

Han-Com®

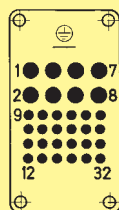
Page

Summary	05.02
Han® K 8/24	05.10
Han® K 4/4	05.12
Han® K 4/0, 4/2	05.16
Han® K 6/12	05.18
Han® K 6/36	05.20
Han® K 12/2 (12 HsC)	05.22
Han® K 4/8	05.28
Han® K 6/6	05.30
Han® K 8/0	05.32
Assembly details for Han® K 6/6 and K 8/0	05.37

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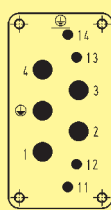
Size Description

10 B



Han® K 8/24
16 A / 230/400 V
10 A / 160 V
Crimp terminal

Page 05.10

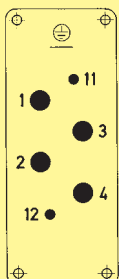


Han® K 4/4
63 A / 690 V
16 A / 230 V
Screw terminal /
Cage clamp
terminal

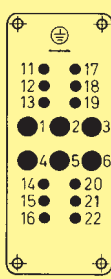
Page 05.12

Power area
Signal area

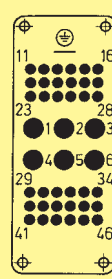
16 B



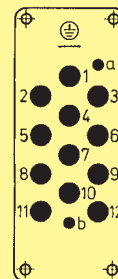
Han® K 4/0, 4/2
80 A / 830 V
16 A / 400 V
Screw terminal
Page 05.16



Han® K 6/12
40 A / 690 V
10 A / 230/400 V
Screw terminal
Page 05.18



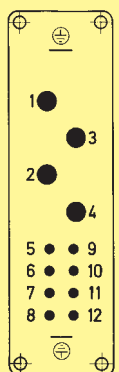
Han® K 6/36
40 A / 690 V
10 A / 160 V
Crimp terminal
Page 05.20



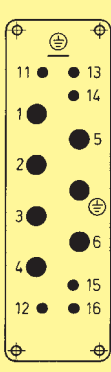
Han® K 12/2
40 A / 690 V
10 A / 250 V
Crimp terminal
Page 05.22

Power area
Signal area

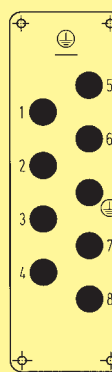
24 B



Han® K 4/8
80 A / 400 V
16 A / 400 V
Screw terminal
Page 05.28



Han® K 6/6
100 A / 690 V
16 A / 400 V
Screw terminal
Page 05.30



Han® K 8/0
100 A / 690 V
Screw terminal
Page 05.32

Power area
Signal area

32 B

suitable for 2 inserts of size 16 B

48 B

suitable for 2 inserts of size 24 B

Summary

Type	Technical characteristics								Suitable Hoods/ Housings
	Power area				Signal area				
	Number of con- tacts	A	V ~	Termination	Number of con- tacts	A	V ~	Termination	Size
Han [®] K 4/0	4+PE	80	830	screw	—	—	—	—	16 B, 32 B
Han [®] K 4/2	4+PE	80	830	screw	2	16	400	screw	16 B, 32 B
Han [®] K 4/4	4+PE	63	690	screw	4	16	230	cage clamp	10 B
Han [®] K 4/8	4+PE	80	400	screw	8	16	400	screw	24 B, 48 B
Han [®] K 6/6	6+PE	100	690	screw	6	16	400	screw	24 B, 48 B
Han [®] K 6/12	6+PE	40	690	screw	12	10	230/400	screw	16 B, 32 B
Han [®] K 6/36	6+PE	40	690	crimp	36	10	160	crimp	16 B, 32 B
Han [®] K 8/0	8+PE	100	690	screw	—	—	—	—	24 B, 48 B
Han [®] K 8/24	8+PE	16	230/400	crimp	24	10	160	crimp	10 B
Han [®] K 12/2	12+PE	40	690	crimp	2	10	250	crimp	16 B, 32 B

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Type identification

Han® K 6/12

Han®	Industrial connectors Han®
K	Series Han® K / Han-Com®
6	Number of power contacts
12	Number of signal contacts

Identification of contact position

Han® K connectors	from 1 to ... (power area) from 11 to... (signal area)
Exceptions	
Han® K 4/8 and Han® K 8/24	from 1 to ... (consecutively)
Han® K 12/2	from 1 to 12 (power area) with „a“ and „b“ (signal area)

Comment for users

For the combination of several circuits in one cable and/or e.g. one connector the following standards are valid:
VDE 0100/1.97 § 411.1.3.2 and EN 60 204/11.98 § 14.1.3

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals



Inserts

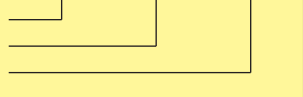
Number of contacts 8 / 24 + PE

Electrical data
acc. to DIN EN 61984

Power area

16 A 230/400 V 4 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



Signal area

10 A 160 V 2.5 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



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

Working voltage
acc. to UL/CSA

600 V / 300 V

Test voltage U_{rms}
Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- Mating cycles

3 kV / 2 kV
 $\geq 10^{10} \Omega$
Polyamide
- 40 °C / +125 °C
HB
 ≥ 500

Contacts

Material copper alloy

Surface

- hard-silver plated
- hard-gold plated

3 μm Ag
2 μm Au over 3 μm Ni
 $\leq 1 \text{ m}\Omega$ / 3 $\text{m}\Omega$

Contact resistance

Crimp terminal

- mm^2
- AWG

0.5 - 4 mm^2 / 0.14 - 2.5 mm^2
20 - 12 / 25 - 14

Hoods/Housings

Material

die cast aluminium

Surface

powder-coated
RAL 7037

Locking element

Han-Easy Lock®

Hoods/Housings seal

NBR

Limiting temperatures

- 40 °C / +125 °C

Degree of protection

acc. to DIN EN 60529
for coupled connector

IP 65

Further selection
of hoods/housings

chapter 30 / chapter 31

Accessories

Crimping tools

chapter 99

Cable clamps

chapter 40

Coding of Hoods/Housings

chapter 40

Label acc. to CSA-approval

chapter 40

Han-Snap®

chapter 11

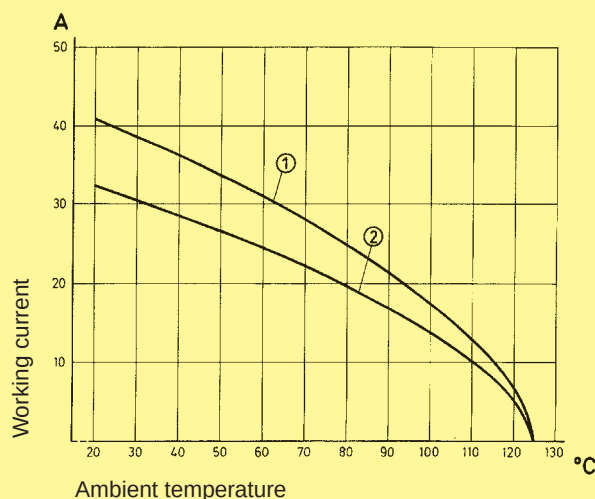
PCB-adaptor

chapter 40

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-5.

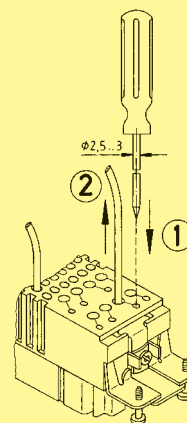


① Wire gauge: 4 mm^2

② Wire gauge: 2.5 mm^2

Removal of Power Contacts
(Han E® contacts)

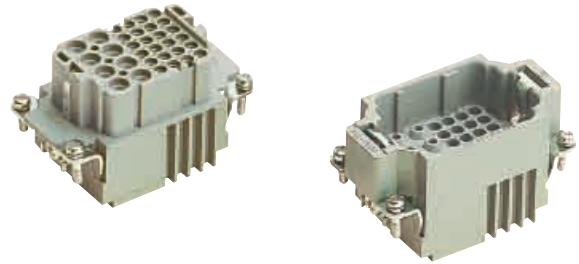
- ① Push cross-slotted screwdriver (size 0 acc. to DIN 5260) in the relevant hole of the contact until it reaches the bottom.
- ② Withdraw the crimped contact from the insert.

