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Power connectors, 5-position, Plug straight M12, Coding: A, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg11, external cable diameter 8 mm ... 10 mm

#### Your advantages

- Safe use in the field, thanks to a high degree of protection
- Screw connection: proven connection technology for a large selection of different conductors



## **Key Commercial Data**

| Packing unit                         | 1 pc            |
|--------------------------------------|-----------------|
| GTIN                                 | 4 046356 694490 |
| GTIN                                 | 4046356694490   |
| Weight per Piece (excluding packing) | 20.000 g        |
| Custom tariff number                 | 85366990        |
| Country of origin                    | Germany         |

#### Technical data

#### **Dimensions**

| Diameter housing                        | 20 mm      |
|---|------------|
| Length                                  | 65.5 mm    |
| External cable diameter                 | 8 mm 10 mm |
| Stripping length of the sheath          | 20 mm      |
| Stripping length of the individual wire | 5 mm       |

### Ambient conditions



## Technical data

#### Ambient conditions

| Ambient temperature (operation) | -40 °C 85 °C (Plug / socket) |
|---------------------------------|------------------------------|
| Degree of protection            | IP67                         |

### General

| Assembly instructions       | The wires can be connected both with ferrules and without ferrules  |
|-----------------------------|---|
|                             | 0.2 Nm (Screw terminal blocks)  |
|                             | 0.4 Nm (Screw plug insert with sleeve housing as far it will go)  |
|                             | 1.5 Nm 2 Nm (Pressure screw with sleeve housing)  |
| Torque                      | 0.4 Nm (M12 knurl)  |
| Insertion/withdrawal cycles | ≥ 100   |
|                             | 16 18 (with ferrule)  |
| Conductor cross section AWG | 18 16 (without ferrule)   |
|                             | 0.75 mm <sup>2</sup> 1.5 mm <sup>2</sup> (solid)  |
|                             | 0.75 mm <sup>2</sup> 1.5 mm <sup>2</sup> (with ferrule)   |
| Conductor cross section     | 0.75 mm <sup>2</sup> 1.5 mm <sup>2</sup> (without ferrule)  |
| Connection method           | Screw connection  |
| Degree of pollution         | 3   |
| Overvoltage category        | II II   |
| Status display              | No  |
| Standards/regulations       | M12 connector IEC 61076-2-101   |
| Coding                      | A - standard  |
| Insulation resistance       | > 10 GΩ   |
| Color handle area           | black   |
| Number of positions         | 5   |
|                             | 60 V DC   |
| Rated voltage               | 48 V AC   |
|                             | when using 1.5 mm² conductors   |
| Rated current at 40°C       | 8 A (Contact 5: 2 A)  |
|                             | NOTE: Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties.   |
| Note                        | Strip 22 mm off the cable sheath, shorten conductor for the fifth position by 10 mm. Strip 7 mm off the conductor insulation, crimp the ferrule, then shorten this to 5 mm. Length of conductors with shortened ferrule: 20 mm. Connect conductors and tighten the mounting screws with 0.2 Nm. |

### Material

| Flammability rating according to UL 94 | V0   |
|--|------|
| Contact material                       | CuZn |



## Technical data

#### Material

| Contact surface material | Ni/Au                        |
|--------------------------|------------------------------|
| Contact carrier material | PA                           |
| Material of grip body    | PA                           |
| Material, knurls         | Zinc die-cast, nickel-plated |
| Sealing material         | NBR (Cable clamping)         |

## Standards and Regulations

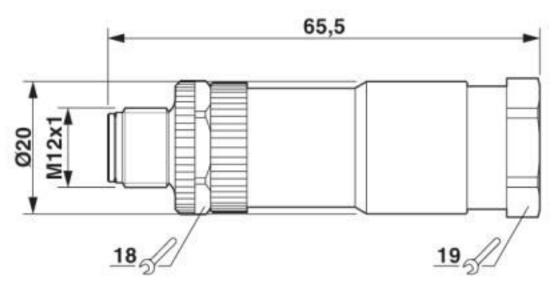
| Standards/specifications               | M12 connector IEC 61076-2-101 |
|--|-------------------------------|
| Flammability rating according to UL 94 | V0                            |

