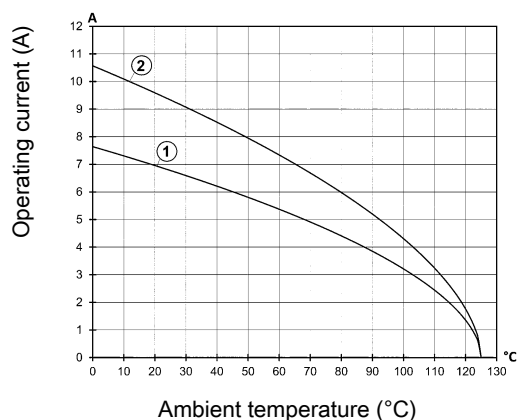
Derating

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

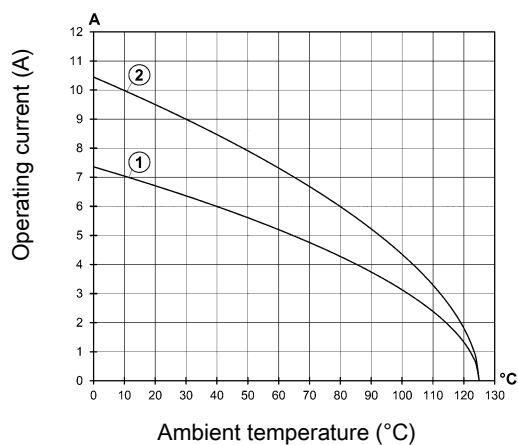
Han[®] 40 D HMC



- ① 0.75 mm²
② 1.5 mm²

Derating

Han[®] 64 D HMC



- ① 0.75 mm²
② 1.5 mm²

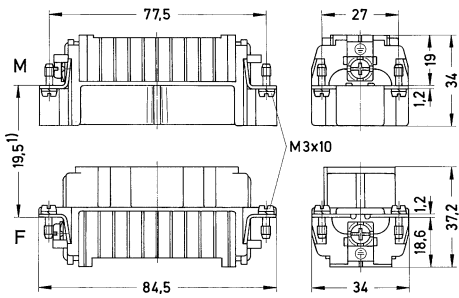
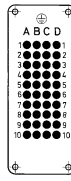
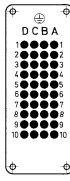
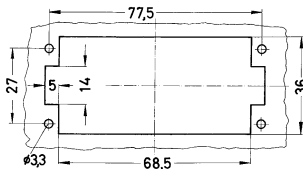
Specifications and approvals

EN 60664-1
IEC 61984
EN 175301-801
UL 1977 ECBT2.E235076
CSA-C22.2 No. 182.3 ECBT8.E235076
DNV GL

Number of contacts

40+ 

10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han D[®] HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 21 240 3001	09 21 240 3101	  Contact arrangement (view from termination side)  Panel cut out for use without Hoods/Housings

Han
HMC



Number of contacts

64+

10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han D[®] HMC, Crimp termination Please order crimp contacts separately.	0.14 ... 2.5	09 21 264 3001	09 21 264 3101	Contact arrangement (view from termination side) Panel cut out for use without Hoods/Housings

Han
HMC

Features

- High density of contacts
- Time saving rapid termination by use of crimping contacts
- for requirements up to 250 V / 10 A
- for hoods/housings in the Han® B HMC series
- Han D® HMC contacts available with special HMC gold plating for 10,000 mating cycles

Technical characteristics

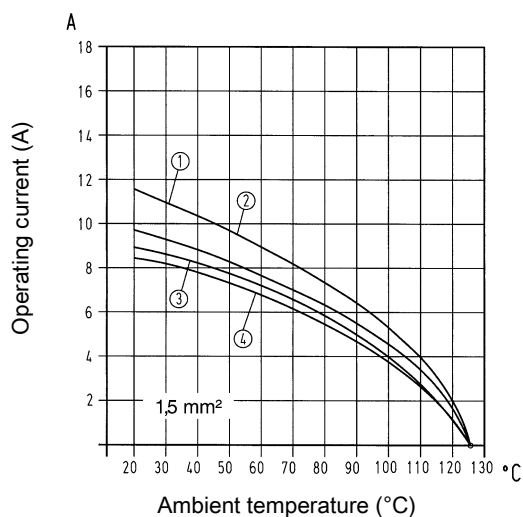
Number of contacts	24, 42, 72, 108
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

Derating

Current carrying capacity

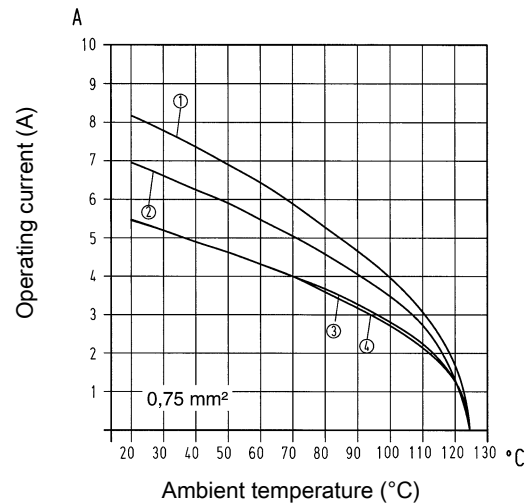
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the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

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



- ① Han® 24 DD HMC
- ② Han® 42 DD HMC
- ③ Han® 72 DD HMC
- ④ Han® 108 DD HMC

Derating



- ① Han® 24 DD HMC
- ② Han® 42 DD HMC
- ③ Han® 72 DD HMC
- ④ Han® 108 DD HMC

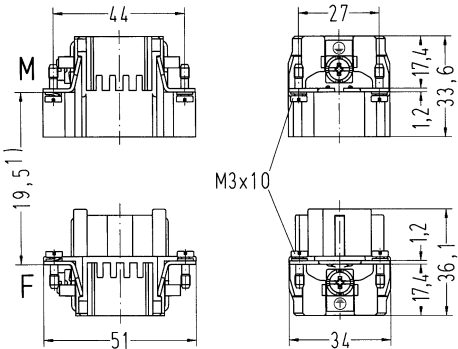
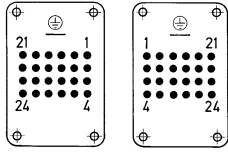
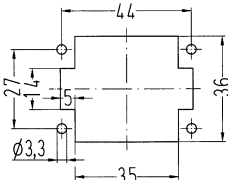
Specifications and approvals

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

Number of contacts

24+ 

10 A 250 V 4 kV 3

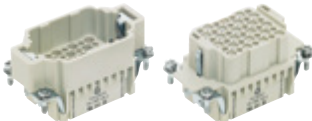
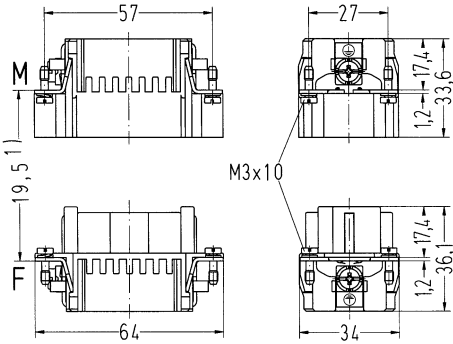
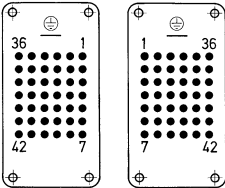
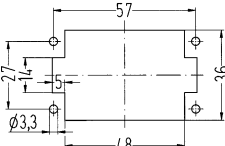
Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han DD® HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 16 224 3001	09 16 224 3101	  1) distance for contact max. 21 mm Contact arrangement (view from termination side)  Panel cut out for use without Hoods/Housings

