

K-7E-M23 M9/2,0-D03/M23 F8 - Connector in molded plastic on both sides



1620412

<https://www.phoenixcontact.com/us/products/1620412>

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Connector in molded plastic on both sides, application: Power, series: KSF, M23-Socket, Straight, plastic molded, number of positions: 4+3+PE, type of locking: Screw locking mechanism, on M23-Pin, Straight, plastic molded, number of positions: 4+3+PE, cable length: 2 m, shielded: yes, color of outer sheath: orange RAL 2003, this item is expected to be lead-free from Q1 2027 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

Your advantages

- Our standard: robust halogen-free PUR cable
- Simple and safe: 100% electrically tested and assembled ready for use
- Designs with preassembled cables on one or both sides
- High flexibility: customer-specific assemblies and cable lengths can be supplied

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1620412 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB34 |
| Product key | ABRDEG |
| GTIN | 4046356831697 |
| Weight per piece (including packing) | 890 g |
| Weight per piece (excluding packing) | 776.276 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |

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Technical data

Notes

| | |
|--------------------|-------------------------|
| Notes on operation | Observe derating curve. |
|--------------------|-------------------------|

Safety note

| | |
|---|--|
| Safety note | WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property. |
| | <ul style="list-style-type: none">• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible. |
| | <ul style="list-style-type: none">• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product. |
| | <ul style="list-style-type: none">• The products are suitable for applications in plant, controller, and electrical device engineering. |
| | <ul style="list-style-type: none">• When operating the connectors in outdoor applications, they must be separately protected against environmental influences. |
| | <ul style="list-style-type: none">• Assembled products may not be manipulated or improperly opened. |
| | <ul style="list-style-type: none">• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products). |
| | <ul style="list-style-type: none">• When using the product in direct connection with third-party manufacturers, the user is responsible. |
| | <ul style="list-style-type: none">• For operating voltages > 50 V AC, conductive connector housings must be grounded |
| | <ul style="list-style-type: none">• Ensure that the protective or functional ground has been properly connected. |
| | <ul style="list-style-type: none">• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector |
| | <ul style="list-style-type: none">• Only use tools recommended by Phoenix Contact |
| | <ul style="list-style-type: none">• The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product. |
| | <ul style="list-style-type: none">• Operate the connector only when it is fully plugged in and interlocked. |
| <ul style="list-style-type: none">• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards. | |
| <ul style="list-style-type: none">• Observe the minimum bending radius of the cable. Lay the cable without twisting it. | |
| <ul style="list-style-type: none">• The connector warms up in normal operation. Depending on the | |

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ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

Product properties

| | |
|--------------|------------------------|
| Product type | Signal and power cable |
| Application | Power |

Connector

Connector specifications

| | |
|---------------------------------|----------------------------|
| Type | Straight, plastic molded |
| Thread type | M23 |
| Type of locking | Screw locking mechanism |
| Degree of protection | IP67, when in locked state |
| No. of pos. | 4+3+PE |
| Direction of rotation | Standard |
| Contact switching type | Socket |
| Insertion/withdrawal cycles | 50 |
| Contact resistance | < 0.3 mΩ |
| Voltage | 630 V |
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated surge voltage | 6 kV |
| Ambient temperature (operation) | -40 °C ... 105 °C |

Connector specifications (second page)

| | |
|---------------------------------|----------------------------|
| Type | Straight, plastic molded |
| Housing material | Die-cast zinc |
| Thread type | M23 |
| Degree of protection | IP67, when in locked state |
| No. of pos. | 4+3+PE |
| Direction of rotation | Standard |
| Contact switching type | Pin |
| Insertion/withdrawal cycles | 50 |
| Contact resistance | < 0.3 mΩ |
| Voltage | 630 V |
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated surge voltage | 6 kV |
| Ambient temperature (operation) | -40 °C ... 105 °C |

