

1414961

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Power cable, 6-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, coding: M, on free cable end, cable length: 10 m, for AC current up to 8 A/690 V

### Your advantages

- Easy and safe: 100 % electrically tested plug-in components
- · Protection against mismatching, thanks to special M-coding
- · Our standard: robust halogen-free PUR cable

#### Commercial data

Item number	1414961
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF05
Product key	BF1CGP
Catalog page	Page 298 (C-2-2019)
GTIN	4055626035888
Weight per piece (including packing)	1,420 g
Weight per piece (excluding packing)	1,363 g
Customs tariff number	85444290
Country of origin	PL



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### Technical data

### Product properties

Product type	Power cable	
Number of positions	6	
Application	Power supply	
No. of cable outlets	1	
Shielded	no	
Coding	M	
Insulation characteristics		
Overvoltage category	III	
Degree of pollution	3	

### Material specifications

Flammability rating according to UL 94	V0
Material of grip body	PP
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA
Material for screw connection	Zinc die-cast, nickel-plated

### Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	690 V AC
Nominal current I <sub>N</sub>	8 A
Protective circuit	unwired

#### Connector

#### Connection 1

Туре	Plug straight M12
Coding type	M (Power)

### Connection 2

T	уре	free cabl	e end

### Cable/line

Cable length	10 m	
PUR halogen-free black [PUR]		



