

Contents	Page
Han® K 4/4	05.8
Han® K 8/24	05.10
Han® K 4/0	05.13
Han® K 4/2	05.15
Han® K 6/12	05.17
Han® K 6/36	05.19
Han® K 12/2	05.22
Han® K 4/8	05.25
Han® K 6/6	05.27
Han® K 8/0	05.29

# Summary



	Size	Description				
	10 B	Power area Signal area	⊕ ⊕ ↑ 1 • • • • • • • • • • • • • • • • • • •	⊕ 11. ⊕ 13 ⊕ 13 ⊕ 2 1 ⊕ 12 ⊕ 11. ⊕ 11 ⊕ 11. ⊕ 11		
	16 B	Power area Signal area	(a) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	⊕ ⊕ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑	11	⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕
	24 B	Power area Signal area	⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕ ⊕	⊕ ⊕ ↑ 13 1	Ф ⊕ Ф 5 1	
	32 B	suitable for 2 inserts	of size 16 B			
	48 B	suitable for 2 inserts	of size 24 B			
-						



Han-

## Summary

		Suitable Hoods/							
Tuno			Power are	ea			Signal are	ea	Housings
Туре	Number of contacts	Α	V ~	Termination	Number of contacts	Α	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	axial screw	4	16	250	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	axial screw	6	16	400	screw	24 B, 48 B
Han® K 6/12	6+PE	40	690	axial 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	axial 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

## Type identification

Han® K 6/12

Han® Industrial connectors Han® Κ 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: DIN VDE 0100-410/06.2007 § 411.3.1.1 and DIN EN 60 204/06.2007 § 13.1.3

## **Accessories**

Crimping tools chapter 90 chapter 80 Cable clamps Coding of hoods/housings chapter 80 chapter 80 Label acc. to CSA-approval Han-Snap® chapter 11 PCB adapter chapter 80



Description

## Step 1:

#### Signal contacts:

Push screwdriver (0.5 x 3.5) into rectangular chamber. Strip insulation from the wire with a length and insert the wire into the round contact chamber.

#### Power contacts:

Strip insulation from the wire with a length and insert the wire into the contact chamber until insulation is flush with contact.

Do not twist the strands of the wire.

#### Step 2:

Han-

Com

Signal contacts:

Push screwdriver (0.5 x 3.5) out of rectangular chamber.

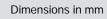
#### Power contacts:

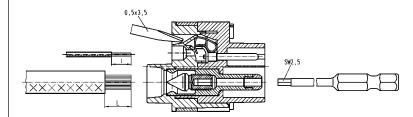
Hold the wire in position and tighten by a hexagonal driver (SW 2.5) from the mating side with a tightening torque.

#### Step 3:

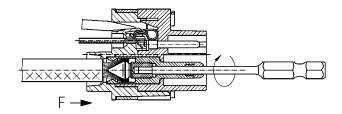
Complete connection

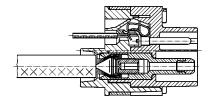
#### Depiction





- I: Stripping length for signal contacts
- L: Stripping length for power contacts





Description Depiction Dimensions in mm

#### Step 1:

Signal contacts:

Strip insulation from the wire with a length and insert the wire into the rectangular contact chamber.

#### Power contacts:

Strip insulation from the wire with a length and insert the wire into the contact chamber until insulation is flush with contact. Do not twist the strands of the wire.

#### Step 2:

Signal contacts:

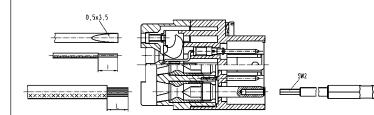
Tighten screw termination with screwdriver  $(0.5 \times 3.5)$  with a tightening torque.

#### Power contacts:

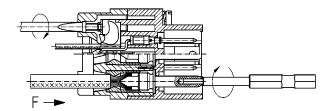
Hold the wire in position and tighten by a hexagonal driver (SW 2) from the mating side with a tightening torque.

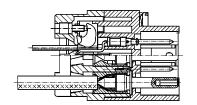
#### Step 3:

Complete connection



- I: Stripping length for signal contacts
- L: Stripping length for power contacts







Description

#### Step 1:

Signal contacts:

Strip insulation from the wire with a length and insert the wire into the rectangular contact chamber.

