# SM-5EPWN8AWT00 - Device connector front mounting

1613517

https://www.phoenixcontact.com/us/products/1613517

PHŒNIX CONTACT

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Device connector front mounting, straight, for standard and SPEEDCON interlock, M40, number of positions: 2+3+PE, contact connection type: Pin, Axial O-ring, 4x Ø4,2, shielded: yes, flange dimensions: 40 mm x 40 mm, degree of protection: IP67, number of positions: 6, connection method: Crimp connection, series: SM, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1242759

## Your advantages

- Consistent EMC protection for reliable connection solutions in the industrial environment
- Crimping connection: vibration- and temperature-resistant assembly

## Commercial data

| Item number | 1613517 |
|---|---|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | AB32 |
| Product key | ABRBGL |
| Catalog page | Page 166 (C-2-2019) |
| GTIN | 4046356364829 |
| Weight per piece (including packing) | 194 g |
| Weight per piece (excluding packing) | 116.45 g |
| Customs tariff number | 85366990 |
| Country of origin | DE |

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## Technical data

### Notes

| | |
|---|---|
| Order information: | Order crimp contacts 2 x Ø 2 mm, 4 x Ø 3.6 mm separately |

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. |
| | • 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). |
|---|---|

## Mounting

| | |
|---|---|
| Mounting type | Front mounting |
| Mounting | 4x Ø4,2 |

## Product properties

| | |
|---|---|
| Product type | Circular connectors (device side) |
| Series | SM |
| Application | Power |
| Number of positions | 6 |
| Connection profile | 2+3+PE |
| Shielded | yes |
| Coding | N |
| Thread type | M40 |

## Dimensions

### Housing

| | |
|---|---|
| Flange dimensions | 40 mm x 40 mm |

## Material specifications

| | |
|---|---|
| Seal material | FPM |
| Housing material | Metal |
| 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 |

## Electrical properties

### Contact

| | |
|---|---|
| Contact diameter | 3.6 mm |
| Max. current | 70 A |
| Nominal voltage $U_N$ | 630 V |
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated surge voltage | 6 kV |

### Contact

| | |
|---|---|
| Contact diameter | 2 mm |
| Max. current | 30 A |
| Nominal voltage $U_N$ | 250 V |
| Overvoltage category | III |
| Degree of pollution | 3 |
| Rated surge voltage | 4 kV |

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## Connection data

### Conductor connection

| | |
|---|---|
| Connection method | Crimp connection |
| Contact connection type | Pin |

## Connector

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

## Environmental and real-life conditions

### Ambient conditions

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

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## Drawings

Dimensional drawing

□40
□30
4xØ4,2

53,7
M40x1,5
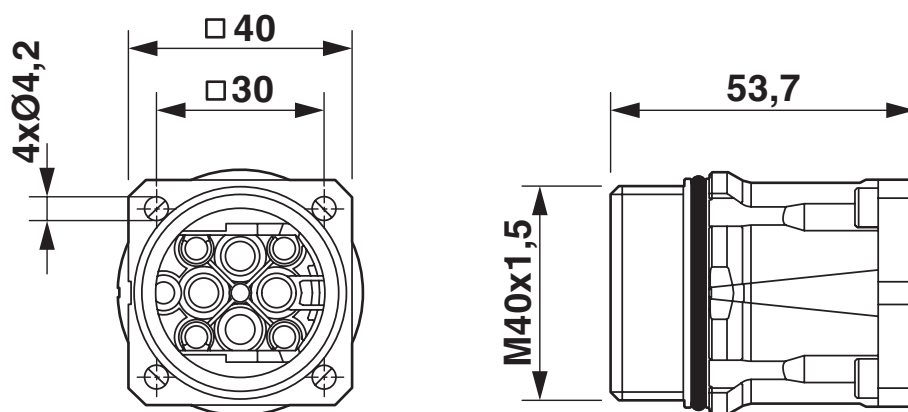
Dimensional drawing

### Diagram

I [A]

