

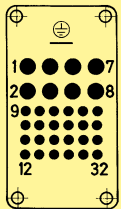
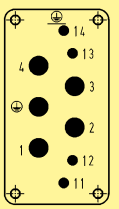
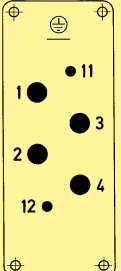
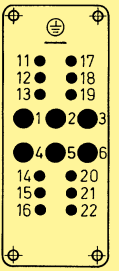
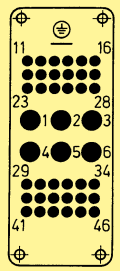
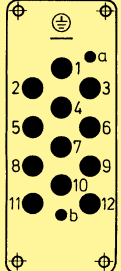
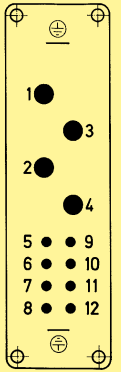
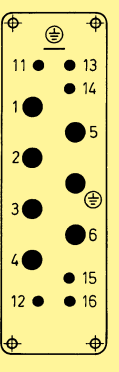
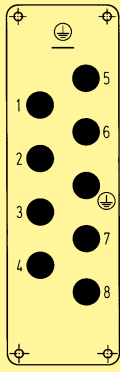
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| Size | Description |
|------|--|
| 10 B |   <p> Han® K 8/24 16 A / 230/400 V 10 A / 160 V Page 05.04 </p> <p> Han® K 4/4 63 A / 690 V 16 A / 230 V Page 05.06 </p> |
| 16 B |     <p> Han® K 4/0, 4/2 80 A / 830 V 16 A / 400 V Page 05.08 </p> <p> Han® K 6/12 40 A / 690 V 10 A / 230/400 V Page 05.10 </p> <p> Han® K 6/36 40 A / 690 V 10 A / 160 V Page 05.12 </p> <p> Han® K 12/2 40 A / 690 V 10 A / 250 V Page 05.14 </p> |
| 24 B |    <p> Han® K 4/8 80 A / 400 V 16 A / 400 V Page 05.16 </p> <p> Han® K 6/6 100 A / 690 V 16 A / 400 V Page 05.18 </p> <p> Han® K 8/0 100 A / 690 V Page 05.20 </p> |
| 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 contacts | A | V ~ | Termination | Number of contacts | 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 | axial 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 | 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® |
| 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:
DIN EN 60 664-1 § 411.1.3.2 and EN 60 204/11.98 § 14.1.3

Accessories

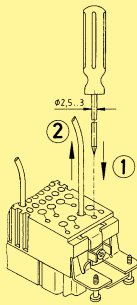
| | |
|----------------------------|------------|
| Crimping tools | chapter 99 |
| Cable clamps | chapter 40 |
| Coding of hoods/housings | chapter 40 |
| Label acc. to CSA-approval | chapter 40 |
| Han-Snap® | chapter 11 |
| PCB adapter | chapter 40 |

Features

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

Removal of power contacts (Han E®)

- ① Push cross-slotted screw driver (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



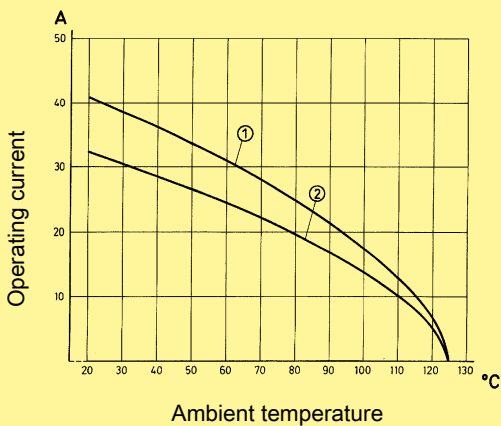
Removal of signal contacts (Han D®)

Description see removal tool chapter 99

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



Wire gauge:

- ① 4 mm²
- ② 2.5 mm²

Technical characteristics

Specifications: DIN EN 60 664-1
DIN EN 61 984

Approvals:

Inserts

| | |
|-------------------------------------|------------------------------|
| Number of contacts | 8 / 24 + PE |
| Electrical data acc. to EN 61 984 | |
| Power area | 16 A 230/400 V 4 kV 3 |
| Rated current | 16 A |
| Rated voltage conductor - ground | 230 V |
| Rated voltage conductor - conductor | 400 V |
| Rated impulse voltage | 4 kV |
| Pollution degree | 3 |
| Pollution degree 2 also | 10 A 250 V 4 kV 2 |

| | |
|---|----------------------------|
| Signal area | 10 A 160 V 2.5 kV 3 |
| Rated current | 10 A |
| Rated voltage | 160 V |
| Rated impulse voltage | 2.5 kV |
| Pollution degree | 3 |
| Rated voltage acc. to UL/CSA | 600 V / 300 V |
| Insulation resistance | ≥ 10 ¹⁰ Ω |
| Material | Polyamide |
| Limiting temperatures | -40 °C ... +125 °C |
| Flammability acc. to UL 94 | HB |
| Mechanical working life - mating cycles | ≥ 500 |

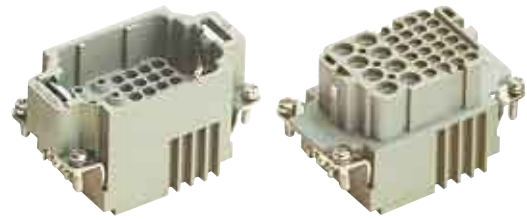
Contacts

| | |
|------------------------|------------------------------|
| <u>Power contacts</u> | |
| Material | copper alloy |
| Surface | |
| - hard-silver plated | 3 μm Ag |
| - hard-gold plated | 2 μm Au over 3 μm Ni |
| Contact resistance | ≤ 1 mΩ |
| Crimp terminal | |
| - mm ² | 0.5 ... 4 mm ² |
| - AWG | 20 ... 12 |
| <u>Signal contacts</u> | |
| Material | copper alloy |
| Surface | |
| - hard-silver plated | 3 μm Ag |
| - hard-gold plated | 2 μm Au over 3 μm Ni |
| Contact resistance | ≤ 3 mΩ |
| Crimp terminal | |
| - mm ² | 0.14 ... 2.5 mm ² |
| - AWG | 25 ... 14 |

Hoods/Housings: see chapter 30 / 31

Number of contacts

8/24 +



| Identification | Part number | | Drawing | Dimensions in mm |
|--|-----------------------|-----------------------|---|------------------|
| | Male insert (M) | Female insert (F) | | |
| Crimp terminal Order crimp contacts separately | 09 38 032 3001 | 09 38 032 3101 | <p>1) Distance for contact max. 21 mm</p> | |