Power contacts:

Strip insulation from the wire with a length and insert the wire into the contact chamber until insulation is flush with contact. Do not twist the strands of the wire.



Han-

Com

Signal contacts:

Tighten screw termination with screwdriver (0.5 x 3.5) with a tightening torque.

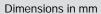
Power contacts:

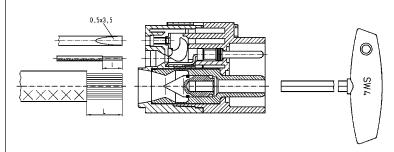
Hold the wire in position and tighten by a hexagonal driver (SW 4) from the mating side with a tightening torque.

#### Step 3:

Complete connection

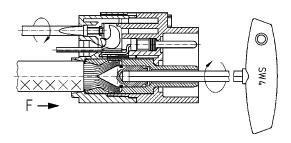
Depiction

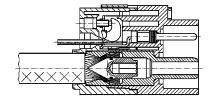




I: Stripping length for signal contacts

L: Stripping length for power contacts

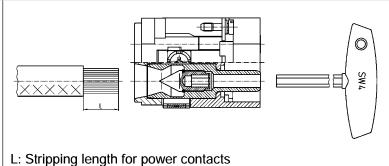




Description Depiction Dimensions in mm

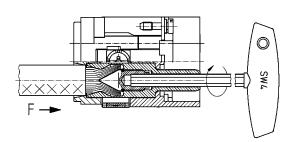
#### Step 1:

Stri insulation from the wire with a length and insert the wire into the contact chamber until insulation is flush with contact. Do not twist the strands of the wire.



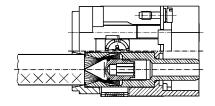
## Step 2:

Hold the wire in position and tighten by a hexagonal driver (SW 4) from the mating side with a tightening torque.



#### Step 3:

Complete connection





### **Features**

- · Combination of power and signal area in one connector
- · Axial screw termination for power area
- · Cage clamp termination for signal area
- Same range of wire cross section for PE contacts and power contacts

## Derating

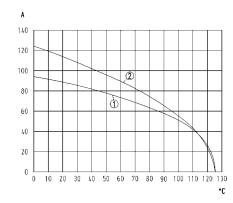
Operating current (A)

Han-

#### **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



Ambient temperature (C°)

- Wire cross section 16 mm²
- Wire cross section 22 mm²

## Technical characteristics

Contacts 4/4

Electrical data acc. to IEC 63 A 690 V 8 kV 3

61984

Rated current 63 A
Rated voltage 690 V
Rated impulse voltage 8 kV
Pollution degree 3

Electrical data, signal 16 A 250 V 4 kV 3

Rated current
Rated voltage
Rated impulse voltage
Rated voltage acc. to UL
Rated voltage acc. to UL, signal
Insulation resistance
Limiting temperatures

16 A
250 V
4 kV
600 V
230 V
230 V
210¹⁰ Ohm
-40 °C ... 125 °C

Flammability (insert) acc. to UL 94

≥500

Mating cycles
Material (insert)
Colour (insert)
Material (contact)

polycarbonate RAL 7032 (light grey)

Material (contact)
Material (contact, signal area)
Hex key

copper alloy copper alloy SW 2.5

## Specifications and approvals

IEC 60664-1 IEC 61984

ε**91**us, GL

## Details

Hoods/Housings see chapter 31

Hex key 09 99 000 0375 see chapter 90

#### Remarks on the axial screw technique

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



4/4 +



690 V / 250 V 63 A/16 A

Identification	Wire cross section (mm²)	Part n male	umber female	Drawing Dimensions in mm
Han-Com®, Axial screw terminal / Cage- clamp terminal, silver plated contacts, contact resistance ≤0.5 mOhm contact resistance, signal ≤3 mOhm  finger safe	6-16 10-22	09 38 008 2601 09 38 008 2602	09 38 008 2701 09 38 008 2702	M3x10  M3x10  1) Distance for contact max. 21 mm
Han-Com®, Axial screw terminal / Cage- clamp terminal, silver plated contacts, contact resistance ≤0.5 mOhm contact resistance, signal ≤3 mOhm  not finger safe	6-16 10-22	09 38 008 2611 09 38 008 2612		Contact arrangement (view from termination side)    Description   Process   Process



