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Connector, Universal, 12-position, shielded, Plug straight M12, A-coded, Solder connection, Knurl material: Zinc die-cast, nickel-plated, Cable gland Pg9, External cable diameter 6 mm ... 8 mm

#### Why buy this product

- Safe use in the field, thanks to a high degree of protection
- Save space with high-pos. connectors
- Reliable signal transmission 360° shielding in environments with electromagnetic interference



# **Key Commercial Data**

| Packing unit                         | 1 STK           |
|--------------------------------------|-----------------|
| GTIN                                 | 4 046356 693837 |
| GTIN                                 | 4046356693837   |
| Weight per Piece (excluding packing) | 40.000 g        |
| Custom tariff number                 | 85366990        |
| Country of origin                    | Germany         |

### Technical data

#### **Dimensions**

| External cable diameter                 | 6 mm 8 mm |
|---|-----------|
| Stripping length of the sheath          | 35 mm     |
| Stripping length of the individual wire | 4 mm      |

#### Ambient conditions

| Ambient temperature (operation) | -40 °C 85 °C (Plug / socket) |
|---------------------------------|------------------------------|



# Technical data

#### Ambient conditions

| Amborit conditions          |                               |  |  |
|-----------------------------|-------------------------------|--|--|
| Degree of protection        | IP67                          |  |  |
| General                     |                               |  |  |
| Rated current at 40°C       | 1.5 A (up to 40 °C)           |  |  |
| Rated voltage               | 30 V                          |  |  |
| Number of positions         | 12                            |  |  |
| Insulation resistance       | > 10 GΩ                       |  |  |
| Coding                      | A - standard                  |  |  |
| Standards/regulations       | M12 connector IEC 61076-2-101 |  |  |
| Signal type/category        | Universal                     |  |  |
| Status display              | No                            |  |  |
| Overvoltage category        | II II                         |  |  |
| Degree of pollution         | 3                             |  |  |
| Connection method           | Solder connection             |  |  |
| Conductor cross section     | 0.08 mm² 0.25 mm²             |  |  |
| Conductor cross section AWG | 28 24                         |  |  |
| Insertion/withdrawal cycles | ≥ 100                         |  |  |
| Torque                      | 0.4 Nm (M12 knurl)            |  |  |
|                             | 0.8 Nm 1 Nm (Pressure screw)  |  |  |

## Material

Tightening torque

| Flammability rating according to UL 94 | НВ                           |
|--|------------------------------|
| Contact material                       | CuZn                         |
| Contact surface material               | Au                           |
| Contact carrier material               | PA                           |
| Material of grip body                  | Zinc die-cast, nickel-plated |
| Material, knurls                       | Zinc die-cast, nickel-plated |

Screw plug insert with sleeve housing as far it will go

#### Cable

| Standards/specifications | M12 connector IEC 61076-2-101 |
|--------------------------|-------------------------------|

# Standards and Regulations

| Standard designation                   | M12 connector   |
|--|-----------------|
| Standards/regulations                  | IEC 61076-2-101 |
| Flammability rating according to UL 94 | НВ              |

### **Environmental Product Compliance**

| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|------------|---|



# Technical data

**Environmental Product Compliance** 

No hazardous substances above threshold values

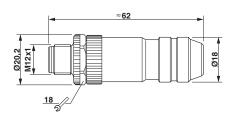
# Drawings

#### Schematic diagram



Pin assignment of M12 male connector, 12-pos., A-coded, view of pin side

#### Dimensional drawing

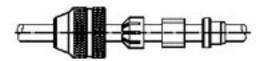


Plug, M12 x 1, straight, shielded

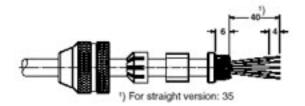


Functional drawing

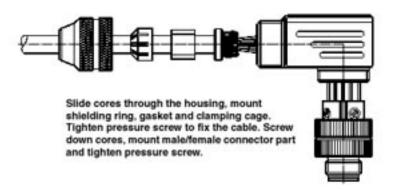
# Assembly steps for M 12 male/female connector and conductor



Slide parts onto the conductor



Strip conductor, widen shield and lay around the shielding ring, cut off projecting mesh.



### Classifications

### eCl@ss

| eCl@ss 4.0 | 27140815 |
|------------|----------|
| eCl@ss 4.1 | 27140815 |
| eCl@ss 5.0 | 27143423 |
| eCl@ss 5.1 | 27143423 |
| eCl@ss 6.0 | 27279221 |
| eCl@ss 7.0 | 27440104 |
| eCl@ss 8.0 | 27440104 |



# Classifications

| -01 | <b>-</b> - |
|-----|------------|
| eUI | @ss        |

| eCl@ss  |                        |              |                     |
|---|------------------------|--------------|---------------------|
| 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                                       |                        | 30211824     |                     |
| UNSPSC 7.0901                                     |                        | 39121413     |                     |
| UNSPSC 11   |                        | 39121413     |                     |
| UNSPSC 12.01                                      |                        | 39121413     |                     |
| UNSPSC 13.2                                       |                        | 39121413     |                     |
| Approvals  Approvals  EAC / EAC / UL Recognized / | cUL Recognized / cULus | s Recognized |                     |
| Ex Approvals  Approval details                    |                        |              |                     |
| EAC   | EAC                    |              | 7500651.22.01.00246 |
| EAC   | EAC                    |              | EAC-Zulassung       |



# Approvals

| UL Recognized      | <i>9</i> 1 | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm |      | FILE E 221474 |
|--------------------|------------|---|------|---------------|
|                    |            |   |      |               |
| Nominal current IN |            |   | 1 A  |               |
| Nominal voltage UN |            |   | 30 V |               |

| cUL Recognized     | <b>.51</b> | http://database.ul.co | m/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 221474 |
|--------------------|------------|-----------------------|--|---------------|
|                    |            |                       |  |               |
| Nominal current IN |            |                       | 1 A  |               |
| Nominal voltage UN |            |                       | 30 V   |               |

|  | cULus Recognized | c <b>511</b> us | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm |
|--|------------------|-----------------|---|
|--|------------------|-----------------|---|

### Accessories

Accessories

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 sockets



#### Screwdriver tools

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



### Accessories

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

### Torque tool

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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