

## MSUD valve plug A-18mm with cable

PUR 5x0.75 ye UL/CSA+drag ch. 25m

**MSUD** Form A (18 mm) 24 V DC ±25% LED (red/green)

for pressure switches

Further cable lengths on request.

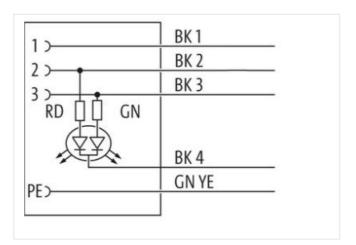
Plastic housings with good resistance against chemicals and oils.

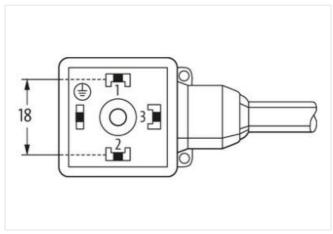
The resistance to aggressive media should be individually tested for your application. Further details on request.

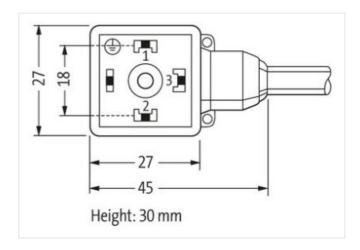
## **Link to Product**

## Illustration









Product may differ from Image









Cable length

25 m

Side 1



stay connected

Tightening torque	0,4 Nm
Mounting method	inserted, screwed
Family construction form	MSUD A
Thread	M3
Material	PBT
Degree of protection (EN IEC 60529)	IP67
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	4048879332026
Packaging unit	1
Electrical data   Supply	
Operating voltage DC	24 V
Operating voltage DC min.	18 V
Operating voltage DC max.	30 V
Current operating per contact max.	4 A
Installation   Connection	
Mounting set	M3
Device protection   Electrical	
Additional condition protection degree	inserted, screwed
Pollution Degree	3
Rated surge voltage	0,8 kV
Material group (IEC 60664-1)	
Mechanical data   Material data	
Coating of fitting	verzinkt
Color housing	black
Material screw connection	Steel
Mechanical data   Mounting data	
Mounting method	inserted, screwed
Environmental characteristics   Climatic	
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	
wire arrangement	black 1, black 2, black 3, black 4, green-yellow
Cable identification	038
Cable Type	3
Printing color of wire insulation	white (isolation black)