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Cable weight         144 kg/km           UL AWM Style         20224 / 10492 (80°C/1000 V)           Number of positions         6           Shielded         no           Cable type         PUR halogen-free black [PUR]           Conductor cross section         6x 1.5 mm²           Wire diameter incl. insulation         2.35 mm ± 0.25 mm           External cable diameter         9.75 mm ± 0.25 mm           Outer sheath, material         PUR           External sheath, color         black-gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         20.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         \$ 15 0/m (at 20 °C)           Nominal voltage, cable         \$ 1 0000 V AC           Test voltage         \$ 10000 V AC           Minimum bending radius, fixed installation         \$ 5 x D           Minimum bending radius, fixed installation         49 mm           Smallest bending radius, fixed installation         49 mm           Max. bending radius, fixed installation         4000000           Ma	Dimensional drawing	
Number of positions         6           Shielded         no           Cable type         PUR halogen-free black [PUR]           Conductor cross section         6x 1.5 mm²           Wire diameter incl. insulation         2.35 mm ±0.05 mm           External cable diameter         9.75 mm ±0.25 mm           Outer sheath, material         PUR           External sheath, color         black-gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         ≥ 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ≥ 15 Ω/m (at 20 °C)           Nominal voltage, cable         ≤ 15 Ω/m (at 20 °C)           Test voltage         ≥ 10000 V AC           Test voltage         ≥ 10000 V AC (Spark test)           Minimum bending radius, fixed installation         5 x D           Minimum bending radius, fixed installation         49 mm           Smallest bending radius, fixed installation         49 mm           Max. bending cycles         4000000           Halogen-free         in accordance with DIN VDE 0472 part 815	Cable weight	144 kg/km
Shielded         no           Cable type         PUR halogen-free black [PUR]           Conductor cross section         6x 1.5 mm²           Wire diameter incl. insulation         2.35 mm ±0.05 mm           External cable diameter         9.75 mm ±0.25 mm           Outer sheath, material         PUR           External sheath, color         black-gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         ± 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ± 15 G/m (at 20 °C)           Insulation resistance         ± 16 G/*km (at 20 °C)           Nominal voltage, cable         ± 10000 V AC           Test voltage         ± 10000 V AC           Minimum bending radius, fixed installation         ± 5 x D           Minimum bending radius, fixed installation         ± 0 x D           Smallest bending radius, fixed installation         ± 0 x D           Max. bending cycles         400000           Halogen-free         in accordance with DIN VDE 0472 part 815           Flame resistance         4 coording to UL 758/1581 (C	UL AWM Style	20234 / 10492 (80°C/1000 V)
Cable type         PUR halogen-free black [PUR]           Conductor cross section         6x 1.5 mm²           Wire diameter incl. insulation         2.35 mm ± 0.05 mm           External cable diameter         9.75 mm ± 0.25 mm           Outer sheath, material         PUR           External sheath, color         black-gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         2 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ≤ 15 Ω/m (at 20 °C)           Insulation resistance         ≤ 15 Ω/m (at 20 °C)           Insulation resistance         ≤ 1000 V AC           Nominal voltage, cable         ≤ 10000 V AC (Spark test)           Test voltage         ≥ 10000 V AC (Spark test)           Minimum bending radius, fixed installation         10 x D           Smallest bending radius, fixed installation         40 mm           Max. bending cycles         4000000           Halogen-free         accordance with DIN VDE 0472 part 815           Flame resistance         according to UI. 758/1581 FT1         According to UI. 758/1581 FT1	Number of positions	6
Conductor cross section         6x 1.5 mm²           Wire diameter incl. insulation         2.35 mm ±0.05 mm           External cable diameter         9.75 mm ±0.25 mm           Outer sheath, material         PUR           External sheath, color         black gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         ≥ 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ≥ 1 5Ω/m (at 20 °C)           Nominal voltage, cable         ≥ 1000 V AC           Test voltage         ≥ 10000 V AC           Nominal voltage, cable         ≥ 10000 V AC           Test voltage         ≥ 10000 V AC           Minimum bending radius, fixed installation         5 x D           Minimum bending radius, fixed installation         49 mm           Smallest bending radius, fixed installation         49 mm           Smallest bending radius, movable installation         49 mm           Max. bending cycles         in accordance with DIN VDE 0472 part 815           Hance resistance         According to UL 758/1581 (Cable Flame)           according to	Shielded	no
