

1407531

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Network cable, PROFINET CAT5 (100 Mbps), EtherCAT® CAT5 (100 Mbps), 4-position, PVC/PVC, green RAL 6018, shielded (Aluminum-coated foil, tinned copper braided shield), free cable end, on Socket straight M12, coding: D / IP67, cable length: 10 m

## Commercial data

Item number	1407531
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	BF1CJN
Catalog page	Page 198 (C-6-2019)
GTIN	4046356778367
Weight per piece (including packing)	673.8 g
Weight per piece (excluding packing)	670 g
Customs tariff number	85444210
Country of origin	PL



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## Technical data

#### Notes

General	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 10.1 Cord Sets for Balanced Cabling
General	Further products with variable cable type and variable cable length can be found in the accessories section

## Product properties

Product type	Data cable preassembled
Sensor type	PROFINET
Number of positions	4
Application	Standard
No. of cable outlets	1
Shielded	yes
Coding	D

#### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

#### Interfaces

Bus system	PROFINET
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
	EtherCAT® CAT5 (IEC 11801), 100 Mbps

## Signaling

Status display	No
Status display present	No

## Electrical properties

Nominal voltage $U_N$	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	4 A
Transmission medium	Copper
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

## Material specifications

Flammability rating according to UL 94	V0

### Connector

#### Connection 1



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#### Connection 2

Туре	Socket straight M12 / IP67
Number of positions	4
Coding type	D (Data)
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
	FKM (Seal)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Tightening torque	0.4 Nm
Degree of protection	IP67
Ambient temperature (operation)	-25 °C 90 °C

### Cable/line

Cable length	10 m
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### PROFINET PVC stranded CAT5 [93B]

Dimensional drawing



Cable weight	67 kg/km
UL AWM Style	21694
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]
Conductor structure	1x4xAWG22/7, SF/TQ
Signal runtime	5.3 ns/m
Signal speed	0.66 c
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm²
Wire diameter incl. insulation	1.55 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018