Han
HMC

Number of contacts

42+ 

10 A 250 V 4 kV 3

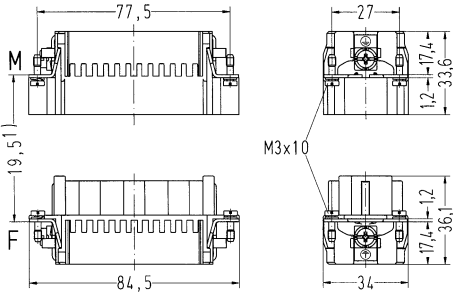
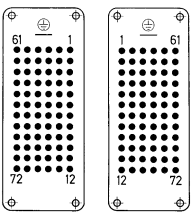
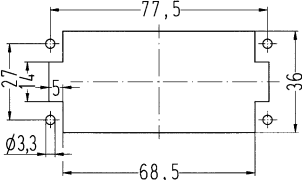
Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han DD® HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 16 242 3001	09 16 242 3101	  M F Contact arrangement (view from termination side)  Panel cut out for use without Hoods/Housings

Han
HMC

Number of contacts

72+ 

10 A 250 V 4 kV 3

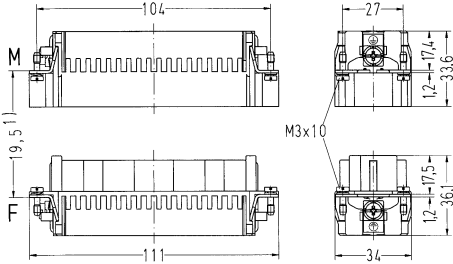
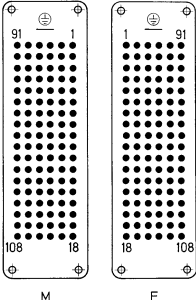
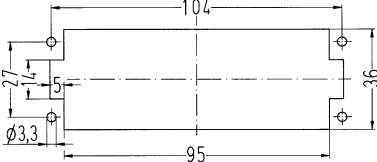
Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han DD® HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 16 272 3001	09 16 272 3101	  1) distance for contact max. 21 mm Contact arrangement (view from termination side)  Panel cut out for use without Hoods/Housings

Han
HMC

Number of contacts

108+ 

10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han DD® HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 16 208 3001	09 16 208 3101	  1) distance for contact max. 21 mm Contact arrangement (view from termination side)  Panel cut out for use without Hoods/Housings

Han
HMC

Han
16
·
45

Features

- Time saving rapid termination by use of crimping contacts
- for hoods/housings in the Han® B HMC series
- Han E® HMC contacts available with special HMC gold plating for 10,000 mating cycles

Technical characteristics

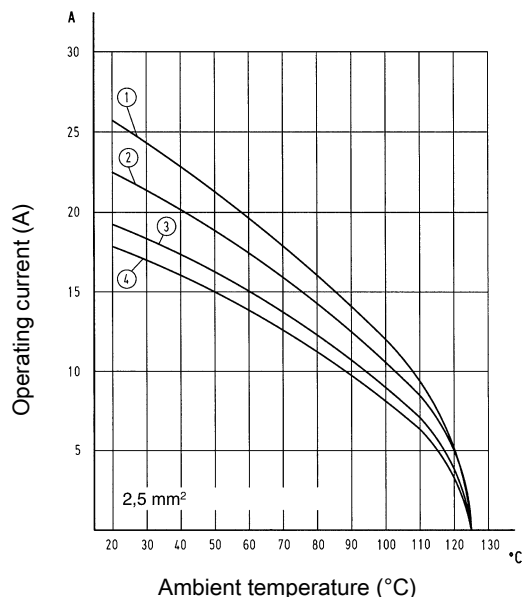
Number of contacts	6, 10, 16, 24
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

Derating

Current carrying capacity

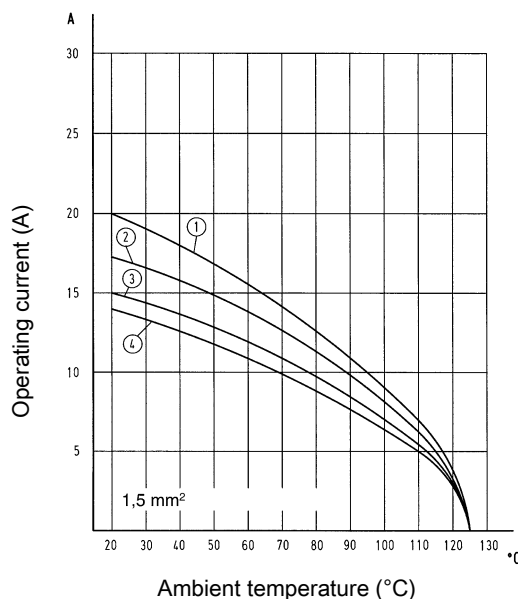
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the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

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



- ① Han® 6 E HMC
- ② Han® 10 E HMC
- ③ Han® 16 E HMC
- ④ Han® 24 E HMC

Derating



- ① Han® 6 E HMC
- ② Han® 10 E HMC
- ③ Han® 16 E HMC
- ④ Han® 24 E HMC

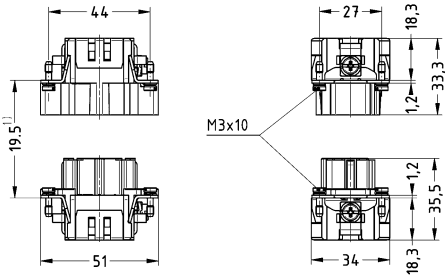
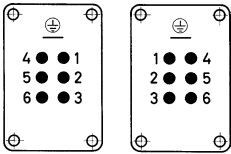
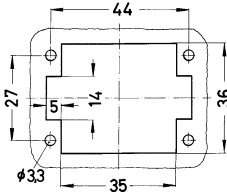
Specifications and approvals

EN 60664-1
IEC 61984
DNV GL

Number of contacts

6+ 

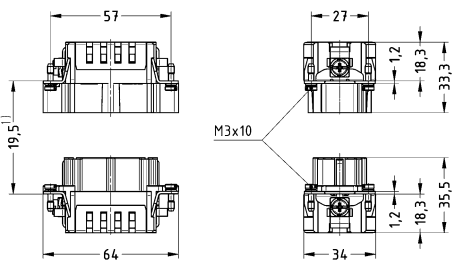
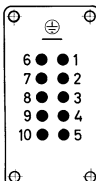
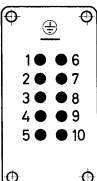
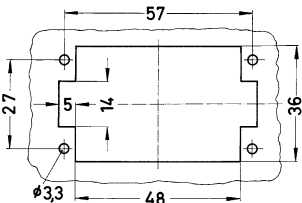
16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E® HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 33 206 2602	09 33 206 2702	 1) distance for contact max. 21 mm  M F Contact arrangement (view from termination side)  Panel cut out

