

## Features

- Available in different termination techniques
  - Han E<sup>®</sup> Crimp terminal
  - Han E<sup>®</sup> Screw terminal
  - Han<sup>®</sup> ES Cage-clamp terminal
  - Han<sup>®</sup> ESS Cage-clamp terminal
  - Han<sup>®</sup> EE Crimp terminal
  - Han<sup>®</sup> EEE Crimp terminal
- Han E<sup>®</sup> covers a wide range of cross core sections
- Wire protection for Han E<sup>®</sup> screw
- Suitable for hoods/housings of series Han<sup>®</sup> B, Han<sup>®</sup> M, Han<sup>®</sup> EMV, Han<sup>®</sup> HPR, Han<sup>®</sup> Easy Hood

## Specifications

DIN EN 60 664-1  
DIN EN 61 984

## Approvals



## Inserts

Number of contacts 6, 10, 16, 24, 32 (2x 16),  
48 (2x 24) + PE

## Electrical data

acc. to EN 61 984 **16 A 500 V 6 kV 3**  
 Rated current 16 A  
 Rated voltage 500 V  
 Rated impulse voltage 6 kV  
 Pollution degree 3  
 Pollution degree 2 also 16 A 400/690 V 6 kV 2

## Rated voltage

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

## Contacts

Material copper alloy  
 Surface - hard-gold plated 2  $\mu\text{m}$  Au over 3  $\mu\text{m}$  Ni  
 Surface - hard-silver plated 3  $\mu\text{m}$  Ag  
 Contact resistance  $\leq 1 \text{ m}\Omega$   
 Crimp terminal - min 0.14 mm<sup>2</sup> / AWG 26  
 Crimp terminal - max 4 mm<sup>2</sup> / AWG 12  
 Screw terminal - min 0.75 mm<sup>2</sup> / AWG 18  
 Screw terminal - max 2.5 mm<sup>2</sup> / AWG 14  
 Tightening/test torque 0.5 Nm  
 Stripping length 7.5 mm

## Hoods/Housings

Material aluminium die-cast  
 Surface powder-coated  
 Locking element Han-Easy Lock<sup>®</sup>  
 Flammability acc. to UL 94 V 0  
 Hoods/Housings seal NBR  
 Limiting temperatures -40 °C ... +125 °C  
 Degree of protection acc. to DIN EN 60 529  
 for coupled connector IP 65

Further selection of hoods/housings see chapter 31

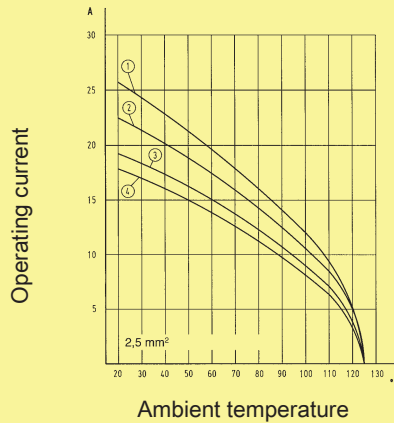
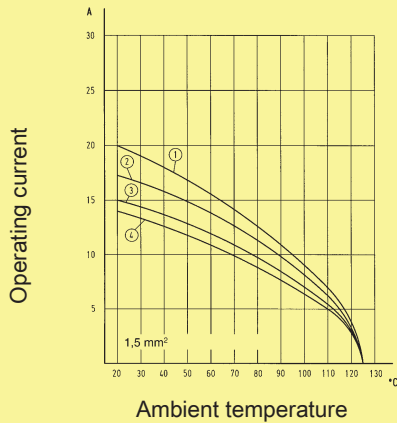
## Accessories

Crimping tools chapter 99  
 Cable clamps chapter 95  
 Coding of hoods/housings chapter 95  
 Label acc. to CSA-approval chapter 95  
 Han-Snap<sup>®</sup> chapter 11  
 Assembly plates for test connector chapter 95  
 Special insert fixing screws chapter 95