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Thickness, outer sheath         approx. 0.90 mm           Overall twist         Star quad           Optical shield covering         85 %           Insulation resistance         ≥ 500 MΩ*km           Coupling resistance         ≤ 120.00 mΩ/m (at 10 MHz)           Uoor presistance         ≤ 120.00 Ω/km           Wave impedance         100 Ω ± 15 Ω (at 100 MHz)           Nominal voltage, cable         600 V           Test voltage Core/Core         2000 v (50 Hz, 1 min.)           Test voltage Core/Shield         2000.00 v (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Smallest bending radius, fixed installation         20 mm           Smallest bending radius, movable installation         20 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           76 dB (at 4 MHz)         70 dB (at 10 MHz)           65 dB (at 16 MHz)         65 dB (at 62.5 MHz)           50 dB (at 100 MHz)         4 dB (at 16 MHz)           51 dB (at 10 MHz)         4 dB (at 16 MHz)           61 dB (at 16 MHz)         14 dB (at 10 MHz)           61 dB (at 10 MHz)         14 dB (at 10 MHz)           61 dB (at 10 MHz)         14 dB (at 10 MHz)           61 dB (at 10 MHz)         14 dB (at 10 MHz)	Conductor material	Tin-plated Cu litz wires
Thickness, outer sheath         approx. 0.90 mm           Overall twist         Star quad           Optical shield covering         85 %           Insulation resistance         ≥ 500 MΩ*km           Coupling resistance         ≤ 120.00 mΩ/m (at 10 MHz)           Uoor presistance         ≤ 120.00 Ω/km           Wave impedance         100 Ω ± 15 Ω (at 100 MHz)           Nominal voltage, cable         600 V           Test voltage Core/Core         2000 v (50 Hz, 1 min.)           Test voltage Core/Shield         2000.00 v (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Smallest bending radius, fixed installation         20 mm           Smallest bending radius, movable installation         20 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           76 dB (at 4 MHz)         70 dB (at 10 MHz)           65 dB (at 16 MHz)         65 dB (at 62.5 MHz)           50 dB (at 100 MHz)         4 dB (at 16 MHz)           51 dB (at 10 MHz)         4 dB (at 16 MHz)           61 dB (at 16 MHz)         14 dB (at 10 MHz)           61 dB (at 10 MHz)         14 dB (at 10 MHz)           61 dB (at 10 MHz)         14 dB (at 10 MHz)           61 dB (at 10 MHz)         14 dB (at 10 MHz)	Material wire insulation	PE
Overall twist         Star quad           Optical shield covering         85 %           Insulation resistance         ≥ 500 MΩ*km           Coupling resistance         ≤ 120.00 πΩ/km           Uoop resistance         ≤ 120.00 Ω/km           Wave impedance         100 Ω ± 15 Ω (at 100 MHz)           Nominal voltage, cable         600 ∨           Test voltage Core/Core         2000 0 V (50 Hz, 1 min.)           Test voltage Core/Shield         2000.00 V (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Minimum bending radius, fixed installation         20 mm           Smallest bending radius, fixed installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           76 dB (at 4 MHz)         70 dB (at 10 MHz)           65 dB (at 10 MHz)         65 dB (at 10 MHz)           65 dB (at 10 MHz)         55 dB (at 62.5 MHz)           5 dB (at 10 MHz)         4 dB (at 4 MHz)           6 dB (at 10 MHz)         4 dB (at 4 MHz)           6 dB (at 10 MHz)         4 dB (at 62.5 MHz)           11 dB (at 11 MHz)         4 dB (at 62.5 MHz)           12 dB (at 10 MHz)         4 dB (at 62.5 MHz)           13 dB (at 10 MHz)         4 dB (at 62.5 MHz)           14 dB (	Single wire, color	white, yellow, blue, orange
Optical shield covering         85 %           Insulation resistance         ≥ 500 MΩ*km           Coupling resistance         ≤ 20.00 mΩ/m (at 10 MHz)           Loop resistance         ≤ 120.00 Ω/km           Wave impedance         100 Ω ±15 Ω (at 100 MHz)           Nominal voltage, cable         600 V           Test voltage Core/Core         2000 00 V (50 Hz, 1 min.)           Test voltage Core/Shield         2000.00 V (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Minimum bending radius, fixed installation         7 x D           Smallest bending radius, fixed installation         20 mm           Smallest bending radius, fixed installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           70 dB (at 10 MHz)         63 dB (at 10 MHz)           63 dB (at 10 MHz)         63 dB (at 20 MHz)           60 dB (at 31.25 MHz)         63 dB (at 10 MHz)           Shield attenuation         21 dB (with 1 MHz)           4 dB (at 4 MHz)         63 dB (at 10 MHz)           9 dB (at 10 MHz)         63 dB (at 10 MHz)           14 dB (at 31.25 MHz)         63 dB (at 10 MHz)           9 dB (at 10 MHz)         63 dB (at 20 MHz)           14 dB (at 31.25 MHz)         63 dB (at 10 MHz	Thickness, outer sheath	approx. 0.90 mm