Number of contacts

10+ 

16 A 500 V 6 kV 3

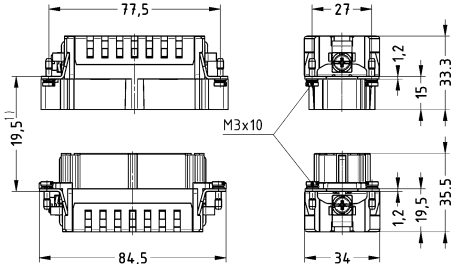
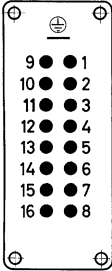
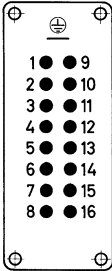
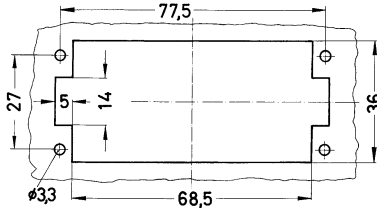
Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E® HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 33 210 2602	09 33 210 2702	 1) distance for contact max. 21 mm  M  F Contact arrangement (view from termination side)  Panel cut out

Han
HMC

Number of contacts

16+ 

16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E® HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 33 216 2602	09 33 216 2702	 1) distance for contact max. 21 mm  M  F Contact arrangement (view from termination side)  Panel cut out

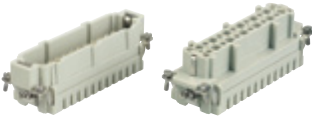
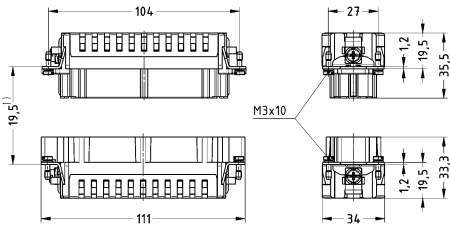
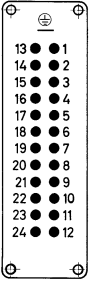
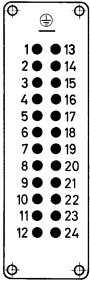
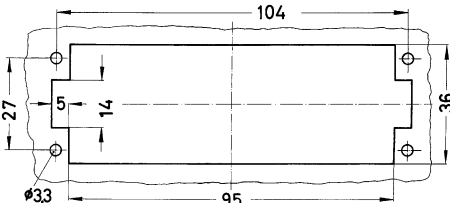
Han
HMC



Number of contacts

24+

16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E[®] HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 33 224 2602	09 33 224 2702	 1) distance for contact max. 21 mm   M F Contact arrangement (view from termination side)  Panel cut out

Han
HMC

Features

- Han® ES Press: Easy bridging functionality of contacts by means of plug-in jumpers directly on the connector
- Rapid termination technology without tools for a time saving assembly and for optimal process reliability

Technical characteristics

Number of contacts	6, 10, 16, 24
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥ 10000
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

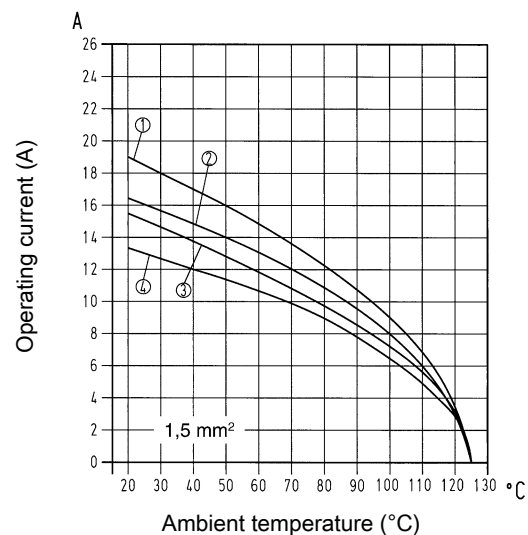
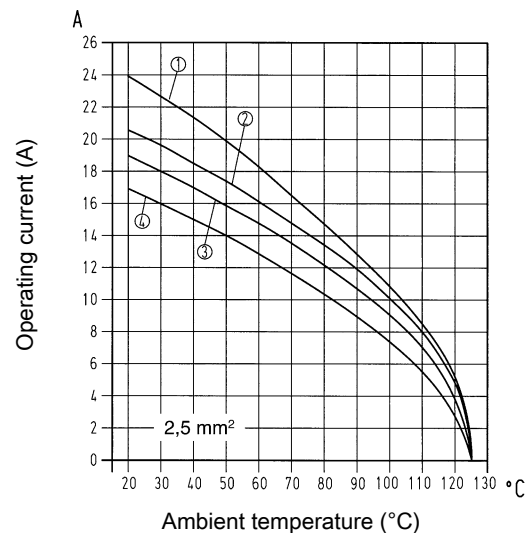
Derating

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

Han® ES Press



- ① Han® 6 ES Press
- ② Han® 10 ES Press
- ③ Han® 16 ES Press Han® 32 ES Press
- ④ Han® 24 ES Press Han® 48 ES Press

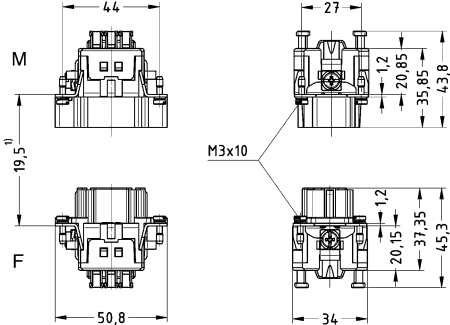
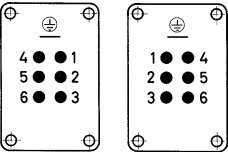
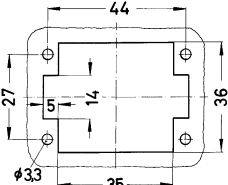
Specifications and approvals

EN 60664-1
IEC 61984
DNV GL

Number of contacts

6+ 

16 A 500 V 6 kV 3

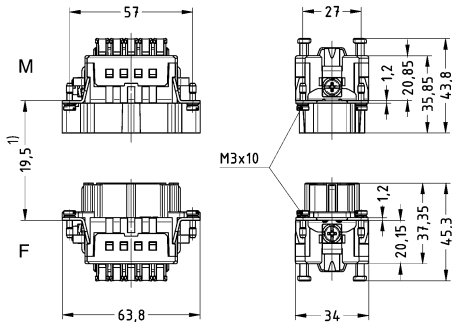
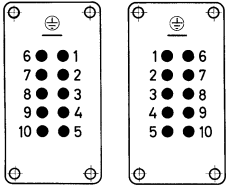
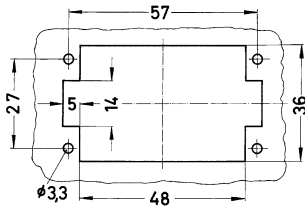
Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® ES Press HMC, Cage-clamp termination, Contact surface: HMC gold plated  for hoods/housings high construction only Blue slide	0.14 ... 2.5	09 33 206 2648	09 33 206 2748	 Distance for contact max. 21 mm  M F Contact arrangement (view from termination side)  Panel cut out