Han Com

| Identification | Wire gauge (mm ²) | Part number | | Drawing | Dimensions in mm |
|---|---|--|--|---------|------------------|
| | | Male contact | Female contact | | |
| Crimp contacts Power contacts silver plated | 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 | | |
| gold plated | 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 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223 09 33 000 6221 | | |
| Relay contacts silver plated | 0.75-1 1.5 2.5 | 09 33 000 6109 09 33 000 6110 09 33 000 6111 | | | |
| Signal contacts silver plated | 0.14-0.37 0.5 0.75 1 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 | | |
| gold plated | 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 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226 | | |
| F.O. contacts for 1 mm | | 20 10 001 3211 | 20 10 001 3221 | | |

| Identification | Wire gauge | | Stripping length |
|----------------|----------------------|--------|------------------|
| no groove | 0.5 mm ² | AWG 20 | 7.5 mm |
| 1 groove* | 0.75 mm ² | AWG 18 | 7.5 mm |
| 1 groove | 1 mm ² | AWG 18 | 7.5 mm |
| 2 grooves | 1.5 mm ² | AWG 16 | 7.5 mm |
| 3 grooves | 2.5 mm ² | AWG 14 | 7.5 mm |
| no groove | 4 mm ² | AWG 12 | 7.5 mm |

* on the back crimp collar

| Wire gauge | Ø | Stripping length | |
|---------------------------|-----------|------------------|------|
| 0.14-0.37 mm ² | AWG 26-22 | 0.9 | 8 mm |
| 0.5 mm ² | AWG 20 | 1.1 | 8 mm |
| 0.75 mm ² | AWG 18 | 1.3 | 8 mm |
| 1 mm ² | AWG 18 | 1.45 | 8 mm |
| 1.5 mm ² | AWG 16 | 1.75 | 8 mm |
| 2.5 mm ² | AWG 14 | 2.25 | 6 mm |

Stock items in bold type

Features

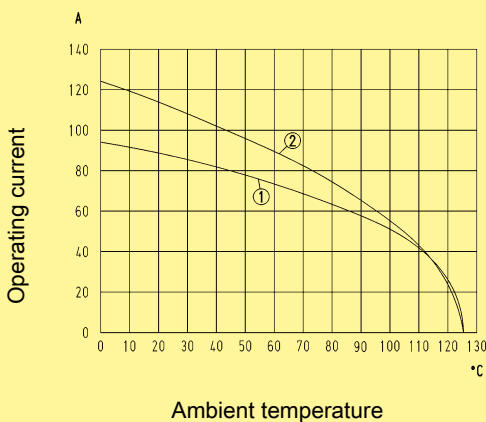
- Combination of power area and signal area in the same connector
- Axial screw termination for power area
- Cage clamp termination for signal area
- Finger safe
- Same range of wire gauge for PE contact and power contacts

Assembly instructions see page 05.22

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



Wire gauge: ① 16 mm²
 ② 22 mm²

Technical characteristics

Specifications DIN EN 60 664-1
 DIN EN 61 984

Approvals

Inserts

| | |
|---|--------------------------|
| Number of contacts | 4 / 4 + PE |
| Electrical data acc. to EN 61 984 | |
| Power area | 63 A 690 V 6 kV 3 |
| Rated current | 63 A |
| Rated voltage | 690 V |
| Rated impulse voltage | 6 kV |
| Pollution degree | 3 |
| Signal area | 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 V / 230 V |
| Insulation resistance | ≥ 10 ¹⁰ Ω |
| Material | polycarbonate |
| Limiting temperatures | -40 °C ... +125 °C |
| Flammability acc. to UL 94 | V 0 |
| Mechanical working life - mating cycles | ≥ 500 |

Contacts

| | | | | | | | | | | | |
|--------------------------|--|------------------|------------------|------------------|----|----|----|------------------|------------------|------------------|------------------|
| <u>Power contacts</u> | | | | | | | | | | | |
| Material | copper alloy | | | | | | | | | | |
| Surface | | | | | | | | | | | |
| - hard-silver plated | 3 µm Ag | | | | | | | | | | |
| Contact resistance | ≤ 0.5 mΩ | | | | | | | | | | |
| Axial screw termination | | | | | | | | | | | |
| - geometric wire gauge | 6 ... 22 mm ² | | | | | | | | | | |
| - AWG | 8 ... 4 | | | | | | | | | | |
| Max. insulation diameter | | | | | | | | | | | |
| 6 ... 16 mm ² | 8.9 mm | | | | | | | | | | |
| 22 mm ² | 11 mm | | | | | | | | | | |
| Tightening torque | | | | | | | | | | | |
| | <table border="1"> <tr> <td>mm²</td> <td>6</td> <td>10</td> <td>16</td> <td>22</td> </tr> <tr> <td>Nm</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table> | mm ² | 6 | 10 | 16 | 22 | Nm | 2 | 3 | 4 | 5 |
| mm ² | 6 | 10 | 16 | 22 | | | | | | | |
| Nm | 2 | 3 | 4 | 5 | | | | | | | |
| Stripping length | | | | | | | | | | | |
| | <table border="1"> <tr> <td>mm²</td> <td>6</td> <td>10</td> <td>16</td> <td>22</td> </tr> <tr> <td>mm</td> <td>11⁺¹</td> <td>11⁺¹</td> <td>11⁺¹</td> <td>13⁺¹</td> </tr> </table> | mm ² | 6 | 10 | 16 | 22 | mm | 11 ⁺¹ | 11 ⁺¹ | 11 ⁺¹ | 13 ⁺¹ |
| mm ² | 6 | 10 | 16 | 22 | | | | | | | |
| mm | 11 ⁺¹ | 11 ⁺¹ | 11 ⁺¹ | 13 ⁺¹ | | | | | | | |

| | |
|------------------------|------------------------------|
| <u>Signal contacts</u> | |
| Material | copper alloy |
| Surface | |
| - hard-silver plated | 3 µm Ag |
| Contact resistance | ≤ 3 mΩ |
| Cage clamp terminal | |
| - geometric wire gauge | 0.14 ... 2.5 mm ² |
| - AWG | 26 ... 14 |
| Stripping length | 7 ... 9 mm |

Hoods/Housings see chapter 30 / 31

Number of contacts

4/4 +



| Identification | Part number | | Drawing | Dimensions in mm |
|---|-----------------------|-----------------------|---|------------------|
| | Male insert (M) | Female insert (F) | | |
| Han® K 4/4 Axial screw terminal / Cage clamp terminal | | | <p>1) Distance for contact max. 21 mm</p> <p>Contact arrangement view from termination side</p> | |
| finger safe 6 ... 16 mm ² | 09 38 008 2601 | 09 38 008 2701 | | |
| finger safe 10 ... 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 10 ... 22 mm ² | 09 38 008 2612 | | | |

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



Features

- Combination of power and signal area in one connector
- Screw termination for power and signal area
- Missing signal contacts for Han® K 4/0

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

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Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

Number of contacts 4 / 2 + PE
 Electrical data
 acc. to EN 61 984
Power area **80 A 830 V 8 kV 3**
 Rated current 80 A
 Rated voltage 830 V
 Rated impulse voltage 8 kV
 Pollution degree 3
 Pollution degree 2 also 80 A 1000 V 8 kV 2

