# SF-5EP1N8A90A2 - Coupler connector

1605496

https://www.phoenixcontact.com/us/products/1605496

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CRIMP



The figure shows the 8-pos. (4+3+PE) product version

Coupler connector, application: Power, straight short, for standard and SPEEDCON interlock, M23, number of positions: 5+PE, contact connection type: Pin, shielded: yes, degree of protection: IP67, cable diameter range: 9 mm ... 11 mm, number of positions: 6, connection method: Crimp connection, series: SF, this item is expected to be lead-free from Q4 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance, This product is in the process of being discontinued. This product must no longer be considered for new projects. Please contact your sales representative for alternatives. Alternative products: 1628789

## Your advantages

- Consistent EMC protection for reliable connection solutions in the industrial environment
- Crimping connection: vibration- and temperature-resistant assembly
- Flexible use: reliably connect various cable diameters

## Commercial data

| | |
|---|---|
| Item number | 1605496 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB32 |
| Product key | ABRBFG |
| GTIN | 4046356253147 |
| Weight per piece (including packing) | 108.9 g |
| Weight per piece (excluding packing) | 92.547 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

## Technical data

### Notes

| | |
|---|---|
| Order information: | Order crimp contacts 6 x Ø 2 mm separately |
| Note on application | Series SF connectors are not compatible with series M23 PRO and must not be combined. |
| General | Compatible with mating connectors with SPEEDCON or M23 standard knurled nuts |

### Product properties

| | |
|---|---|
| Product type | Circular connector (cable-side) |
| Series | SF |
| Application | Power |
| Number of positions | 6 |
| Connection profile | 5+PE |
| Shielded | yes |
| Coding | N |
| Thread type | M23 |

### Material specifications

| | |
|---|---|
| Material Housing | GD-Zn |
| Material Rotating parts | CuZn |
| Material Housing surface | Ni |
| Material Insulating body | PA 6.6 |
| Material Seal | FPM (O-ring) |
| Seal material | FPM |

### Connection data

Conductor connection

| | |
|---|---|
| Connection method | Crimp connection |

### Electrical properties

Contact: Contact group 1

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

Contact: Contact group 2

| | |
|---|---|
| Contact diameter | 2 mm |
| Nominal current $I_N$ | 30 A |
| Nominal voltage $U_N$ | 630 V |

| | |
|---|---|
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated surge voltage | 6 kV |

## Connector

| | |
|---|---|
| Type | straight short |

## Cable/line

| | |
|---|---|
| External cable diameter | 9 mm ... 11 mm |

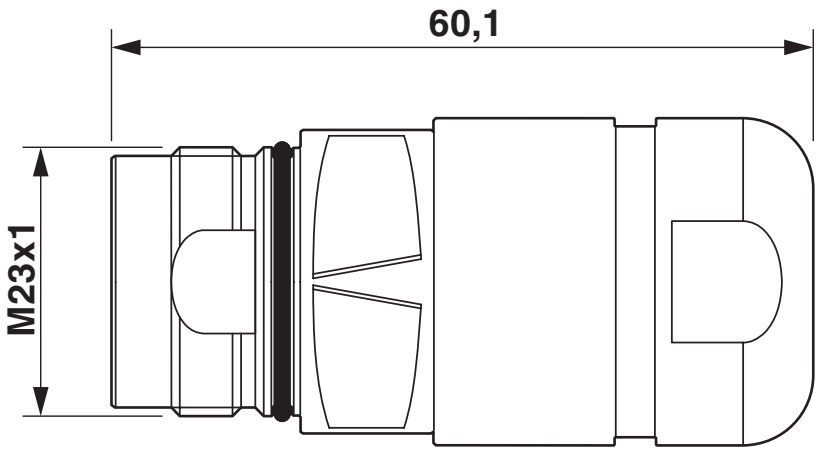
## Environmental and real-life conditions