Wire diameter incl. insulation         2.35 mm ±0.05 mm           External cable diameter         9.75 mm ±0.25 mm           Outer sheath, material         PUR           External sheath, color         black-gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         ≥ 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ≥ 1 GΩ*km (at 20 °C)           Insulation resistance         ≥ 1 GΩ*km (at 20 °C)           Nominal voltage, cable         ≥ 10000 V AC (Spark test)           Minimum bending radius, fixed installation         5 x D           Minimum bending radius, fixed installation         10 x D           Smallest bending radius, fixed installation         98 mm           Max. bending cycles         4000000           Max. bending radius, movable installation         98 mm           Max. bending radius, movable installation         90 mm           Max. bending radius, movable installation         90 mm           Max. bending radius, movable installation         90 mm           Macording to UL 758/1581 (Cable Flame)         according to UL 758/1581	Cable type	PUR halogen-free black [PUR]
External cable diameter         9.75 mm ±0.25 mm           Outer sheath, material         PUR           External sheath, color         black-gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         ≥ 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ≤ 15 Ω/m (at 20 °C)           Insulation resistance         ≤ 1 6Ω°km (at 20 °C)           Nominal voltage, cable         ≤ 1000 V AC           Test voltage         ≥ 10000 V AC (Spark test)           Minimum bending radius, fixed installation         5 × D           Minimum bending radius, fixed installation         49 mm           Smallest bending radius, movable installation         49 mm           Max. bending cycles         4000000           Halogen-free         in accordance with DIN VDE 0472 part 815           fin accordance with DIN EN 50267-2-1         conding to UL 758/1581 [Cable Flame)           according to DIN EN 60332-1-2         according to DIN EN 60332-1-2           Resistance to oil         down adhesion           Other resistance         Hydrolysis and microbe resistant as per	Conductor cross section	6x 1.5 mm²
Outer sheath, material         PUR           External sheath, color         black-gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         ≥ 0.36 mm           Max. conductor resistance         ≤ 15 Ω/m (at 20 °C)           Insulation resistance         ≥ 1 GΩ*km (at 20 °C)           Nominal voltage, cable         ≤ 1000 V AC           Test voltage         ≥ 10000 V AC (Spark test)           Minimum bending radius, fixed installation         5 × D           Minimum bending radius, fixed installation         49 mm           Smallest bending radius, movable installation         98 mm           Max. bending cycles         4000000           Halogen-free         in accordance with DIN VDE 0472 part 815           in accordance with DIN EN 50267-2-1         1           Fame resistance         According to UL 758/1581 (Cable Flame)           according to DIN EN 60332-1-2         according to DIN EN 60332-1-2           Resistance to oil         According to DIN EN 60332-1-2           Other resistance         Hydrolysis and microbe resistant as per VDE 0282 section 10           Low adhesion         abrasion-resis	Wire diameter incl. insulation	2.35 mm ±0.05 mm
External sheath, color         black-gray RAL 7021           Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         ≥ 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ≤ 15 Ωm (at 20 °C)           Insulation resistance         ≥ 1 GΩ°km (at 20 °C)           Nominal voltage, cable         ≤ 1000 V AC           Set voltage         ≥ 10000 V AC (Spark test)           Minimum bending radius, fixed installation         5 x D           Minimum bending radius, fixed installation         49 mm           Smallest bending radius, movable installation         98 mm           Max. bending cycles         4000000           Halogen-free         in accordance with DIN VDE 0472 part 815           Flame resistance         According to UL 758/1581 (Cable Flame)           According to UL 758/1581 (Cable Flame)           according to UN FN 60332-1-2           Resistance to oil         according to DIN EN 6031-1404, 168 h at 100 °C           Other resistance         Hydrolysis and microbe resistant as per VDE 0282 section 10 Low adhesion           abrasion-resistant         Resistant to salt water	External cable diameter	9.75 mm ±0.25 mm
Conductor material         Bare Cu litz wires           Material wire insulation         PP           Single wire, color         black 1, black 2, black 3, black 4, black 5, green/yellow           Thickness, insulation         ≥ 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ≤ 15 Ωm (at 20 °C)           Insulation resistance         ≥ 1 GΩ*km (at 20 °C)           Nominal voltage, cable         ≤ 10000 V AC           Test voltage         ≥ 10000 V AC (Spark test)           Minimum bending radius, fixed installation         5 x D           Minimum bending radius, fixed installation         49 mm           Smallest bending radius, fixed installation         98 mm           Max. bending cycles         4000000           Halogen-free         in accordance with DIN VDE 0472 part 815           Halogen-free         in accordance with DIN VDE 0472 part 815           Flame resistance         According to UL 758/1581 (Cable Flame)           According to UL 758/1581 FT1         According to DIN EN 60332-1-2           Resistance to oil         according to DIN EN 60811-404, 168 h at 100 °C           Other resistance         Hydrolysis and microbe resistant as per VDE 0282 section 10 Low adhesion           abrasion-resistant         Resistant to salt water <tr< td=""><td>Outer sheath, material</td><td>PUR</td></tr<>	Outer sheath, material	PUR