Current carrying capacity

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

Measuring and testing techniques according to DIN EN 60 512-5-2



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

Han E/EE

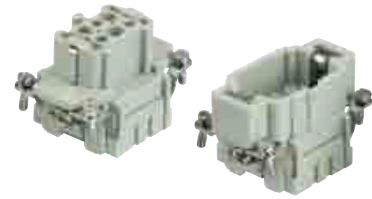
Identification	Wire gauge (mm²)	Male contact	Female contact	Drawing	Dimensions in mm																										
<b>Crimp contacts</b>																															
<b>Power contacts</b>	0.14-0.37	09 33 000 6127	09 33 000 6227	<table border="1"> <thead> <tr> <th>Identification</th> <th>Wire gauge</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>no groove</td> <td>0.14-0.37 mm²</td> <td>AWG 26-22</td> </tr> <tr> <td>no groove</td> <td>0.5 mm²</td> <td>AWG 20</td> </tr> <tr> <td>1 groove*</td> <td>0.75 mm²</td> <td>AWG 18</td> </tr> <tr> <td>1 groove</td> <td>1 mm²</td> <td>AWG 18</td> </tr> <tr> <td>2 grooves</td> <td>1.5 mm²</td> <td>AWG 16</td> </tr> <tr> <td>3 grooves</td> <td>2.5 mm²</td> <td>AWG 14</td> </tr> <tr> <td>wide groove</td> <td>3 mm²</td> <td>AWG 12</td> </tr> <tr> <td>no groove</td> <td>4 mm²</td> <td>AWG 12</td> </tr> </tbody> </table> <p>* on the back crimp collar</p>	Identification	Wire gauge	Stripping length	no groove	0.14-0.37 mm²	AWG 26-22	no groove	0.5 mm²	AWG 20	1 groove*	0.75 mm²	AWG 18	1 groove	1 mm²	AWG 18	2 grooves	1.5 mm²	AWG 16	3 grooves	2.5 mm²	AWG 14	wide groove	3 mm²	AWG 12	no groove	4 mm²	AWG 12
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<b>silver plated</b>	0.5	09 33 000 6121	09 33 000 6220																												
	0.75	09 33 000 6114	09 33 000 6214																												
	1	09 33 000 6105	09 33 000 6205																												
	1.5	09 33 000 6104	09 33 000 6204																												
	2.5	09 33 000 6102	09 33 000 6202																												
	3	09 33 000 6106	09 33 000 6206																												
	4	09 33 000 6107	09 33 000 6207																												
<b>gold plated</b>	0.14-0.37	09 33 000 6117	09 33 000 6217																												
	0.5	09 33 000 6122	09 33 000 6222																												
	0.75	09 33 000 6115	09 33 000 6215																												
	1	09 33 000 6118	09 33 000 6218																												
	1.5	09 33 000 6116	09 33 000 6216																												
	2.5	09 33 000 6123	09 33 000 6223																												
	4	09 33 000 6119	09 33 000 6221																												
<b>Relay contact silver plated</b>	0.75-1	09 33 000 6109																													
	1.5	09 33 000 6110																													
	2.5	09 33 000 6111																													
<b>F.O. contacts</b>																															
for 1 mm plastic fibre		20 10 001 3311	20 10 001 3321																												
<b>Coding pin</b>			09 33 000 9954	<p>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.</p>																											
for crimp inserts only																															

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

Stock items in bold type


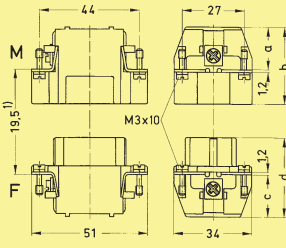
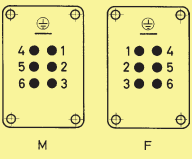
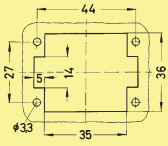



Number of contacts

6 +



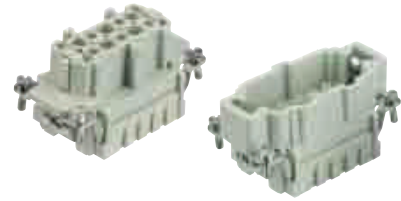
Inserts

Han E/EE

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<p>Cage-clamp terminal</p> 	Han® ES	<b>09 33 006 2616</b>	<b>09 33 006 2716</b>																								
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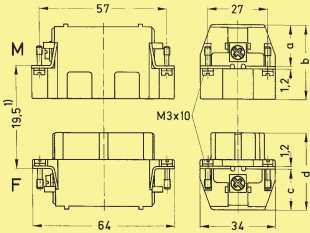