Removal of Signal Contacts
(Han D® contacts)

Description see removal tool chapter 99

Number of contacts

8/24 +



Inserts

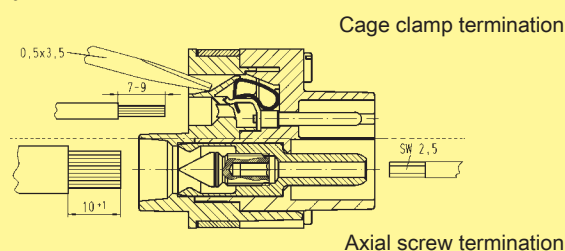
		Part No.		Drawing	Dimensions in mm
Identification	Series	Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	Han® K			1) Distance for contact max. 21 mm Contact arrangement View from termination side	
	8/24	09 38 032 3001	09 38 032 3101		

		Part No.		Drawing	Dimension in mm
Identification	Wire gauge (mm ²)	Male contacts	Female contacts		
Crimp contacts	0.5	09 33 000 6121	09 33 000 6220		
Power contacts	0.75	09 33 000 6114	09 33 000 6214		
silver plated	1.0	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		
	4.0	09 33 000 6107	09 33 000 6207		
gold plated	0.5	09 33 000 6122	09 33 000 6222		
	0.75	09 33 000 6115	09 33 000 6215		
	1.0	09 33 000 6118	09 33 000 6218		
	1.5	09 33 000 6116	09 33 000 6216		
Relay contact silver plated	2.5	09 33 000 6123	09 33 000 6223		
	4.0	09 33 000 6119	09 33 000 6221		
	0.75-1	09 33 000 6109			
	1.5	09 33 000 6110			
Signal contact	2.5	09 33 000 6111			
	0.14-0.37	09 15 000 6104	09 15 000 6204		
	0.5	09 15 000 6103	09 15 000 6203		
	0.75	09 15 000 6105	09 15 000 6205		
silver plated	1.0	09 15 000 6102	09 15 000 6202		
	1.5	09 15 000 6101	09 15 000 6201		
	2.5	09 15 000 6106	09 15 000 6206		
	0.14-0.37	09 15 000 6124	09 15 000 6224		
gold plated	0.5	09 15 000 6123	09 15 000 6223		
	0.75	09 15 000 6125	09 15 000 6225		
	1.0	09 15 000 6122	09 15 000 6222		
	1.5	09 15 000 6121	09 15 000 6221		
FOC contacts for 1 mm plastic fibre	2.5	09 15 000 6126	09 15 000 6226		
		20 10 001 3211	20 10 001 3221		

Features

- 4 power contacts for 63 A with axial screw termination
- 4 signal contacts for 16 A with cage clamp termination
- PE contact
- Finger safe
- Suitable for hoods/housings of the size Han® 10 B

Assembly instructions



Technical characteristics

Specifications	DIN EN 61 984 DIN VDE 0110
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Inserts

Number of contacts	4 / 4 + PE
Electrical data acc. to EN 61 984	
<u>Power side</u>	63 A 690 V 6 kV 3
Rated current	63 A
Rated voltage	690 V
Rated impulse voltage	6 kV
Pollution degree	3

<u>Signal side</u>	16 A 230 V 4 kV 3
Rated current	16 A
Rated voltage	230 V
Rated impulse voltage	4 kV
Pollution degree	3

Rated voltage acc. to UL/CSA	600
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	

Contacts

Power contacts

Material	copper alloy
Surface	
- hard-silver plated	3 μ m Ag
Contact resistance	$\leq 0,5 \text{ m}\Omega$
Axial screw termination	
- geometric wire gauge	6 ... 22 mm ²
- AWG	8 ... 4
Tightening torque	

mm ²	6	10	16	22
Nm	2	3	4	5

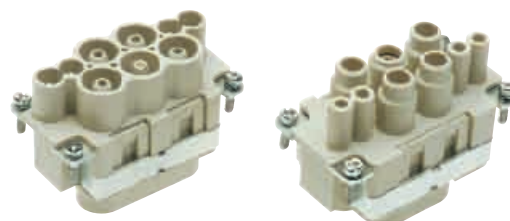
Signal contacts

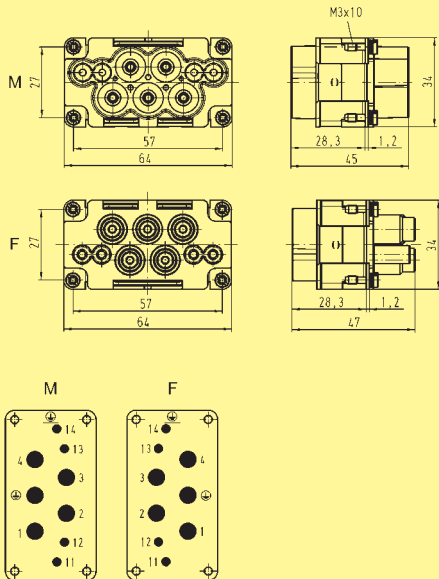
Material	copper alloy
Surface	
- hard-silver plated	3 μ m Ag
Contact resistance	$\leq 3 \text{ m}\Omega$
Cage clamp termination	
- geometric wire gauge	0,14 ... 2,5 mm ²
- AWG	26 ... 14

Hoods/housings	see chapter 30 / 31
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Accessories

Cable clamps	chapter 40
Coding of hoods/housings	chapter 40
Label acc. to CSA-approval	chapter 40
Han-Snap®	chapter 11

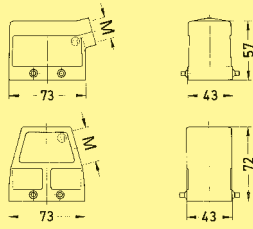
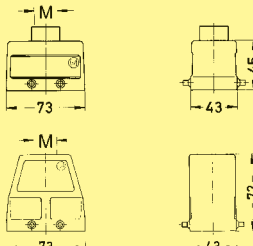
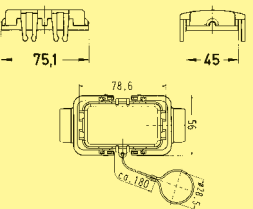
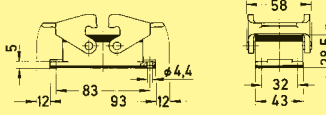
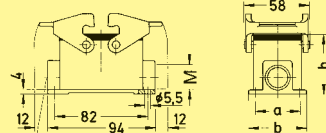
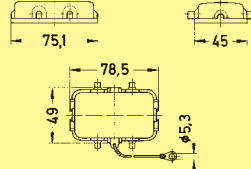
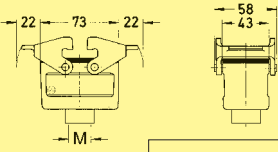
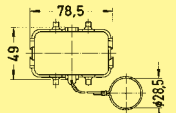
4/4 + 

Identification	Part number		Drawing	Dimensions in mm
	Male insert (M)	Female insert (F)		
Han [®] K 4/4 Axial screw terminal / Cage clamp termination				
finger safe 6 ... 16 mm ²	09 38 008 2601	09 38 008 2701		
finger safe 14 ... 22 mm ²	09 38 008 2602	09 38 008 2702		
not finger safe 6 ... 16 mm ²	09 38 008 2611			
not finger safe 14 ... 22 mm ²	09 38 008 2612			

Contact arrangement View from termination side

Identification	Part number	Drawing	Dimensions in mm
Hex key SW 2.5 for axial setscrew adapter 1/4" 	09 99 000 0375		

Stock items in bold type

		Part No.			Drawing	Dimensions in mm												
Identification		Low construction	High construction	M														
Hoods	Hoods side-entry		19 30 010 1520 19 30 010 1521	19 30 010 0527	20 25 32													
	Hoods top-entry		19 30 010 1420 19 30 010 1421	19 30 010 0427	20 25 32													
	Protection covers for hoods thermoplastic/metal		09 30 010 5401 09 30 010 5423															
Housings	Housing bulkhead mounting		09 30 010 0301		—	Panel cut out 60 x 35 mm 												
	Housings surface mounting	 1 side-entry 2 side-entries	19 30 010 1230 19 30 010 1231 19 30 010 1270	19 30 010 0231 19 30 010 0271 19 30 010 0272	20 25 20 25 32	 Blind way for one cable entry <table border="1"><thead><tr><th></th><th>a</th><th>b</th><th>h</th></tr></thead><tbody><tr><td>Low construction</td><td>40</td><td>52</td><td>54</td></tr><tr><td>High construction</td><td>45</td><td>57</td><td>81</td></tr></tbody></table>		a	b	h	Low construction	40	52	54	High construction	45	57	81
		a	b	h														
	Low construction	40	52	54														
	High construction	45	57	81														
Protection covers for housings bulkhead/surface mounting thermoplastic/metal		09 30 010 5407 09 30 010 5425																
Hoods cable to cable		19 30 010 1730	19 30 010 0736 19 30 010 0737	20 25 32	 <table border="1"><thead><tr><th></th><th>h</th></tr></thead><tbody><tr><td>Low construction</td><td>47.5</td></tr><tr><td>High construction</td><td>74.5</td></tr></tbody></table>		h	Low construction	47.5	High construction	74.5							
	h																	
Low construction	47.5																	
High construction	74.5																	
Protection cover for hoods cable to cable metal		09 30 010 5427																

