

Device connector, front mounting - SF-7EP1N8AWK00



1605591

<https://www.phoenixcontact.com/us/products/1605591>

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Device connector, front mounting, straight low type, Screw locking, M23, number of positions: 4+3+PE, type of contact: Pin, Axial O-ring, 4x Ø 3.2, shielded: yes, flange dimensions: 28 mm x 28 mm, degree of protection: IP67, cable diameter range: 0 mm ... 0 mm, number of positions: 8, connection method: Crimp connection, series: SF

Commercial Data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1605591 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to Order (non-returnable) |
| Sales Key | A12 |
| Product Key | ABRCBF |
| Catalog Page | Page 81 (PC-2011) |
| GTIN | 4046356182225 |
| Weight per Piece (including packing) | 38.85 g |
| Weight per Piece (excluding packing) | 38.23 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

Technical Data

Notes

| | |
|--------------------|---|
| Order information: | Order crimp contacts 4 x Ø 1 mm, 4 x Ø 2 mm separately |
| Safety note | |
| Safety note | <p>WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p> <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. • 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. • The products are suitable for applications in plant, controller, and electrical device engineering. • When operating the connectors in outdoor applications, they must be separately protected against environmental influences. • Assembled products may not be manipulated or improperly opened. • 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). • When using the product in direct connection with third-party manufacturers, the user is responsible. • For operating voltages > 50 V AC, conductive connector housings must be grounded • Ensure that the protective or functional ground has been properly connected. • 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 • Only use tools recommended by Phoenix Contact • The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product. • Operate the connector only when it is fully plugged in and interlocked. • Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards. • Observe the minimum bending radius of the cable. Lay the cable without twisting it. • The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting |

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warnings (e.g. DIN EN ISO 13732-1:2008-12).

Product properties

| | |
|---------------------|-----------------------------------|
| Product type | Circular connectors (device side) |
| Number of positions | 8 |
| Connection profile | 4+3+PE |
| Application | Power |
| Locking type | Screw locking |
| Series | SF |
| Shielded | yes |
| Coding | N |
| Thread type | M23 |

Ambient conditions

| | |
|---------------------------------|-------------------|
| Degree of protection | IP67 |
| Ambient temperature (operation) | -40 °C ... 125 °C |
| Altitude | 3000 m |

Dimensions

Housing

| | |
|-------------------|---------------|
| Flange dimensions | 28 mm x 28 mm |
|-------------------|---------------|

Connector

| | |
|------|-------------------|
| Type | straight low type |
|------|-------------------|

Electrical properties

Contact

| | |
|-----------------------|-------|
| Contact diameter | 2 mm |
| Max. current | 30 A |
| Nominal voltage U_N | 630 V |
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated surge voltage | 6 kV |

Contact

| | |
|-----------------------|-------|
| Contact diameter | 1 mm |
| Max. current | 9 A |
| Nominal voltage U_N | 250 V |
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated surge voltage | 4 kV |

Material specifications

| | |
|---------------|-----|
| Seal material | FPM |
|---------------|-----|

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| | |
|----------------------------|--|
| Housing material | Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn) |
| Insulator material | PA 6.6 |
| Gasket and O-ring material | FPM |

Connection data

Conductor connection

| | |
|-------------------|------------------|
| Connection method | Crimp connection |
| Type of contact | Pin |

Mounting

| | |
|----------|----------|
| Mounting | 4x Ø 3.2 |
|----------|----------|

Cable / line

| | |
|-------------------------|---------------|
| External cable diameter | 0 mm ... 0 mm |
|-------------------------|---------------|

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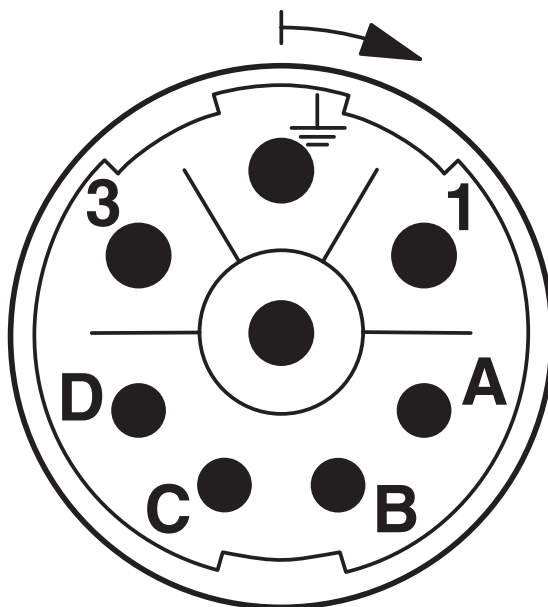