Soo MΩ'km	Overall twist	Star quad
Coupling resistance         ≤ 20.00 mΩ/m (at 10 MHz)           Loop resistance         ≤ 120.00 Ω/km           Wave impedance         100 Ω ±15 Ω (at 100 MHz)           Nominal voltage, cable         600 V           Test voltage Core/Core         2000 V (50 Hz, 1 min.)           Test voltage Core/Shield         2000,00 V (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Minimum bending radius, fixed installation         20 mm           Smallest bending radius, movable installation         20 mm           Smallest bending radius, movable installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           76 dB (at 1 MHz)         76 dB (at 10 MHz)           65 dB (at 120 MHz)         65 dB (at 120 MHz)           65 dB (at 100 MHz)         55 dB (at 62.5 MHz)           55 dB (at 62.5 MHz)         55 dB (at 62.5 MHz)           65 dB (at 100 MHz)         4 dB (at 4 MHz)           8 dB (at 100 MHz)         4 dB (at 4 MHz)           11.4 dB (at 31.25 MHz)         16.3 dB (at 100 MHz)           12.1 dB (with 1 MHz)         4 dB (at 4 MHz)           9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)           16.5 dB (at 62.5 MHz)         11.4 dB (at 31.25 MHz)           16.5 dB (at 62.5 MHz)	Optical shield covering	85 %
Loop resistance         ≤ 120.00 Ω/km           Wave impedance         100 Ω ±15 Ω (at 100 MHz)           Nominal voltage, cable         600 V           Test voltage Core/Core         2000 V (50 Hz, 1 min.)           Test voltage Core/Shield         2000.00 V (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Minimum bending radius, fixed installation         20 mm           Smallest bending radius, fixed installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           76 dB (at 4 MHz)         70 dB (at 10 MHz)           63 dB (at 20 MHz)         63 dB (at 20 MHz)           60 dB (at 31.25 MHz)         55 dB (at 62.5 MHz)           50 dB (at 100 MHz)         4 dB (at 4 MHz)           4 dB (at 4 MHz)         4 dB (at 4 MHz)           6.3 dB (at 10 MHz)         4 dB (at 16 MHz)           8 dB (at 16 MHz)         9 dB (at 20 MHz)           11.4 dB (at 31.25 MHz)         11.4 dB (at 31.25 MHz)           15.5 dB (at 62.5 MHz)         21.3 dB (at 10 MHz)           16.5 dB (at 62.5 MHz)         21.3 dB (at 10 MHz)           8 dB (at 16 MHz)         4 dB (at 16 MHz)           9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)           16.5 dB (at 62.5 MHz)         21.3 dB (at 10	Insulation resistance	≥ 500 MΩ*km
Wave impedance         100 Ω ±15 Ω (at 100 MHz)           Nominal voltage, cable         600 V           Test voltage Core/Core         2000 V (50 Hz, 1 min.)           Test voltage Core/Shield         2000.00 V (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Minimum bending radius, fixed installation         20 mm           Smallest bending radius, fixed installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           76 dB (at 4 MHz)         76 dB (at 4 MHz)           70 dB (at 10 MHz)         65 dB (at 20 MHz)           60 dB (at 31.25 MHz)         60 dB (at 31.25 MHz)           50 dB (at 40 MHz)         4 dB (at 4 MHz)           8 dB (at 10 MHz)         4 dB (at 4 MHz)           6 dB (at 16 MHz)         6 dB (at 10 MHz)           8 dB (at 10 MHz)         4 dB (at 4 MHz)           1 dB (with 1 MHz)         4 dB (at 4 MHz)           6 dB (at 16 MHz)         9 dB (at 20 MHz)           1 dB (at 10 MHz)         14 dB (at 31.25 MHz)           1 dB (at 10 MHz)         14 dB (at 31.25 MHz)           1 dB (at 10 MHz)         14 dB (at 31.25 MHz)           1 dB (at 10 MHz)         14 dB (at 31.25 MHz)           1 dB (at 10 MHz)         14 dB (at 31.25 MHz)	Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)
