

M12 female 90° A-cod. with cable shielded

PUR 4x0.34 shielded bk UL/CSA+drag ch. 20m

Female 90° M12, 4-pole shielded with cable sleeves

Plastic housings with good resistance against chemicals and oils.

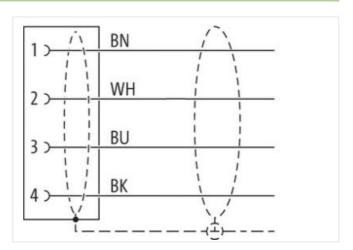
The resistance to aggressive media should be individually tested for your application. Further details on request.

Further cable lengths on request.

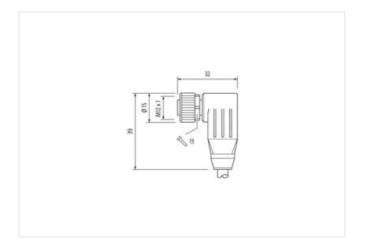
Link to Product

Illustration









Product may differ from Image













Cable length

20 m

Side 1

Tightening torque

0,6 Nm

The information in this Product-PDF has been compiled with the utmost care.

Liability for the correctness completeness and topicality of the information is restricted to gross negligence. Version: 2024-04-25



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Mounting method	inserted, screwed
Family construction form	M12
Thread	M12 x 1
Coding	A
Material	PUR
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP65, IP66K, IP67
Commercial data	
ECLASS-6.0	27279218
ECLASS-7.0	27279218
ECLASS-8.0	27279218
ECLASS-9.0	27060311
ECLASS-10.1	27060311
ECLASS-11.1	27060311
ECLASS-12.0	27060311
ETIM-5.0	EC001855
customs tariff number	85444290
GTIN	4048879508810
Packaging unit	1
Electrical data Supply	
	COV
Operating voltage AC max.	60 V
Operating voltage DC max.	60 V
Operating voltage AC (UL-listed)	30 V
Operating voltage DC (UL-listed)	30 V
Current operating per contact max.	4 A
Installation Connection	
Mounting set	M12 x 1
Device protection Electrical	
Additional condition protection degree	inserted, screwed
Pollution Degree	3
Rated surge voltage	1,5 kV
Material group (IEC 60664-1)	I
Mechanical data Material data	
Coating locking	Nickeled
Coating of fitting	nickel plated
Locking material	Zinc die-casting
Material screw connection	Zinc die-casting
Mechanical data Mounting data	
Mounting method	inserted, screwed, Shaking protection
Environmental characteristics Climatic	
Operating temperature min.	-25 °C
Operating temperature max.	85 °C
Additional condition temperature range	depending on cable quality
Conformity	
Product standard	DIN EN 61076-2-101 (M12)
Installation Cable	
Cable identification	641
Cable Type	3
Jacket Color	black
Type of Certificate	cURus
Amount stranding	1
,ount offarially	