Material wire insulation       PP         Single wire, color       black 1, black 2, black 3, black 4, black 5, green/yellow         Thickness, insulation       ≥ 0.36 mm         Thickness, outer sheath       approx. 1.15 mm         Max. conductor resistance       ≤ 15 Ω/m (at 20 °C)         Insulation resistance       ≥ 1 GΩ*km (at 20 °C)         Nominal voltage, cable       ≤ 1000 V AC         Test voltage       ≥ 10000 V AC (Spark test)         Minimum bending radius, fixed installation       5 x D         Minimum bending radius, fixed installation       49 mm         Smallest bending radius, movable installation       98 mm         Max. bending cycles       4000000         Halogen-free       in accordance with DIN VDE 0472 part 815         In accordance with DIN EN 50267-2-1         Flame resistance       According to UL 758/1581 (Cable Flame)         according to UI 758/1581 FT1       According to DIN EN 60332-1-2         Resistance to oil       according to DIN EN 6031-404, 168 h at 100 °C         Other resistance       Hydrolysis and microbe resistant as per VDE 0282 section 10         Low adhesion       abrasion-resistant         Ambient temperature (operation)       -50 °C 80 °C (cable, fixed installation)	External sheath, color	black-gray RAL 7021
Single wire, color       black 1, black 2, black 3, black 4, black 5, green/yellow         Thickness, insulation       ≥ 0.36 mm         Thickness, outer sheath       approx. 1.15 mm         Max. conductor resistance       ≤ 15 Q/m (at 20 °C)         Insulation resistance       ≥ 1 GQ*km (at 20 °C)         Nominal voltage, cable       ≤ 1000 V AC         Test voltage       ≥ 10000 V AC (Spark test)         Minimum bending radius, fixed installation       5 x D         Minimum bending radius, fixed installation       49 mm         Smallest bending radius, fixed installation       98 mm         Max. bending cycles       4000000         Halogen-free       in accordance with DIN VDE 0472 part 815         In accordance with DIN EN 50267-2-1       According to UL 758/1581 (Cable Flame)         according to UL 758/1581 (Cable Flame)       according to DIN EN 60332-1-2         Resistance to oil       according to DIN EN 60811-404, 168 h at 100 °C         Other resistance       Hydrolysis and microbe resistant as per VDE 0282 section 10       Low adhesion         abrasion-resistant       Resistant to salt water         Ambient temperature (operation)       -50 °C 80 °C (cable, fixed installation)	Conductor material	Bare Cu litz wires
Thickness, insulation         ≥ 0.36 mm           Thickness, outer sheath         approx. 1.15 mm           Max. conductor resistance         ≤ 15 Ω/m (at 20 °C)           Insulation resistance         ≥ 1 GQ*km (at 20 °C)           Nominal voltage, cable         ≤ 1000 V AC           Test voltage         ≥ 10000 V AC (Spark test)           Minimum bending radius, fixed installation         5 x D           Minimum bending radius, fixed installation         49 mm           Smallest bending radius, fixed installation         98 mm           Max. bending cycles         4000000           Halogen-free         in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1           Flame resistance         According to UL 758/1581 (Cable Flame) according to UL 758/1581 FT1 According to DIN EN 60332-1-2           Resistance to oil         according to DIN EN 60811-404, 168 h at 100 °C           Other resistance         Hydrolysis and microbe resistant as per VDE 0282 section 10 Low adhesion abrasion-resistant           Ambient temperature (operation)         -50 °C 80 °C (cable, fixed installation)	Material wire insulation	PP
Thickness, outer sheath       approx. 1.15 mm         Max. conductor resistance       ≤ 15 Ω/m (at 20 °C)         Insulation resistance       ≥ 1 000 V AC         Nominal voltage, cable       ≤ 10000 V AC (Spark test)         Test voltage       ≥ 10000 V AC (Spark test)         Minimum bending radius, fixed installation       5 x D         Minimum bending radius, flexible installation       49 mm         Smallest bending radius, movable installation       98 mm         Max. bending cycles       4000000         Halogen-free       in accordance with DIN VDE 0472 part 815         in accordance with DIN EN 50267-2-1       County of UL 758/1581 (Cable Flame)         Easistance       According to UL 758/1581 FT1         According to DIN EN 60332-1-2       County of DIN EN 60811-404, 168 h at 100 °C         Other resistance       Hydrolysis and microbe resistant as per VDE 0282 section 10         Low adhesion       abrasion-resistant         Ambient temperature (operation)       -50 °C 80 °C (cable, fixed installation)	Single wire, color	black 1, black 2, black 3, black 4, black 5, green/yellow
Max. conductor resistance $\leq 15  \Omega/m$ (at 20 °C)Insulation resistance $\geq 1  G\Omega^*$ km (at 20 °C)Nominal voltage, cable $\leq 1000  V  AC$ Test voltage $\geq 10000  V  AC$ (Spark test)Minimum bending radius, fixed installation $5  x  D$ Minimum bending radius, flexible installation $10  x  D$ Smallest bending radius, fixed installation $49  mm$ Smallest bending radius, movable installation $98  mm$ Max. bending cycles $4000000$ Halogen-freein accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1Flame resistanceAccording to UL 758/1581 (Cable Flame) according to UL 758/1581 FT1 According to DIN EN 6032-1-2Resistance to oilaccording to DIN EN 60811-404, 168 h at 100 °COther resistanceHydrolysis and microbe resistant as per VDE 0282 section 10 Low adhesion abrasion-resistant Resistant to salt waterAmbient temperature (operation) $-50  ^{\circ}  C  80  ^{\circ}  C$ (cable, fixed installation)	Thickness, insulation	≥ 0.36 mm