Han
HMC

Number of contacts

10+ 

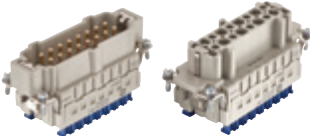
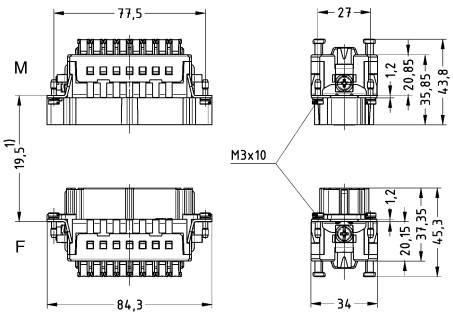
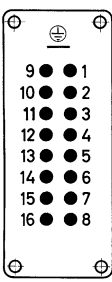
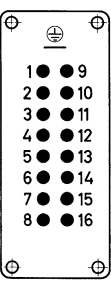
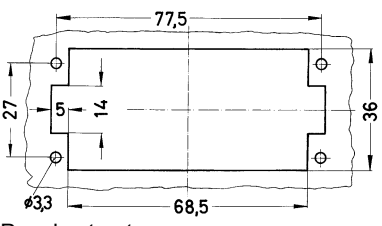
16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® ES Press HMC, Cage-clamp termination, Contact surface: HMC gold plated  for hoods/housings high construction only Blue slide	0.14 ... 2.5	09 33 210 2648	09 33 210 2748	 Distance for contact max. 21 mm  M F Contact arrangement (view from termination side)  Panel cut out

Number of contacts

16+ 

16 A 500 V 6 kV 3

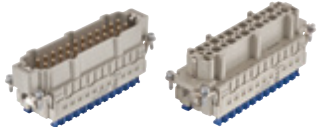
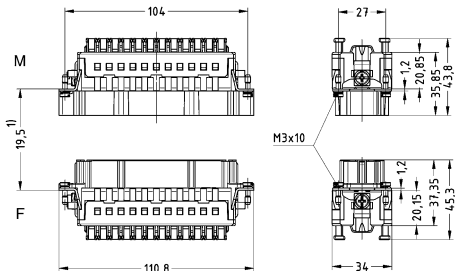
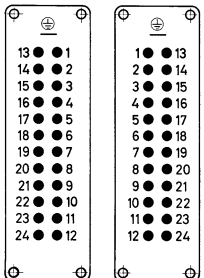
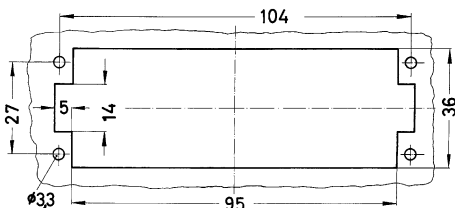
Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® ES Press HMC, Cage-clamp termination, Contact surface: HMC gold plated  for hoods/housings high construction only Blue slide	0.14 ... 2.5	09 33 216 2648	09 33 216 2748	 Distance for contact max. 21 mm   M F Contact arrangement (view from termination side)  Panel cut out

Han
HMC

Number of contacts

24+ 

16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® ES Press HMC, Cage-clamp termination, Contact surface: HMC gold plated  for hoods/housings high construction only Blue slide	0.14 ... 2.5	09 33 224 2648	09 33 224 2748	 Distance for contact max. 21 mm  Contact arrangement (view from termination side)  Panel cut out

Features

- Time saving rapid termination by use of crimping contacts
- Coded insert
- for hoods/housings in the Han® B HMC series
- Han E® HMC contacts available with special HMC gold plating for 10,000 mating cycles

Technical characteristics

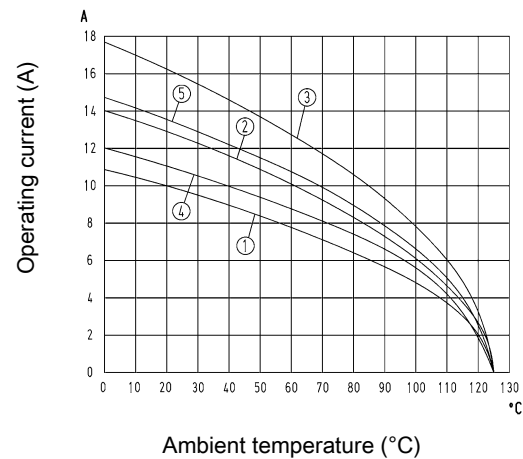
Number of contacts	40, 64
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥ 10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

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 Han® 64 EEE HMC 1.5 mm²
- ② Han® 64 EEE HMC 2.5 mm²
- ③ Han® 64 EEE HMC 4 mm²
- ④ Han® 40 EEE HMC 1.5 mm²
- ⑤ Han® 40 EEE HMC 2.5 mm²

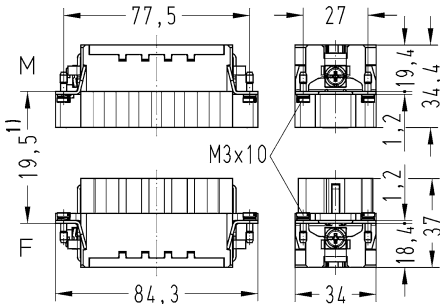
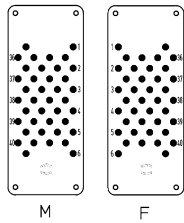
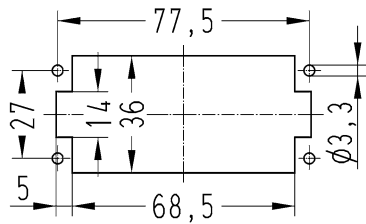
Specifications and approvals

EN 60664-1
IEC 61984

Number of contacts

40+ 

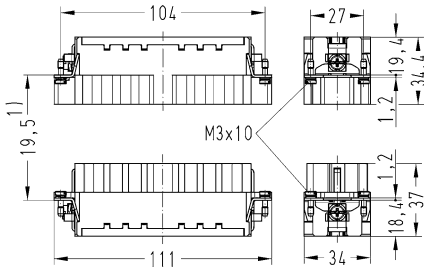
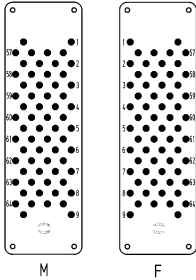
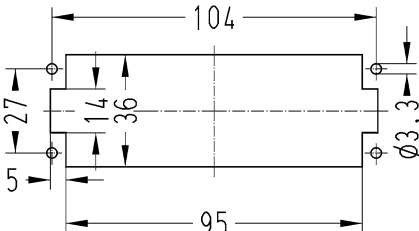
16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® EEE HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 32 240 3001	09 32 240 3101	 1) distance for contact max. 21 mm  M F Contact arrangement (view from termination side)  Panel cut out

Number of contacts

64+ 

16 A 500 V 6 kV 3

Identification	Conductor cross-section (mm ²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® EEE HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 32 264 3001	09 32 264 3101	 1) distance for contact max. 21 mm  Contact arrangement (view from termination side)  Panel cut out