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stay connected

No. of bending cycles (C-track) 5 Mio. @ 25 °C Cable weight 50,6 g/m Material jacket PUR Shore hardness jacket 90 ± 5 Shore A Freedom from ingredients (jacket) lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Quer-diameter (jacket) 5,3 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Outer diameter insulation 1,25 mm Outer diameter insulation 7 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 10 mm Conductor respective (increase) 0,1 mm Conductor crosssection (wire) 0,34 mm² Material conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN V	Stranding	4 wires twisted
Banding Fleece, Foll wire arrangement brown, black, blue, white brown, black, blue, white Son of bending cycles (C-track) 5 Mio & 25°C Cable weight 50.6 g/m Material jacket PUR Shore hardness jacket 90 ± 5 Shore A Froedom from Ingredients (jacket) 10 dead-free, cadmium-free, CFC-free, halogen-free, silicone-free Conducter (jacket) 1 ± 5 % Material wire insulation PP Amount wires 4 Course diameter insulation 1,25 mm Outer diameter insulation 70 ± 5 Shore D Outer diameter insulation 70 ± 5 Shore D Outer diameter insulation 1,25 mm Outer diameter follerance core insulation 1,25 mm Outer diame	Cable shielding (type)	copper braid, tinned
Banding Fleece, Foll wire arrangement brown, black, blue, white brown, black, blue, white Son of bending cycles (C-track) 5 Mio & 25°C Cable weight 50.6 g/m Material jacket PUR Shore hardness jacket 90 ± 5 Shore A Froedom from Ingredients (jacket) 10 dead-free, cadmium-free, CFC-free, halogen-free, silicone-free Conducter (jacket) 1 ± 5 % Material wire insulation PP Amount wires 4 Course diameter insulation 1,25 mm Outer diameter insulation 70 ± 5 Shore D Outer diameter insulation 70 ± 5 Shore D Outer diameter insulation 1,25 mm Outer diameter follerance core insulation 1,25 mm Outer diame	Cable shielding (coverage)	80 %
No. of bending cycles (C-track) 5 Mio. @ 25 °C Cable weight 50,6 g/m Material jacket PUR Shore hardness jacket 90 ± 5 Shore A Freedom from ingredients (jacket) lead-free, cadmisum-free, CFC-free, halogen-free, silicone-free Under-diameter (jacket) 5.3 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Outer diameter tolerance core insulation 1,25 mm Outer diameter tolerance core insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5		Fleece, Foil
Cable weigth 50.6 g/m Material jacket PUR Shore hardness jacket 90 ± 5 Shore A Freedom from ingredients (jacket) lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Outer-diameter (jacket) 5.3 mm Toflerance outer diameter (sheath) ± 5 % Matorial wire insulation PP Amount wires 4 Outer diameter Insulation 1,25 mm Impredient freeness wire insulation 1,25 mm Outer diameter insulation 1,25 mm Outer diameter (she liver insulation) 1,25 mm Outer diameter (she liver insula	wire arrangement	brown, black, blue, white
Material Jacket PUR Shore hardness Jacket 90 ± 5 Shore A Freedom from Ingriedinst (jacket) 5.3 mm Tolerance outer diameter (jacket) 5.3 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Outer diameter insulation 1.25 mm Outer diameter tolerance core insulation 1.25 mm Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor vive 0,1 mm Conductor vive (wire) 3.4 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25°C (I horizontal) Current load capacity (standard) to DIN VDE 0298 4 Current load capacity (wire wire) 4,8 A Electrical resistance line constant wire 57 Dixm @ 20 °C Nominal voltage power (wire - shield) 2 k	No. of bending cycles (C-track)	5 Mio. @ 25 °C
Shore hardness jackel 90 ± 5 Shore A Freedom from ingredients (jacket) fead-free, cadmium-free, CFC-free, halogen-free, silicone-free Outer-diameter (jacket) 5,3 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Outer diameter Insulation 1,25 mm Outer diameter Insulation 1,25 mm Outer diameter Insulation 1,25 mm Outer diameter Insulation 70 ± 5 Shore D Ingredient freeness wire insulation 1,25 mm Nome hardness wire insulation 42 Diameter of Isingle wires 0,1 mm Old meter of Isingle wires 0,1 mm Ornductor Ornductor (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (G-track) 5 m @ 25 °C Indizontal Current load capacity (standard) to DIN VDE 0238-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 0 km @ 20 °C Nominal voltage power (wire - shield)	Cable weigth	50,6 g/m
Freedom from ingredients (jacket) lead-free, cadmium-free, CFC-free, halogen-free, sillcone-free Outer-diameter (jacket) 5,3 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Outer diameter lolerance core insulation 1,25 mm Outer diameter beforeance core insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 14 € Amount strands (wire) 42 Diameter of single wires 0.1 mm Conductor crossection (wire) 0.34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity standard to DIN VDE (298-4) Current load capacity standard to DIN VDE (298-4) Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/m @ 20 °C Nominal voltage power (wire - shield) 2 kV @ 60 s Withstand voltage power (wire - shield) 2 kV @ 60 s <td>Material jacket</td> <td>PUR</td>	Material jacket	PUR
Outer-diameter (jacket) 5,3 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Outer diameter Insulation 1,25 mm Outer diameter Insulation ± 5 % Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor rossesction (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) 10 DIN VDE 0298-4 Current load capacity (standard) 10 DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 7 Okm @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shiet) 2 kV @ 60 s Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s	Shore hardness jacket	90 ± 5 Shore A
Tolerance outer diameter (sheath)	Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Material wire insulation PP Amount wires 4 Outer dameter insulation 1,25 mm Outer dameter tolerance core insulation ± 5 % Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor (wire) 0.34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity (standard) to DIN VDE 0298-4 Electrical resistance line constant wire 57 Ωkm @ 20 °C Nominal voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - shield) 2 kV @ 60 s Min. operating temperature (fixed) 2 kV @ 60 s Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature (mixed) 80 °C / 90 °C @ 10000 h Operation UV resistance	Outer-diameter (jacket)	5,3 mm
Amount wires 4 Outer diameter insulation 1,25 mm Outer diameter tolerance core insulation ± 5 % Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor osssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 098-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) -40 °C Max. operating temperature (static) -40 °C Max. operating temperature (static) -80 °C / 90 °C @ 10000 h Operation UV resistance	Tolerance outer diameter (sheath)	± 5 %
Outer diameter insulation 1,25 mm Outer diameter tolerance core insulation ± 5 % Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor oxssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) stranded copper wire, bare Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 5 n Ø 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV Ø 60 s Power frequency withstand voltage power (wire - wire) 2 kV Ø 60 s Min. operating temperature (static) 40 °C Max. operating temperature (static) 40 °C Operating temperature mix. (dynamic) 25 °C Operating temperature mix. (dynamic) 80 °C / 90 °C @ 10000 h Operation	Material wire insulation	PP