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: 2024-05-20



## stay connected

jacket)  Min. operating temperature (static)  Max. operating temperature (fixed)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  Operating temperature max. (dynamic)  Elec 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 bending cycles (C-track)  10 m @ 25 °C  Traversing distance (C-track)  10 m @ 25 °C  No. of torsion cycles  2 Mio.  Torsion stress  ± 180 °/m	Jacket Color	yellow
Stranding   5 wires around Core filler twisted	Type of Certificate	cURus
Filter         yes           wire arrangement         black 1, black 2, black 3, black 4, green-yellow           Cable weight         81.4 g/m           Matorial jacket         PUR           Shore hardness jacket         90.± 5 Shore A           Freedoom from ingredients (jacket)         7 mm           Outer diameter (jacket)         7 mm           Tolerance outer diameter (jacket)         7 mm           Tolerance outer diameter (seatt)         25 %           Material wire insulation         PP           Amount wires         5           Outer diameter insulation         1,85 mm           Outer diameter insulation         45 %           Shore hardness wire insulation         1,85 mm           Outer diameter insulation         45 %           Shore hardness wire insulation         1,85 mm           Outer diameter insulation         1,81 mm           Printing color of wire insulation         1,81 mm           Printing color of wire insulation         1,81 mm           Carductor type (wire)         1,5 mm           Canductor type (wire)         <	Amount stranding	1
wire arrangement black 1, black 2, black 3, black 4, green-yellow Cable weight 51.4 g/m Material jacket PUR Shore hardness jacket 99.± 5 Shore A Freedom from ingredients (jacket) 27 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 5 Outer diameter insulation 18.5 mm Outer diameter (sheath) ± 5 % Material wire insulation PP Amount wires 5 Outer diameter insulation 70.± 5 Shore D Ingredient freeness wire insulation 80.5 mm Outer diameter of single wires 10.15 mm Conductor rosssection (wire) 42 Dameter of single wires 0.15 mm Conductor or osssection (wire) 0.75 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Nominal voltage AC max. Current load capacity (standard) 10 IN IVDE 0298-4 Current load capacity (standard) 10 IN IVDE 0298-4 Current load capacity (standard) 10 IN IVDE 0298-4 Current load capacity (wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withstand voltage (wire - wire) 2.5 kV Ø 60 s Power frequency withs	Stranding	5 wires around Core filler twisted
Cable weigth         81.4 g/m           Material jaket         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)         7 mm           Toflerance outer familier (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         5           Outer diameter insulation         1.85 mm           Outer diameter insulation         ± 5 %           Shore hardness wire insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         40 ± 5 Shore D           Printing color of wire insulation         white (solation black)           Amount stracks (wire)         42           Diameter of single wires         0.15 mm           Conductor crossseation (wire)         0.75 mm²           Material conductor wire         Strande dopper wire, bare           Conductor wire         Strande dopper wire, bare           Current load capacity min. wire         9 A           Electrical resistance line constant wire         26 D/km @ 20 °C           Cow withstand voltage (wire - wire)         2.5 kV @ 60 s           Jacket)         Min. operating temperature (txee)	Filler	yes
Material Jacket         PUR           Shore hardness jaket         90 ± 5 Shore A           Freedom from ingredients (jacket)         19 ± 5 Shore A           Outer diameter (jacket)         7 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         5           Outer diameter insulation         1,85 mm           Outer diameter insulation         1,85 mm           Outer diameter insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         10 ± 5 Shore D           Ingredient freeness wire insulation         wite (solation black)           Amount strands (wire)         42           Diameter of single wires         0,15 mm           Conductor of single wires         0,15 mm           Conductor rossessedinor (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max         300 V           Current load capacity (standard)         to DIN VDE 0298 4           Current load capacity min. wire         25 R/m @ 20 °C           AC withstand voltage (wire - wire)         2,5 kV @ 60 s           Power frequency withstand	wire arrangement	black 1, black 2, black 3, black 4, green-yellow
Shore hardness jacket         90 ± 5 Shore A           Freedom from ingredients (jacket)         1 mm           Outer-diameter (jacket)         7 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         5           Outer diameter insulation         1.85 mm           Outer diameter breance core insulation         ± 5 %           Shore hardness wire insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         42 €           Printing older of wire insulation         white (solation black)           Amount strands (wire)         42           Diameter of single wires         0.15 mm           Conductor rossection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor Vive (wire)         Stranded copper wire, bare           Controluctor Vive (wire)         stranded capacity (standard)           Current load capacity (standard)         to DIN VDE (298-4           Current load capacity (vita revire)         2.5 kV Ø 60 s           Power frequency withstand voltage (wire - jacket)         2.5 kV Ø 60 s           Power frequency withstand voltage (wire - jacket)         40 °C           Min. operating temperature	Cable weigth	81,4 g/m