Cable/line

| | |
|--------------|-----|
| Cable length | 2 m |
|--------------|-----|

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Cable specifications

| | |
|---|---|
| Cable type | PSLC11Y-J |
| Shielded | yes |
| Cable structure | 4 x 2.5 mm ² + 2 x 2 x 1.0 mm ² StC |
| External cable diameter | 13.50 mm ±0.4 mm |
| Outer sheath, material | PUR |
| Material wire insulation | TPM |
| External sheath, color | orange RAL 2003 |
| Nominal voltage, cable | 1000 V |
| Test voltage | 4 kV (2 kV signal) |
| Smallest bending radius, movable installation | 135 mm |
| Max. bending cycles | 10000000 |
| Bending radius | 135 mm |
| Traversing path | 6 m |
| Acceleration | 5 m/s ² |
| Ambient temperature (operation) for fixed installation | -40 °C ... 80 °C |
| Ambient temperature (operation) for flexible installation | -20 °C ... 60 °C |
| Special properties | Flexible cable conduit capable |
| Flame resistance | IEC 332-1 |
| Halogen-free | DIN VDE 0472 |

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Drawings

Dimensional drawing



On the female side

Dimensional drawing



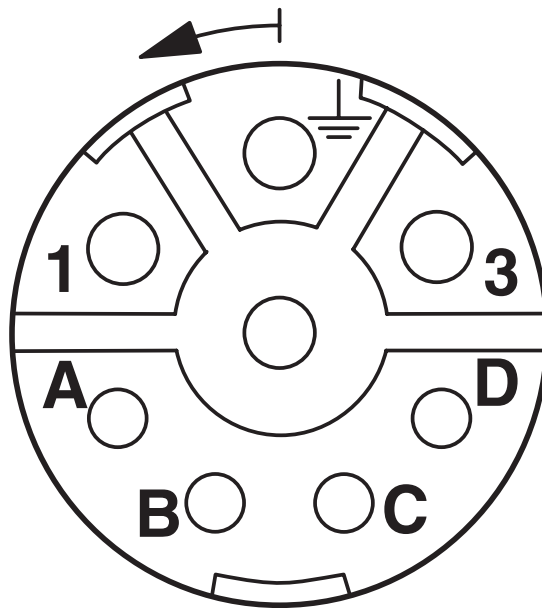
Pin side

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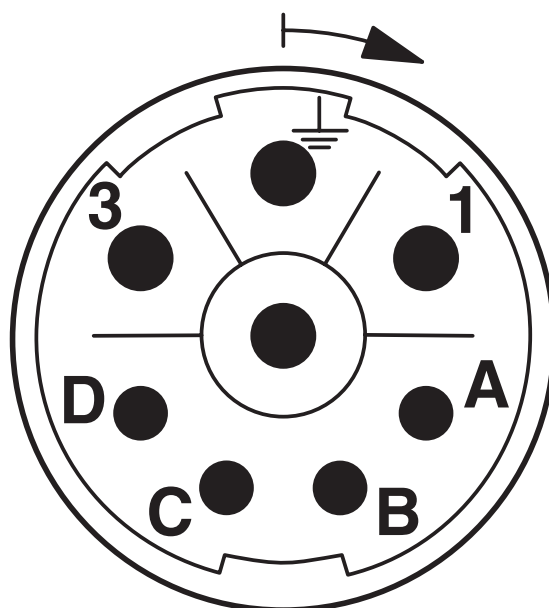
<https://www.phoenixcontact.com/us/products/1620412>