Stock items in bold type

		Part No.															
Identification		Low construction	High construction	M	Drawing	Dimensions in mm											
Hoods	Hoods side-entry	19 30 010 1540 19 30 010 1541	19 30 010 0547	20 25 32													
	Hoods top-entry	19 30 010 1440 19 30 010 1441		20 25 32													
Housings bulkhead mounting		09 30 010 0305 with thermo-plastic cover 09 30 010 0303 with metal cover 09 30 010 0318			— — —	Panel cut out 60 x 35 mm 											
Housings	Housings surface mounting	1 side-entry 2 side-entries	19 30 010 1250 19 30 010 1290	20 20 25 32													
		1 side-entry 2 side-entries	with thermo-plastic cover 19 30 010 1255 with thermo-plastic cover 19 30 010 1295	20 20 25 32													
			with metal cover 19 30 010 2295	20 25	1) Blind way for one cable entry <table><tr><td></td><td>a</td><td>b</td><td>h</td></tr><tr><td>Low construction</td><td>40</td><td>52</td><td>54</td></tr><tr><td>High construction</td><td>45</td><td>57</td><td>81</td></tr></table>		a	b	h	Low construction	40	52	54	High construction	45	57	81
	a	b	h														
Low construction	40	52	54														
High construction	45	57	81														
	Hoods cable to cable	19 30 010 1750	19 30 010 0756 19 30 010 0757	20 25 32		<table><tr><td></td><td>h</td></tr><tr><td>Low construction</td><td>47.5</td></tr><tr><td>High construction</td><td>74.5</td></tr></table>		h	Low construction	47.5	High construction	74.5					
	h																
Low construction	47.5																
High construction	74.5																
	Dust protection cover	09 30 010 5406															

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals



Inserts

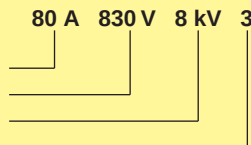
Number of contacts 4 / 2 + PE

Electrical data
acc. to DIN EN 61984

Power area

80 A 830 V 8 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



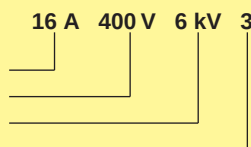
– Pollution degree 2 also

80 A 1000 V 8 kV 2

Signal area

16 A 400 V 6 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



– Pollution degree 2 also

16 A 400/690 V 6 kV 2

Working voltage
acc. to UL/CSA

600 V / 300 V

Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- Mating cycles

$\geq 10^{10} \Omega$
Polycarbonate
- 40 °C / +125 °C
V 0
 ≥ 500

Contacts

Power contacts

Material copper alloy
Surface
- hard-silver plated
Contact resistance $\leq 0.3 \text{ m}\Omega$
Screw terminal
- Wire gauge¹⁾ 1.5 - 16 mm²
- AWG 16 - 6
- Tightening torque

mm ²	1.5	2.5	4	6	10	16
Nm	1.2	2	3	3	3	3

Signal contacts

Material copper alloy
Surface
- hard-silver plated
Contact resistance $\leq 1 \text{ m}\Omega$
Screw terminal
- Wire gauge¹⁾ 0.5 - 2.5 mm²
- AWG 20 - 14
- Tightening torque 0.5 Nm

Hoods/Housings

Material die cast aluminium
Surface powder-coated
RAL 7037
Locking element Han-Easy Lock®
Hoods/Housings seal NBR
Limiting temperatures - 40 °C / +125 °C

Degree of protection acc. to DIN EN 60529 for coupled connector IP 65

Further selection of hoods/housings chapter 30 / chapter 31

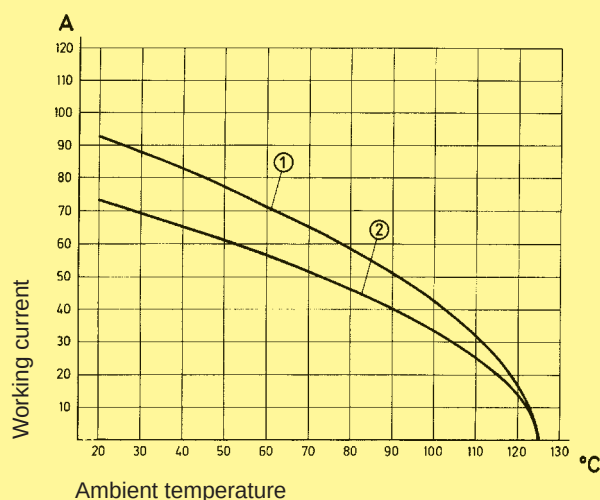
Accessories

Cable clamps chapter 40
Coding of hoods/housings chapter 40
Label acc. to CSA-approval chapter 40
Han-Snap® chapter 11

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-5.



① Wire gauge: 16 mm²

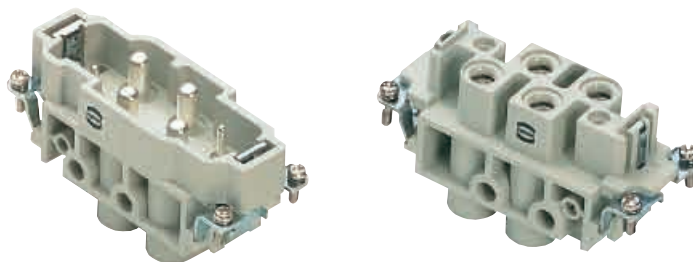
② Wire gauge: 10 mm²

In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (s. p. 00.12).

¹⁾ geometrical diameter

Number of contacts

4/0, 4/2 +

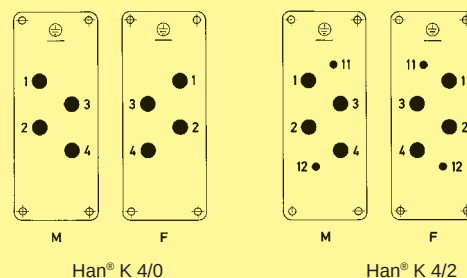


Inserts

		Part No.		Drawing	Dimensions in mm
Identification	Series	Male insert (M)	Female insert (F)		
Screw terminal	Han® K				
	4/0	09 38 006 2611	09 38 006 2711		
	4/2	09 38 006 2601	09 38 006 2701		

1) Distance for contact max. 21 mm

Contact arrangement View from termination side



Han® K 4/0

Han® K 4/2

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals



Inserts

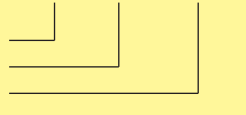
Inserts 6 / 12 + PE

Electrical data
acc. to DIN EN 61984

Power area

40 A 690 V 8 kV 3

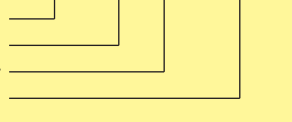
Working current
Working voltage
Rated impulse voltage
Pollution degree



Signal area

10 A 230/400 V 4 kV 3

Working current
Working voltage conductor – ground
Working voltage conductor – conductor
Rated impulse voltage
Pollution degree



Working voltage
acc. to UL/CSA

600 V / 300 V

Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- Mating cycles

$\geq 10^{10} \Omega$
Polycarbonate
- 40 °C / +125 °C
V 0
 ≥ 500

Contacts

Power contacts

Material copper alloy
Surface
- hard-silver plated
Contact resistance $\leq 0.5 \text{ m}\Omega$
Screw terminal
- Wire gauge¹⁾
- AWG
- Tightening torque

mm ²	2.5	4	6	10
Nm	1.5	1.5	2	2

- Stripping length

mm ²	2.5	4	6	10
mm	5 ⁺¹	5 ⁺¹	8 ⁺¹	8 ⁺¹

Max. insulation diameter

$\varnothing = 5 \text{ mm}$

Signal contacts

Material copper alloy
Surface
- hard-silver plated
Contact resistance $\leq 3 \text{ m}\Omega$
Screw terminal
- Wire gauge¹⁾
- AWG
- Tightening torque

0.2 - 2.5 mm²
24 - 14
0.8 Nm

Hoods/Housings

Material die cast aluminium
Surface powder-coated
RAL 7037
Locking element Han-Easy Lock®
Hoods/Housings seal NBR
Limiting temperatures - 40 °C / +125 °C

Degree of protection
acc. to DIN 40 050
for coupled connector IP 65

Further selection
of hoods/housings

chapter 30 / chapter 31

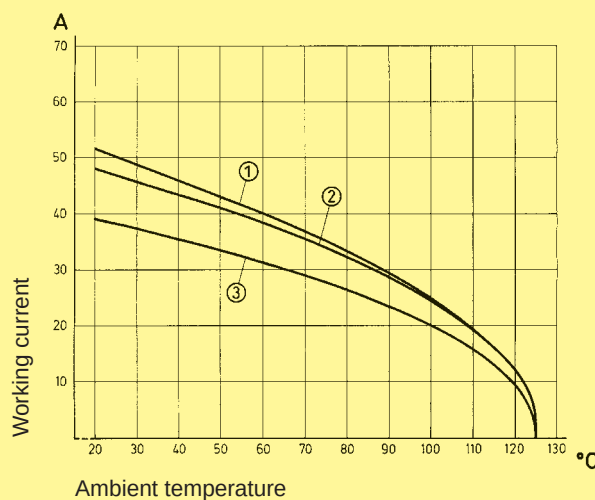
Accessories

Cable clamps chapter 40
Coding of hoods/housings chapter 40
Label acc. to CSA-approval chapter 40
Han-Snap® chapter 11

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-5.