### Ambient conditions

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

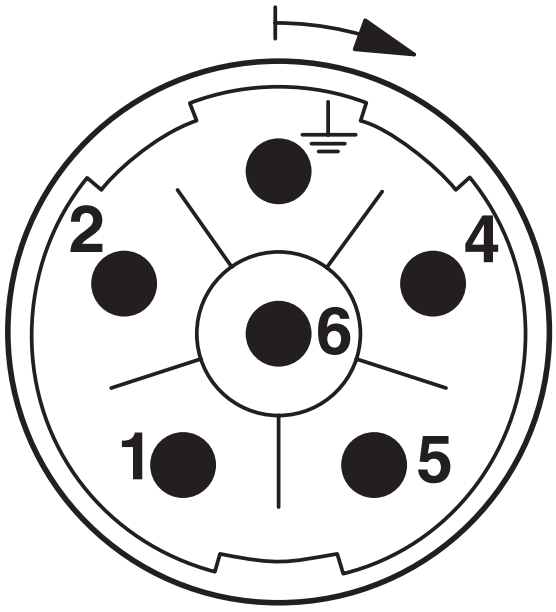
## Drawings

Dimensional drawing



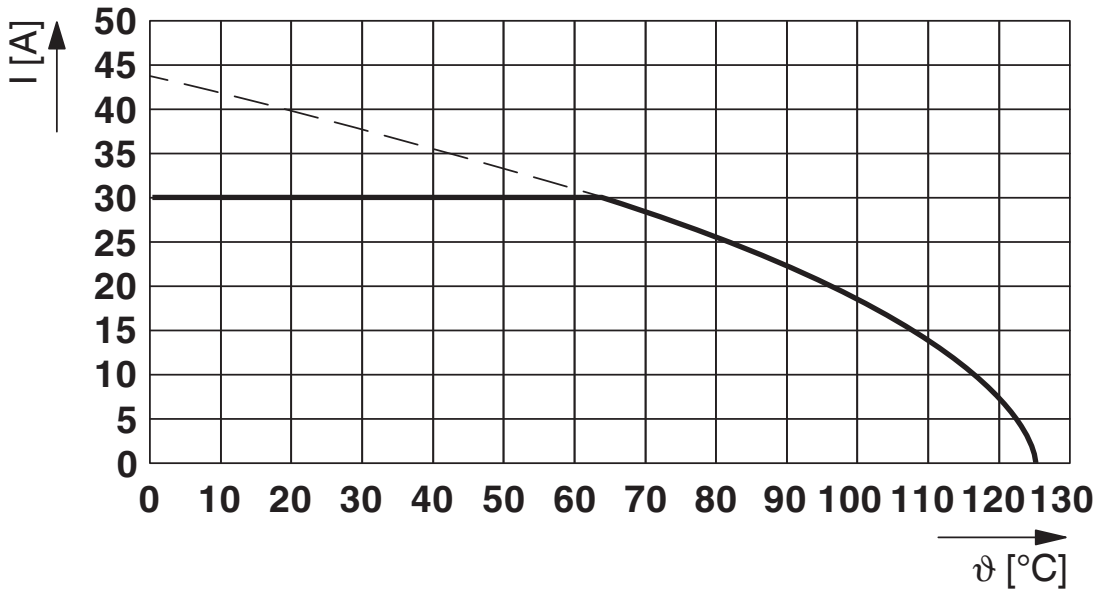

Dimensional drawing

Schematic diagram




Connector pin assignment

Diagram


I [A]
50
45
40
35
30
25
20
15
10
5
0
0 10 20 30 40 50 60 70 80 90 100 110 120 130
ϑ [°C]

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1605496

**cUL Recognized**
Approval ID: E153698-20041116

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 18 A | 12 | - |

**UL Recognized**
Approval ID: E153698-20041116

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 27 A | 12 | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440116 |
| ECLASS-15.0 | 27440116 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002635 |

### UNSPSC

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

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 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 | f00bdf8b-1400-4d65-865b-98438e74985e |


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