Schematic diagram



Socket pin assignment

Schematic diagram



Pin assignment of pin

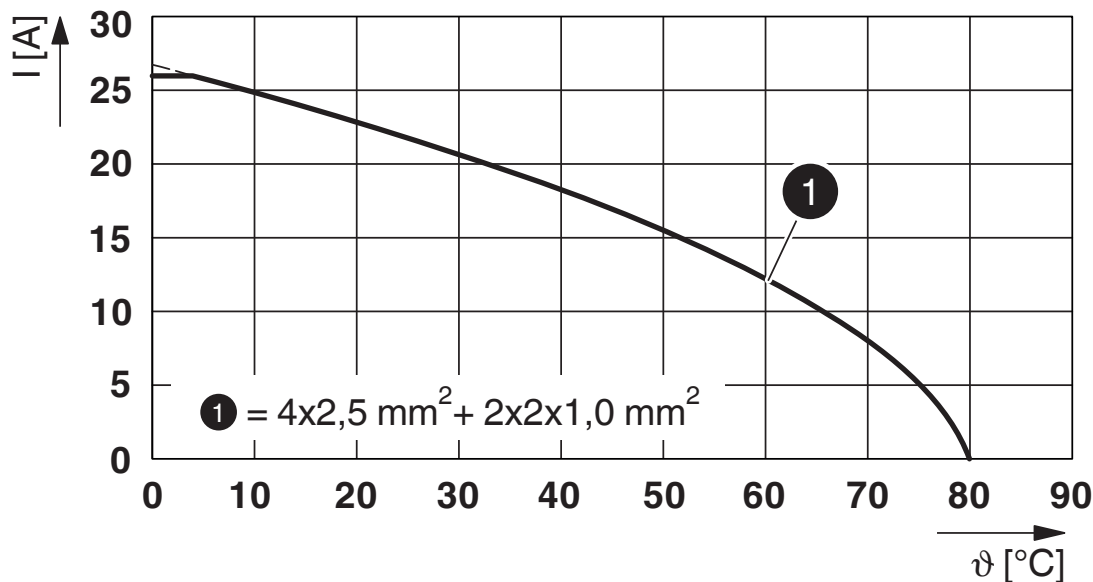
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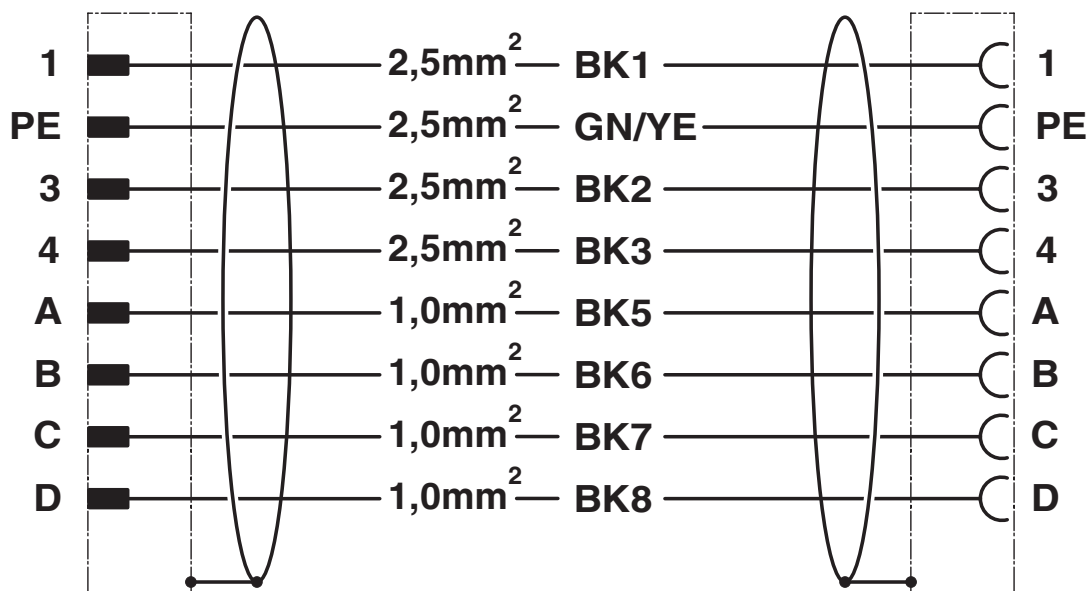
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Diagram



I = current strength, T = ambient temperature

Circuit diagram



Contact assignment of M23 plugs/sockets

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1620412>



EAC

Approval ID: B.00286/19

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27060106 |
| ECLASS-15.0 | 27060106 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC003250 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|------------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(b), 6(c) |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | 7613a253-303d-47d8-8316-8b3565ec72d2 |

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