Technical characteristics

Contact resistance	≤3 mΩ
Mating cycles with other HMC components	≥10000
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
RoHS	compliant with exemption, compliant

Specifications and approvals

EN 60664-1
IEC 61984

Details

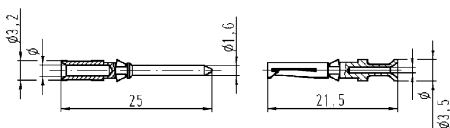
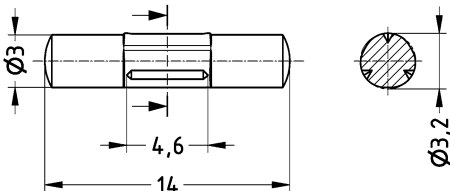
Crimping tools see chapter Han 90

Remarks on the crimp technique

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

Coding pin

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

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han D® HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37	09 15 200 6124	09 15 200 6224	
	0.5	09 15 200 6123	09 15 200 6223	
	0.75	09 15 200 6125	09 15 200 6225	
	1	09 15 200 6122	09 15 200 6222	
	1.5	09 15 200 6121	09 15 200 6221	
	2.5	09 15 200 6126	09 15 200 6226	
Han D®, Han DD®, Han® DDD, Coding pin			09 33 000 9915	
Only for crimp termination With loss of one contact				

Technical characteristics

Contact resistance	≤1 mΩ
Mating cycles with other HMC components	≥10000
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
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.

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

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E® HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37	09 33 200 6117	09 33 200 6217	
	0.5	09 33 200 6122	09 33 200 6222	
	0.75	09 33 200 6115	09 33 200 6215	
	1	09 33 200 6118	09 33 200 6218	
	1.5	09 33 200 6116	09 33 200 6216	
	2.5	09 33 200 6123	09 33 200 6223	
	4	09 33 200 6119	09 33 200 6221	
Han E®, Han® EE, Han® EEE, Coding pin			09 33 000 9954	
for crimp inserts only With loss of one contact				

Conductor cross-section	Identification
0.14-0.37 mm² AWG 26-22	no groove
0.5 mm² AWG 20	no groove
0.75 mm² AWG 18	1 groove*
1 mm² AWG 18	1 groove
1.5 mm² AWG 16	2 groove
2.5 mm² AWG 14	3 groove
3 mm² AWG 12	wide groove
4 mm² AWG 12	no groove

* on the back crimp collar

Stripping length 7.5 mm

Technical characteristics

Contact resistance	≤1 mΩ
Mating cycles with other HMC components	≥10000
Material (contacts)	Copper alloy
RoHS	compliant with exemption

Specifications and approvals

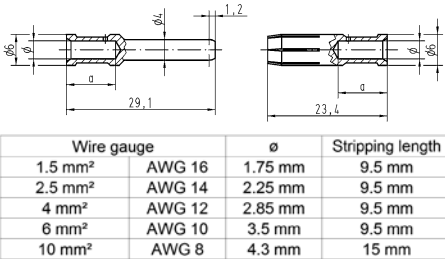
EN 60664-1
IEC 61984

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 (mm²)	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® C HMC, Crimp contact, Contact surface: HMC gold plated	1.5	09 32 200 6114	09 32 200 6224	
	2.5	09 32 200 6115	09 32 200 6225	
	4	09 32 200 6119	09 32 200 6229	
	6	09 32 200 6118	09 32 200 6228	
	10	09 32 200 6117	09 32 200 6227	

Han
HMC

Technical characteristics

Contact resistance ≤10 mΩ
Mating cycles with other HMC components ≥10000

Technical characteristics

Material (contacts) Copper alloy
RoHS compliant with exemption

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)												
		Male	Female													
D-Sub, Crimp contact, Contact surface: HMC gold plated	0.08 ... 0.21 0.13 ... 0.33 0.33 ... 0.52	09 67 000 7570 09 67 000 5570 09 67 000 8570	09 67 000 7470 09 67 000 5470 09 67 000 8470	<table><tr><td>Conductor cross-section</td><td>ø</td><td>Stripping length</td></tr><tr><td>0.08 - 0.21 mm²</td><td>AWG 28-24</td><td>4 mm</td></tr><tr><td>0.13 - 0.33 mm²</td><td>AWG 26-22</td><td>4 mm</td></tr><tr><td>0.33 - 0.52 mm²</td><td>AWG 22-20</td><td>4 mm</td></tr></table>	Conductor cross-section	ø	Stripping length	0.08 - 0.21 mm²	AWG 28-24	4 mm	0.13 - 0.33 mm²	AWG 26-22	4 mm	0.33 - 0.52 mm²	AWG 22-20	4 mm
Conductor cross-section	ø	Stripping length														
0.08 - 0.21 mm²	AWG 28-24	4 mm														
0.13 - 0.33 mm²	AWG 26-22	4 mm														
0.33 - 0.52 mm²	AWG 22-20	4 mm														
																

Han
HMC

Features

- Metal hoods / housings
- Locking levers: Han-Easy Lock® with special locking reel
- Field of application: for excellent mechanical and electrical protection in demanding environments, for example, in the automobile and mechanical engineering industries also for process and regulation control applications
- Distinguishing feature: hoods/housings colour-coded grey (RAL 7037)

Technical characteristics

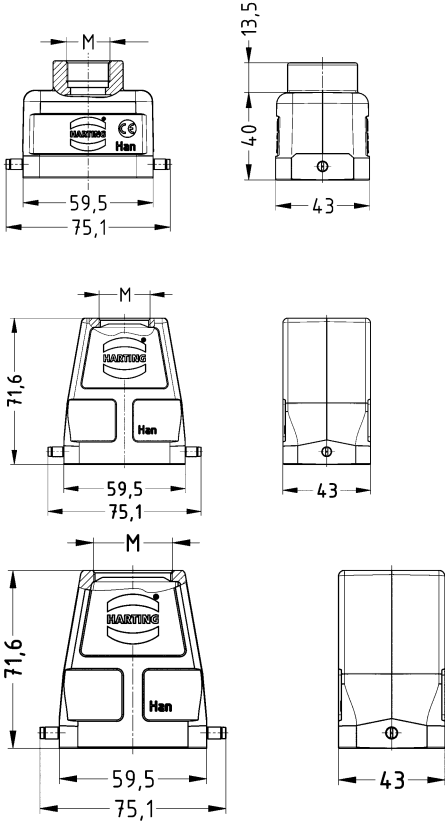
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥10000
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel
Colour (locking)	RAL 7037 (dust grey)
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant

Specifications and approvals

DNV GL



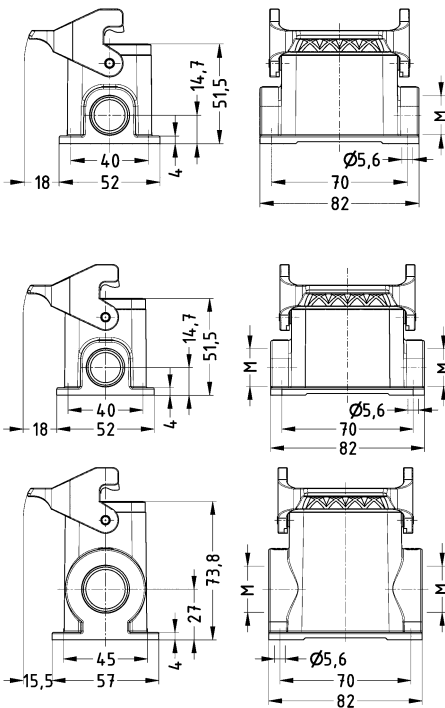
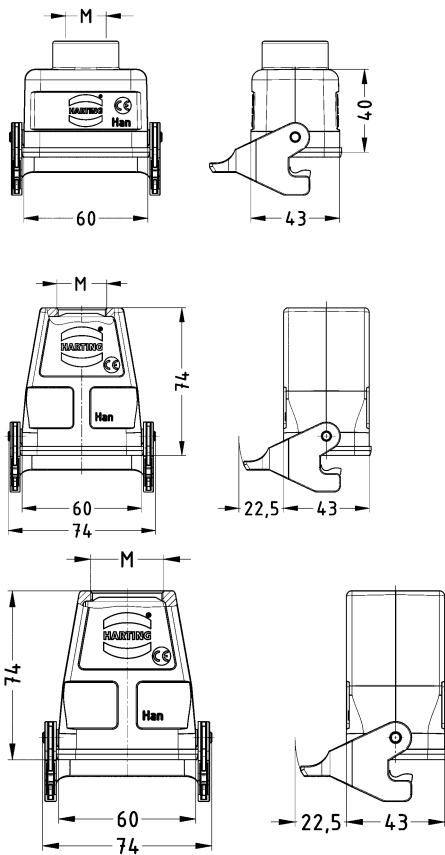
Special hoods and housings for high mating cycles
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Hood, Top entry, IP65 	1x M20 1x M25 1x M32	19 30 206 1440	19 30 206 0446 19 30 206 0447	

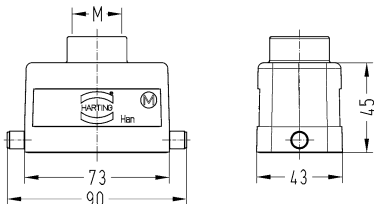
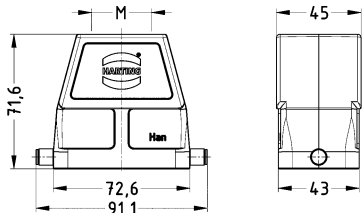
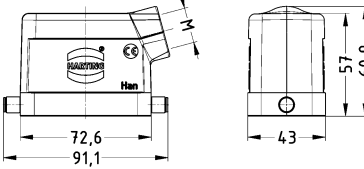
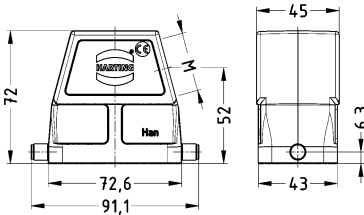
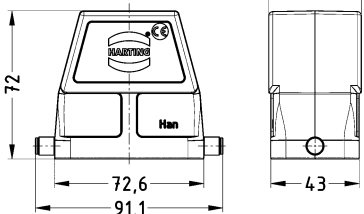
Han
HMC

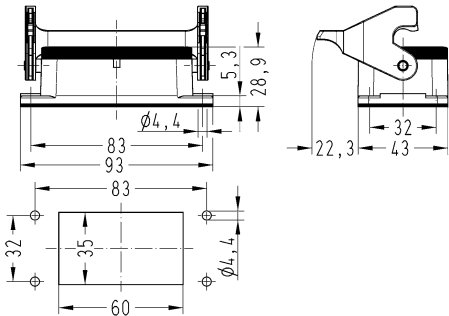
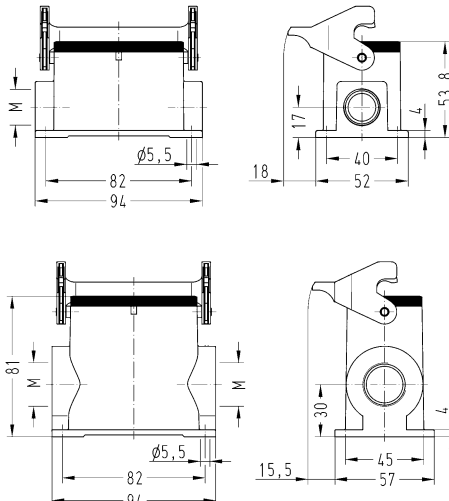
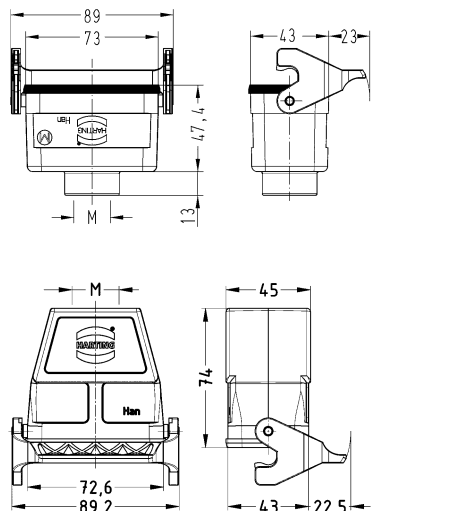
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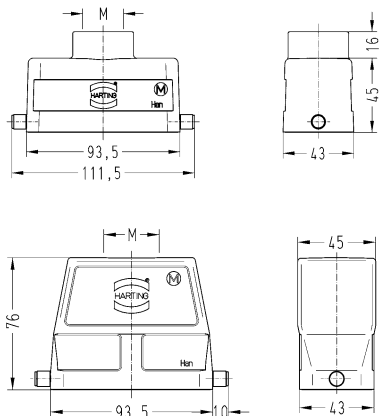
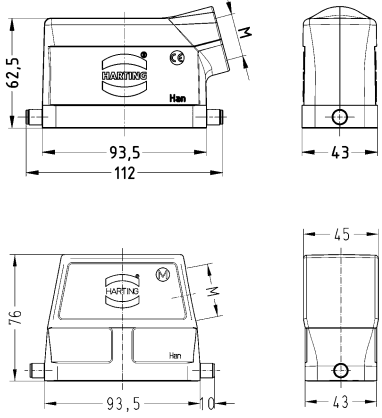
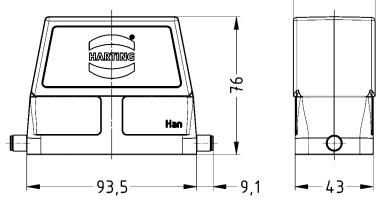
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	1x M20 2x M20 2x M25 2x M32	19 30 206 1290	19 30 206 1250 19 30 206 0291 19 30 206 0292	
Han® HMC, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M20 1x M25 1x M32	19 30 206 1750	19 30 206 0756 19 30 206 0757	