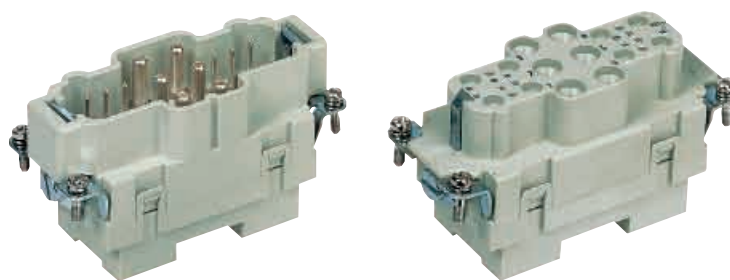
- ① Wire gauge: 10 mm²
② Wire gauge: 6 mm²
③ Wire gauge: 4 mm²

In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (s. p. 00.12).

¹⁾ geometrical diameter

Number of contacts

6/12 +



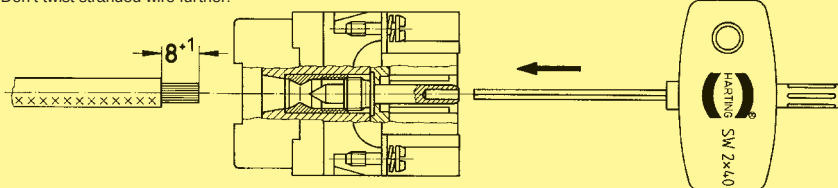
Inserts

		Part No.		Drawing	Dimensions in mm
Identification	Series	Male insert (M)	Female insert (F)		
Screw terminal	Han® K				
	6/12	09 38 018 2601	09 38 018 2701		
	6/12	09 38 018 2602	09 38 018 2702		
2.5 - 8 mm ²	6/12			1) Distance for contact max. 21 mm	
6 - 10 mm ²	6/12				
Screwdriver for axial setscrew					
		09 99 000 0313			

Working instructions
for axial setscrew

For stranded fine wire 2.5 ... 10 mm²
(superfine wire 2.5 ... 6 mm²)
Don't twist stranded wire further!

Example: Male insert



Insert stranded wire in contact chamber.

During tightening of the lock nut, hold stranded wire in position.

Tightening torque: 1 Nm max.

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals



Inserts

Number of contacts 6 / 36 + PE

Electrical data
acc. to DIN EN 61984

Power area

40 A 690 V 8 kV 3

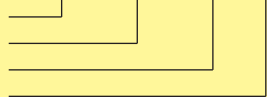
Working current
Working voltage
Rated impulse voltage
Pollution degree



Signal area

10 A 160 V 2,5 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



- Pollution degree 2 also

10 A 250 V 4 kV 2

Working voltage
acc. to UL/CSA

600 V / 300 V

Test voltage U_{rms}

Insulation resistance

Material

Limiting temperatures

Flammability acc. to UL 94

Mechanical working life

- Mating cycles

3 kV / 2 kV
 $\geq 10^{10} \Omega$
Polycarbonate
- 40 °C / +125 °C
V 0
 ≥ 500

Contacts

Material

copper alloy

Surface

- hard-silver plated
- hard-gold plated

3 μm Ag
2 μm Au over 3 μm Ni

Contact resistance

$\leq 0.3 \text{ m}\Omega / 3 \text{ m}\Omega$

Crimp terminal

- mm^2

- AWG

1.5 - 6 $\text{mm}^2 / 0.14 - 2.5 \text{ mm}^2$
16 - 10 / 26 - 14

Max. insulation

- Power contacts

$\varnothing = 5 \text{ mm}$

Hoods/Housings

Material

die cast aluminium

Surface

powder-coated
RAL 7037

Locking element

Han-Easy Lock®

Hoods/Housings seal

NBR

Limiting temperatures

- 40 °C / +125 °C

Degree of protection

acc. to DIN EN 60529

for coupled connector

IP 65

Further selection

of hoods/housings

chapter 30 / chapter 31

Accessories

Crimping tools

chapter 99

Cable clamps

chapter 40

Coding of Hoods/Housings

chapter 40

Label acc. to CSA-approval

chapter 40

Han-Snap®

chapter 11

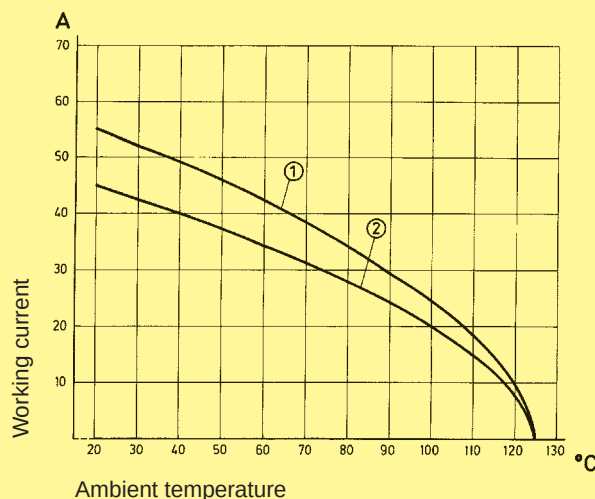
PCB-Adapter

chapter 40

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-5.



① Wire gauge: 6 mm^2

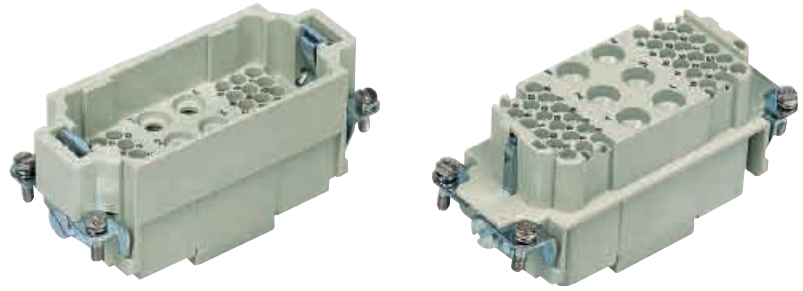
② Wire gauge: 4 mm^2

Removal of Power Contacts
(Han® C contacts)

Description see removal tool chapter 99

Number of contacts

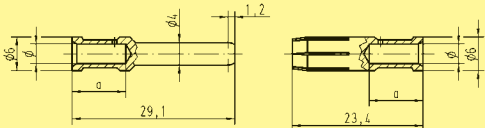
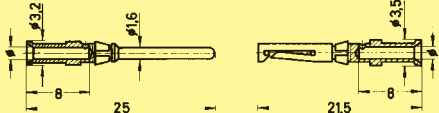
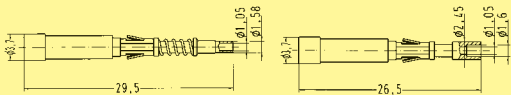
6/36 +



Inserts

Identification	Series	Part No.		Drawing	Dimensions in mm
		Male insert (M)	Female insert (F)		
Crimp terminal Order crimp contacts separately	Han® K 6/36	09 38 042 3001	09 38 042 3101	1) Distance for contact max. 21 mm Contact arrangement View from termination side	

Han
Com

Identification		Wire gauge (mm ²)	Male contacts	Female contacts	Part No.	Drawing	Dimensions in mm
Crimp contacts							
Power contacts		1.5 2.5 4.0 6.0	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208			
Signal contacts		0.14-0.37 0.5 0.75 1.0 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206			
FOC contacts for 1 mm plastic fibre		0.14-0.37 0.5 0.75 1.0 1.5 2.5	20 10 001 3211	20 10 001 3221			

05
21

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals

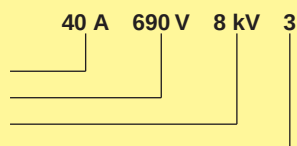


Inserts

Number of contacts 12 / 2 + PE

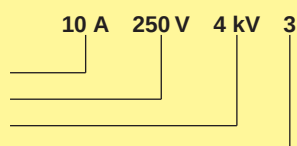
Electrical data
acc. to DIN EN 61984

Power area



Working current
Working voltage
Rated impulse voltage
Pollution degree

Signal area



Working current
Working voltage
Rated impulse voltage
Pollution degree

Working voltage
acc. to UL/CSA

600 V / 300 V

Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- Mating cycles

$\geq 10^{10} \Omega$
Polycarbonate
- 40 °C / +125 °C
V 0
 ≥ 500

Contacts

Material copper alloy
Surface
- hard-silver plated 3 μm Ag
- hard-gold plated 2 μm Au over 3 μm Ni
Contact resistance $\leq 0.3 \text{ m}\Omega$ / 3 $\text{m}\Omega$
Crimp terminal
- mm^2 1.5 - 6 mm^2 / 0.14 - 2.5 mm^2
- AWG 16 - 10 / 26 - 14