### **Features**

- · Combination of power and signal area in one connector
- Crimp termination for power and signal area
- Use of standard Han E<sup>®</sup> and Han D<sup>®</sup> contacts

## Derating

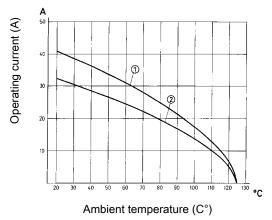
Han-

Com

#### **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



- Wire cross section 4 mm<sup>2</sup>
- Wire cross section 2.5 mm<sup>2</sup>

## Technical characteristics

Contacts

Electrical data acc. to IEC 16 A 230/400 V 4 kV 3 61984

Rated current

Rated voltage conductor -230 V

ground

400 V Rated voltage conductor - con-

Rated impulse voltage 4 kV

Pollution degree 3

Electrical data, signal 10 A 160 V 2.5 kV 3

Rated current 10 A Rated voltage 160 V Rated impulse voltage 2.5 kV Rated voltage acc. to UL 600 V 600 V Rated voltage acc. to UL, signal Rated voltage acc. to CSA 300 V Rated voltage acc. to CSA, 300 V

signal

≥10<sup>10</sup> Ohm Insulation resistance -40 °C ... 125 °C Limiting temperatures ΗВ

Flammability (insert) acc. to

**UL 94** 

Mating cycles Material (insert) polyamide

Colour (insert) RAL 7032 (light grey)

Material (contact) copper alloy Material (contact, signal area) copper alloy

## Specifications and approvals

IEC 60664-1 IEC 61984



### Details

Hoods/Housings see chapter 31

Crimping tools see chapter 90

#### Remarks on the crimp technique

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

Removal of power contacts (Han E®)



- ① Push cross-slotted screw driver (size 0) in the relevant hole of the contact until it reaches the bottom
- ② Withdraw the crimped contact from the insert



Number of contacts

230/400 V / 160 V 16 A/10 A

Identification	Wire cross section (mm²)	Part n male	umber female	Drawing Dimensions in mm
Han-Com®, Crimp terminal  Please order crimp contacts separately.		09 38 032 3001	09 38 032 3101	M Stance for contact max. 21 mm
Han D <sup>®</sup> , Crimp contact, gold plated contacts, contact resistance ≤3 mOhm	0.14 – 0.37 0.5 0.75	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222	Contact arrangement (view from termination side)
Han D®,	1.5 2.5	09 15 000 6121 09 15 000 6126 09 15 000 6104	09 15 000 6221 09 15 000 6226 09 15 000 6204	Vire gauge
Crimp contact, silver plated contacts, contact resistance ≤3 mOhm	0.5 0.75 1 1.5 2.5	09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	Wire gauge Stripping length  0.14-0.37 mm² AWG 26-22 0.9 mm 8 mm  0.56 mm² AWG 28 1.1 mm 8 mm  1 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



Identification	Wire cross section (mm²)	Part n male	umber female	Drawing Dimensions in mm
Han E*, Crimp contact, gold plated contacts, contact resistance ≤1 mOhm	0.5 0.75 1 1.5 2.5 4	09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123 09 33 000 6119	09 33 000 6223	7,5 - 25 - 22,2 - 7,5 -
				Identification
Han E®, Crimp contact, silver plated contacts, contact resistance ≤1 mOhm	0.5 0.75 1 1.5 2.5 4	09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6107	09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6207	7,5 - 25 - 22,2 - 7,5 -
				Identification
Han E <sup>®</sup> , Relay contact, silver plated contacts, contact resistance ≤1 mOhm	0.75 – 1 1.5 2.5	09 33 000 6109 09 33 000 6110 09 33 000 6111		Stripping length 7.5 mm
F.O. contact  for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221	20 10 001 3211 + 20 10 001 3221

### **Features**

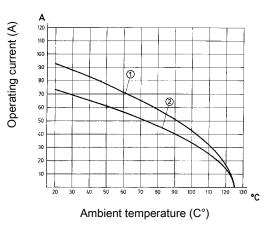
- · Screw terminal
- · No signal contacts

## 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 Wire cross section 16 mm²
- Wire cross section 10 mm<sup>2</sup>