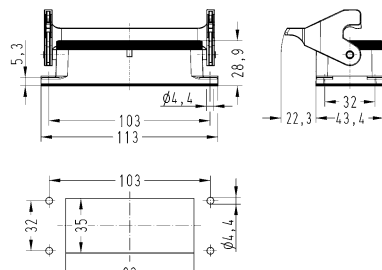
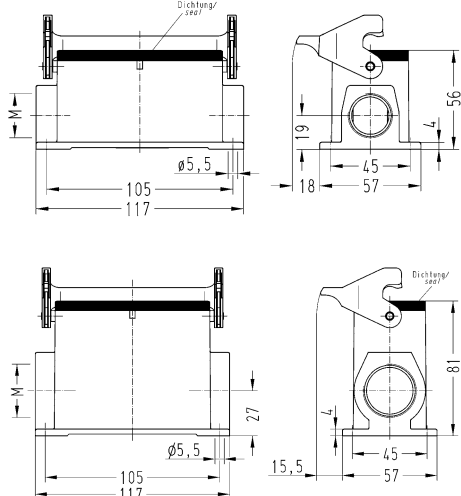
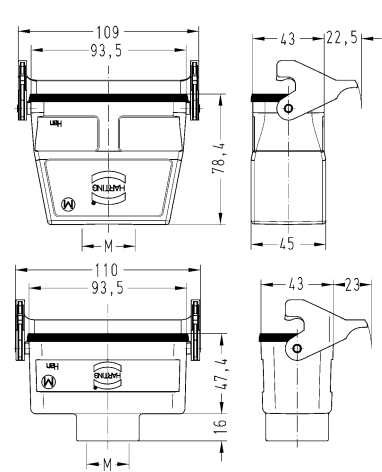
Special hoods and housings for high mating cycles
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Hood, Top entry, IP65 	1x M20 1x M25 1x M32	19 30 210 1440 19 30 210 1441	19 30 210 0447	 
Han® HMC, Hood, Side entry, IP65 	1x M20 1x M25 1x M32	19 30 210 1540 19 30 210 1541	19 30 210 0547	 
Han® HMC, Hood, Without cable entry, IP65 			09 30 210 0803	

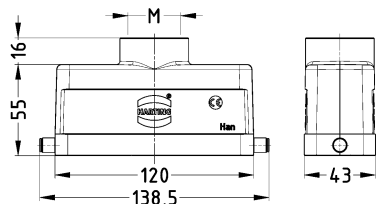
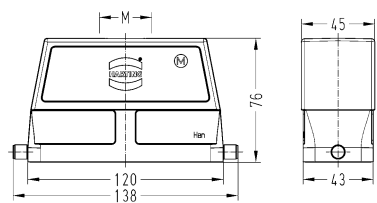
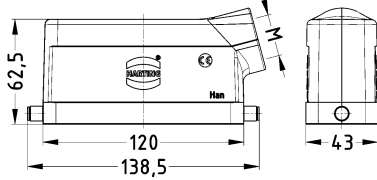
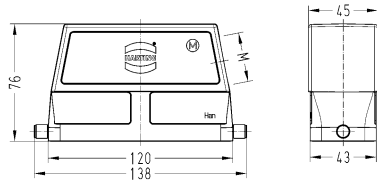
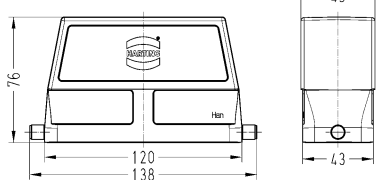
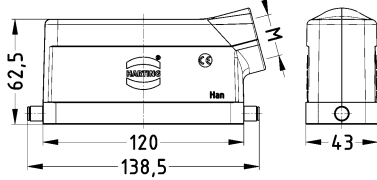
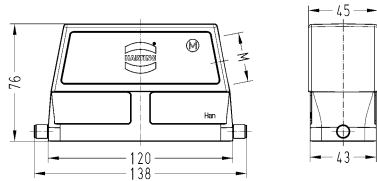
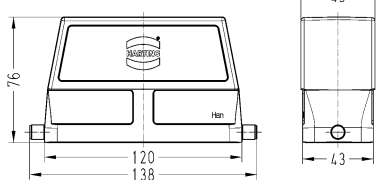
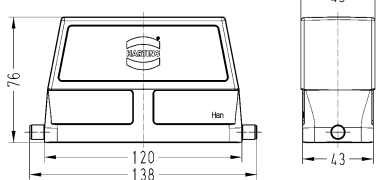
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Bulkhead mounted housing, Han-Easy Lock®, IP65 		09 30 210 0305		 Panel cut out
Han® HMC, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	1x M20 2x M20 2x M25 2x M32	19 30 210 1250 19 30 210 1290	19 30 210 0291 19 30 210 0292	
Han® HMC, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M20 1x M25	19 30 210 1750	19 30 210 0756	

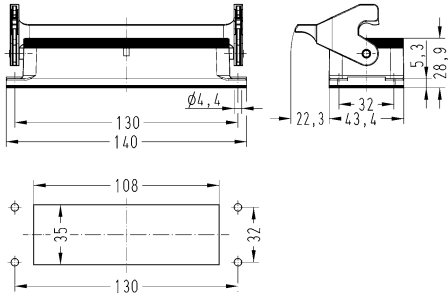
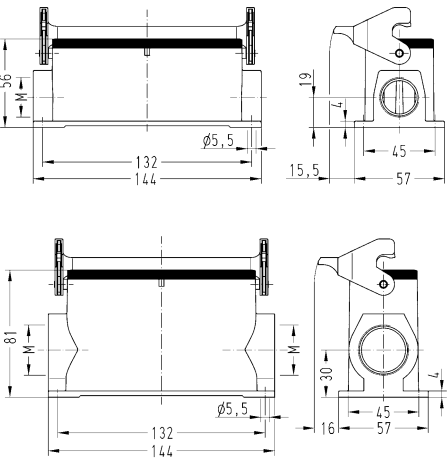
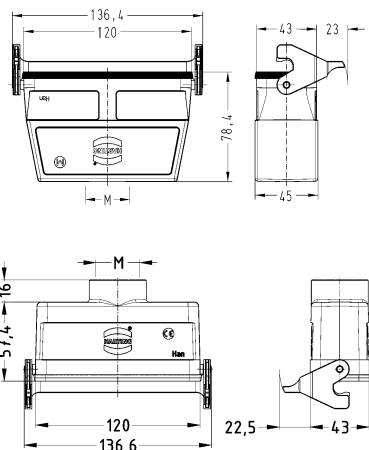
Special hoods and housings for high mating cycles
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construc- tion	High construc- tion	
Han® HMC, Hood, Top entry, IP65 	1x M25 1x M32 1x M40	19 30 216 1441 19 30 216 1442	19 30 216 0447 19 30 216 0448	
Han® HMC, Hood, Side entry, IP65 	1x M25 1x M32	19 30 216 1541 19 30 216 1542	19 30 216 0547	
Han® HMC, Hood, Without cable entry, IP65 			09 30 216 0803	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Bulkhead mounted housing, Han-Easy Lock®, IP65 		09 30 216 0307		 Panel cut out
Han® HMC, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	1x M25 1x M32 2x M25 2x M32	19 30 216 1251 19 30 216 1291	19 30 216 0252 19 30 216 0291 19 30 216 0292	
Han® HMC, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M25 1x M32	19 30 216 1751 19 30 216 1752	19 30 216 0757	