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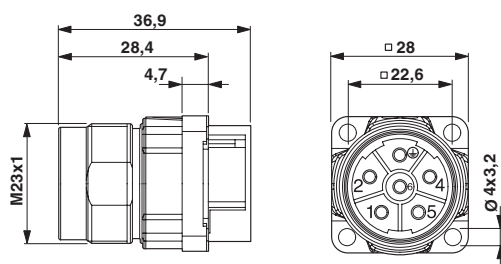
Drawings

Schematic diagram



Connector pin assignment

Dimensional drawing



Installation dimensions SF-...P1N8AWK00

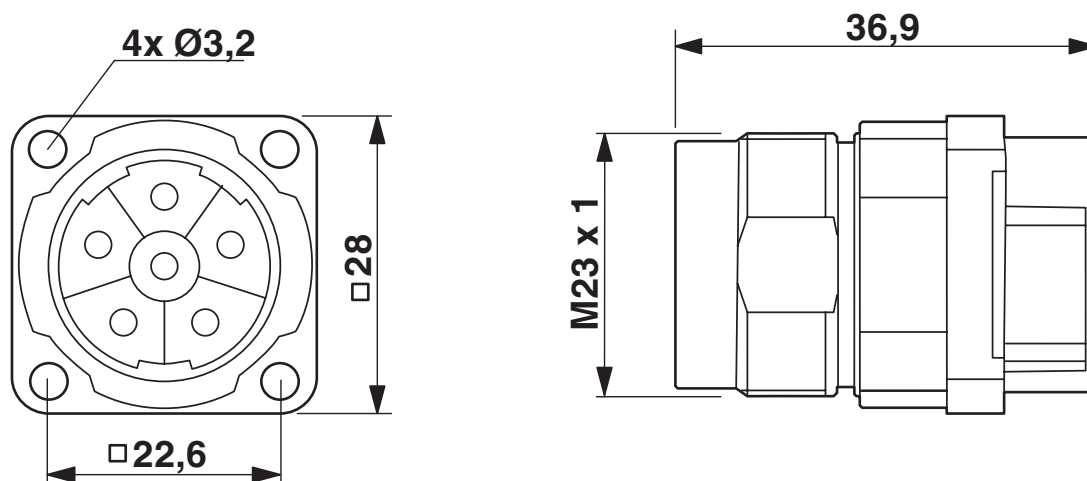
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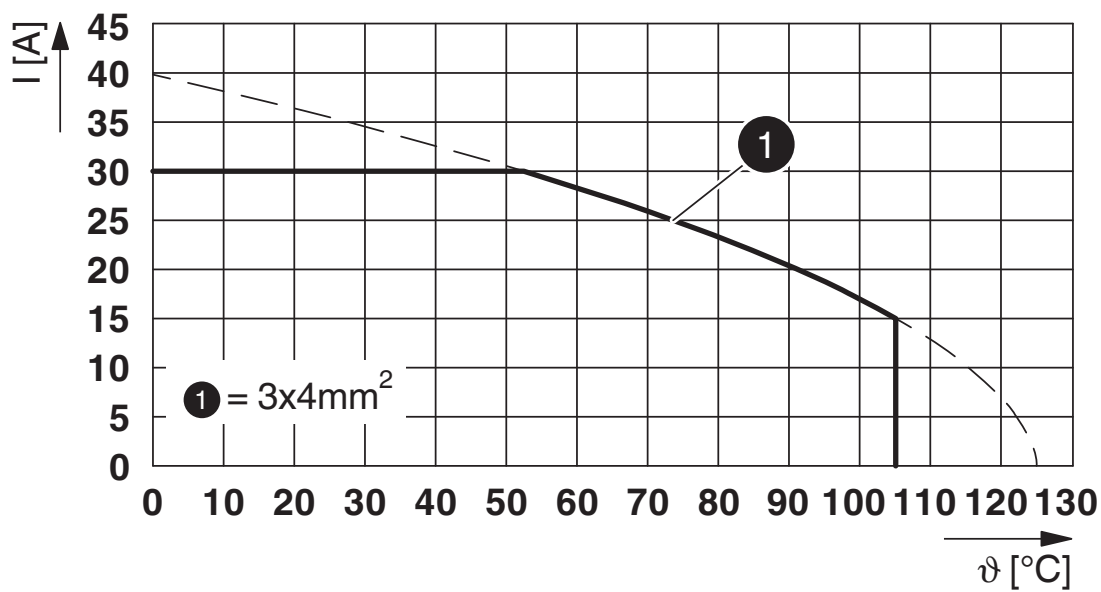
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Dimensional drawing