## Technical characteristics

Contacts 4/0

Electrical data acc. to IEC 80 A 830 V 8 kV 3

61984

Rated current 80 A
Rated voltage 830 V
Rated impulse voltage 8 kV
Pollution degree 3
Rated voltage acc. to UL 600 V
Rated voltage acc. to CSA 300 V
Insulation resistance ≥10¹⁰ Ohm
Limiting temperatures -40 °C ... 125 °C

Flammability (insert) acc. to

UL 94

Mating cycles <500

Material (insert) polycarbonate
Colour (insert) RAL 7032 (light grey)
Material (contact) copper alloy

## Specifications and approvals

IEC 60664-1 IEC 61984

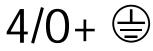


### **Details**

Hoods/Housings see chapter 31

In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (see "screw terminal", chapter 00).





830 V 80 A

Identification	Wire cross section (mm²)	Part n	umber female	Drawing Dimensions in mm
Han-Com®, Screw terminal, silver plated contacts, contact resistance ≤0.3 mOhm	1.5 – 16	09 38 006 2611		Contact arrangement (view from termination side)  power contacts wire gauge tightening tourque stripping length 1.5 mm² 1.2 Nm 14 mm 4 mm² 3 Nm 14 mm 16 mm² 3 Nm 14 mm

Han-

Com



### **Features**

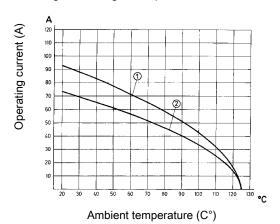
- · Combination of power and signal area in one connector
- · Screw termination for power and signal area

## 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



- Wire cross section 16 mm²
- Wire cross section 10 mm²Wire cross section 10 mm²

## Technical characteristics

Contacts 4/2

Electrical data acc. to IEC 80 A 830 V 8 kV 3

61984

Rated current 80 A
Rated voltage 830 V
Rated impulse voltage 8 kV
Pollution degree 3

Electrical data, signal 16 A 400 V 6 kV 3

Rated current 16 A
Rated voltage 400 V
Rated impulse voltage 6 kV
Rated voltage acc. to UL
Rated voltage acc. to UL, signal 600 V
Rated voltage acc. to CSA 300 V
Rated voltage acc. to CSA, 300 V

signal
Insulation resistance ≥10<sup>10</sup> Ohm
Limiting temperatures -40 °C ... 125 °C

Limiting temperatures -40 °C ... Flammability (insert) acc. to V 0

UL 94

Mating cycles ≥500

Material (insert) polycarbonate
Colour (insert) RAL 7032 (light grey)
Material (contact) copper alloy
Material (contact, signal area) copper alloy

## Specifications and approvals

IEC 60664-1 IEC 61984



### **Details**

Hoods/Housings see chapter 31

In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (see "screw terminal", chapter 00).



4/2+ 🖨

830 V / 400 V 80 A/16 A

Identification	Wire cross section (mm²)	Part no male	umber female	Drawing Dimensions in mm
Identification  Han-Com®, Screw terminal / Screw terminal, silver plated contacts, contact resistance ≤0.3 mOhm contact resistance, signal ≤1 mOhm	Wire cross section (mm²)  1.5 – 16	male	female	Drawing Dimensions in mm  77,5  M3x10  F  1) Distance for contact max. 21 mm  Contact arrangement (view from termination side)  power contacts wire gauge tightening tourque stripping length 1.5 mm² 1.2 Nm 14 mm 4 mm² 3 Nm 14 mm 6 mm² 3 Nm 14 mm 10 mm² 3 Nm 14 mm 10 mm² 3 Nm 14 mm 11 mm² 3 Nm 14 mm Signal contacts: Wire cross section 0.5 2.5 mm² Stripping length 7.5 mm

### **Features**

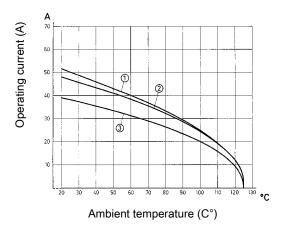
- · Combination of power and signal area in one connector
- · Axial screw termination for power area
- · Screw termination for signal area

## 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 Wire cross section 10 mm²
- ② Wire cross section 6 mm²
- ③ Wire cross section 4 mm²

