

MSUD double valve BI-11mm with cable

PUR 4x0.75 ye UL/CSA+drag ch. 3m

Form BI (11 mm) 24 V AC ±20% / DC ±25% LED and suppression Connection cable L = 100 mm Further cable lengths on request.

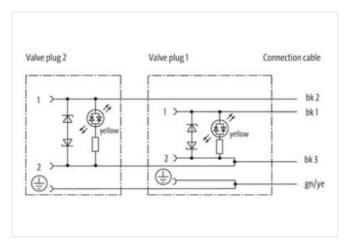
Plastic housings with good resistance against chemicals and oils.

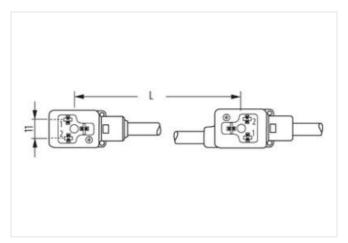
The resistance to aggressive media should be individually tested for your application. Further details on request.

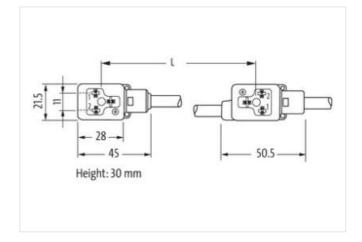
Link to Product

Illustration









Product may differ from Image



Cable length 3 m

Side 1

0,4 Nm Tightening torque



stay connected

Thread	мз
Side 2	
Tightening torque	0,4 Nm
Thread	M3
Commercial data	
ECLASS-6.0	27279218
ECLASS-6.1	27279218
ECLASS-7.0	27279218
ECLASS-8.0	27279218
ECLASS-9.0	27060312
ECLASS-10.1	27060312
ECLASS-11.1	27060312
ECLASS-12.0	27060312
ETIM-5.0	EC001855
customs tariff number	85444290
GTIN	4048879303347
Packaging unit	1
Electrical data	
Capacity CX	20 ms
Electrical data Supply	
Operating voltage AC	24 V
Operating voltage AC min.	19,2 V
Operating voltage AC max.	28,8 V
Operating voltage DC	24 V
Operating voltage DC min.	18 V
Operating voltage DC max.	30 V
Cut-off peak voltage max.	55 V
Current operating per contact max.	4 A
Current consumption max.	12 mA
Diagnostics	
Status indication LED	yellow
Device protection Electrical	
Degree of protection (EN IEC 60529)	IP67
Additional condition protection degree	inserted, screwed
Rated surge voltage	0,8 kV
Mechanical data Material data	
Color housing	black
Material housing	Plastic
Mechanical data Mounting data	
Mounting method	inserted, screwed
Environmental characteristics Climatic	11501 too, 5016W6U
·	25 °C
Operating temperature min.	-25 °C
Operating temperature max.	85 °C
Additional condition temperature range	depending on cable quality
Important installation notes	
Note on strain relief	Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.
Note on bending radius	Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.
Installation Cable	
Cable identification	037