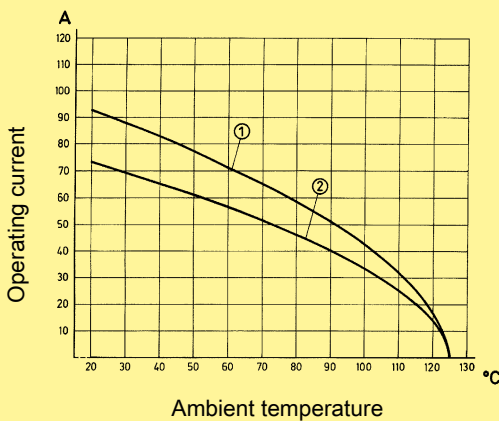
Signal area **16 A 400 V 6 kV 3**
 Rated current 16 A
 Rated voltage 400 V
 Rated impulse voltage 6 kV
 Pollution degree 3
 Pollution degree 2 also 16 A 400/690 V 6 kV 2

Rated voltage 600 V / 300 V
 acc. to UL/CSA
 Insulation resistance ≥ 10¹⁰ Ω
 Material polycarbonate
 Limiting temperatures -40 °C ... +125 °C
 Flammability acc. to UL 94 V 0
 Mechanical working life
 - mating cycles ≥ 500

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



Wire gauge: ① 16 mm²
② 10 mm²

Contacts

Power contacts
 Material copper alloy
 Surface
 - hard-silver plated 3 μm Ag
 Contact resistance ≤ 0.3 mΩ
 Screw terminal
 - geometric wire gauge 1.5 ... 16 mm²
 - AWG 16 ... 6
 Tightening torque

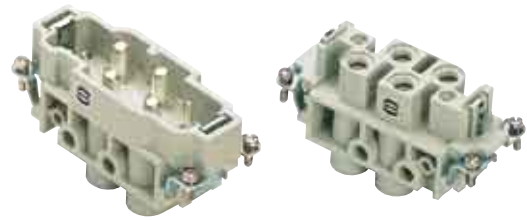
| | | | | | | |
|-----------------|-----|-----|---|---|----|----|
| mm ² | 1.5 | 2.5 | 4 | 6 | 10 | 16 |
| Nm | 1.2 | 2 | 3 | 3 | 3 | 3 |

Stripping length 14 mm
Signal contacts
 Material copper alloy
 Surface
 - hard-silver plated 3 μm Ag
 Contact resistance ≤ 1 mΩ
 Screw terminal
 - geometric wire gauge 0.5 ... 2.5 mm²
 - AWG 20 ... 14
 Tightening torque 0.5 Nm
 Stripping length 7.5 mm

Hoods/Housings see chapter 30 / 31

Number of contacts

4/0, 4/2 +



| Identification | Part number | | Drawing | Dimensions in mm |
|---|-----------------------|-----------------------|--|------------------|
| | Male insert (M) | Female insert (F) | | |
| Han K 4/0, Han® K 4/2 Screw terminal | | | <p>1) Distance for contact max. 21 mm</p> <p>Han K 4/0 Han® K 4/2</p> <p>Contact arrangement view from termination side</p> | |
| Han® K 4/2 | 09 38 006 2601 | 09 38 006 2701 | | |
| Han® K 4/0 | 09 38 006 2611 | 09 38 006 2711 | | |

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Features

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

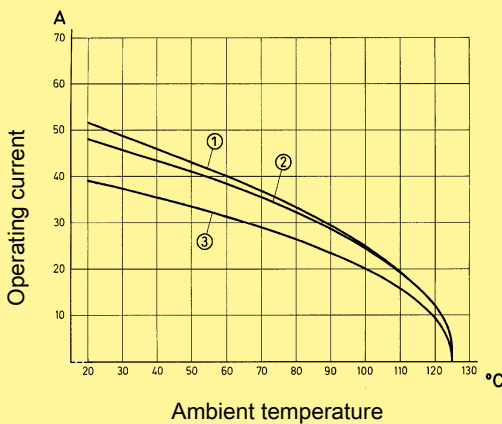
In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (see „Screw terminal“, chapter 00).

Assembly instructions see page 05.23

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



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

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

| | |
|---|------------------------------|
| Number of contacts | 6 / 12 + PE |
| Electrical data acc. to EN 61 984 | |
| Power area | 40 A 690 V 8 kV 3 |
| Rated current | 40 A |
| Rated voltage | 690 V |
| Rated impulse voltage | 8 kV |
| Pollution degree | 3 |
| Signal area | 10 A 230/400 V 4 kV 3 |
| Rated current | 10 A |
| Rated voltage conductor - ground | 230 V |
| Rated voltage conductor - conductor | 400 V |
| Rated impulse voltage | 4 kV |
| Pollution degree | 3 |
| Rated voltage acc. to UL/CSA | 600 V / 300 V |
| Insulation resistance | ≥ 10 ¹⁰ Ω |
| Material | polycarbonate |
| Limiting temperatures | -40 °C ... +125 °C |
| Flammability acc. to UL 94 | V 0 |
| Mechanical working life - mating cycles | ≥ 500 |

Contacts

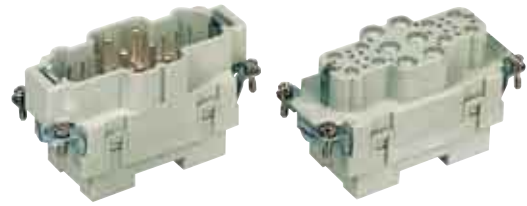
| | | | | | | | | | | | |
|--------------------------|--|-----------------|-----|-----|---|----|----|-----|-----|-----|-----|
| <u>Power contacts</u> | | | | | | | | | | | |
| Material | copper alloy | | | | | | | | | | |
| Surface | | | | | | | | | | | |
| - hard-silver plated | 3 μm Ag | | | | | | | | | | |
| Contact resistance | ≤ 0.5 mΩ | | | | | | | | | | |
| Axial screw termination | | | | | | | | | | | |
| - geometric wire gauge | 2.5 ... 10 mm ² | | | | | | | | | | |
| - AWG | 14 ... 8 | | | | | | | | | | |
| Max. insulation diameter | 6.1 mm | | | | | | | | | | |
| Tightening torque | <table border="1"> <tr> <td>mm²</td> <td>2.5</td> <td>4</td> <td>6</td> <td>10</td> </tr> <tr> <td>Nm</td> <td>1.5</td> <td>1.5</td> <td>2</td> <td>2</td> </tr> </table> | mm ² | 2.5 | 4 | 6 | 10 | Nm | 1.5 | 1.5 | 2 | 2 |
| mm ² | 2.5 | 4 | 6 | 10 | | | | | | | |
| Nm | 1.5 | 1.5 | 2 | 2 | | | | | | | |
| Stripping length | <table border="1"> <tr> <td>mm²</td> <td>2.5</td> <td>4</td> <td>6</td> <td>10</td> </tr> <tr> <td>mm</td> <td>5+1</td> <td>5+1</td> <td>8+1</td> <td>8+1</td> </tr> </table> | mm ² | 2.5 | 4 | 6 | 10 | mm | 5+1 | 5+1 | 8+1 | 8+1 |
| mm ² | 2.5 | 4 | 6 | 10 | | | | | | | |
| mm | 5+1 | 5+1 | 8+1 | 8+1 | | | | | | | |

| | |
|------------------------|-----------------------------|
| <u>Signal contacts</u> | |
| Material | copper alloy |
| Surface | |
| - hard-silver plated | 3 μm Ag |
| Contact resistance | ≤ 3 mΩ |
| Screw terminal | |
| - geometric wire gauge | 0.2 ... 2.5 mm ² |
| - AWG | 24 ... 14 |
| Tightening torque | 0.8 Nm |
| Stripping length | 7.5 mm |