## Technical characteristics

Contacts 6/12

Electrical data acc. to IEC 40 A 690 V 8 kV 3 61984

Rated current

Rated voltage 690 V Rated impulse voltage 8 kV

Pollution degree 3

Electrical data, signal 10 A 230/400 V 4 kV 3

Rated current 10 A Rated voltage conductor - 230 V

ground

Rated voltage conductor - con- 400 V

ductor

Rated impulse voltage 4 kV
Rated voltage acc. to UL 600 V
Rated voltage acc. to UL, signal 600 V
Rated voltage acc. to CSA 300 V
Rated voltage acc. to CSA, 300 V

signal

Insulation resistance  $\geq 10^{10}$  Ohm Limiting temperatures  $\sim 40 \, ^{\circ}\text{C} \dots 125 \, ^{\circ}\text{C}$ 

Flammability (insert) acc. to

**UL 94** 

Mating cycles ≥500

Material (insert) polycarbonate
Colour (insert) RAL 7032 (light grey)

Material (contact) copper alloy
Material (contact, signal area) copper alloy
Hex key SW 2

## Specifications and approvals

IEC 60664-1 IEC 61984

**71 (**GL)

### **Details**

Hoods/Housings see chapter 31

Hex key adapter 1/4" 09 99 000 0369 see chapter 90

#### Remarks on the axial screw technique

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



6/12+

40 A/10 A

lde	entification	Wire cross section (mm²)	Part ni male	umber female	Drawing Dimensions in mm
Ax ter silv cor	an-Com®, sial screw terminal / Screw minal, wer plated contacts, intact resistance ≤0.5 mOhm intact resistance, signal ≤3 ohm.	2.5 – 8 6 – 10	09 38 018 2601 09 38 018 2602	09 38 018 2701 09 38 018 2702	Contact arrangement (view from termination side)    Distance for contact max. 21 mm   Distance for contact m

### **Features**

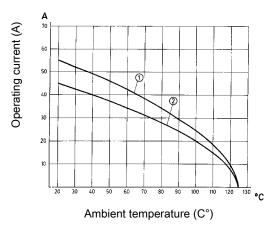
- · Combination of power and signal area in one connector
- · Crimp termination for power and signal area
- Use of standard Han® C and Han D® contacts

## 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 Wire cross section 6 mm²
- ② Wire cross section 4 mm²

## Technical characteristics

Contacts 6/36

Electrical data acc. to IEC 40 A 690 V 8 kV 3

61984

Rated current 40 A Rated voltage 690 V Rated impulse voltage 8 kV

Pollution degree 3

Electrical data, signal 10 A 160 V 2.5 kV 3

Rated current 10 A
Rated voltage 160 V
Rated impulse voltage 2.5 kV
Rated voltage acc. to UL 600 V
Rated voltage acc. to UL, signal 600 V
Rated voltage acc. to CSA 300 V
Rated voltage acc. to CSA, 300 V

signal

Insulation resistance ≥10<sup>10</sup> Ohm
Limiting temperatures -40 °C ... 125 °C

Flammability (insert) acc. to V 0

UL 94

Mating cycles ≥500

Material (insert) polycarbonate
Colour (insert) RAL 7032 (light grey)
Material (contact) copper alloy
Material (contact, signal area) copper alloy

## Specifications and approvals

IEC 60664-1 IEC 61984



## Details

Hoods/Housings see chapter 31

Crimping tools see chapter 90

#### Remarks on the crimp technique

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



6/36+

Identification	Wire cross section (mm²)	Part no male	umber female	Drawing Dimensions in mm
Han-Com®, Crimp/crimp terminal  Please order crimp contacts separately.		09 38 042 3001	09 38 042 3101	M  M  M  M  M  M  M  M  M  M  M  M  M
Han D®, Crimp contact, gold plated contacts, contact resistance ≤3 mOhm	0.14 – 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6125 09 15 000 6122 09 15 000 6121	09 15 000 6223 09 15 000 6225	Contact arrangement (view from termination side)
Han D®, Crimp contact, silver plated contacts, contact resistance ≤3 mOhm	0.14 – 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6105 09 15 000 6102	09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201	Wire gauge