Freedom from ingredients (jacket)         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Outer-diameter (jacket)         ± 5 %           Material wire insulation         PP           Annount wires         5           Outer diameter resultation         ± 5 %           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         ± 5 %           Shore hardness wire insulation           ± 5 %           Printing color of vire insulation           ± 5 %           Amount strands (wire)         42           Diameter of single wires         0,15 mm           Conductor resssection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 2098-4           Current load capacity (standard)         to DIN VDE 2098-4           Current load capacity (standard)         to DIN VDE 2098-4           Current load capacity (standard)         2,5 kV @ 60 s           Fower frequency withstand voltage (wire - wire)         2,5 kV @ 60 s           Min. operating temperature (static)         80 °C / 90 °C @ 10000 h Operation	Material jacket	PUR
Outer-diameter (jacket)         7 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         5           Outer diameter insulation         1,85 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           Printing color of wire insulation         white (isolation black)           Amount strands (wire)         42           Diameter of single wires         0,15 mm           Conductor (wire)         0,75 mm²           Conductor (wire)         0,75 mm²           Material conductor wire         stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DN VDE 0298-4           Current load capacity wink- wire         2,5 kV @ 60 s           Power frequency withstand voltage (wire - wire)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - wire)         2,5 kV @ 60 s           Min. operating temperature (fixed)         80 °C / 90 °C @ 10000 h Operation           Operating	Shore hardness jacket	90 ± 5 Shore A
Tolerance outer diameter (sheath)         ± 5 %           Matorial wire insulation         PP           Amount wires         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 (solation black)           Printing color of wire insulation         white (solation black)           Amount strands (wire)         42           Diameter of single wires         0,15 mm           Conductor ressection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity min. wire         9 A           Electrical resistance line constant wire         26 fWm @ 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 (statio)         40 °C           Max. operating temperature min. (dynamic)         25 °C           Operating temperature min. (dynamic)         80 °C / 90 °C @ 10000 h Operation           Plane	Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Material wire insulation         PP           Amount wires         5           Outer diameter insulation         1,85 mm           Outer diameter tolorance core insulation         2 5%           Shore hardness wire insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         white (solation black)           Amount strands (wire)         42           Diameter of single wires         0,15 mm           Conductor (wire)         9,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         9 A           Electrical resistance line constant wire         26 Okm Ø 20 °C           AC withstand voltage (wire - wire)         2,5 kV Ø 60 s           Power frequency withstand voltage (wire - wire)         2,5 kV Ø 60 s           Min. operating temperature (static)         40 °C           Max. operating temperature (static)         40 °C           Max. operating temperature (static)         60 °C 90 °C @ 10000 h Operation           Poperating temperature min. (dynamic)         25 °C (90 °C @ 10000 h Operation           Co	Outer-diameter (jacket)	7 mm
Amount wires         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         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Printing color of wire insulation         white (solation 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           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 min. wire         9 A           Electrical resistance line constant wire         26 Ω/km @ 2 ° °           AC withstand voltage (wire - wire)         2.5 kV @ 60 s           Power frequency withstand voltage (wire - wire)         2.5 kV @ 60 s           Max. operating temperature (static)         40 ° °           Max. operating temperature (static)         40 ° °           Operating temperature (mix (a)         80 ° ° /	Tolerance outer diameter (sheath)	±5%
Outer diameter Insulation         1,85 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness 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 or crosssection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (standard)         10 IN VDE 0298-4           Current load capacity min. wire         9 A           Electrical resistance line constant wire         26 Ω/km @ 20 °C           AC withstand voltage (wire - wire)         2,5 kV @ 60 s           Power freequency withstand voltage (wire - isacket)         2,5 kV @ 60 s           Min. operating temperature (static)         40 °C           Mix. 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           Gasoline resistance         Good, application-related testing	Material wire insulation	PP
Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         white (solation black)           Printing color of wire insulation         white (solation 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           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity (wire - wire)         9 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 - injacket)         2,5 kV @ 60 s           Min. operating temperature (static)         40 °C           Max. operating temperature (static)         80 °C / 90 °C @ 10000 h Operation           Operating temperature mix. (dynamic)         25 °C           Operating temperature mix. (dynamic)         80 °C / 90 °C @ 10000 h Operation           Flame resistance         IEC 60332-2-2   UL 1581 § 1090   UL 1581 § 1100 FT2	Amount wires	5