Outer diameter tolerance core insulation ± 5 % Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor vire (conductor wire) Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity (standard) to DIN VDE 0298-4 Current load capacity (wire) 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - shield) 2 kV @ 60 s Min. operating temperature (static) -40 °C Max. operating temperature (static) -40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature max. (dynamic) 25 °C Operating temperature max. (dynamic) 80 °C / 90	Amount wires	4
Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - shield) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) -40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature max. (dynamic) 25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance IDIN EN ISO 4892	Outer diameter insulation	1,25 mm
Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor crossection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power KC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) -40 °C Max. operating temperature (static) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) 25 °C Operating temperature max. (dynamic) 10 °C ≥ 10000 h Operation UV resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance	Outer diameter tolerance core insulation	± 5 %
Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor crosssection (wire) 0,34 mm² Amount strands (wire) 0,34 mm² Amount conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4.8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - shield) 2 kV @ 60 s Fower frequency withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature max. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance EC 6003, 2-2 ·L UL 1581 § 100 FT2 chemical resistance Good, application-related testing Gasoline resistance DIN EN 160 od, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (fixed) 10 x Outer diameter No. of torsion cycles 2 Min.	Shore hardness wire insulation	70 ± 5 Shore D
Diameter of single wires 0,1 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Conductor type (wire) strand class 6 Current load capacity (standard) to DIN VDE 0298-4 Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - shield) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance Good, application-related testing Gasoline resistance DIN EN 6811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (fixed) 10 x Outer diameter No. of torsion cycles 2 Min. of torsion cycles 2 Min. of torsion cycles 2 Min.	Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Conductor crossection (wire) Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 \(\Omega \text{ Mo } \text{ 60 s} \text{ 80 s} \text{ 90 s} \tex	Amount strands (wire)	42
Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - shield) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Max. operating temperature (static) 40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 × Outer diameter Bending radius (dynamic) 10 × Outer diameter Bending radius (dynamic) 2 Mio.	Diameter of single wires	0,1 mm
Conductor type (wire) strand class 6 Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - shield) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) -40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter Bending radius (dynamic) 2 Min.	Conductor crosssection (wire)	0,34 mm ²
Traversing distance (C-track) 5 m @ 25 °C horizontal Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) -40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance Good, application-related testing Gasoline resistance Good, application-related testing Gasoline resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Material conductor wire	Stranded copper wire, bare
Current load capacity (standard) Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) 40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature max. (dynamic) UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 kV @ 60 s 2 kV @ 60 s 4 kV @	Conductor type (wire)	strand class 6
Current load capacity min. wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) -40 °C Min. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Traversing distance (C-track)	5 m @ 25 °C horizontal
Electrical resistance line constant wire 57 Ω/km @ 20 °C Nominal voltage power AC max. 300 V AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) -40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance DIN EN 60811-404 Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Current load capacity (standard)	to DIN VDE 0298-4
Nominal voltage power AC max. AC withstand voltage power (wire - shield) 2 kV @ 60 s Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) 40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 kV @ 60 s 4 kV @ 60 s 2 kV @ 60 s 4 kV @ 60 s 2 kV @ 60 s 4	Current load capacity min. wire	4,8 A
AC withstand voltage power (wire - shield) Power frequency withstand voltage power (wire - glacket) AC withstand voltage power (wire - wire) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Electrical resistance line constant wire	57 Ω/km @ 20 °C
Power frequency withstand voltage power (wire - wire) 2 kV @ 60 s AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) 40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Nominal voltage power AC max.	300 V
(wire - jacket) AC withstand voltage power (wire - wire) 2 kV @ 60 s Min. operating temperature (static) 40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	AC withstand voltage power (wire - shield)	2 kV @ 60 s
Min. operating temperature (static) Max. operating temperature (fixed) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Operating temperature max. (dynamic) UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Oil resistance DIN EN 60811-404 Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.		2 kV @ 60 s
Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	AC withstand voltage power (wire - wire)	2 kV @ 60 s
Operating temperature min. (dynamic) Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Min. operating temperature (static)	-40 °C
Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Max. operating temperature (fixed)	80 °C / 90 °C @ 10000 h Operation
UV resistance DIN EN ISO 4892-2 A Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Operating temperature min. (dynamic)	-25 °C
Flame resistance IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Operating temperature max. (dynamic)	80 °C / 90 °C @ 10000 h Operation
chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	UV resistance	DIN EN ISO 4892-2 A
Gasoline resistance Good, application-related testing Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Flame resistance	IEC 60332-2-2 UL 1581 § 1090 UL 1581 § 1100 FT2
Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	chemical resistance	Good, application-related testing
Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Gasoline resistance	Good, application-related testing
Bending radius (dynamic) 10 x Outer diameter No. of torsion cycles 2 Mio.	Oil resistance	DIN EN 60811-404 Good, application-related testing
No. of torsion cycles 2 Mio.	Bending radius (fixed)	5 x Outer diameter
	Bending radius (dynamic)	10 x Outer diameter
Torsion speed 35 cycles/min	No. of torsion cycles	2 Mio.
	Torsion speed	35 cycles/min
Torsion stress ± 30 °/m	Torsion stress	± 30 °/m