Hoods/Housings see chapter 30 / 31

Number of contacts

6/12 +



| Identification | Part number | | Drawing | Dimensions in mm |
|---|-----------------------|-----------------------|--|------------------|
| | Male insert (M) | Female insert (F) | | |
| Han® K 6/12 Axial screw terminal / Screw terminal | | | | |
| 2.5 ... 8 mm ² | 09 38 018 2601 | 09 38 018 2701 | | |
| 6 ... 10 mm ² | 09 38 018 2602 | 09 38 018 2702 | | |
| | | | <p>M F</p> <p>Contact arrangement view from termination side</p> | |

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Com

| Identification | Part number | Drawing | Dimensions in mm |
|------------------------------------|-----------------------|---------|------------------|
| Hex key SW 2 for axial setscrew | | | |
| adapter 1/4" | 09 99 000 0369 | | |
| | | | |

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

Removal of power contacts (Han® C)

Description see removal tool chapter 99

Removal of signal contacts (Han D®)

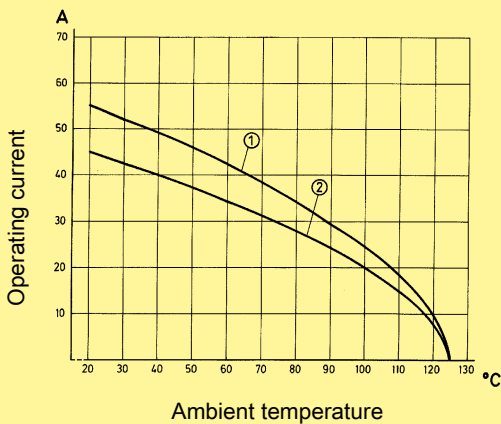
Description see removal tool chapter 99

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 according to DIN EN 60 512-5



Wire gauge: ① 6 mm²
 ② 4 mm²

Technical characteristics

Specifications DIN EN 60 664-1
 DIN EN 61 984

Approvals

Inserts

| | |
|--------------------------------------|----------------------------|
| Number of contacts | 6 / 36 + PE |
| Electrical data acc. to EN 61 984 | |
| Power area | 40 A 690 V 8 kV 3 |
| Rated current | 40 A |
| Rated voltage | 690 V |
| Rated impulse voltage | 8 kV |
| Pollution degree | 3 |
| Signal area | 10 A 160 V 2.5 kV 3 |
| Rated current | 10 A |
| Rated voltage | 160 V |
| Rated impulse voltage | 2.5 kV |
| Pollution degree | 3 |
| Pollution degree 2 also | 10 A 250 V 4 kV 2 |

| | |
|--|----------------------|
| Rated voltage acc. to UL/CSA | 600 V / 300 V |
| Insulation resistance | ≥ 10 ¹⁰ Ω |
| Material | polycarbonate |
| Limiting temperatures | -40 °C ... +125 °C |
| Flammability acc. to UL 94 | V 0 |
| Mechanical working life - mating cycles | ≥ 500 |

Contacts

| | |
|--------------------------|------------------------------|
| <u>Power contacts</u> | |
| Material | copper alloy |
| Surface | |
| - hard-silver plated | 3 µm Ag |
| - hard-gold plated | 2 µm Au over 3 µm Ni |
| Contact resistance | ≤ 0.3 mΩ |
| Crimp terminal | |
| - mm ² | 1.5 ... 6 mm ² |
| - AWG | 16 ... 10 |
| Max. insulation diameter | 5 mm |
| <u>Signal contacts</u> | |
| Material | copper alloy |
| Surface | |
| - hard-silver plated | 3 µm Ag |
| - hard-gold plated | 2 µm Au over 3 µm Ni |
| Contact resistance | ≤ 3 mΩ |
| Crimp terminal | |
| - mm ² | 0.14 ... 2.5 mm ² |
| - AWG | 26 ... 14 |

Hoods/Housings see chapter 30 / 31

Number of contacts

6/36 +



| Identification | Part number | | Drawing | Dimensions in mm |
|---|-----------------------|-----------------------|--|------------------|
| | Male insert (M) | Female insert (F) | | |
| Crimp terminal Order crimp contacts separately | 09 38 042 3001 | 09 38 042 3101 | <p>1) Distance for contact max. 21 mm</p> <p>M F</p> <p>Contact arrangement view from termination side</p> | |