## **Environmental Product Compliance**

| REACh SVHC | Lead 7439-92-1  |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 years  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

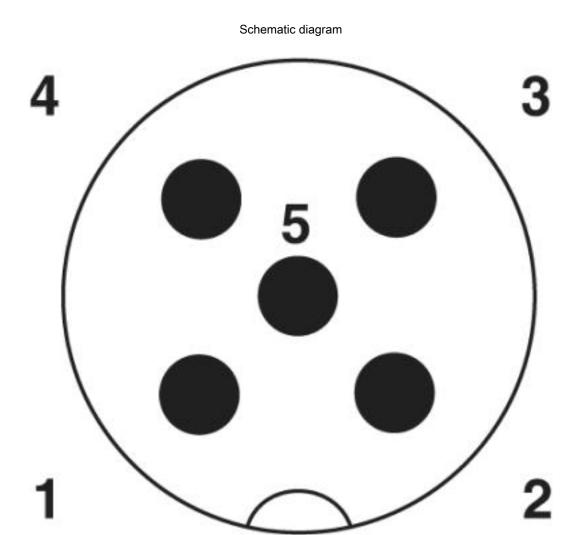
## **Drawings**

### Dimensional drawing



Plug, M12 x 1, straight





Pin assignment M12 male connector, 5-pos., A-coded, male side

## Classifications

## eCl@ss

| eCl@ss 10.0.1 | 27440102 |
|---------------|----------|
| eCl@ss 4.0    | 27140800 |
| eCl@ss 4.1    | 27140800 |
| eCl@ss 5.0    | 27143400 |
| eCl@ss 5.1    | 27143400 |
| eCl@ss 6.0    | 27279200 |
| eCl@ss 7.0    | 27440104 |



## Classifications

## eCl@ss

| eCl@ss 8.0 | 27440104 |
|------------|----------|
| eCl@ss 9.0 | 27440102 |

### **ETIM**

| ETIM 3.0 | EC002062 |
|----------|----------|
| ETIM 4.0 | EC002062 |
| ETIM 5.0 | EC002062 |
| ETIM 6.0 | EC002062 |

### **UNSPSC**

| UNSPSC 6.01   | 31251501 |
|---------------|----------|
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11     | 31251501 |
| UNSPSC 12.01  | 31251501 |
| UNSPSC 13.2   | 39121413 |
| UNSPSC 18.0   | 39121413 |
| UNSPSC 19.0   | 39121413 |
| UNSPSC 20.0   | 39121413 |
| UNSPSC 21.0   | 39121413 |

## Approvals

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UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

## Approval details

| UL Recognized      | <b>7/1</b> | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm |       | FILE E 221474 |
|--------------------|------------|---|-------|---------------|
|                    |            |   |       |               |
| Nominal voltage UN |            |   | 125 V |               |
| Nominal current IN |            |   | 4 A   |               |



## Approvals

| cUL Recognized     | <b>.71</b> 2 | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm |       | FILE E 221474 |
|--------------------|--------------|---|-------|---------------|
|                    |              |   |       |               |
| Nominal voltage UN |              |   | 125 V |               |
| Nominal current IN |              |   | 4 A   |               |

cULus Recognized CTUs

#### Accessories

Accessories

Cable end sleeve

Ferrule - A 1,5 - 7 - 3200263



Ferrule, length: 7 mm, color: silver

### Crimping tool

Crimping pliers - CRIMPFOX 6H - 1212046



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4,  $0.14 \text{ mm}^2$  ...  $6 \text{ mm}^2$ , unlockable pressure lock, lateral entry

#### Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs





#### Accessories

Screwdriver tools

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

#### Tool - SACC BIT M12-D20 - 1208445



Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive

#### Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size:  $0.6 \times 3.5 \times 100$  mm, 2-component grip, with non-slip grip

#### Stripping tool

#### Stripping tool - WIREFOX 6SC - 1212158



Stripping tool, for cables and conductors (especially for cables protected against short circuits and ground leakages) 1.5 - 6 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

#### Torque tool



### Accessories

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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