stay connected

Printing policy of wire insulation	Cable Type	3
Type of Cartificate	Printing color of wire insulation	white (isolation black)
Amount stranding 1	Jacket Color	yellow
Stranding	Type of Certificate	cURus
wire arrangement black 1, black 2, black 3, green-yellow Cable weigh 69.3 gm Material jacket PUR Shore hardness jacket 90 ± 5 Shore A Freedom from ingredients (jacket) lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Under-diameter (jacket) 5.5 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Cuter diameter insulation 1,35 mm Outer diameter insulation 70 ± 5 Shore D Shore hardness 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 reeness wire insulation 70 ± 5 Shore D Ingredient reeness wire insulation 70 ± 5 Shore D Ingredient reeness wire insulation 80 ± 5 % Material conformation white (isolation black) Amount strands (wire) 42 Diameter of single wires 0.15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Conductor crosssection (wire) 0,75 mm² Material conductor wire Conductor properties of single wires 0.15 mm Conductor wire 0.1	Amount stranding	1
Cable weight 69.3 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) 6,5 mm Tolerance outer drameter (sheath) 5 % Material wire insulation PP Amount wires 4 Outer diameter insulation 1,85 mm Outer diameter insulation 1,85 mm Outer diameter insulation 70 ± 5 Shore D Ingredient freeness wire insulation 160 Mm Printing obor of wire insulation white (solation black) Amount strands (wire) 42 Diameter of single wires 0,15 mm Conductor rosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) stranded acquery wire, bare Conductor type (wire) stranded acquery wire, bare Conductor type (wire) stranded acquery wire, bare Conductor type (wire) straversing distance (C-track) 10 m @ 25 *C horizontal Nominal voltage AC max	Stranding	4 wires twisted
Material jacket	wire arrangement	black 1, black 2, black 3, green-yellow
Shore hardness jacket 90 ± 5 Shore A Freedom from ingredients (jacket) lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Outer-diameter (jacket) 6,5 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Outer diameter insulation 1,85 mm Outer diameter insulation ± 5 % Shore hardness wire insulation ± 5 % Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation white (solation black) Amount strands (wire) 42 Diameter of silenge wires 0,15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 mg 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity frian, wire 9,6 A Electrical resistance line constant wire 25 kW @ 60 s Power frequency withstand voltage (wire - wire) 2,5 kV @ 60 s Min. operating temperatur	Cable weigth	69,3 g/m
Freedom from ingredients (jacket) lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Outer-diameter (jacket) 6,5 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 4 Outer diameter insulation 1,85 mm Outer diameter tolerance core insulation 1,85 mm Outer diameters wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation Indiameter of wire insulation Printing color of wire insulation white (solation black) Amount strands (wire) 42 Dameter of single wires 0,15 mm Conductor ressessedion (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity min. wire 9,6 A Electrical resistance line constant wire 2,6 Dkm @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - wire) 2,5 kV @ 60 s	Material jacket	PUR
Outer-dameter (jacket) 6,5 mm Tolerance outer diameter (sheath) ± 5 % Material wire isulation PP Amount wires 4 Outer diameter insulation 1,85 mm Outer diameter insulation ± 5 % Shore hardness wire insulation 1,85 mm Underdiameter insulation ± 5 % Shore hardness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Ingredient freeness wire insulation white (isolation black) Amount strands (wire) 42 Diameter of single wires 0,15 mm Conductor (wire) 0,75 mm² Material conductor wire Strand capse. Strand capse. 5 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) 10 IN VDE 0984-4 Current load capacity min. wire 9,6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - isacket) 2,5 kV @ 60 s Max. operating temperature (fixed) 80 °C / 90 °	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 diameter insulation 1,85 mm Outer diameter tolerance core insulation ± 5 % Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation white (isolation black) Amount strands (wire) 42 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bere Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity (standard) to DIN VDE 0298-4 Current load capacity win. wire 9,6 A Electrical resistance line constant wire 25 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - isacket) 40 °C Min. operating temperature (static) 40 °C Max. operating temperature (static) 40 °C Max. operating tempe	Outer-diameter (jacket)	6,5 mm
Amount wires 4 Outer diameter insulation 1.85 mm Outer diameter 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 Printing color of wire insulation white (isolation black) Amount strands (wire) 42 Diameter of single wires 0.15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) 10 DIN VDE 0298-4 Current load capacity (ini. wire) 9,6 A Electrical resistance line constant wire 26 DKm @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - wire) 2,5 kV @ 60 s Min. operating temperature (static) 40 °C Max. operating temperature (static) 40 °C Max. operating temperature (mix. dynamic) 8	Tolerance outer diameter (sheath)	± 5 %