Hoods/Housings

Material die cast aluminium
Surface powder-coated RAL 7037
Locking element Han-Easy Lock®
Hoods/Housings seal NBR
Limiting temperatures - 40 °C / +125 °C
Degree of protection acc. to DIN EN 60529 IP 65
for coupled connector
Further selection of hoods/housings chapter 30 / chapter 31

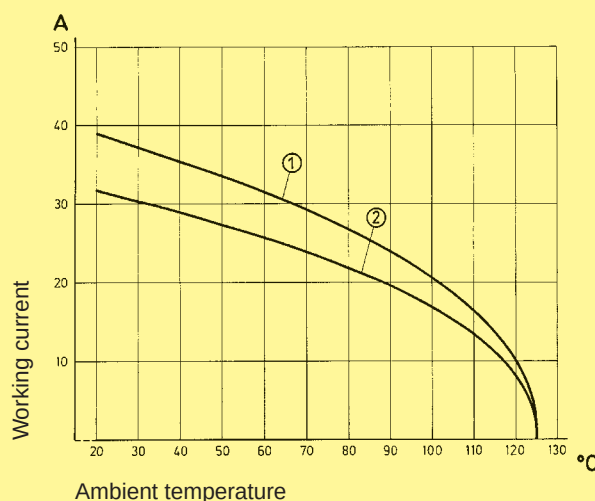
Accessories

Crimping tools chapter 99
Cable clamps chapter 40
Coding of hoods/housings chapter 40
Label acc. to CSA-approval chapter 40
Han-Snap® chapter 11

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-5.



① Wire gauge: 6 mm^2

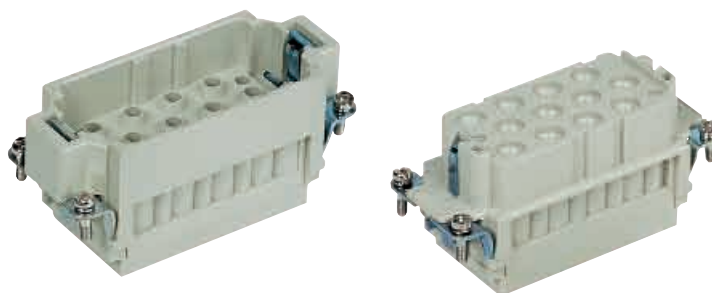
② Wire gauge: 4 mm^2

Removal of Power Contacts
(Han® C contacts)

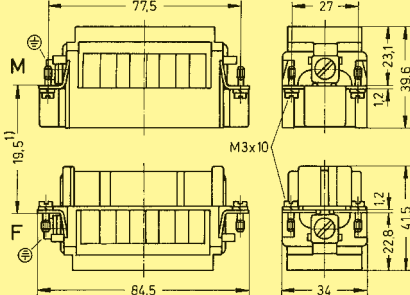
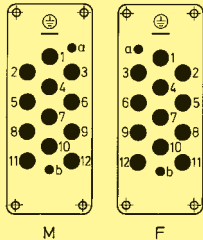
Description see removal tool chapter 99

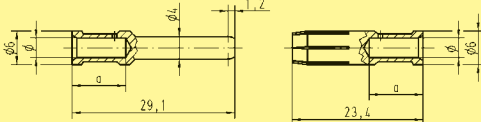
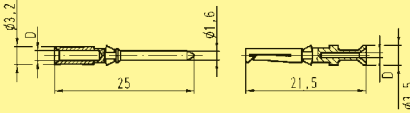
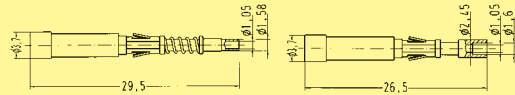
Number of contacts

12/2 +



Inserts

Part No.					
Identification	Series	Male insert (M)	Female insert (F)	Drawing	Dimensions in mm
Crimp terminal Order crimp contacts separately	Han® K				
	12/2	09 32 012 3001	09 32 012 3101		
				1) Distance for contact max. 21 mm	
				Contact arrangement View from termination side	

Wire gauge		Part No.		Drawing	Dimensions in mm																												
Identification	(mm ²)	Male contacts	Female contacts																														
Crimp contacts Power contacts																																	
	silver plated																																
	1.5	09 32 000 6104	09 32 000 6204																														
	2.5	09 32 000 6105	09 32 000 6205																														
	4.0	09 32 000 6107	09 32 000 6207																														
6.0	09 32 000 6108	09 32 000 6208																															
Signal contacts	0.14-0.37	09 15 000 6104	09 15 000 6204																														
	0.5	09 15 000 6103	09 15 000 6203																														
	0.75	09 15 000 6105	09 15 000 6205																														
	1.0	09 15 000 6102	09 15 000 6202																														
	1.5	09 15 000 6101	09 15 000 6201																														
	2.5	09 15 000 6106	09 15 000 6206																														
	0.14-0.37	09 15 000 6124	09 15 000 6224																														
	0.5	09 15 000 6123	09 15 000 6223																														
	0.75	09 15 000 6125	09 15 000 6225																														
	1.0	09 15 000 6122	09 15 000 6222																														
1.5	09 15 000 6121	09 15 000 6221																															
2.5	09 15 000 6126	09 15 000 6226																															
gold plated				<table><tr><th colspan="2">Wire gauge</th><th>Ø</th><th>Stripping length</th></tr><tr><td>0.14-0.37 mm²</td><td>AWG 26-22</td><td>0.90 mm</td><td>8 mm</td></tr><tr><td>0.5 mm²</td><td>AWG 20</td><td>1.10 mm</td><td>8 mm</td></tr><tr><td>0.75 mm²</td><td>AWG 18</td><td>1.30 mm</td><td>8 mm</td></tr><tr><td>1.0 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>	Wire gauge		Ø	Stripping length	0.14-0.37 mm ²	AWG 26-22	0.90 mm	8 mm	0.5 mm ²	AWG 20	1.10 mm	8 mm	0.75 mm ²	AWG 18	1.30 mm	8 mm	1.0 mm ²	AWG 18	1.45 mm	8 mm	1.5 mm ²	AWG 16	1.75 mm	8 mm	2.5 mm ²	AWG 14	2.25 mm	6 mm	
	Wire gauge		Ø		Stripping length																												
	0.14-0.37 mm ²	AWG 26-22	0.90 mm		8 mm																												
	0.5 mm ²	AWG 20	1.10 mm		8 mm																												
	0.75 mm ²	AWG 18	1.30 mm		8 mm																												
	1.0 mm ²	AWG 18	1.45 mm		8 mm																												
	1.5 mm ²	AWG 16	1.75 mm		8 mm																												
	2.5 mm ²	AWG 14	2.25 mm		6 mm																												
FOC contacts for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221																														