Nominal voltage, cable         600 V           Test voltage Core/Core         2000 V (50 Hz, 1 min.)           Test voltage Core/Shield         2000.00 V (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Minimum bending radius, fixed installation         20 mm           Smallest bending radius, fixed installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           76 dB (at 4 MHz)         70 dB (at 10 MHz)           65 dB (at 20 MHz)         63 dB (at 20 MHz)           60 dB (at 31.25 MHz)         55 dB (at 62.5 MHz)           50 dB (at 100 MHz)         4 dB (at 4 MHz)           Shield attenuation         2.1 dB (with 1 MHz)           4 dB (at 4 MHz)         6.3 dB (at 100 MHz)           Shield attenuation         4 dB (at 4 MHz)           6.3 dB (at 10 MHz)         4 dB (at 4 MHz)           6.3 dB (at 10 MHz)         4 dB (at 62.5 MHz)           1.1 dB (at 62.5 MHz)         2.1 dB (at 62.5 MHz)           1.2 dB (at 10 MHz)         8 dB (at 16 MHz)           9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)           1.3 dB (at 10 MHz)         4.5 dB (at 62.5 MHz)           1.3 dB (at 10 MHz)         4.5 dB (at 10 MHz)           1.4 dB (at 62.5 MHz)         4.5 dB (at 10 M	Loop resistance	≤ 120.00 Ω/km
Test voltage Core/Core         2000 V (50 Hz, 1 min.)           Test voltage Core/Shield         2000.00 V (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Minimum bending radius, fixed installation         7 x D           Smallest bending radius, movable installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           70 dB (at 10 MHz)         65 dB (at 6 MHz)           63 dB (at 20 MHz)         60 dB (at 31.25 MHz)           55 dB (at 62.5 MHz)         50 dB (at 100 MHz)           Shield attenuation         2.1 dB (with 1 MHz)           4 dB (at 4 MHz)         4 dB (at 4 MHz)           50 dB (at 100 MHz)         4 dB (at 16 MHz)           8 dB (at 16 MHz)         9 dB (at 20 MHz)           11.4 dB (at 31.25 MHz)         14 dB (at 62.5 MHz)           11.4 dB (at 31.25 MHz)         16.5 dB (at 62.5 MHz)           2 dB (at 100 MHz)         21.3 dB (at 100 MHz)           Flame resistance         according to UL 1685 (CSA FT 4)           Resistance to oil         Resistant to oil to a limited extent           Other resistance         UV resistant (According to UL 1581, Section 1200)           Ambient temperature (operation)         40 °C 70 °C (Cable, fixed installation)	Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Test voltage Core/Shield         2000.00 V (50 Hz, 1 min.)           Minimum bending radius, fixed installation         3 x D           Minimum bending radius, fixed installation         7 x D           Smallest bending radius, fixed installation         20 mm           Smallest bending radius, movable installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           70 dB (at 4 MHz)         70 dB (at 10 MHz)           65 dB (at 120 MHz)         63 dB (at 20 MHz)           60 dB (at 31.25 MHz)         55 dB (at 62.5 MHz)           50 dB (at 100 MHz)         4 dB (at 4 MHz)           51 dB (at 10 MHz)         4 dB (at 4 MHz)           62 dB (at 10 MHz)         4 dB (at 16 MHz)           9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)           16 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)           16 dB (at 10 MHz)         21 dB (at 10 MHz)           8 dB (at 10 MHz)         21 dB (at 20 MHz)           11.4 dB (at 31.25 MHz)         16.5 dB (at 62.5 MHz)           21.3 dB (at 10 MHz)         21.3 dB (at 100 MHz)           Flame resistance         according to UL 1685 (CSA FT 4)           Resistance to oil         Resistant to oil to a limited extent           Other resistance         UV resistant (According to UL 1581, Section 1200) <td>Nominal voltage, cable</td> <td>600 V</td>	Nominal voltage, cable	600 V
Minimum bending radius, fixed installation         3 x D           Smallest bending radius, fixed installation         20 mm           Smallest bending radius, fixed installation         46 mm           Near end crosstalk attenuation (NEXT)         80 dB (with 1 MHz)           76 dB (at 4 MHz)         70 dB (at 10 MHz)           65 dB (at 16 MHz)         63 dB (at 20 MHz)           60 dB (at 31.25 MHz)         55 dB (at 62.5 MHz)           50 dB (at 100 MHz)         4 dB (at 4 MHz)           51 dB (at 10 MHz)         4 dB (at 4 MHz)           63 dB (at 10 MHz)         4 dB (at 10 MHz)           8 dB (at 10 MHz)         4 dB (at 10 MHz)           9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)           11.4 dB (at 31.25 MHz)         11.4 dB (at 31.25 MHz)           16.5 dB (at 62.5 MHz)         21.3 dB (at 100 MHz)           Flame resistance         according to UL 1685 (CSA FT 4)           Resistance to oil         Resistant to oil to a limited extent           Other resistance         UV resistant (According to UL 1581, Section 1200)           Ambient temperature (operation)         40 °C 70 °C (cable, fixed installation)           40 °C 70 °C (Cable, fixelibe installation)	Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Minimum bending radius, flexible