Han Com

| Identification | Wire gauge (mm²) | Part number | | Drawing | Dimensions in mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|------------------|--|---|------------------|---------------|-----------|------|------|---------|--------|------|------|----------|--------|------|--------|-------|--------|------|--------|---------|--------|------|------|---------|--------|------|------|--|
| | | Male contact | Female contact | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Crimp contacts Power contacts silver plated | 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 | <table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm²</td> <td>AWG 16</td> <td>1.75</td> <td>9 mm</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14</td> <td>2.25</td> <td>9 mm</td> </tr> <tr> <td>4 mm²</td> <td>AWG 12</td> <td>2.85</td> <td>9.6 mm</td> </tr> <tr> <td>6 mm²</td> <td>AWG 10</td> <td>3.5</td> <td>9.6 mm</td> </tr> </tbody> </table> | Wire gauge | | Ø | Stripping length | 1.5 mm² | AWG 16 | 1.75 | 9 mm | 2.5 mm² | AWG 14 | 2.25 | 9 mm | 4 mm² | AWG 12 | 2.85 | 9.6 mm | 6 mm² | AWG 10 | 3.5 | 9.6 mm | | | | | | | | | |
| Wire gauge | | Ø | Stripping length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 mm² | AWG 16 | 1.75 | 9 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.5 mm² | AWG 14 | 2.25 | 9 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 mm² | AWG 12 | 2.85 | 9.6 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 mm² | AWG 10 | 3.5 | 9.6 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal contacts silver plated | 0.14-0.37 0.5 0.75 1 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 | <table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm²</td> <td>AWG 26-22</td> <td>0.9</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm²</td> <td>AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm²</td> <td>AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1 mm²</td> <td>AWG 18</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm²</td> <td>AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table> | Wire gauge | | Ø | Stripping length | 0.14-0.37 mm² | AWG 26-22 | 0.9 | 8 mm | 0.5 mm² | AWG 20 | 1.1 | 8 mm | 0.75 mm² | AWG 18 | 1.3 | 8 mm | 1 mm² | AWG 18 | 1.45 | 8 mm | 1.5 mm² | AWG 16 | 1.75 | 8 mm | 2.5 mm² | AWG 14 | 2.25 | 6 mm | |
| Wire gauge | | Ø | Stripping length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.14-0.37 mm² | AWG 26-22 | 0.9 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.5 mm² | AWG 20 | 1.1 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.75 mm² | AWG 18 | 1.3 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 mm² | AWG 18 | 1.45 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 mm² | AWG 16 | 1.75 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.5 mm² | AWG 14 | 2.25 | 6 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| gold plated | 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 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226 | <table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm²</td> <td>AWG 26-22</td> <td>0.9</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm²</td> <td>AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm²</td> <td>AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1 mm²</td> <td>AWG 18</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm²</td> <td>AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table> | Wire gauge | | Ø | Stripping length | 0.14-0.37 mm² | AWG 26-22 | 0.9 | 8 mm | 0.5 mm² | AWG 20 | 1.1 | 8 mm | 0.75 mm² | AWG 18 | 1.3 | 8 mm | 1 mm² | AWG 18 | 1.45 | 8 mm | 1.5 mm² | AWG 16 | 1.75 | 8 mm | 2.5 mm² | AWG 14 | 2.25 | 6 mm | |
| Wire gauge | | Ø | Stripping length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.14-0.37 mm² | AWG 26-22 | 0.9 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.5 mm² | AWG 20 | 1.1 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.75 mm² | AWG 18 | 1.3 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 mm² | AWG 18 | 1.45 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 mm² | AWG 16 | 1.75 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.5 mm² | AWG 14 | 2.25 | 6 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F.O. contacts for 1 mm | | 20 10 001 3211 | 20 10 001 3221 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Stock items in bold type

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

Removal of power contacts (Han® C)

Description see removal tool chapter 99

Removal of signal contacts (Han D®)

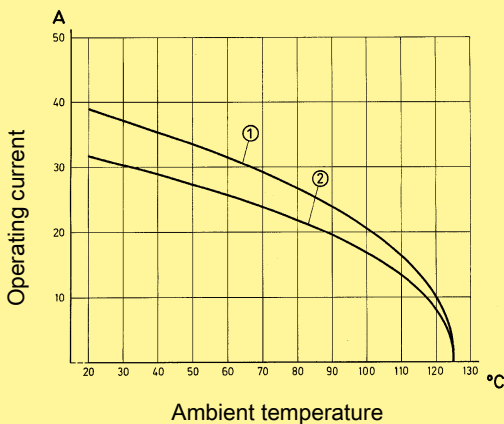
Description see removal tool chapter 99

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 according to DIN EN 60 512-5



Wire gauge: ① 6 mm²
 ② 4 mm²

Technical characteristics

Specifications DIN EN 60 664-1
 DIN EN 61 984

Approvals

Inserts

| | |
|--|--------------------------|
| Number of contacts | 12 / 2 + PE |
| Electrical data acc. to EN 61 984 | |
| Power area | 40 A 690 V 8 kV 3 |
| Rated current | 40 A |
| Rated voltage | 690 V |
| Rated impulse voltage | 8 kV |
| Pollution degree | 3 |
| Signal area | 10 A 250 V 4 kV 3 |
| Rated current | 10 A |
| Rated voltage | 250 V |
| Rated impulse voltage | 4 kV |
| Pollution degree | 3 |
| Rated voltage acc. to UL/CSA | 600 V / 300 V |
| Insulation resistance | ≥ 10 ¹⁰ Ω |
| Material | polycarbonate |
| Limiting temperatures | -40 °C ... +125 °C |
| Flammability acc. to UL 94 | V 0 |
| Mechanical working life - mating cycles | ≥ 500 |

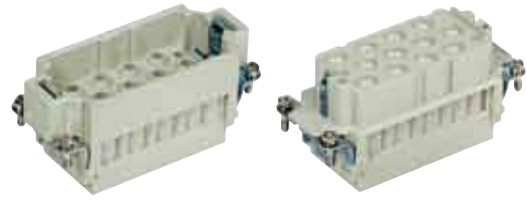
Contacts

| | |
|------------------------|------------------------------|
| <u>Power contacts</u> | |
| Material | copper alloy |
| Surface | |
| - hard-silver plated | 3 µm Ag |
| - hard-gold plated | 2 µm Au over 3 µm Ni |
| Contact resistance | ≤ 0.3 mΩ |
| Crimp terminal | |
| - mm ² | 1.5 ... 6 mm ² |
| - AWG | 16 ... 10 |
| <u>Signal contacts</u> | |
| Material | copper alloy |
| Surface | |
| - hard-silver plated | 3 µm Ag |
| - hard-gold plated | 2 µm Au over 3 µm Ni |
| Contact resistance | ≤ 3 mΩ |
| Crimp terminal | |
| - mm ² | 0.14 ... 2.5 mm ² |
| - AWG | 26 ... 14 |

Hoods/Housings see chapter 30 / 31

Number of contacts

12/2 +



| Identification | Part number | | Drawing | Dimensions in mm |
|---|-----------------------|-----------------------|---|------------------|
| | Male insert (M) | Female insert (F) | | |
| Crimp terminal Order crimp contacts separately | 09 32 012 3001 | 09 32 012 3101 | <p>1) Distance for contact max. 21 mm</p> <p>Contact arrangement view from termination side</p> | |