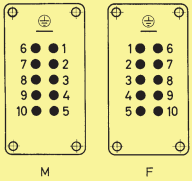

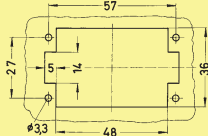

Number of contacts

10 +



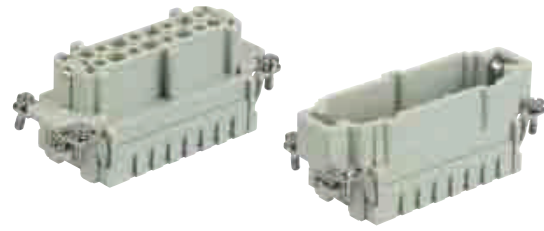
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Han E/EE

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<p>Cage-clamp terminal two terminals per contact</p> 	Han® ESS	<b>09 33 010 2672</b>	<b>09 33 010 2772</b>																						

Number of contacts

16 +



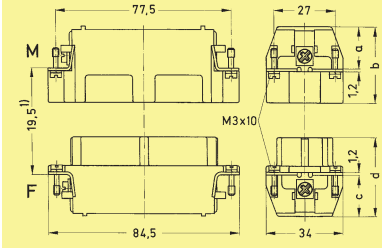
Inserts

Han E/EE

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

**Crimp terminal**  
Order crimp contacts separately (see Technical characteristics on page 03.03)

Han E®	<b>09 33 016 2602</b>	<b>09 33 016 2702</b>
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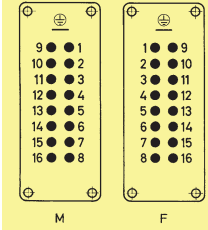
1) Distance for contact max. 21 mm

	a	b	c	d
Han E® screw	18	33	18	35
Han® ES / Han E® crimp	19	34	19	36
Han® ESS	34	49	32	49

**Screw terminal with wire protection**

Han E®	<b>09 33 016 2601</b>	<b>09 33 016 2701</b>
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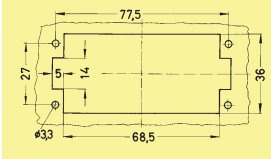
Contact arrangement view from termination side



**Cage-clamp terminal**

Han® ES	<b>09 33 016 2616</b>	<b>09 33 016 2716</b>
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Panel cut out

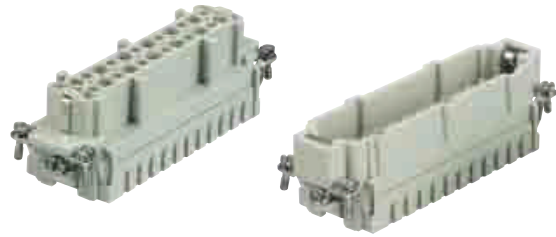


**Cage-clamp terminal two terminals per contact**

Han® ESS	<b>09 33 016 2672</b>	<b>09 33 016 2772</b>
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Number of contacts

24 +



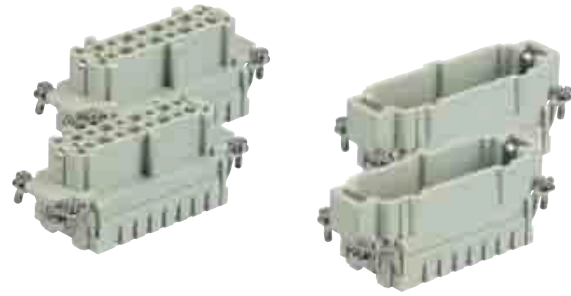
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Han E/EE

Number of contacts


32 +

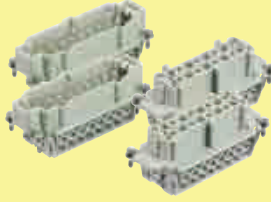


Inserts

Han E/EE

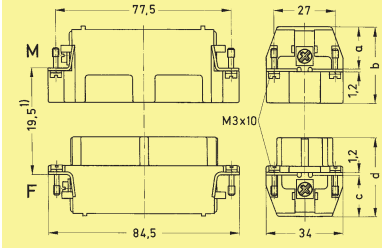
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<p><b>Crimp terminal</b></p> <p>Order crimp contacts separately (see Technical characteristics on page 03.03)</p> 	Han E®		
		1 - 16	<b>09 33 016 2602</b>
		17 - 32	09 33 016 2612
			09 33 016 2712