Han
Com

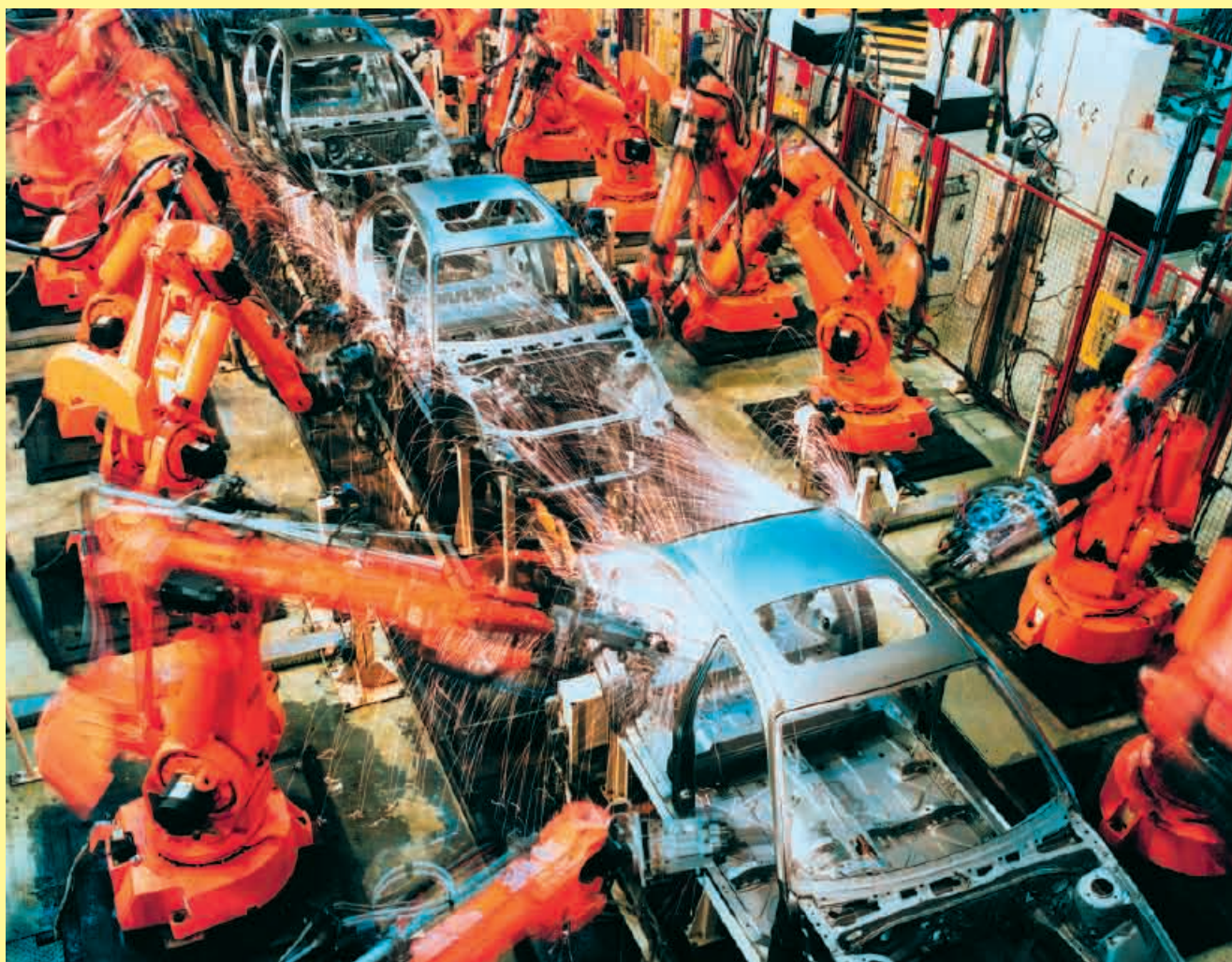
		Part No.			Drawing	Dimensions in mm						
Identification		Low construction	High construction	M								
Hoods	Hoods side-entry	19 30 016 1521 19 30 016 1522	19 30 016 0527 19 30 016 0528	25 32								
	Hoods top-entry	19 30 016 1421 19 30 016 1422	19 30 016 0427 19 30 016 0428	25 32 40								
	Protection covers for housings thermoplastic/metal	09 30 016 5401 09 30 016 5422										
Housings	Housing bulkhead mounting	09 30 016 0301		—	Panel cut out 82 x 35 mm 							
	Housings surface mounting 1 side-entry	19 30 016 1231	19 30 016 0232	25 32								
	Housings surface mounting 2 side-entries	19 30 016 1271	19 30 016 0271 19 30 016 0272 19 30 016 0273	25 32 40	Blind way for one cable entry <table><tr><th></th><th>h</th></tr><tr><td>Low construction</td><td>56</td></tr><tr><td>High construction</td><td>81</td></tr></table>		h	Low construction	56	High construction	81	
		h										
	Low construction	56										
High construction	81											
Protection covers for housings bulkhead mounting thermoplastic/metal	09 30 016 5405 09 30 016 5425											
Hoods cable to cable	19 30 016 1731	19 30 016 0736 19 30 016 0737	25 32		<table><tr><th></th><th>h</th></tr><tr><td>Low construction</td><td>47.5</td></tr><tr><td>High construction</td><td>78.5</td></tr></table>		h	Low construction	47.5	High construction	78.5	
	h											
Low construction	47.5											
High construction	78.5											
	Protection cover for hoods cable to cable metal	09 30 016 5426										

Stock items in bold type

Identification		Part No.		M	Drawing	Dimensions in mm					
Low construction		High construction									
Hoods	Hoods side-entry	19 30 016 1541 19 30 016 1542	19 30 016 0547 19 30 016 0548	25 32							
				32 40							
	Hoods top-entry	19 30 016 1441 19 30 016 1442	19 30 016 0447 19 30 016 0448	25 32							
				32 40							
Housings	Housings bulkhead mounting	09 30 016 0307 with thermo-plastic cover 09 30 016 0306 with metal cover 09 30 016 0318		— — —	Panel cut out 82 x 35 mm 						
	Housings surface mounting 1 side-entry	19 30 016 1251	19 30 016 0252	25 32							
	2 side-entries	19 30 016 1291	19 30 016 0291 19 30 016 0292	25 32							
	1 side-entry	with thermo-plastic cover 19 30 016 1256		25							
	2 side-entries	with thermo-plastic cover 19 30 016 1296	with thermo-plastic cover 19 30 016 0297	25 32							
	2 side-entries	with metal cover 19 30 016 2296	with metal cover 19 30 016 7297	25 32		1) Blind way for one cable entry					
					<table><tr><td></td><td>h</td></tr><tr><td>Low construction</td><td>56</td></tr><tr><td>High construction</td><td>81</td></tr></table>		h	Low construction	56	High construction	81
	h										
Low construction	56										
High construction	81										
Hoods cable to cable	19 30 016 1751	19 30 016 0757	25 32		<table><tr><td></td><td>h</td></tr><tr><td>Low construction</td><td>47.5</td></tr><tr><td>High construction</td><td>78.5</td></tr></table>		h	Low construction	47.5	High construction	78.5
	h										
Low construction	47.5										
High construction	78.5										
Dust protection cover	09 30 016 5406										

Identification		Part No.	M	Drawing	Dimensions in mm
Hoods	Hoods side-entry	19 30 032 0527 19 30 032 0528 19 30 032 0529	32 40 50		
	Hoods top-entry	19 30 032 0427 19 30 032 0428 19 30 032 0429	32 40 50		
	Protection cover for hoods	09 30 032 5420	—		
Housings	Housing bulkhead mounting	09 30 032 0301	—		
	Housings surface mounting	19 30 032 0232 19 30 032 0272 19 30 032 0273	1 x 32 2 x 32 2 x 40		
	Hoods cable to cable	19 30 032 0738	2 x 40		
	Protection covers for housings	09 30 032 5425	—		

Stock items in bold type



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

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals



Inserts

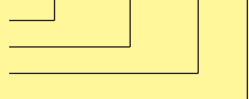
Number of contacts 4 / 8 + PE

Electrical data
acc. to DIN EN 61984

Power area

80 A 400 V 6 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



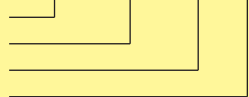
- Pollution degree 2 also

80 A 400/690 V 6 kV 2

Signal area

16 A 400 V 6 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



Working voltage
acc. to UL/CSA

600 V / 600 V

Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
- Mating cycles

$\geq 10^{10} \Omega$
Polyamide
- 40 °C / +125 °C
HB
 ≥ 500

Contacts

Power contacts

Material copper alloy
Surface
- hard-silver plated
Contact resistance $\leq 0.3 \text{ m}\Omega$
Screw terminal
- Wire gauge¹⁾
- AWG
- Tightening torque

mm ²	1.5	2.5	4	6	10	16
Nm	1.2	2	3	3	3	3

Signal contacts

Material copper alloy
Surface
- hard-silver plated
Contact resistance $\leq 1 \text{ m}\Omega$
Screw terminal
- Wire gauge¹⁾
- AWG
- Tightening torque

3 μm Ag
 $\leq 1 \text{ m}\Omega$
0.5 - 2.5 mm²
20 - 14
0.5 Nm

Hoods/Housings

Material die cast aluminium
Surface powder-coated
RAL 7037
Locking element Han-Easy Lock®
Hoods/Housings seal NBR
Limiting temperatures - 40 °C / +125 °C
Degree of protection acc. to DIN EN 60529 for coupled connector IP 65

Further selection of hoods/housings chapter 30 / chapter 31

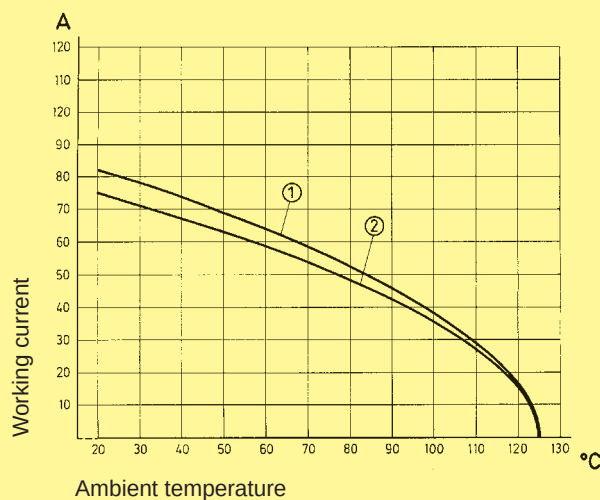
Accessories

Cable clamps chapter 40
Coding of hoods/housings chapter 40
Label acc. to CSA-approval chapter 40
Han-Snap® chapter 11

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-5.