Han Com

| Identification | Wire gauge (mm²) | Part number | | Drawing | Dimensions in mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|------------------|--|---|------------------|---------------|-----------|------|------|---------|--------|------|------|----------|--------|------|--------|-------|--------|------|--------|---------|--------|------|------|---------|--------|------|------|--|
| | | Male contact | Female contact | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Crimp contacts Power contacts silver plated | 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 | <table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm²</td> <td>AWG 16</td> <td>1.75</td> <td>9 mm</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14</td> <td>2.25</td> <td>9 mm</td> </tr> <tr> <td>4 mm²</td> <td>AWG 12</td> <td>2.85</td> <td>9.6 mm</td> </tr> <tr> <td>6 mm²</td> <td>AWG 10</td> <td>3.5</td> <td>9.6 mm</td> </tr> </tbody> </table> | Wire gauge | | ∅ | Stripping length | 1.5 mm² | AWG 16 | 1.75 | 9 mm | 2.5 mm² | AWG 14 | 2.25 | 9 mm | 4 mm² | AWG 12 | 2.85 | 9.6 mm | 6 mm² | AWG 10 | 3.5 | 9.6 mm | | | | | | | | | |
| Wire gauge | | ∅ | Stripping length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 mm² | AWG 16 | 1.75 | 9 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.5 mm² | AWG 14 | 2.25 | 9 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 mm² | AWG 12 | 2.85 | 9.6 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 mm² | AWG 10 | 3.5 | 9.6 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal contacts silver plated | 0.14-0.37 0.5 0.75 1 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 | <table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm²</td> <td>AWG 26-22</td> <td>0.9</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm²</td> <td>AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm²</td> <td>AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1 mm²</td> <td>AWG 18</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm²</td> <td>AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table> | Wire gauge | | ∅ | Stripping length | 0.14-0.37 mm² | AWG 26-22 | 0.9 | 8 mm | 0.5 mm² | AWG 20 | 1.1 | 8 mm | 0.75 mm² | AWG 18 | 1.3 | 8 mm | 1 mm² | AWG 18 | 1.45 | 8 mm | 1.5 mm² | AWG 16 | 1.75 | 8 mm | 2.5 mm² | AWG 14 | 2.25 | 6 mm | |
| Wire gauge | | ∅ | Stripping length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.14-0.37 mm² | AWG 26-22 | 0.9 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.5 mm² | AWG 20 | 1.1 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.75 mm² | AWG 18 | 1.3 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 mm² | AWG 18 | 1.45 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 mm² | AWG 16 | 1.75 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.5 mm² | AWG 14 | 2.25 | 6 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| gold plated | 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 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226 | <table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm²</td> <td>AWG 26-22</td> <td>0.9</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm²</td> <td>AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm²</td> <td>AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1 mm²</td> <td>AWG 18</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm²</td> <td>AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table> | Wire gauge | | ∅ | Stripping length | 0.14-0.37 mm² | AWG 26-22 | 0.9 | 8 mm | 0.5 mm² | AWG 20 | 1.1 | 8 mm | 0.75 mm² | AWG 18 | 1.3 | 8 mm | 1 mm² | AWG 18 | 1.45 | 8 mm | 1.5 mm² | AWG 16 | 1.75 | 8 mm | 2.5 mm² | AWG 14 | 2.25 | 6 mm | |
| Wire gauge | | ∅ | Stripping length | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.14-0.37 mm² | AWG 26-22 | 0.9 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.5 mm² | AWG 20 | 1.1 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.75 mm² | AWG 18 | 1.3 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 mm² | AWG 18 | 1.45 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 mm² | AWG 16 | 1.75 | 8 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.5 mm² | AWG 14 | 2.25 | 6 mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F.O. contacts for 1 mm | | 20 10 001 3211 | 20 10 001 3221 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Stock items in bold type

Features

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

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

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

Number of contacts 4 / 8 + PE
 Electrical data acc. to EN 61 984
Power area **80 A 400 V 6 kV 3**
 Rated current 80 A
 Rated voltage 400 V
 Rated impulse voltage 6 kV
 Pollution degree 3
 Pollution degree 2 also 80 A 400/690 V 6 kV 2

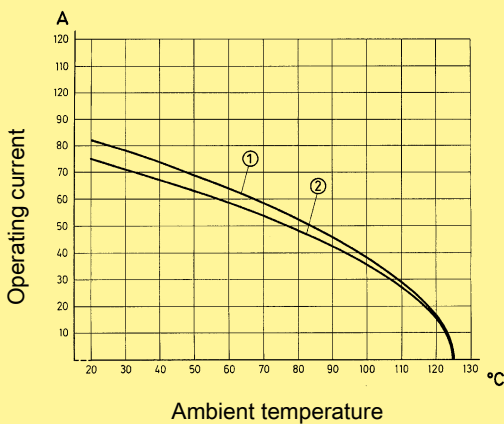
Signal area **16 A 400 V 6 kV 3**
 Rated current 16 A
 Rated voltage 400 V
 Rated impulse voltage 6 kV
 Pollution degree 3
 Rated voltage acc. to UL/CSA 600 V / 600 V
 Insulation resistance ≥ 10¹⁰ Ω
 Material Polyamide
 Limiting temperatures -40 °C ... +125 °C
 Flammability acc. to UL 94 HB
 Mechanical working life - mating cycles ≥ 500

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 according to DIN EN 60 512-5



Wire gauge: ① 16 mm²
② 10 mm²

Contacts

Power contacts

Material copper alloy
 Surface
 - hard-silver plated 3 μm Ag
 Contact resistance ≤ 0.3 mΩ
 Screw terminal
 - geometric wire gauge 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 |

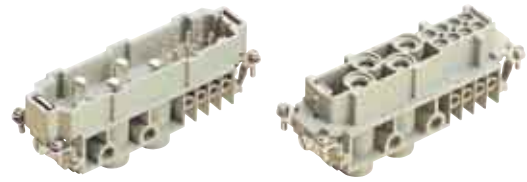
Signal contacts

Material copper alloy
 Surface
 - hard-silver plated 3 μm Ag
 Contact resistance ≤ 1 mΩ
 Screw terminal
 - geometric wire gauge 0.5 ... 2.5 mm²
 - AWG 20 ... 14
 Tightening torque 0.5 Nm
 Stripping length 7.5 mm

Hoods/Housings see chapter 30 / 31

Number of contacts

4/8 +



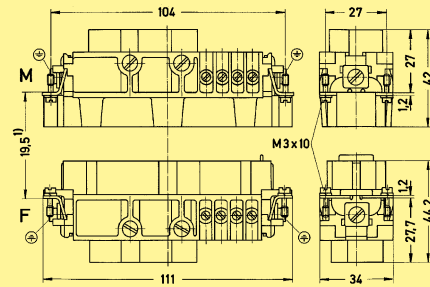
| Identification | Part number | | Drawing | Dimensions in mm |
|----------------|-----------------|-------------------|---------|------------------|
| | Male insert (M) | Female insert (F) | | |

Han® K 4/8
Screw terminal

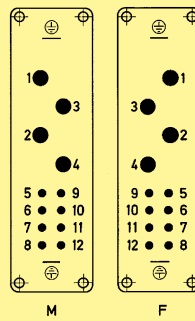
1.5 ... 16 mm²

09 38 012 2601

09 38 012 2701



1) Distance for contact max. 21 mm



Contact arrangement view from termination side

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Features

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

Assembly instructions see page 05.24

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals

Inserts

Number of contacts 6 / 6 + PE
 Electrical data acc. to EN 61 984
Power area **100 A 690 V 8 kV 3**
 Rated current 100 A
 Rated voltage 690 V
 Rated impulse voltage 8 kV
 Pollution degree 3
 Pollution degree 2 also 100 A 1000 V 8 kV 2