SF-...P1N8AWK00

Diagram



I = current strength, T = ambient temperature

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Approvals



EAC

Approval ID: B.01687

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27440102 |
| ECLASS-10.0.1 | 27440102 |
| ECLASS-11.0 | 27440102 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002635 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

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Accessories

Crimp contact

Crimp contact - SF-7RP2000 - 1605646

<https://www.phoenixcontact.com/us/products/1605646>



Crimp contact, turned, Single contact, contact diameter: 2 mm, crimp range: 0.14 mm² ... 0.25 mm²

Crimp contact

Crimp contact - SF-7PP2000 - 1605634

<https://www.phoenixcontact.com/us/products/1605634>



Crimp contact, turned, Single contact, contact diameter: 2 mm, crimp range: 0.25 mm² ... 1 mm²

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Crimp contact

Crimp contact - SF-20KP004 - 1607376

<https://www.phoenixcontact.com/us/products/1607376>



Crimp contact, turned, contact diameter: 2 mm, crimp range: 0.75 mm² ... 1.5 mm²

Crimp contact

Crimp contact - SF-7QP2000 - 1605639

<https://www.phoenixcontact.com/us/products/1605639>



Crimp contact, turned, Single contact, contact diameter: 2 mm, crimp range: 1 mm² ... 2.5 mm²

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Crimp contact

Crimp contact - SF-7MP2000 - 1605626

<https://www.phoenixcontact.com/us/products/1605626>



Crimp contact, turned, Single contact, contact diameter: 2 mm, crimp range: 4 mm² ... 4 mm²

Crimp contact

Crimp contact - SF-6CP2000 - 1605559

<https://www.phoenixcontact.com/us/products/1605559>



Crimp contact, turned, Single contact, contact diameter: 1 mm, crimp range: 0.06 mm² ... 0.25 mm²

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Crimp contact

Crimp contact - SF-10KP004 - 1607355

<https://www.phoenixcontact.com/us/products/1607355>



Crimp contact, turned, Single contact, contact diameter: 1 mm, crimp range: 0.14 mm² ... 0.5 mm²

Crimp contact

Crimp contact - SF-6AP2000 - 1605554

<https://www.phoenixcontact.com/us/products/1605554>



Crimp contact, turned, Single contact, contact diameter: 1 mm, crimp range: 0.25 mm² ... 1 mm²

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Protective cap

Protective cap - SF-Z0019 - 1607449

<https://www.phoenixcontact.com/us/products/1607449>



Plastic protection cap, with eye, IP40 for connectors with M23 external thread, RF, SF series

Protective cap

Protective cap - RC-Z2059 - 1604225

<https://www.phoenixcontact.com/us/products/1604225>



Plastic protection cap for connectors with M23 external thread

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Plastic anti-static dust protection cap

Plastic anti-static dust protection cap - RC-Z2469 - 1611797

<https://www.phoenixcontact.com/us/products/1611797>



Plastic protection cap, antistatic, for RF, SF, CA, RC series connectors, with M23 external thread

Metal protective cap

Metal protective cap - SC-Z2319 - 1605456

<https://www.phoenixcontact.com/us/products/1605456>



Metal protection cap for power connectors with M23 external thread

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Metal protective cap

Metal protective cap - SC-Z2320 - 1605457

<https://www.phoenixcontact.com/us/products/1605457>

Metal protection cap with steel wire for power connectors with M23 external thread



Color-coding

Color-coding - RF-Z0017 - 1620624

<https://www.phoenixcontact.com/us/products/1620624>

Color-coding, color: green



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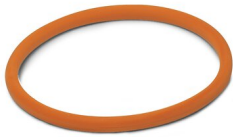
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Color-coding

Color-coding - RF-Z0018 - 1620625

<https://www.phoenixcontact.com/us/products/1620625>

Color-coding, color: orange



Color-coding

Color-coding - RF-Z0019 - 1620626

<https://www.phoenixcontact.com/us/products/1620626>

Color-coding, color: anthracite



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