Identification	Wire cross section (mm²)	Part n male	umber female	Drawing Dimensions in mm	
Han® C, Crimp contact, silver plated contacts, contact resistance ≤1 mOhm	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208		
F.O. contact		20 10 001 2211	20 10 001 3221	Co	an- om
for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221	20 10 001 3211 + 20 10 001 3221	
					05 21



### **Features**

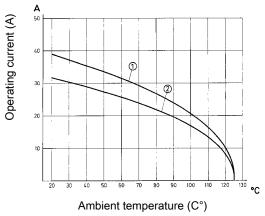
- · Combination of power and signal area in one connector
- Crimp termination for power and signal area
- Use of standard Han® C and Han D® contacts

## 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



- Wire cross section 6 mm<sup>2</sup>
- Wire cross section 4 mm<sup>2</sup>

## Technical characteristics

Contacts

Electrical data acc. to IEC 40 A 690 V 8 kV 3

61984

Rated current 40 A Rated voltage 690 V Rated impulse voltage 8 kV Pollution degree 3

Electrical data, signal 10 A 250 V 4 kV 3

Rated current 10 A Rated voltage 250 V Rated impulse voltage 4 kV Rated voltage acc. to UL 600 V Rated voltage acc. to UL, signal 600 V Rated voltage acc. to CSA 300 V Rated voltage acc. to CSA, 300 V signal

≥10<sup>10</sup> Ohm Insulation resistance Limiting temperatures -40 °C ... 125 °C

Flammability (insert) acc. to V 0 **UL** 94

Mating cycles ≥500

Material (insert) polycarbonate RAL 7032 (light grey) Colour (insert) Material (contact) copper alloy Material (contact, signal area) copper alloy

## Specifications and approvals

IEC 60664-1 IEC 61984





### **Details**

Hoods/Housings see chapter 31

Crimping tools see chapter 90

#### Remarks on the crimp technique

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

Han-



Number of contacts

12/2+ 😩

690 V / 250 V 40 A/10 A

Identification	Wire cross section (mm²)	Part n male	umber female	Drawing Dimensions in mm
Han-Com®, Crimp/crimp terminal  Please order crimp contacts separately.		09 32 012 3001	09 32 012 3101	M  M  M  M  M  M  M  M  M  M  M  M  M
				Contact arrangement (view from termination side)
Han D®, Crimp contact, gold plated contacts, contact resistance ≤3 mOhm	0.14 – 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221	Vire gauge
Han D <sup>®</sup> , Crimp contact, silver plated contacts,	0.14 – 0.37 0.5 0.75		09 15 000 6204 09 15 000 6203 09 15 000 6205	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
contact resistance ≤3 mOhm	1.5 2.5	09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6202 09 15 000 6201	Wire gauge
	2.5 2.5			Wire gauge



Identification	Wire cross section (mm²)	Part no male	umber female	Drawing Dimensions in mm
Han® C, Crimp contact, silver plated contacts, contact resistance ≤1 mOhm	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	Wire gauge
F.O. contact  for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221	

### **Features**

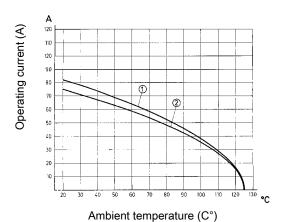
- · Combination of power and signal area in one connector
- · Screw termination for power and signal area

## 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



- Wire cross section 16 mm<sup>2</sup>
- Wire cross section 10 mm<sup>2</sup>

## Technical characteristics

Contacts

Electrical data acc. to IEC 80 A 400 V 6 kV 3

61984

Rated current Rated voltage 400 V Rated impulse voltage 6 kV Pollution degree 3

Electrical data, signal 16 A 400 V 6 kV 3

Rated current 16 A Rated voltage 400 V Rated impulse voltage 6 kV Rated voltage acc. to UL 600 V Rated voltage acc. to UL, signal 600 V Rated voltage acc. to CSA 600 V Rated voltage acc. to CSA, 600 V

signal

≥10<sup>10</sup> Ohm Insulation resistance Limiting temperatures -40 °C ... 125 °C HB

Flammability (insert) acc. to

**UL 94** 

Mating cycles ≥500 Material (insert) polyamide

Colour (insert) RAL 7032 (light grey) Material (contact) copper alloy copper alloy Material (contact, signal area)

## Specifications and approvals

IEC 60664-1 IEC 61984



### **Details**

Hoods/Housings see chapter 31

In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (see "screw terminal", chapter 00).