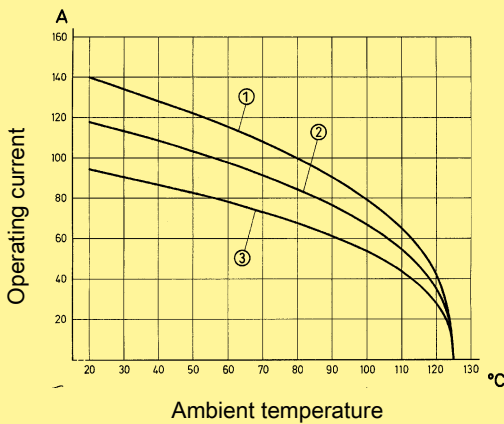
Signal area **16 A 400 V 6 kV 3**
 Rated current 16 A
 Rated voltage 400 V
 Rated impulse voltage 6 kV
 Pollution degree 3
 Rated voltage acc. to UL/CSA 600 V / 300 V
 Insulation resistance ≥ 10¹⁰ Ω
 Material polycarbonate
 Limiting temperatures -40 °C ... +125 °C
 Flammability acc. to UL 94 V 0
 Mechanical working life - mating cycles ≥ 500

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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



Wire gauge: ① 35 mm²
② 25 mm²
③ 16 mm²

Contacts

Power contacts
 Material copper alloy
 Surface
 - hard-silver plated 3 μm Ag
 Contact resistance ≤ 0.5 mΩ
 Axial screw termination
 - geometric wire gauge 16 ... 35 mm²
 - AWG 5 ... 2
 Max. insulation diameter 11.4 mm
 Tightening torque

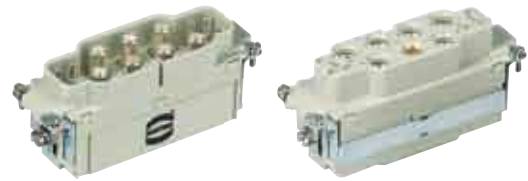
| | | | |
|-----------------|----|----|----|
| mm ² | 16 | 25 | 35 |
| Nm | 6 | 7 | 8 |

Stripping length 13±1 mm
Signal contacts
 Material copper alloy
 Surface
 - hard-silver plated 3 μm Ag
 Contact resistance ≤ 3 mΩ
 Screw terminal
 - geometric wire gauge 0.2 ... 2.5 mm²
 - AWG 24 ... 13
 Tightening torque 0.8 Nm
 Stripping length 7.5 mm

Hoods/Housings see chapter 30 / 31

Number of contacts

6/6 +



| Identification | Part number | | Drawing | Dimensions in mm |
|---|-----------------------|-----------------------|--|------------------|
| | Male insert (M) | Female insert (F) | | |
| Han® K 6/6 Axial screw terminal / Screw terminal 16 ... 35 mm ² | 09 38 012 2651 | 09 38 012 2751 | <p>1) Distance for contact max. 21 mm</p> <p>M F</p> | |

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| Identification | Part number | Drawing | Dimensions in mm |
|---|--|---------|------------------|
| Hex key SW 4 for axial setscrew with grip adapter 3/8" | 09 99 000 0363 09 99 000 0370 | | |



Features

- Axial screw termination for power area
- No signal contacts

Assembly instructions see page 05.25

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Inserts

| | |
|--|---------------------------|
| Number of contacts | 8 + PE |
| Electrical data acc. to EN 61 984 | |
| <u>Power area</u> | 100 A 690 V 8 kV 3 |
| Rated current | 100 A |
| Rated voltage | 690 V |
| Rated impulse voltage | 8 kV |
| Pollution degree | 3 |
| Pollution degree 2 also | 100 A 1000 V 8 kV 2 |
| | |
| Rated voltage acc. to UL/CSA | 600 V |
| Insulation resistance | ≥ 10 ¹⁰ Ω |
| Material | polycarbonate |
| Limiting temperatures | -40 °C ... +125 °C |
| Flammability acc. to UL 94 | V 0 |
| Mechanical working life - mating cycles | ≥ 500 |

Contacts

| | | | | | | | | | |
|--------------------------|--|-----------------|----|----|----|----|---|---|---|
| Material | copper alloy | | | | | | | | |
| Surface | | | | | | | | | |
| - hard-silver plated | 3 μm Ag | | | | | | | | |
| Contact resistance | ≤ 0.5 mΩ | | | | | | | | |
| Axial screw termination | | | | | | | | | |
| - geometric wire gauge | 10 ... 25 mm ² | | | | | | | | |
| - AWG | 7 ... 3 | | | | | | | | |
| Max. insulation diameter | 11.4 mm | | | | | | | | |
| Tightening torque | <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>mm²</td> <td>10</td> <td>16</td> <td>25</td> </tr> <tr> <td>Nm</td> <td>6</td> <td>6</td> <td>7</td> </tr> </table> | mm ² | 10 | 16 | 25 | Nm | 6 | 6 | 7 |
| mm ² | 10 | 16 | 25 | | | | | | |
| Nm | 6 | 6 | 7 | | | | | | |
| Stripping length | 13±1 mm | | | | | | | | |

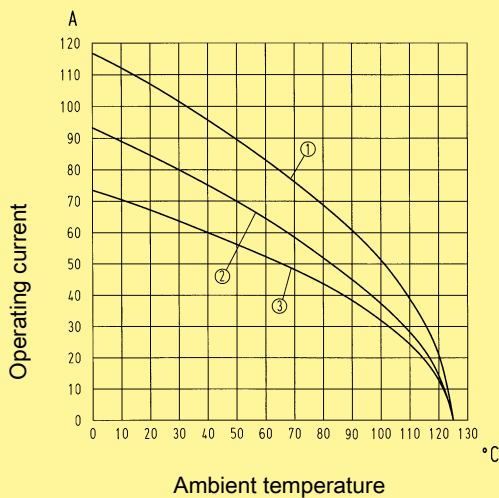
Hoods/Housings see chapter 30 / 31

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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



Wire gauge: ① 25 mm²
② 16 mm²
③ 10 mm²



Number of contacts

8/0 +



| Identification | Part number | | Drawing | Dimensions in mm |
|--|-----------------|-------------------|---------|--|
| | Male insert (M) | Female insert (F) | | |
| <p>Han® K 8/0 Axial screw terminal</p> <p>10 ... 25 mm²</p> | 09 38 008 2653 | 09 38 008 2753 | | <p>M F</p> <p>Contact arrangement view from termination side</p> |

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| Identification | Part number | Drawing | Dimensions in mm |
|---|-----------------------|---------|------------------|
| <p>Hex key SW 4 for axial setscrew</p> | | | |
| <p>with grip</p>  | 09 99 000 0363 | | |
| <p>adapter 3/8"</p>  | 09 99 000 0370 | | |

Description

Depiction

Dimensions in mm

Step 1:

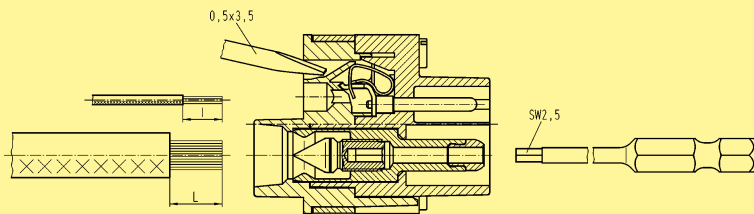
Signal contacts:

Push screwdriver (0.5 x 3.5) into rectangular chamber. Strip insulation from the wire with a length given on page 05.06 and insert the wire into the round contact chamber.