Outer diameter insulation 1,85 mm Outer diameter tolerance core insulation ± 5 % Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation white (isolation black) Printing color of wire insulation white (isolation black) Amount strands (wire) 42 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) stranded copper wire, bare Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity min. wire 9,6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - jacket) 2,5 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 min. (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 Printing color of wire insulation white (isolation black) Amount strands (wire) 42 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max 300 V Current load capacity (standard) to DIN VED 6298-4 Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - wire) 2,5 kV @ 60 s Min. operating temperature (static) -40 °C Max. operating temperature (static) -40 °C Max. operating temperature max. (dynamic) 25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation Operating temperature max. (dynamic) 80 °C / 90 °C @	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 Printing color of wire insulation white (isolation black) Amount strands (wire) 42 Diameter of single wires 0.15 mm Conductor crosssection (wire) 0.75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity (wire - wire) 9,6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire) alacket) 2,5 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) 80 °C / 90 °C @ 10000 h Operation Flame resistance Good, applicatio	Outer diameter insulation	1,85 mm
Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free	Outer diameter tolerance core insulation	±5%
Printing cotor of wire insulation white (isolation black) Amount strands (wire) 42 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) Current load capacity (standard) Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Min. operating temperature (static) Min. operating temperature (fixed) Operating temperature (fixed) Operating temperature max. (dynamic) Chemical resistance Good, application-related testing Gasoline resistance DIN EN 60811-404 Good, application-related testing Elending radius (dynamic) Travel speed (C-track) 10 Min. @ 25 °C No. of torsion cycles ± 180 °/m	Shore hardness wire insulation	70 ± 5 Shore D
Amount strands (wire) 42 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 9.6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2.5 kV @ 60 s Power frequency withstand voltage (wire - lacket) 2.5 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 min. (dynamic) -25 °C Operating temperature min. (dynamic) -0 °C @ 10000 h Operation Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing	Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 9,6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - iscket) 2,5 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) -25 °C Operating temperature max. (dynamic) -0 °C @ 10000 h Operation Flame 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	Printing color of wire insulation	white (isolation black)
Conductor crossection (wire) Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) Nominal voltage AC max. 300 V Current load capacity (standard) Current load capacity (standard) Stranded copper wire, bare 26 \(\Omega \text{Im} \) \(\omega \text{Q} \) Electrical resistance line constant wire 26 \(\Omega \text{Im} \) \(\omega \text{Q} \) Power frequency withstand voltage (wire - wire) 2,5 kV \(\omega \text{ 60 s} \) Power frequency withstand voltage (wire - wire) 2,5 kV \(\omega \text{ 60 s} \) Power grading temperature (static) 40 \(^\cup \text{Q} \) Min. operating temperature (fixed) 80 \(^\cup \) \(Amount strands (wire)	42
Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 9, 6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2.5 kV @ 60 s Power frequency withstand voltage (wire - iacket) 40 °C Max. operating temperature (static) 40 °C Max. operating temperature min. (dynamic) 225 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 chemical resistance Good, application-related testing Gasoline resistance DIN En 60811-404 Good, application-related testing Bending radius (fixed) 10 x Outer diameter Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles ± 180 °/m	Diameter of single wires	0,15 mm
Conductor type (wire) strand class 6 Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 9.6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2.5 kV @ 60 s Power frequency withstand voltage (wire - jacket) -25 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 Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Gil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress </td <td>Conductor crosssection (wire)</td> <td>0,75 mm²</td>	Conductor crosssection (wire)	0,75 mm²
Traversing distance (C-track) 10 m @ 25 °C horizontal Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 9,6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - acket) iacket) 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 Flame resistance UL 1581 § 1100 FT2 EC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles ± 180 °/m	Material conductor wire	Stranded copper wire, bare
Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 9,6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - acket) 2,5 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 Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Conductor type (wire)	strand class 6
Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 9.6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - jacket) 2,5 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 Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Traversing distance (C-track)	10 m @ 25 °C horizontal