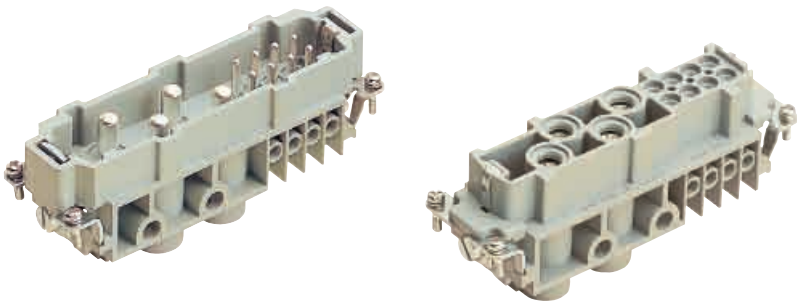


① Wire gauge: 16 mm²

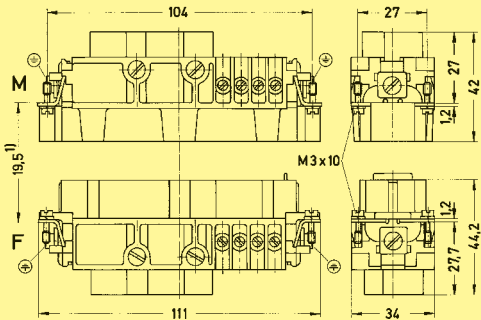
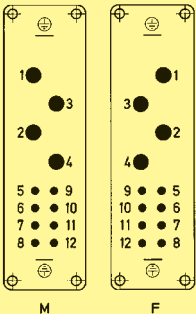
② Wire gauge: 10 mm²

Number of contacts

4/8 + 



Inserts

Identification		Series		Part No.		Drawing	Dimensions in mm
				Male insert (M)	Female insert (F)		
Screw terminal	Han® K						
	4/8	09 38 012 2601	09 38 012 2701				
1) Distance for contact max. 21 mm							
Contact arrangement View from termination side							
							

Han
Com

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Approvals



Inserts

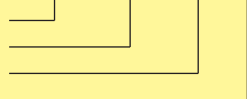
Number of contacts 6 / 6 + PE

Electrical data
acc. to DIN EN 61984

Power area

100 A 690 V 8 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



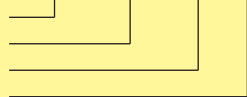
– Pollution degree 2 also

100 A 1000 V 8 kV 2

Signal area

16 A 400 V 6 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



Working voltage
acc. to UL/CSA

600 V / 300 V

Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
– Mating cycles

$\geq 10^{10} \Omega$
Polycarbonate
- 40 °C / +125 °C
V 0
 ≥ 500

Contacts

Power contacts

Material copper alloy
Surface 3 μm Ag
Contact resistance $\leq 0.5 \text{ m}\Omega$
Screw terminal 16 - 35 mm^2
– Wire gauge¹⁾ 5 - 2
– AWG
– Tightening torque

mm^2	16	25	35
Nm	6	7	8

Signal area

Material copper alloy
Surface 3 μm Ag
Contact resistance $\leq 3 \text{ m}\Omega$
Screw terminal 0,2 - 2,5 mm^2
– Wire gauge¹⁾ 24 - 13
– AWG
– Tightening torque 0,8 Nm

Hoods/Housings

Material die cast aluminium
Surface powder-coated
RAL 7037
Locking element Han-Easy Lock®
Hoods/Housings seal NBR
Limiting temperatures - 40 °C / +125 °C
Degree of protection acc. to DIN EN 60529
for coupled connector IP 65

Further selection
of hoods/housings chapter 30 / chapter 31

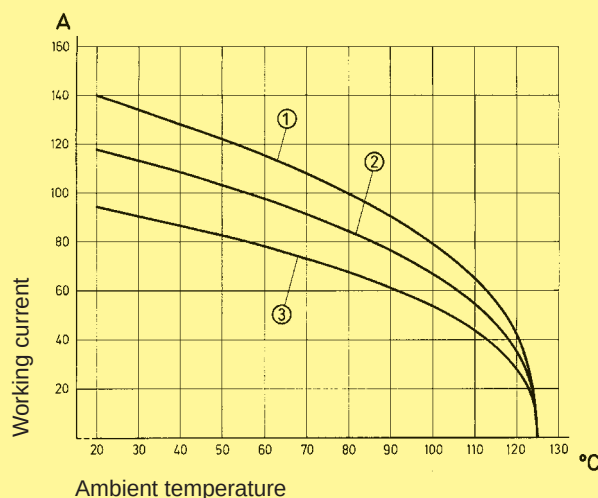
Accessories

Cable clamps chapter 40
Coding of hoods/housings chapter 40
Label acc. to CSA-approval chapter 40
Han-Snap® chapter 11

Current carrying capacity

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

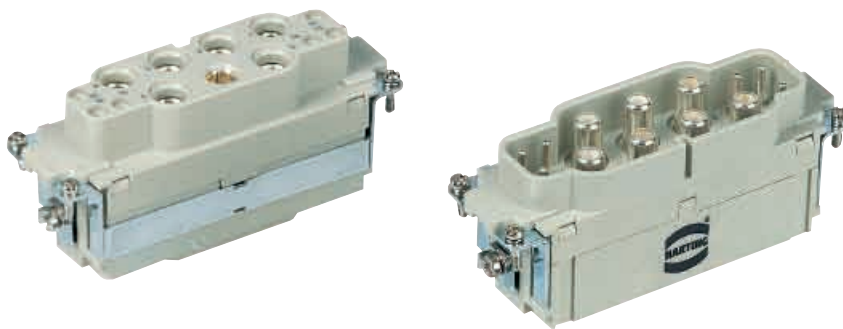
Control and test procedures according to DIN IEC 60512-5.



- ① Wire gauge: 35 mm^2
② Wire gauge: 25 mm^2
③ Wire gauge: 16 mm^2

Number of contacts

6/6 +



Inserts

		Part No.		Drawing	Dimensions in mm
Identification	Series	Male insert (M)	Female insert (F)		
Screw terminal	Han® K 6/6	09 38 012 2651	09 38 012 2751	1) Distance for contact max. 21 mm Contact arrangement View from termination side	1) Distance for contact max. 21 mm Contact arrangement View from termination side
Hex Key SW 4 for axial setscrew with grip adapter 3/8"			09 99 000 0363 09 99 000 0370		
Working instructions for axial setscrew					

Termination details see page 05.35

Stock items in bold type

Specifications

DIN VDE 0627
DIN VDE 0110
DIN EN 61984

Inserts

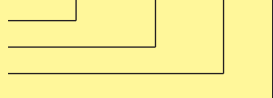
Number of contacts 8 + PE

Electrical data
acc. to DIN EN 61984

Power area

100 A 690 V 8 kV 3

Working current
Working voltage
Rated impulse voltage
Pollution degree



– Pollution degree 2 also

100 A 1000 V 8 kV 2

Insulation resistance
Material
Limiting temperatures
Flammability acc. to UL 94
Mechanical working life
– Mating cycles

$\geq 10^{10} \Omega$
Polycarbonate
- 40 °C / +125 °C
V 0
 ≥ 500

Contacts

Power contacts

Material copper alloy

Surface

– hard-silver plated 3 µm Ag

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

Screw terminal

– Wire gauge¹⁾ 10 - 25 mm²

– AWG 7 - 3

– Tightening torque

mm ²	10	16	25
Nm	6	6	7

Hoods/Housings

Material die cast aluminium

Surface powder-coated
RAL 7037

Locking element Han-Easy Lock®

Hoods/Housings seal NBR
Limiting temperatures - 40 °C / +125 °C

Degree of protection
acc. to DIN EN 60529
for coupled connector IP 65

Further selection
of hoods/housings chapter 30 / chapter 31

Accessories

Cable clamps chapter 40

Coding of hoods/housings chapter 40

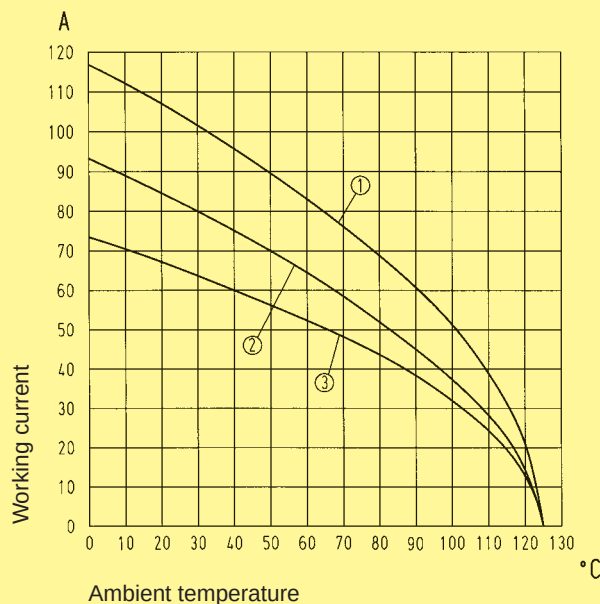
Label acc. to CSA-approval chapter 40

Han-Snap® chapter 11

Current carrying capacity

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

Control and test procedures according to DIN IEC 60512-5.