Power contacts:

Strip insulation from the wire with a length given on page 05.06 and insert the wire into the contact chamber until insulation is flush with contact.

Do not twist the strands of the wire.



I: Stripping length for signal contacts

L: Stripping length for power contacts

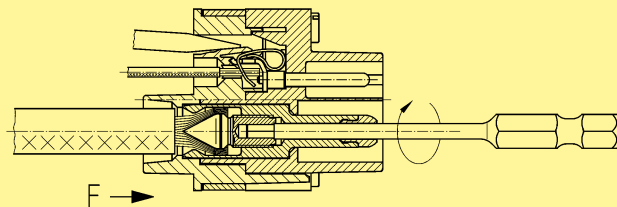
Step 2:

Signal contacts:

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

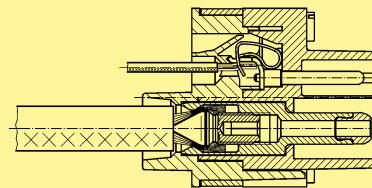
Power contacts:

Hold the wire in position and tighten by a hexagonal driver (SW 2.5) from the mating side with a tightening torque given on page 05.06.



Step 3:

Complete connection



Description

Depiction

Dimensions in mm

Step 1:

Signal contacts:

Strip insulation from the wire with a length given on page 05.10 and insert the wire into the rectangular contact chamber.

Power contacts:

Strip insulation from the wire with a length given on page 05.10 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:

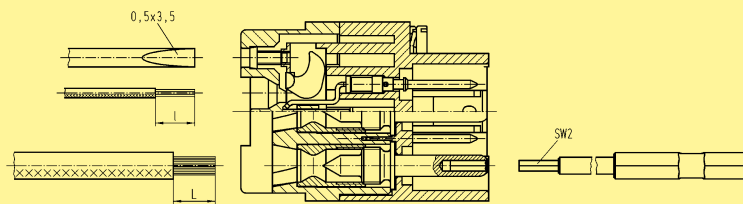
Tighten screw termination with screwdriver (0.5 x 3.5) with a tightening torque given on page 05.10.

Power contacts:

Hold the wire in position and tighten by a hexagonal driver (SW 2) from the mating side with a tightening torque given on page 05.10.

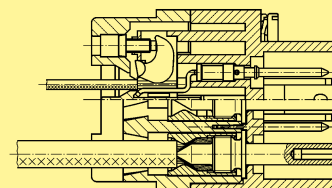
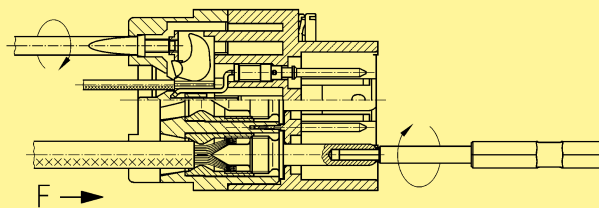
Step 3:

Complete connection



I: Stripping length for signal contacts

L: Stripping length for power contacts



Description

Depiction

Dimensions in mm

Step 1:

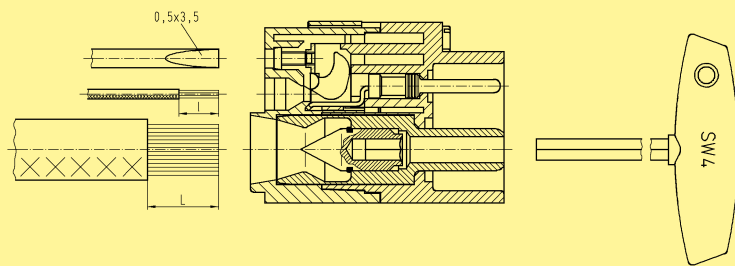
Signal contacts:

Strip insulation from the wire with a length given on page 05.18 and insert the wire into the rectangular contact chamber.

Power contacts:

Strip insulation from the wire with a length given on page 05.18 and insert the wire into the contact chamber until insulation is flush with contact.

Do not twist the strands of the wire.



I: Stripping length for signal contacts

L: Stripping length for power contacts

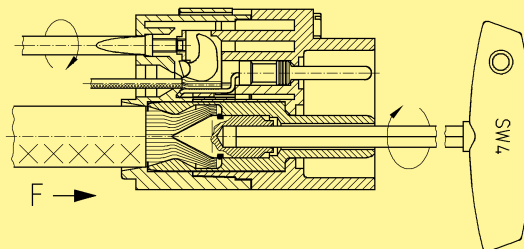
Step 2:

Signal contacts:

Tighten screw termination with screwdriver (0.5 x 3.5) with a tightening torque given on page 05.18.

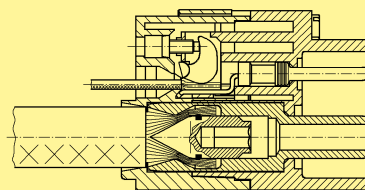
Power contacts:

Hold the wire in position and tighten by a hexagonal driver (SW 4) from the mating side with a tightening torque given on page 05.18.



Step 3:

Complete connection



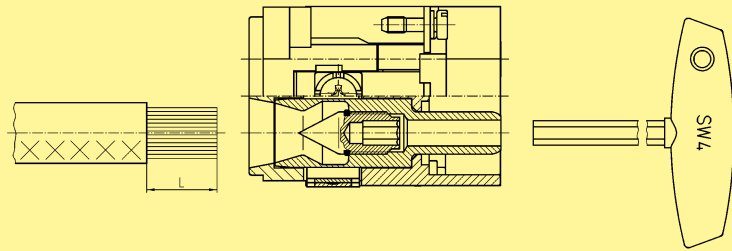
Description

Depiction

Dimensions in mm

Step 1:

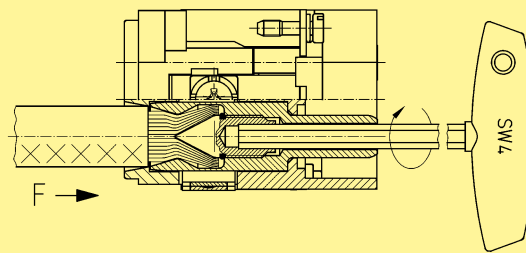
Strip insulation from the wire with a length given on page 05.20 and insert the wire into the contact chamber until insulation is flush with contact.
Do not twist the strands of the wire.



L: Stripping length for power contacts

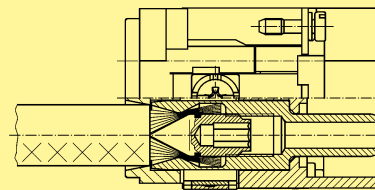
Step 2:

Hold the wire in position and tighten by a hexagonal driver (SW 4) from the mating side with a tightening torque given on page 05.20.



Step 3:

Complete connection





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

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