

1201657

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Connector, Universal, 5-position, shielded, Plug straight M12, coding: B, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

## Your advantages

- Easy and tool-free connection by means of Push-in Technology
- · Conveniently connect stranded conductors, thanks to lever
- · Reliable and quick connection of electric cables
- · Flexible signal and data cabling
- · Quick and easy installation with Push-in connection technology

### Commercial data

| Item number                          | 1201657                        |
|--------------------------------------|--------------------------------|
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 100 pc                         |
| Note                                 | Made to order (non-returnable) |
| Product key                          | BF2CFA                         |
| GTIN                                 | 4063151266837                  |
| Weight per piece (including packing) | 37.1 g                         |
| Weight per piece (excluding packing) | 36.9 g                         |
| Country of origin                    | DE                             |



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## Technical data

### Notes

| General               | 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. |
|-----------------------|---|
| Trade restriction     |   |
| CE note               | The products are offered exclusively for export outside the EU and the European Economic Area.  |
| Mounting              |   |
| Assembly instructions | The wires can be connected both with ferrules and without ferrules  |

# Product properties

| Habitanal |
|-----------|
| Universal |
| 5         |
| 1         |
| yes       |
| В         |
| straight  |
| )<br>E    |

#### Insulation characteristics

| inculation characteristics |    |
|----------------------------|----|
| Overvoltage category       | II |
| Degree of pollution        | 3  |

## **Dimensions**

| Dimensional drawing     | ca. 61    |
|-------------------------|-----------|
| Length                  | 60 mm     |
| External dimensions     |           |
| Outside diameter        | 4 mm 8 mm |
| Housing                 |           |
| Diameter housing        | 19 mm     |
| Naterial specifications |           |

### M

| Material | TPE-U |
|----------|-------|
|          | PA 6  |



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| Flammability rating according to UL 94 | V0  |
|--|---|
| Seal material                          | NBR   |
| Material of grip body                  | Zinc die-cast, nickel-plated  |
| Contact material                       | CuSn  |
| Contact surface material               | Ni/Au   |
| Contact carrier material               | PA 6.6  |
| Material for screw connection          | Zinc die-cast, nickel-plated  |
| Standards/regulations                  | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, R25, and R26 acc. to DIN EN 45545-2 (Risk level HL1-HL3) |
|  | PA 6: Fire protection in rail vehicles - requirement sets R22, R23 and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)            |

#### Connection data

#### Conductor connection

| Connection method                       | Push-in connection  |
|---|---|
| Connection cross section                | 0.14 mm <sup>2</sup> 0.75 mm <sup>2</sup> (without ferrule) |
|   | 0.08 mm <sup>2</sup> 0.5 mm <sup>2</sup> (with ferrule)     |
|   | 0.14 mm <sup>2</sup> 0.75 mm <sup>2</sup> (solid)           |
| Connection cross section AWG            | 26 18 (without ferrule)                                     |
|   | 28 20 (with ferrule)  |
| Stripping length of the individual wire | 7 mm  |
| Tightening torque                       | 0.4 Nm (M12 knurl)  |
|   | 0.8 Nm (Connector with coupling sleeve)                     |
|   | 3 Nm (Pressure nut with coupling sleeve)                    |

## Electrical properties

| Rated surge voltage            | 1.5 kV                                   |
|--------------------------------|--|
| Contact resistance             | ≤ 8 mΩ                                   |
| Insulation resistance          | ≥ 100 MΩ                                 |
| Nominal voltage $U_N$          | 48 V AC                                  |
|                                | 60 V DC                                  |
| Nominal current I <sub>N</sub> | 4 A (2 A when using 0.14 mm² conductors) |

## Mechanical properties

#### Mechanical data

| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|-------|
| •                           |       |

#### Connector

#### Connection 1

| Head design       | Plug     |
|-------------------|----------|
| Head cable outlet | straight |
| Head thread type  | M12      |
| Coding            | В        |



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## Cable/line

| Signal type/category                    | Universal |
|---|-----------|
| Stripping length of the individual wire | 7 mm      |

## Environmental and real-life conditions

### Ambient conditions

| Degree of protection            | IP65                         |
|---------------------------------|------------------------------|
|                                 | IP67                         |
| Ambient temperature (operation) | -40 °C 85 °C (Plug / socket) |

## Standards and regulations

#### Testing

| Standards/regulations | PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, R25, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |
|-----------------------|---|
|                       | PA 6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)             |

#### M12

| Standard designation     | M12 connector    |
|--------------------------|------------------|
| Standards/specifications | IEC 61076-2-101  |
| Standard designation     | Shock, vibration |
| Standards/specifications | EN 50155:2001    |



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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 |  |  |

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