90
80
70
60
50
40
30
20
10
0

**①** = 3x16 + 4x1,5 mm²

0  10  20  30  40  50  60  70  80  90  100  110  120  130

ϑ [°C]
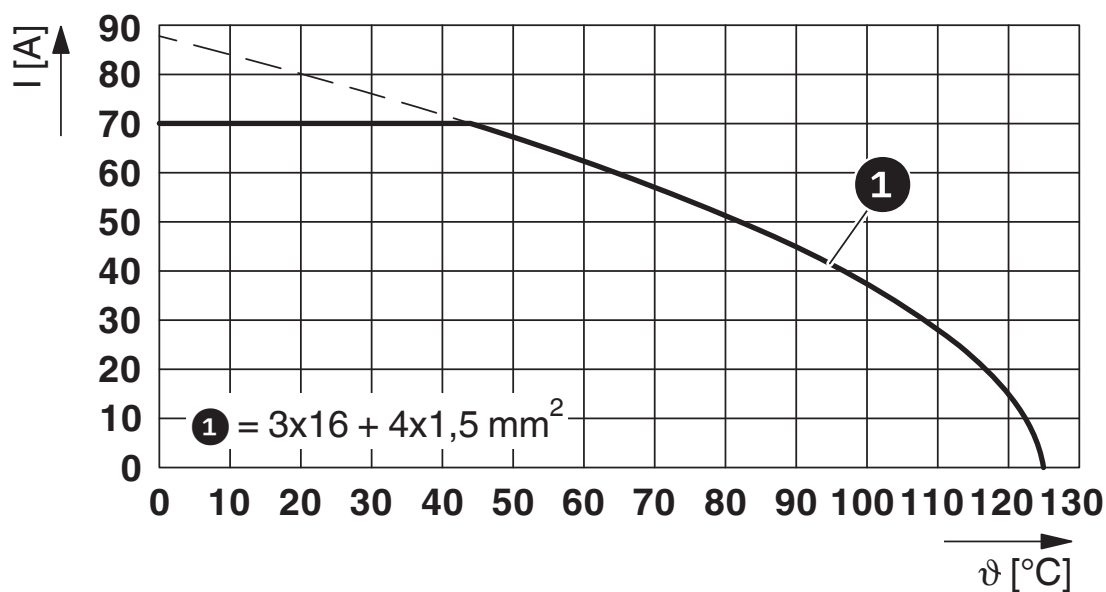
I = current strength, T = ambient temperature

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Schematic diagram
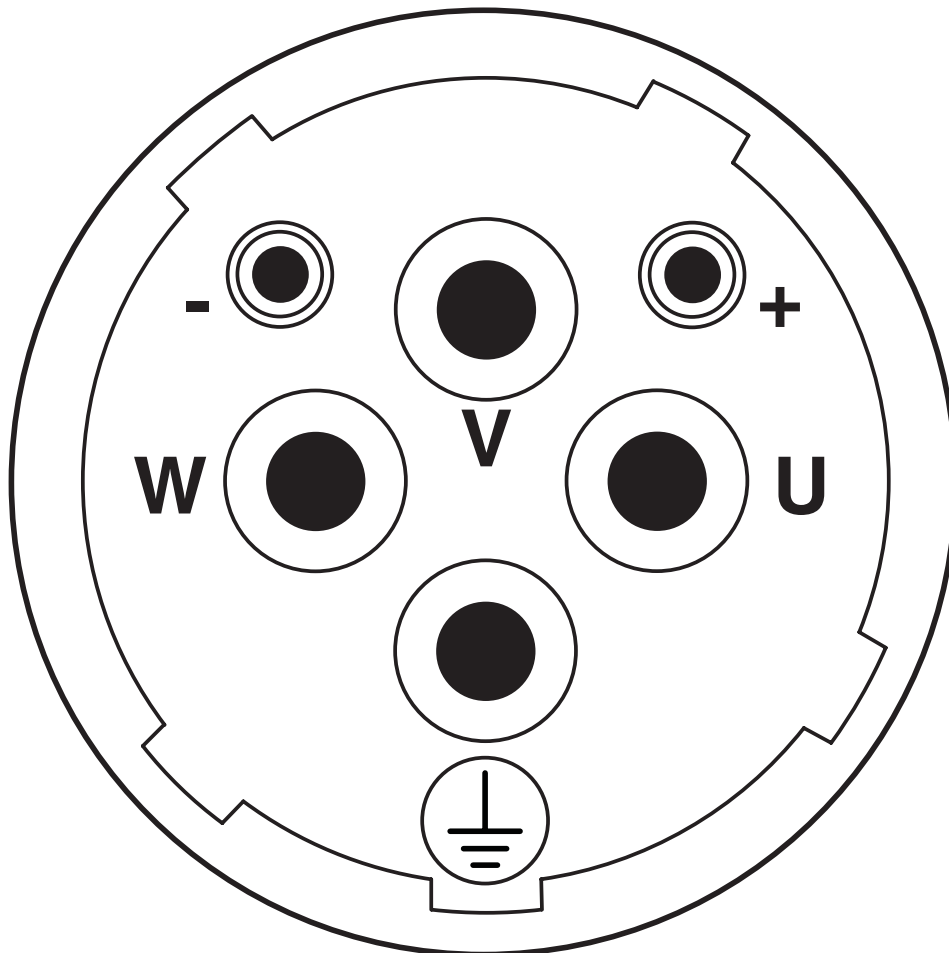


Connector pin assignment

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Dimensional drawing
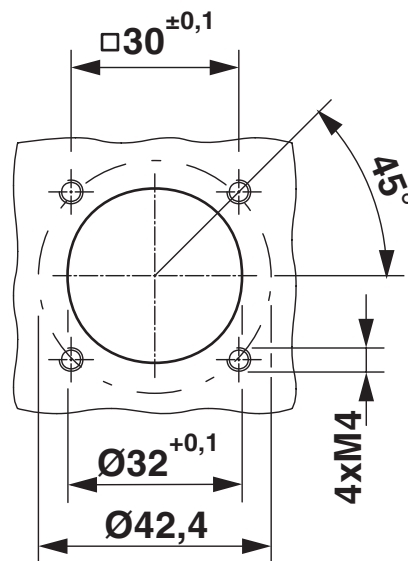