installation       7 x D         Smallest bending radius, fixed installation       46 mm         Near end crosstalk attenuation (NEXT)       80 dB (with 1 MHz)         76 dB (at 4 MHz)       70 dB (at 10 MHz)         65 dB (at 16 MHz)       63 dB (at 20 MHz)         60 dB (at 31.25 MHz)       55 dB (at 62.5 MHz)         55 dB (at 62.5 MHz)       50 dB (at 100 MHz)         Shield attenuation       2.1 dB (with 1 MHz)         4 dB (at 4 MHz)       6.3 dB (at 100 MHz)         8 dB (at 16 MHz)       9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)       11.4 dB (at 31.25 MHz)         16.5 dB (at 62.5 MHz)       21.3 dB (at 100 MHz)         Flame resistance       according to UL 1685 (CSA FT 4)         Resistance to oil       Resistant to oil to a limited extent         Other resistance       UV resistant (According to UL 1581, Section 1200)         Ambient temperature (operation)       40 °C 70 °C (Cable, fixed installation)         40 °C 70 °C (Cable, flexible installation)	Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, flexible installation       7 x D         Smallest bending radius, fixed installation       46 mm         Near end crosstalk attenuation (NEXT)       80 dB (with 1 MHz)         76 dB (at 4 MHz)       70 dB (at 10 MHz)         65 dB (at 16 MHz)       63 dB (at 20 MHz)         60 dB (at 31.25 MHz)       55 dB (at 62.5 MHz)         55 dB (at 62.5 MHz)       50 dB (at 100 MHz)         Shield attenuation       2.1 dB (with 1 MHz)         4 dB (at 4 MHz)       6.3 dB (at 100 MHz)         8 dB (at 16 MHz)       9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)       11.4 dB (at 31.25 MHz)         16.5 dB (at 62.5 MHz)       21.3 dB (at 100 MHz)         Flame resistance       according to UL 1685 (CSA FT 4)         Resistance to oil       Resistant to oil to a limited extent         Other resistance       UV resistant (According to UL 1581, Section 1200)         Ambient temperature (operation)       40 °C 70 °C (Cable, fixed installation)         40 °C 70 °C (Cable, flexible installation)	Minimum bending radius, fixed installation	
Smallest bending radius, movable installation       46 mm         Near end crosstalk attenuation (NEXT)       80 dB (with 1 MHz)         76 dB (at 4 MHz)       70 dB (at 10 MHz)         65 dB (at 16 MHz)       63 dB (at 20 MHz)         60 dB (at 31.25 MHz)       55 dB (at 62.5 MHz)         55 dB (at 100 MHz)       50 dB (at 100 MHz)         Shield attenuation       2.1 dB (with 1 MHz)         4 dB (at 4 MHz)       6.3 dB (at 10 MHz)         8 dB (at 16 MHz)       9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)       11.4 dB (at 31.25 MHz)         16.5 dB (at 62.5 MHz)       21.3 dB (at 100 MHz)         Flame resistance       according to UL 1685 (CSA FT 4)         Resistance to oil       Resistant to oil to a limited extent         Other resistance       UV resistant (According to UL 1581, Section 1200)         Ambient temperature (operation)       40 °C 70 °C (cable, fixed installation)         40 °C 70 °C (Cable, flexible installation)	Minimum bending radius, flexible installation	7 x D
Near end crosstalk attenuation (NEXT)   80 dB (with 1 MHz)     76 dB (at 4 MHz)     70 dB (at 10 MHz)     65 dB (at 16 MHz)     63 dB (at 20 MHz)     60 dB (at 31.25 MHz)     55 dB (at 62.5 MHz)     50 dB (at 100 MHz)     50 dB (at 100 MHz)     50 dB (at 4 MHz)     61 dB (at 4 MHz)     62 dB (at 4 MHz)     63 dB (at 16 MHz)     63 dB (at 10 MHz)     8 dB (at 16 MHz)     9 dB (at 20 MHz)     11.4 dB (at 31.25 MHz)     11.4 dB (at 31.25 MHz)     11.4 dB (at 31.25 MHz)     12.3 dB (at 100 MHz	Smallest bending radius, fixed installation	20 mm
76 dB (at 4 MHz)	Smallest bending radius, movable installation	46 mm
70 dB (at 10 MHz)		80 dB (with 1 MHz)
65 dB (at 16 MHz)		76 dB (at 4 MHz)
63 dB (at 20 MHz)		70 dB (at 10 MHz)
60 dB (at 31.25 MHz)     55 dB (at 62.5 MHz)     50 dB (at 100 MHz)     Shield attenuation   2.1 dB (with 1 MHz)     4 dB (at 4 MHz)     6.3 dB (at 10 MHz)     8 dB (at 10 MHz)     9 dB (at 20 MHz)     11.4 dB (at 31.25 MHz)     11.4 dB (at 31.25 MHz)     16.5 dB (at 62.5 MHz)     21.3 dB (at 100 MHz)     Flame resistance   according to UL 1685 (CSA FT 4)     Resistance to oil   Resistant to oil to a limited extent     Other resistance   UV resistant (According to UL 1581, Section 1200)     Ambient temperature (operation)   -40 °C 70 °C (cable, fixed installation)     -40 °C 70 °C (Cable, flexible installation)		65 dB (at 16 MHz)
55 dB (at 62.5 MHz)		63 dB (at 20 MHz)
Shield attenuation   2.1 dB (with 1 MHz)		60 dB (at 31.25 MHz)
