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Sensor/actuator connector, Universal, 5-position, halogen-free, shielded, Socket straight M12 SPEEDCON, A-coded, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

#### Your advantages

- Safe use in the field, thanks to a high degree of protection
- Flexible: connectors for on-site assembly
- Insulation displacement connection: innovative and time-saving assembly without stripping the single wire
- Reliable signal transmission 360° shielding in environments with electromagnetic interference



## Key Commercial Data

| Packing unit                         | 1 pc            |  |
|--------------------------------------|-----------------|--|
| GTIN                                 | 4 055626 013183 |  |
| GTIN                                 | 4055626013183   |  |
| Weight per Piece (excluding packing) | 45.600 g        |  |
| Custom tariff number                 | 85366990        |  |
| Country of origin                    | Germany         |  |

### Technical data

#### Dimensions

| Wrench size, union nut         | 15 mm       |
|--------------------------------|-------------|
| Diameter housing               | 19 mm       |
| Length                         | 57 mm       |
| External cable diameter        | 5 mm 9.7 mm |
| Stripping length of the sheath | ≥ 80 mm     |

#### Ambient conditions

| Ambient temperature (operation) | -40 °C 85 °C (Plug / socket) |  |
|---------------------------------|------------------------------|--|
| Ambient temperature (assembly)  | -5 °C 50 °C                  |  |
| Degree of protection            | IP65                         |  |



## Technical data

### Ambient conditions

|   | IP67   |  |  |
|---|--|--|--|
| General   |  |  |  |
| Rated current at 40°C   | 4 A  |  |  |
| Rated voltage   | 48 V AC  |  |  |
|   | 60 V DC  |  |  |
| Number of positions   | 5  |  |  |
| Insulation resistance   | $\geq$ 100 MΩ  |  |  |
| Coding  | A - standard   |  |  |
| Standards/regulations   | M12 connector according to IEC 61076-2-101   |  |  |
|   | Shock, vibration EN 50155:2001   |  |  |
| Signal type/category  | Universal  |  |  |
| Status display  | No   |  |  |
| Overvoltage category  | 11   |  |  |
| Degree of pollution   | 3  |  |  |
| Connection method   | Insulation displacement connection   |  |  |
| Conductor cross section   | 0.14 mm <sup>2</sup> 0.75 mm <sup>2</sup> (flexible)<br>0.14 mm <sup>2</sup> 0.5 mm <sup>2</sup> (solid) |  |  |
|   |  |  |  |
| Conductor cross section AWG   | 26 18 (flexible)   |  |  |
|   | 26 20 (solid)  |  |  |
| Wire diameter including insulation  | 0.75 mm 2 mm   |  |  |
| Frequency of connections between conductors of the same cross section       | 10   |  |  |
| Wire insulation material  | PVC / PE / PP / rubber   |  |  |
| Structure of individual litz in acc. with VDE 0295 / smallest wire diameter | er Class 2-6   |  |  |
| Insertion/withdrawal cycles   | ≥ 100  |  |  |
| Torque  | M12 knurl  |  |  |
|   | 5 Nm (Pressure nut)  |  |  |
| Assembly instructions   | If the conductor is to be reconnected, it must be cut off above the last contact point.                  |  |  |

#### Material

| Flammability rating according to UL 94 | V0  |  |
|--|---|--|
| Contact material                       | CuSn  |  |
| Contact surface material               | Ni/Au   |  |
| Contact carrier material               | PA 6.6  |  |
| Material of grip body                  | Zinc die-cast, nickel-plated  |  |
| Material, knurls                       | Zinc die-cast, nickel-plated  |  |
| Sealing material                       | NBR   |  |
| Standards/regulations                  | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24 and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |  |

Standards and Regulations



## Technical data

### Standards and Regulations

| tandard designation M12 connector      |                              |  |
|--|------------------------------|--|
| Standards/regulations                  | according to IEC 61076-2-101 |  |
| Standard designation Shock, vibration  |                              |  |
| Standards/regulations                  | EN 50155:2001                |  |
| Flammability rating according to UL 94 | VO                           |  |

#### **Environmental Product Compliance**

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

## Drawings

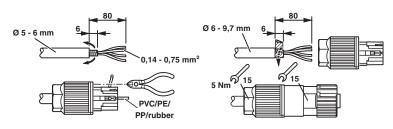
#### Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

M12 x 1 socket, straight, shielded

#### Functional drawing



## Classifications

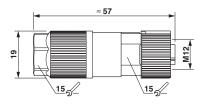
#### eCl@ss

| eCl@ss 5.1 | 27143400 |
|------------|----------|
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27440104 |
| eCl@ss 8.0 | 27440104 |
| eCl@ss 9.0 | 27440102 |

## ETIM

| ETIM 5.0 | EC002635 |
|----------|----------|
| ETIM 6.0 | EC002635 |

#### Dimensional drawing





### Approvals

#### Approvals

| Approvals        |     |               |
|------------------|-----|---------------|
| EAC              |     |               |
| Ex Approvals     |     |               |
| Approval details |     |               |
| EAC              | EAC | EAC-Zulassung |

Accessories

#### Accessories

**Electronics pliers** 

Diagonal cutter - MICROFOX-SB - 1212489



Electronic diagonal cutter, round head, without chamfer, with opening spring, mirror-polished and oiled, 2-component grip, cutting capacity: soft 0.2 - 2.0 mm; medium hard 1.2 mm; hard 0.5 mm diameter

Protective cap

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap 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

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### 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

#### Stripping tool

Stripping tool - WIREFOX-D 40 - 1212161



Stripping tool, for stripping cables of 4.5 mm - 40 mm-Ø, insulation thickness of up to 4.5 mm, pivoting blade for round, lengthwise, and spiral cuts

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

Shielding foil - VS-08-RJ45-FOLIEN-SET - 1417184

Shielding foil set, 25 pieces, replacement for RJ45 and M12 Quickon connector



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Stripping tool, for the multi-level stripping of shielded cables

### Accessories

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407



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