Special hoods and housings for high mating cycles
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construc- tion	High construc- tion	
Han® HMC, Hood, Top entry, IP65 	1x M32 1x M40	19 30 224 1442	19 30 224 0447 19 30 224 0448	    
Han® HMC, Hood, Side entry, IP65 	1x M25 1x M32 1x M40	19 30 224 1541 19 30 224 1542	19 30 224 0547 19 30 224 0548	  
Han® HMC, Hood, Without cable entry, IP65 			09 30 224 0803	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Bulkhead mounted housing, Han-Easy Lock®, IP65 		09 30 224 0307		 Panel cut out
Han® HMC, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	1x M25 2x M25 2x M32	19 30 224 1251 19 30 224 1291	19 30 224 0292	
Han® HMC, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M32	19 30 224 1752	19 30 224 0757	

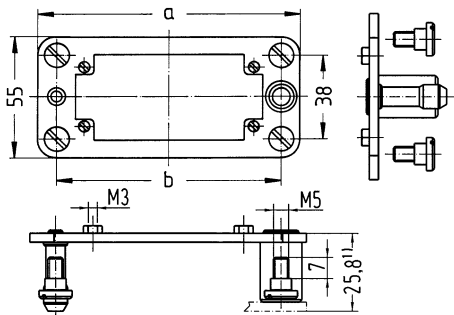
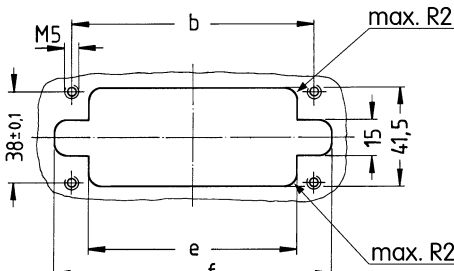


Features

- Suitable for all inserts of the series Han E®, Han E® HMC, Han EE®, Han EE® HMC, Han EEE®, Han EEE® HMC, Han® ES, Han D® (size B), Han D® HMC, Han DD®, Han DD® HMC, Han-Com®, Han® HsB, Han-Modular®
- Due to the floating system of the docking frame the PE connection of the mounting base has to be installed separately.
- Inserts are protected against mechanical damage

Technical characteristics

Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (accessories)	Stainless steel
RoHS	compliant with exemption

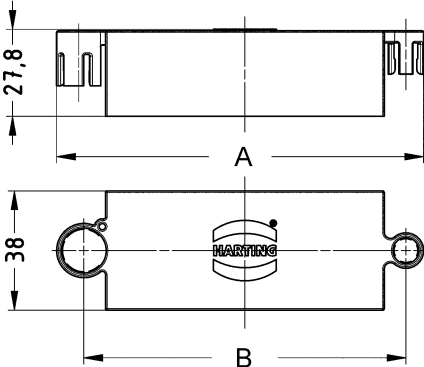
Identification	Size	Part number	Drawing (dimensions in mm)
Docking frame, Pack contents: 1 frame, 4 cheese head shoulder screws (Steel, zinc plated) to fix the docking frame  Pull-in-range x-axis: ± 1.5 mm Pull-in-range y-axis: ± 1.5 mm	06 B 10 B 16 B 24 B	09 30 006 1704 09 30 010 1704 09 30 016 1704 09 30 024 1704	 Distance for electrical and FO contacts max. 27 mm; for Han-Modular® series max. 26.5 mm 6 B: a=86; b=69 10 B: a=99; b=82 16 B: a= 119.5 ; b= 102.5 24 B: a=146; b=129  6 B: b= 69; e= 54.5; f= 84 10 B: b= 82; e= 67.5; f= 97 16 B: b= 102.5; e= 88; f= 117.5 24 B: b= 129; e= 114.5; f= 144

Technical characteristics

Limiting temperature -40 ... +125 °C
Degree of protection acc. to IEC IP20
60529
Material (accessories) Thermoplastic
Material flammability class acc. V-0
to UL 94

Specifications and approvals

EN 45545-2 R22: HL1, HL2, HL3
EN 45545-2 R23: HL1, HL2, HL3

Identification	Size	Part number	Drawing (dimensions in mm)															
Protection cover, for Han® docking frame, IP20	06 B 10 B 16 B 24 B	09 30 006 5418 09 30 010 5418 09 30 016 5418 09 30 024 5418	 <table><tr><th></th><th>A</th><th>B</th></tr><tr><td>6 B</td><td>83.3 mm</td><td>69 mm</td></tr><tr><td>10 B</td><td>96.3 mm</td><td>82 mm</td></tr><tr><td>16 B</td><td>116.8 mm</td><td>102.5 mm</td></tr><tr><td>24 B</td><td>143.3 mm</td><td>129 mm</td></tr></table>		A	B	6 B	83.3 mm	69 mm	10 B	96.3 mm	82 mm	16 B	116.8 mm	102.5 mm	24 B	143.3 mm	129 mm
	A	B																
6 B	83.3 mm	69 mm																
10 B	96.3 mm	82 mm																
16 B	116.8 mm	102.5 mm																
24 B	143.3 mm	129 mm																

Han
HMC

Features

- Blind mating connector system for drawer systems
- Highest flexibility due to a product range of over 100 connector modules
- Direct panel mounting without hoods and housings
- Leading centring system compensates for tolerances of +/- 2 mm
- Very robust mechanical characteristics

Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Lock-in range	±4 mm
Material (frames)	Zinc die-cast
RoHS	compliant

Specifications and approvals

EN 60664-1
IEC 61984

Details

The docking frame has no PE contact as it is not required in many drawer system applications.

Suitable for Han-Modular® modules except for Han® Megabit module, Han® RJ45 module, optical and pneumatic modules.

Identification

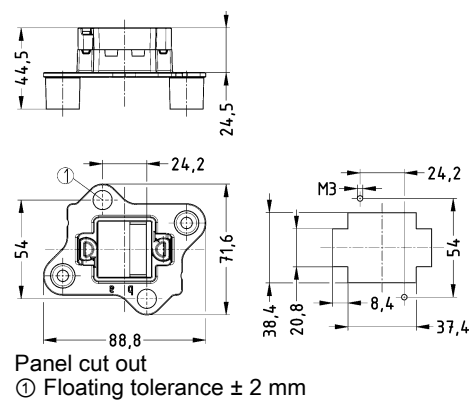
Han-Modular®,
Docking frame,
Float mount,
for 2 modules,
a ... f



Part number

09 14 006 1706

Drawing (dimensions in mm)



Identification		Part number	Drawing (dimensions in mm)
Han-Modular®, Docking frame, Fixed, for 2 modules, A ... F		09 14 006 1716	Panel cut out
Han-Modular®, Docking frame, Float mount, for 4 modules, a ... f		09 14 016 1706	Panel cut out ① Floating tolerance ± 2 mm
Han-Modular®, Docking frame, Fixed, for 4 modules, A ... F		09 14 016 1716	Panel cut out
Han-Modular®, Docking frame, Float mount, for 6 modules, a ... f		09 14 024 1706	Panel cut out ① Floating tolerance ± 2 mm

Identification

Han-Modular®,
Docking frame,
Fixed,
for 6 modules,
A ... F

Part number

09 14 024 1716

Drawing (dimensions in mm)