Shield attenuation       2.1 dB (with 1 MHz)         4 dB (at 4 MHz)         6.3 dB (at 10 MHz)         8 dB (at 16 MHz)         9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)         16.5 dB (at 62.5 MHz)         21.3 dB (at 100 MHz)         Resistance to oil       Resistant to oil to a limited extent         Other resistance       UV resistant (According to UL 1581, Section 1200)         Ambient temperature (operation)       -40 °C 70 °C (cable, fixed installation)         -40 °C 70 °C (Cable, flexible installation)		55 dB (at 62.5 MHz)
4 dB (at 4 MHz)		50 dB (at 100 MHz)
6.3 dB (at 10 MHz)  8 dB (at 16 MHz)  9 dB (at 20 MHz)  11.4 dB (at 31.25 MHz)  16.5 dB (at 62.5 MHz)  21.3 dB (at 100 MHz)  Flame resistance according to UL 1685 (CSA FT 4)  Resistance to oil Resistant to oil to a limited extent  Other resistance UV resistant (According to UL 1581, Section 1200)  Ambient temperature (operation)  -40 °C 70 °C (Cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)	Shield attenuation	2.1 dB (with 1 MHz)
8 dB (at 16 MHz)         9 dB (at 20 MHz)         11.4 dB (at 31.25 MHz)         16.5 dB (at 62.5 MHz)         21.3 dB (at 100 MHz)         Flame resistance       according to UL 1685 (CSA FT 4)         Resistance to oil       Resistant to oil to a limited extent         Other resistance       UV resistant (According to UL 1581, Section 1200)         Ambient temperature (operation)       -40 °C 70 °C (Cable, fixed installation)         -40 °C 70 °C (Cable, flexible installation)		4 dB (at 4 MHz)
9 dB (at 20 MHz)  11.4 dB (at 31.25 MHz)  16.5 dB (at 62.5 MHz)  21.3 dB (at 100 MHz)  Flame resistance according to UL 1685 (CSA FT 4)  Resistance to oil Resistant to oil to a limited extent  Other resistance UV resistant (According to UL 1581, Section 1200)  Ambient temperature (operation)  -40 °C 70 °C (Cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)		6.3 dB (at 10 MHz)
11.4 dB (at 31.25 MHz)  16.5 dB (at 62.5 MHz)  21.3 dB (at 100 MHz)  Flame resistance according to UL 1685 (CSA FT 4)  Resistance to oil Resistant to oil to a limited extent  UV resistant (According to UL 1581, Section 1200)  Ambient temperature (operation)  -40 °C 70 °C (Cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)		8 dB (at 16 MHz)
16.5 dB (at 62.5 MHz) 21.3 dB (at 100 MHz)  Flame resistance according to UL 1685 (CSA FT 4)  Resistance to oil Resistant to oil to a limited extent  Other resistance UV resistant (According to UL 1581, Section 1200)  Ambient temperature (operation)  -40 °C 70 °C (Cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)		9 dB (at 20 MHz)
21.3 dB (at 100 MHz)  Flame resistance according to UL 1685 (CSA FT 4)  Resistance to oil Resistant to oil to a limited extent  UV resistant (According to UL 1581, Section 1200)  Ambient temperature (operation)  -40 °C 70 °C (Cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)		11.4 dB (at 31.25 MHz)
Flame resistance according to UL 1685 (CSA FT 4)  Resistance to oil Resistant to oil to a limited extent  Other resistance UV resistant (According to UL 1581, Section 1200)  -40 °C 70 °C (Cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)		16.5 dB (at 62.5 MHz)
Resistance to oil  Other resistance  UV resistant (According to UL 1581, Section 1200)  -40 °C 70 °C (Cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)		21.3 dB (at 100 MHz)
Resistance to oil  Other resistance  UV resistant (According to UL 1581, Section 1200)  -40 °C 70 °C (Cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)	Flame resistance	
Ambient temperature (operation)  -40 °C 70 °C (cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)	Resistance to oil	
Ambient temperature (operation)  -40 °C 70 °C (cable, fixed installation)  -40 °C 70 °C (Cable, flexible installation)	Other resistance	UV resistant (According to UL 1581, Section 1200)
-40 °C 70 °C (Cable, flexible installation)	Ambient temperature (operation)	
	Ambient temperature (installation)	-20 °C 60 °C

#### Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP65
209.00 0. p. 0.00.00.	00



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	IP67				
Standards and regulations M12					
Standard designation	M12 connector				
Standards/specifications	IEC 61076-2-101				



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## Classifications

### **ECLASS**

	ECLASS-11.0	27060307			
	ECLASS-12.0	27060307			
	ECLASS-13.0	27060307			
ETIM					
	ETIM 9.0	EC001855			
UNSPSC					
	UNSPSC 21.0	26121600			



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## Environmental product compliance

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

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