<p><b>Screw terminal with wire protection</b></p> 	Han E®		
		1 - 16	<b>09 33 016 2601</b>
		17 - 32	09 33 016 2611
			09 33 016 2711

<p><b>Cage-clamp terminal</b></p> 	Han® ES		
		1 - 16	<b>09 33 016 2616</b>
		17 - 32	09 33 016 2626
			09 33 016 2726

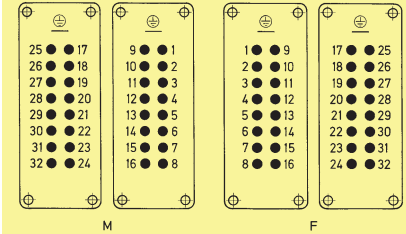
<p><b>Cage-clamp terminal two terminals per contact</b></p> 	Han® ESS		
		1 - 16	<b>09 33 016 2672</b>
		1 - 16	09 33 016 2672
			09 33 016 2772



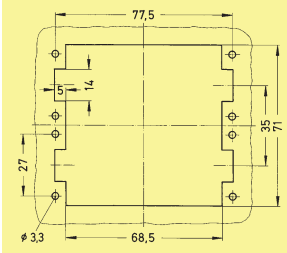
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Contact arrangement view from termination side

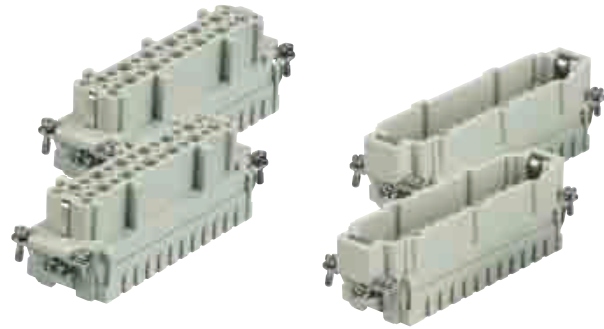


Panel cut out



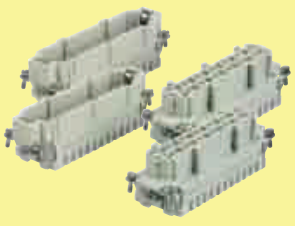
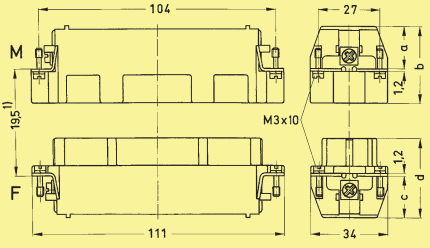
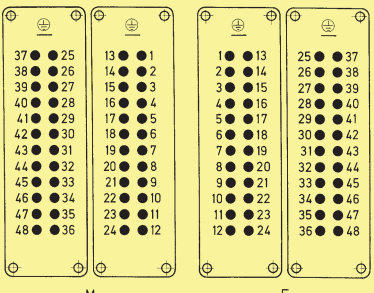
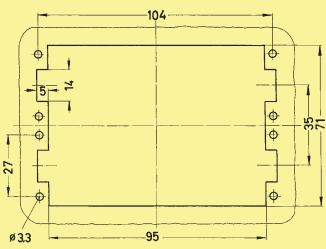
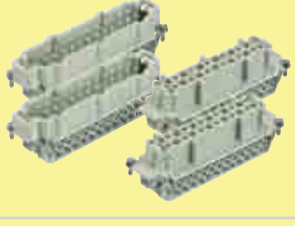

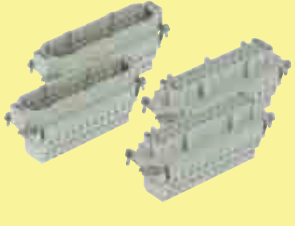
Number of contacts

48 +



Inserts

Han E/EE

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