4/8+ 😩

400 V / 400 V 80 A/16 A

Identification	Wire cross section (mm²)	Part ni male	umber female	Drawing Dimensions in mm
Han-Com®, Screw terminal / Screw terminal, silver plated contacts, contact resistance ≤0.3 mOhm contact resistance, signal ≤1 mOhm	1.5 – 16	09 38 012 2601		M M M M M M M M M M M M M M M M M M M
				Contact arrangement (view from termination side)



### **Features**

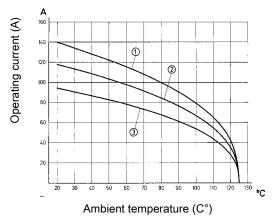
- · Combination of power and signal area in one connector
- Axial screw termination for power area
- · Screw termination for signal area

## 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



- Wire cross section 35 mm<sup>2</sup>
- Wire cross section 25 mm<sup>2</sup>
- Wire cross section 16 mm<sup>2</sup>

## Technical characteristics

Contacts

Electrical data acc. to IEC 100 A 690 V 8 kV 3

61984

Rated current Rated voltage 690 V Rated impulse voltage 8 kV Pollution degree

Electrical data, signal 16 A 400 V 6 kV 3

Rated current 16 A Rated voltage 400 V Rated impulse voltage 6 kV Rated current acc. to CSA 100 A Rated current acc. to CSA, 15 A

signal area

600 V Rated voltage acc. to UL Rated voltage acc. to UL, signal 300 V Rated voltage acc. to CSA 600 V Rated voltage acc. to CSA, 600 V

signal

Insulation resistance ≥10<sup>10</sup> Ohm -40 °C ... 125 °C Limiting temperatures

Flammability (insert) acc. to

**UL 94** 

Mating cycles ≥500

Material (insert) polycarbonate Colour (insert) RAL 7032 (light grey) Material (contact) copper alloy

Material (contact, signal area) Hex key

copper alloy SW 4

## Specifications and approvals

IEC 60664-1 IEC 61984







### **Details**

Hoods/Housings see chapter 31

Hex key with grip 09 99 000 0363 see chapter 90 Adapter 3/8" 09 99 000 0370 see chapter 90

#### Remarks on the axial screw technique

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





690 V / 400 V 100 A/16 A

Identification	Wire cross section (mm²)	Part no	umber female	Drawing Dimensions in mm
Han-Com®, Axial screw terminal / Screw terminal, silver plated contacts, contact resistance, signal ≤3 mOhm	16-35	09 38 012 2651	09 38 012 2751	Contact arrangement (view from termination side)    Distance for contact max. 21 mm   Distance for contact m

## **Features**

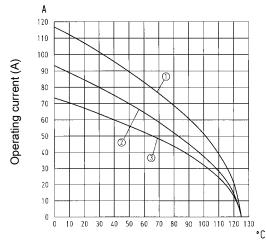
- · Axial screw termination for power area
- · No signal contacts

## 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



Ambient temperature (C°)

- Wire cross section 25 mm<sup>2</sup>
- Wire cross section 16 mm<sup>2</sup>
- Wire cross section 10 mm<sup>2</sup>

## Technical characteristics

Contacts

Electrical data acc. to IEC 100 A 690 V 8 kV 3

61984

Rated current Rated voltage 690 V Rated impulse voltage 8 kV Pollution degree 3 Rated current acc. to UL 82 A Rated voltage acc. to UL 600 V Insulation resistance ≥10<sup>10</sup> Ohm -40 °C ... 125 °C Limiting temperatures

Flammability (insert) acc. to

Mating cycles ≥500

Material (insert) polycarbonate Colour (insert) RAL 7032 (light grey)

Material (contact) copper alloy Hex key

SW<sub>4</sub>

## Specifications and approvals

IEC 60664-1 IEC 61984

.**91**us (GL)

### **Details**

Hoods/Housings see chapter 31

Hex key with grip 09 99 000 0363 see chapter 90 Adapter 3/8" 09 99 000 0370 see chapter 90

#### Remarks on the axial screw technique

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