Insulation resistance       ≥ 1 GΩ*km (at 20 °C)         Nominal voltage, cable       ≤ 10000 V AC         Test voltage       ≥ 10000 V AC (Spark test)         Minimum bending radius, fixed installation       5 x D         Minimum bending radius, flexible installation       10 x D         Smallest bending radius, movable installation       49 mm         Smallest bending radius, movable installation       98 mm         Max. bending cycles       4000000         Halogen-free       in accordance with DIN VDE 0472 part 815         in accordance with DIN EN 50267-2-1         Flame resistance       According to UL 758/1581 (Cable Flame)         according to DIN EN 60332-1-2         Resistance to oil       according to DIN EN 60811-404, 168 h at 100 °C         Other resistance       Hydrolysis and microbe resistant as per VDE 0282 section 10         Low adhesion       abrasion-resistant         Ambient temperature (operation)       -50 °C 80 °C (cable, fixed installation)	Thickness, outer sheath	approx. 1.15 mm
Nominal voltage, cable       ≤ 1000 V AC         Test voltage       ≥ 10000 V AC (Spark test)         Minimum bending radius, fixed installation       5 x D         Minimum bending radius, flexible installation       10 x D         Smallest bending radius, fixed installation       49 mm         Smallest bending radius, movable installation       98 mm         Max. bending cycles       4000000         Halogen-free       in accordance with DIN VDE 0472 part 815         in accordance with DIN EN 50267-2-1       4000000         Flame resistance       According to UL 758/1581 (Cable Flame)         according to UL 758/1581 FT1       According to DIN EN 60332-1-2         Resistance to oil       according to DIN EN 60811-404, 168 h at 100 °C         Other resistance       Hydrolysis and microbe resistant as per VDE 0282 section 10         Low adhesion       abrasion-resistant         Resistant to salt water         Ambient temperature (operation)       -50 °C 80 °C (cable, fixed installation)	Max. conductor resistance	≤ 15 Ω/m (at 20 °C)
Test voltage ≥ 10000 V AC (Spark test)  Minimum bending radius, fixed installation 5 x D  Minimum bending radius, fixed installation 10 x D  Smallest bending radius, fixed installation 49 mm  Smallest bending radius, movable installation 98 mm  Max. bending cycles 4000000  Halogen-free in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1  Flame resistance According to UL 758/1581 (Cable Flame) according to UL 758/1581 FT1  According to DIN EN 60332-1-2  Resistance to oil accordance to DIN EN 60811-404, 168 h at 100 °C  Other resistance Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion abrasion-resistant  Resistant to salt water  Ambient temperature (operation) 5 °C (cable, fixed installation)	Insulation resistance	≥ 1 GΩ*km (at 20 °C)
Minimum bending radius, fixed installation5 x DMinimum bending radius, flexible installation10 x DSmallest bending radius, fixed installation49 mmSmallest bending radius, movable installation98 mmMax. bending cycles4000000Halogen-freein accordance with DIN VDE 0472 part 815in accordance with DIN EN 50267-2-1Flame resistanceAccording to UL 758/1581 (Cable Flame)according to UL 758/1581 FT1According to DIN EN 60332-1-2Resistance to oilaccording to DIN EN 60811-404, 168 h at 100 °COther resistanceHydrolysis and microbe resistant as per VDE 0282 section 10Low adhesionabrasion-resistantabrasion-resistant to salt waterAmbient temperature (operation)-50 °C 80 °C (cable, fixed installation)	Nominal voltage, cable	≤ 1000 V AC
Minimum bending radius, flexible installation10 x DSmallest bending radius, fixed installation49 mmSmallest bending radius, movable installation98 mmMax. bending cycles4000000Halogen-freein accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1Flame resistanceAccording to UL 758/1581 (Cable Flame) according to UL 758/1581 FT1 According to DIN EN 60332-1-2Resistance to oilaccording to DIN EN 60811-404, 168 h at 100 °COther resistanceHydrolysis and microbe resistant as per VDE 0282 section 10 Low adhesion abrasion-resistant Resistant to salt waterAmbient temperature (operation)-50 °C 80 °C (cable, fixed installation)	Test voltage	≥ 10000 V AC (Spark test)
Smallest bending radius, fixed installation49 mmSmallest bending radius, movable installation98 mmMax. bending cycles4000000Halogen-freein accordance with DIN VDE 0472 part 815Flame resistanceAccording to UL 758/1581 (Cable Flame)according to UL 758/1581 FT1According to DIN EN 60332-1-2Resistance to oilaccording to DIN EN 60811-404, 168 h at 100 °COther resistanceHydrolysis and microbe resistant as per VDE 0282 section 10Low adhesionabrasion-resistantabrasion-resistantResistant to salt waterAmbient temperature (operation)-50 °C 80 °C (cable, fixed installation)	Minimum bending radius, fixed installation	5 x D
Smallest bending radius, movable installation98 mmMax. bending cycles4000000Halogen-freein accordance with DIN VDE 0472 part 815in accordance with DIN EN 50267-2-1Flame resistanceAccording to UL 758/1581 (Cable Flame)according to UL 758/1581 FT1According to DIN EN 60332-1-2Resistance to oilaccording to DIN EN 60811-404, 168 h at 100 °COther resistanceHydrolysis and microbe resistant as per VDE 0282 section 10Low adhesionabrasion-resistantabrasion-resistantResistant to salt waterAmbient temperature (operation)-50 °C 80 °C (cable, fixed installation)	Minimum bending radius, flexible installation	10 x D