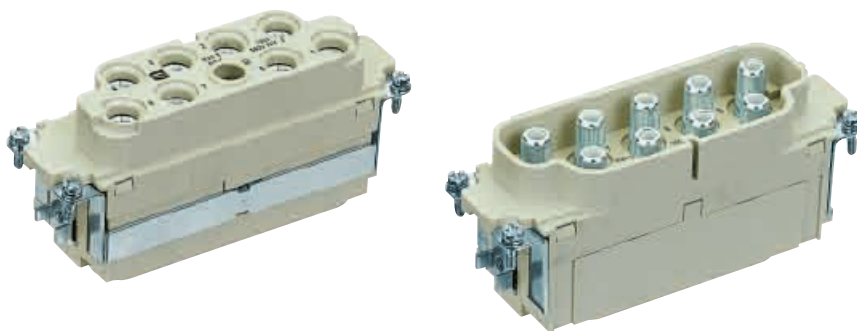
① Wire gauge: 25 mm²

② Wire gauge: 16 mm²

③ Wire gauge: 10 mm²

Number of contacts

8/0 +



Inserts

Identification	Series	Part No.		Drawing	Dimensions in mm
Male insert (M)	Female insert (F)				
Screw terminal	Han® K 8/0	09 38 008 2653	09 38 008 2753	1) Distance for contact max. 21 mm Contact arrangement View from termination side M F	
Hex Key SW 4 for axial setscrew with grip adapter 3/8"			09 99 000 0363 09 99 000 0370		
Working instructions for axial setscrew					

Termination details see page 05.35

Stock items in bold type

		Part No.			Drawing	Dimensions in mm
Identification		Low construction	High construction	M		
Hoods	Hoods side-entry	19 30 024 1521 19 30 024 1522	19 30 024 0527 19 30 024 0528	25 32		
	Hoods top-entry	19 30 024 1422	19 30 024 0427 19 30 024 0428	32 40		
	Protection covers for hoods thermoplastic/metal	09 30 024 5401 09 30 024 5422				
Housings	Housing bulkhead mounting	09 30 024 0301		—		
	Housings surface mounting 1 side-entry	19 30 024 1231	19 30 024 0232	25 32		
	Housings surface mounting 2 side-entries	19 30 024 1271	19 30 024 0272 19 30 024 0273	25 32 40		Blind way for one cable entry
	Protection covers for housings bulkhead/surface mounting thermoplastic/metal	09 30 024 5405 09 30 024 5425				
	Hoods cable to cable	19 30 024 1732	19 30 024 0737 19 30 024 0738	32 40		
	Protection cover for hoods metal	09 30 024 5426				

Stock items in bold type

Identification		Part No.		M	Drawing	Dimensions in mm
		Low construction	High construction			
Hoods	Hoods side-entry	19 30 024 1541 19 30 024 1542	19 30 024 0547 19 30 024 0548	25 32 32 40		
	Hoods top-entry	19 30 024 1442	19 30 024 0447 19 30 024 0448	32 40		
Housings	Housings bulkhead mounting	09 30 024 0307 with thermo- plastic cover 09 30 024 0304 with metal cover 09 30 024 0318		— — —		
	Housings 1 side-entry	19 30 024 1251		25		
	Housings 2 side-entries	19 30 024 1291	19 30 024 0292	25 32		
	Housings 1 side-entry	with thermoplastic cover 19 30 024 1256		25		
	Housings 2 side-entries	with thermoplastic cover 19 30 024 1296	with thermoplastic cover 19 30 024 0297	25 32		
	Housings 2 side-entries	with metal cover 19 30 024 2296	19 30 024 7297	25 32		
	Hoods cable to cable	19 30 024 1752	19 30 024 0757	32		

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Identification		Part No.	M	Drawing	Dimensions in mm
Hoods	Hoods side-entry	19 30 048 0548 19 30 048 0549	40 50		
	Hoods top-entry	19 30 048 0448 19 30 048 0449	40 50		
Housings	Housings bulkhead mounting	with thermo- plastic cover 09 30 048 0301 with metal cover 09 30 048 0317	— —		
	Housings surface mounting	2 side-entries 19 30 048 0292 19 30 048 0293	2 x 32 2 x 40		
	Housings surface mounting	with thermo- plastic cover 19 30 048 0298	2 x 40		1) Blind grommet

Stock items in bold type

Description

Drawing

Dimensions in mm

Note:

for Han® K 6/6:

The signal contacts are suitable for fine stranded wire up to 2.5 mm² and the power contacts for fine stranded wire from 16 to 35 mm².

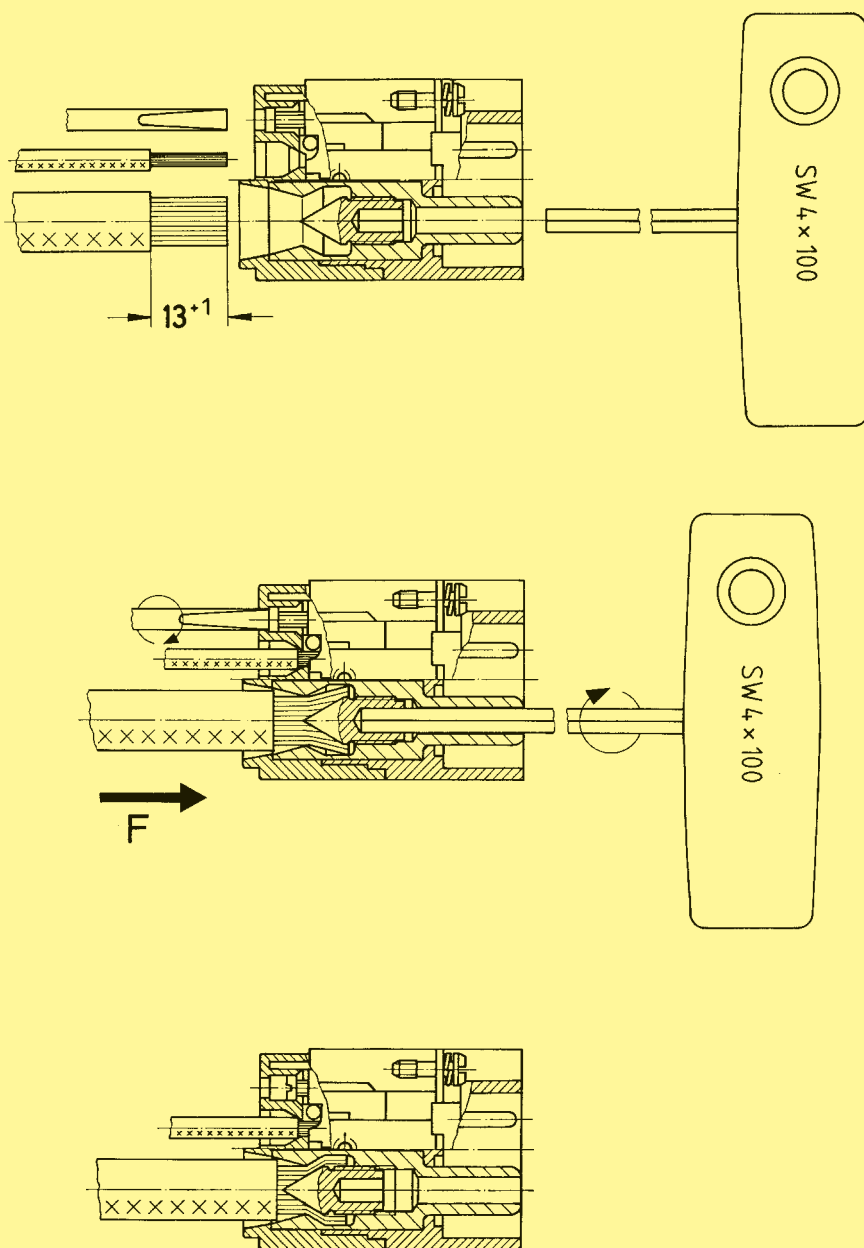
for Han® K 8/0:

The power contacts are suitable for fine stranded wire from 10 to 25 mm².

1. Strip insulation from fine stranded wire 10 mm for signal contacts 13 mm for power contacts. Insert fine stranded wire into contact chamber until insulation is flush with contact.

2. Signal contacts: Tighten screw termination with screw driver (3.5 mm blade).
Power contacts: Hold the fine stranded wire in position and secure by 4 x 100 hexagonal driver from the mating side with a force given on pages 05.28 and 05.30.

3. Complete connection.



The male insert is shown. The same method is applicable for female inserts.

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