Installation dimensions

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## Approvals

💡 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1613517

### cUL Recognized
Approval ID: E153698-20150903

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| Power | 600 V | 40 A | - | - |
| Signal | 600 V | 20 A | - | - |

### UL Recognized
Approval ID: E153698-20150903

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| Power | 600 V | 65 A | - | - |
| Signal | 600 V | 30 A | - | - |

### cULus Recognized

# SM-5EPWN8AWT00 - Device connector front mounting

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## Classifications

### ECLASS

| ECLASS-11.0 | 27440102 |
|---|---|
| ECLASS-12.0 | 27440116 |
| ECLASS-13.0 | 27440116 |

### ETIM

| ETIM 9.0 | 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 | d79d30c8-dcc5-4e79-8a7b-fc7a2857731a |

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## Accessories

### SM-36KP001 - Crimp contact

1605743

https://www.phoenixcontact.com/us/products/1605743

Crimp contact, Pin, turned, Single contact, contact diameter: 3.6 mm, crimp range: 0.75 mm$^2$ ... 1.5 mm$^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1242233

### SM-36KP009 - Crimp contact

1607057

https://www.phoenixcontact.com/us/products/1607057

Crimp contact, Pin, turned, Single contact, contact diameter: 3.6 mm, crimp range: 1 mm$^2$ ... 2.5 mm$^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1242233

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1613517

https://www.phoenixcontact.com/us/products/1613517

## SM-36KP002 - Crimp contact

1605744

https://www.phoenixcontact.com/us/products/1605744

Crimp contact, turned, Single contact, contact diameter: 3.6 mm, crimp range: 1 $mm^2$ ... 2.5 $mm^2$

## SM-36KP003 - Crimp contact

1605745

https://www.phoenixcontact.com/us/products/1605745

Crimp contact, Pin, turned, Single contact, contact diameter: 3.6 mm, crimp range: 4 $mm^2$ ... 6 $mm^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241971

# SM-5EPWN8AWT00 - Device connector front mounting

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https://www.phoenixcontact.com/us/products/1613517

## SM-36KP004 - Crimp contact

1605747

https://www.phoenixcontact.com/us/products/1605747

Crimp contact, Pin, turned, Single contact, contact diameter: 3.6 mm, crimp range: 6 mm$^2$ ... 10 mm$^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241972

## SF-7RP2000 - Crimp contact

1605646

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

Crimp contact, Pin, turned, Single contact, contact diameter: 2 mm, crimp range: 0.14 mm$^2$ ... 0.25 mm$^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241951

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https://www.phoenixcontact.com/us/products/1613517

## SF-7PP2000 - Crimp contact

1605634

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

Crimp contact, Pin, turned, Single contact, contact diameter: 2 mm, crimp range: 0.25 mm$^2$ ... 1 mm$^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241951

## SF-20KP004 - Crimp contact

1607376

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

Crimp contact, Pin, turned, contact diameter: 2 mm, crimp range: 0.75 mm$^2$ ... 1.5 mm$^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241953

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## SF-7QP2000 - Crimp contact

1605639

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

Crimp contact, Pin, turned, Single contact, contact diameter: 2 mm, crimp range: 1 $mm^2$ ... 2.5 $mm^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241953

## SF-7MP2000 - Crimp contact

1605626

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

Crimp contact, Pin, turned, Single contact, contact diameter: 2 mm, crimp range: 4 $mm^2$ ... 4 $mm^2$, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1241948

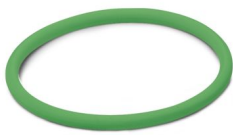# SM-5EPWN8AWT00 - Device connector front mounting

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https://www.phoenixcontact.com/us/products/1613517

## SM-Z0028 - Color coding

1620627

https://www.phoenixcontact.com/us/products/1620627

Color coding, color: green



## SM-Z0029 - Color coding

1620628

https://www.phoenixcontact.com/us/products/1620628

Color coding, color: orange

# SM-5EPWN8AWT00 - Device connector front mounting
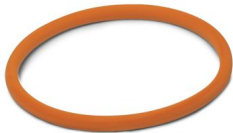
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https://www.phoenixcontact.com/us/products/1613517

## SM-Z0030 - Color coding

1620629

https://www.phoenixcontact.com/us/products/1620629

Color coding, color: black

## SB-Z0001 - Metal protective cap

1623827

https://www.phoenixcontact.com/us/products/1623827

Metal protective cap, Screw locking mechanism, M40, degree of protection: IP67/68/69K, series: SM, SB, Alternative product in accordance with RoHS II without Exemption 6c (Pb < 0.1 %) item no.: 1244989

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## PROT-M40-PW-OT-IP20 - Plastic protective cap

1577212

https://www.phoenixcontact.com/us/products/1577212

Plastic protective cap, M40, degree of protection: IP20, series: SM,  SB

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