Max. bending cycles  Halogen-free  in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1  Flame resistance  According to UL 758/1581 (Cable Flame) according to UL 758/1581 FT1 According to DIN EN 60332-1-2  Resistance to oil  Other resistance  Hydrolysis and microbe resistant as per VDE 0282 section 10 Low adhesion abrasion-resistant Resistant to salt water  Ambient temperature (operation)  4000000  in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1 According to UL 758/1581 (Cable Flame) according to DIN EN 60332-1-2  Hydrolysis and microbe resistant as per VDE 0282 section 10 Low adhesion abrasion-resistant Resistant to salt water	Smallest bending radius, fixed installation	49 mm
Halogen-free in accordance with DIN VDE 0472 part 815 in accordance with DIN EN 50267-2-1  Flame resistance According to UL 758/1581 (Cable Flame)	Smallest bending radius, movable installation	98 mm
in accordance with DIN EN 50267-2-1  Flame resistance  According to UL 758/1581 (Cable Flame)  according to UL 758/1581 FT1  According to DIN EN 60332-1-2  Resistance to oil  according to DIN EN 60811-404, 168 h at 100 °C  Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Resistant to salt water  Ambient temperature (operation)  in accordance with DIN EN 50267-2-1  According to UL 758/1581 FT1  According to DIN EN 60811-404, 168 h at 100 °C  Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Resistant to salt water	Max. bending cycles	400000
Flame resistance  According to UL 758/1581 (Cable Flame)  according to UL 758/1581 FT1  According to DIN EN 60332-1-2  Resistance to oil  Other resistance  Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Resistant to salt water  Ambient temperature (operation)  According to UL 758/1581 (Cable Flame)  according to UL 758/1581 (Flame)  according to DIN EN 60312-404, 168 h at 100 °C  Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  according to DIN EN 60811-404, 168 h at 100 °C  According to DIN EN 60811-404, 168 h at 100 °C  According to DIN EN 60811-404, 168 h at 100 °C  According to DIN EN 60811-404, 168 h at 100 °C  According to DIN EN 60811-404, 168 h at 100 °C  According to DIN EN 60811-404, 168 h at 100 °C  According to DIN EN 60811-404, 168 h at 100 °C  According to DIN EN 60811-404, 168 h at 100 °C  According to DIN EN 60811-404, 168 h at 10	Halogen-free	in accordance with DIN VDE 0472 part 815
according to UL 758/1581 FT1  According to DIN EN 60332-1-2  Resistance to oil according to DIN EN 60811-404, 168 h at 100 °C  Other resistance Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Resistant to salt water  Ambient temperature (operation) -50 °C 80 °C (cable, fixed installation)		in accordance with DIN EN 50267-2-1
According to DIN EN 60332-1-2  Resistance to oil according to DIN EN 60811-404, 168 h at 100 °C  Other resistance Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion abrasion-resistant  Resistant to salt water  Ambient temperature (operation) -50 °C 80 °C (cable, fixed installation)	Flame resistance	According to UL 758/1581 (Cable Flame)
Resistance to oil  Other resistance  Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Resistant to salt water  Ambient temperature (operation)  according to DIN EN 60811-404, 168 h at 100 °C  Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Resistant to salt water		according to UL 758/1581 FT1
Other resistance  Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion abrasion-resistant  Resistant to salt water  Ambient temperature (operation)  Hydrolysis and microbe resistant as per VDE 0282 section 10  Low adhesion abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Low adhesion  abrasion-resistant  Countries and microbe resistant as per VDE 0282 section 10  Admicrobe resistant as per VDE 0282 section 10  Low adhesion  Admicrobe resistant as per VDE 0282 section 10  Admicrobe re		According to DIN EN 60332-1-2
Low adhesion abrasion-resistant Resistant to salt water  Ambient temperature (operation)  -50 °C 80 °C (cable, fixed installation)	Resistance to oil	according to DIN EN 60811-404, 168 h at 100 °C
abrasion-resistant  Resistant to salt water  Ambient temperature (operation)  -50 °C 80 °C (cable, fixed installation)	Other resistance	Hydrolysis and microbe resistant as per VDE 0282 section 10
Resistant to salt water  -50 °C 80 °C (cable, fixed installation)		Low adhesion
Ambient temperature (operation) -50 °C 80 °C (cable, fixed installation)		abrasion-resistant
		Resistant to salt water
-30 °C 80 °C (Cable, flexible installation)	Ambient temperature (operation)	-50 °C 80 °C (cable, fixed installation)
		-30 °C 80 °C (Cable, flexible installation)



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### Environmental and real-life conditions

#### Ambient conditions

Degree of protection	IP65
	IP67 (without preloading, as additional test in accordance with IEC 60529)
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)

### Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-111



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### Classifications

### **ECLASS**

	ECLASS-11.0	27060311	
	ECLASS-12.0	27060311	
	ECLASS-13.0	27060327	
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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