Current load capacity min. wire 9,6 A Electrical resistance line constant wire 26 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - jacket) 2,5 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 Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	5.5	10 III @ 25 O Horizontal
Electrical resistance line constant wire 26 \(\Omega \) kV \(\end{array} \) 60 s Power frequency withstand voltage (wire - wire) 2,5 kV \(\end{array} \) 60 s Power frequency withstand voltage (wire - iacket) 2,5 kV \(\end{array} \) 60 s Min. operating temperature (static) -40 °C Max. operating temperature (fixed) 80 °C / 90 °C \(\end{array} \) 10000 h Operation Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C \(\end{array} \) 10000 h Operation Flame resistance UL 1581 \(\frac{1}{3} \) 1100 FT2 IEC 60332-2-2 UL 1581 \(\frac{1}{3} \) 1090 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 Travel speed (C-track) 10 Mio. \(\end{array} \) 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m		
AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - jacket) Alin. operating temperature (static) Aux. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Operating temperature max. (dynamic) UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) No. of torsion cycles ± 180 °/m	Nominal voltage AC max.	300 V
Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Operating temperature max. (dynamic) Operating temperature max. (dynamic) Bo °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard)	300 V to DIN VDE 0298-4
Min. operating temperature (static) Max. operating temperature (fixed) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Bo °C / 90 °C @ 10000 h Operation Operating temperature max. (dynamic) Bo °C / 90 °C @ 10000 h Operation Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire	300 V to DIN VDE 0298-4 9,6 A
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 Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C
Operating temperature min. (dynamic) -25 °C Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire -	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s
Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket)	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s
Flame resistance UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static)	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s
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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed)	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation
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 Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic)	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C
Oil resistance DIN EN 60811-404 Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic)	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation
Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Flame resistance	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090
Bending radius (dynamic) 10 x Outer diameter Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Flame resistance chemical resistance	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 Good, application-related testing
Travel speed (C-track) 10 Mio. @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Flame resistance chemical resistance Gasoline resistance	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 Good, application-related testing Good, application-related testing
No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Flame resistance chemical resistance Gasoline resistance	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 Good, application-related testing Good, application-related testing DIN EN 60811-404 Good, application-related testing
Torsion stress ± 180 °/m	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Flame resistance chemical resistance Gasoline resistance Oil resistance Bending radius (fixed)	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 Good, application-related testing Good, application-related testing DIN EN 60811-404 Good, application-related testing 5 x Outer diameter
	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Flame resistance chemical resistance Gasoline resistance Gasoline resistance Bending radius (fixed) Bending radius (dynamic)	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 Good, application-related testing Good, application-related testing DIN EN 60811-404 Good, application-related testing 5 x Outer diameter 10 x Outer diameter
Torsion speed 35 cycles/min	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Flame resistance chemical resistance Gasoline resistance Oil resistance Bending radius (fixed) Bending radius (dynamic) Travel speed (C-track)	300 V to DIN VDE 0298-4 9,6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 Good, application-related testing Good, application-related testing DIN EN 60811-404 Good, application-related testing 5 x Outer diameter 10 x Outer diameter
·	Nominal voltage AC max. Current load capacity (standard) Current load capacity min. wire Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - jacket) Min. operating temperature (static) Max. operating temperature (fixed) Operating temperature min. (dynamic) Operating temperature max. (dynamic) Flame resistance chemical resistance Gasoline resistance Oil resistance Bending radius (fixed) Bending radius (dynamic) Travel speed (C-track) No. of torsion cycles	10 N VDE 0298-4 9.6 A 26 Ω/km @ 20 °C 2,5 kV @ 60 s 2,5 kV @ 60 s -40 °C 80 °C / 90 °C @ 10000 h Operation -25 °C 80 °C / 90 °C @ 10000 h Operation UL 1581 § 1100 FT2 IEC 60332-2-2 UL 1581 § 1090 Good, application-related testing Good, application-related testing DIN EN 60811-404 Good, application-related testing 5 x Outer diameter 10 x Outer diameter 10 Mio. @ 25 °C 2 Mio.