Shore hardness wire insulation   70 ± 5 Shore D	Outer diameter insulation	1,85 mm
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  Mominal 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 min. wire 9 A  Electrical resistance line constant wire 25, kV @ 60 s  Power frequency withstand voltage (wire - wire) 2,5 kV @ 60 s  Power frequency withstand voltage (wire - 25, kV @ 60 s  Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation  Operating temperature max. (dynamic) -25 °C  Operating temperature (fixed) -30 °C @ 10000 h Operation  Operating temperature max. (dynamic) -25 °C  Tiame resistance	Outer diameter tolerance core insulation	± 5 %
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           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         9 A           Electrical resistance line constant wire         26 C/km @ 20 °C           AC withstand voltage (wire - wire)         2.5 kV @ 60 s           Power frequency withstand voltage (wire - wire)         2.5 kV @ 60 s           Power frequency withstand voltage (wire - vire)         2.5 kV @ 60 s           Min. operating temperature (fixed)         80 °C / 90 °C @ 10000 h Operation           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           Flame resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Oil resistance         DIN EN 60811-404 [Good, application-relat	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           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         9 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 - wire)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - wire)         2,5 kV @ 60 s           Min. operating temperature (stact)         -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           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           Bending radius (fixed)         5 x Outer diameter <tr< td=""><td>Ingredient freeness wire insulation</td><td>lead-free, cadmium-free, CFC-free, halogen-free, silicone-free</td></tr<>	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           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         9 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)         40 °C           Max. operating temperature min. (dynamic)         25 °C           Operating temperature min. (dynamic)         25 °C           Operating temperature max. (dynamic)         80 °C / 90 °C @ 10000 h Operation           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	Printing color of wire insulation	white (isolation black)
Conductor crosssection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         9 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 - izcket)         2,5 kV @ 60 s           Min. operating temperature (fixed)         80 °C / 90 °C @ 10000 h Operation           Max. operating temperature (fixed)         80 °C / 90 °C @ 10000 h Operation           Operating temperature max. (dynamic)         25 °C           Operating teresistance         IEC 60332-2-2   UL 1581 § 1090   UL 1581 § 1100 FT2           chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Gli 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)         10 m @ 25 °C   horizontal           Traver singe distance (C-track)	Amount strands (wire)	42
Material conductor wire Stranded copper wire, bare  Conductor type (wire) strand class 6  Nominal voltage AC max. 300 V  Current load capacity (standard) to DIN VDE 0298-4  Current load capacity min. wire 9 A  Electrical resistance line constant wire 26 \( \Omega \text{km} \) \( \omega \text{cos} \text{cos} \) \( \omega \text{cos} \text{cos} \) \( \omega \text{cos} \text{cos} \text{cos} \) \( \omega \text{cos} \text{cos} \text{cos} \) \( \omega \text{cos} \text{cos} \t	Diameter of single wires	0,15 mm
Conductor type (wire) strand class 6  Nominal voltage AC max. 300 V  Current load capacity (standard) to DIN VDE 0298-4  Current load capacity min. wire 9 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) 40 °C  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  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  Gil 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 (cycles (C-track) 10 Mio. @ 25 °C  Traversing distance (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	Conductor crosssection (wire)	0,75 mm <sup>2</sup>
Nominal voltage AC max.  300 V  Current load capacity (standard)  to DIN VDE 0298-4  Current load capacity min. wire  9 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 - ack to wire)  2,5 kV @ 60 s  Power frequency withstand voltage (wire - ack to wire)  4.5 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  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  No. of bending cycles (C-track)  10 m @ 25 °C   horizontal  Traver sing distance (C-track)  10 m @ 25 °C   horizontal  Travel speed (C-track)  3 m/s @ 25 °C  No. of torsion cycles  ± 180 °/m	Material conductor wire	Stranded copper wire, bare
Current load capacity (standard) to DIN VDE 0298-4  Current load capacity min. wire 9 A  Electrical resistance line constant wire 26 $\Omega$ /km @ 20 °C  AC withstand voltage (wire - wire) 2,5 kV @ 60 s  Power frequency withstand voltage (wire - jacket) 40 °C  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  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  Gil 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 bending cycles (C-track) 10 Mio. @ 25 °C  Traversing distance (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	Conductor type (wire)	strand class 6
Current load capacity min. wire       9 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       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         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 bending cycles (C-track)       10 Mio. @ 25 °C         Traversing distance (C-track)       10 m @ 25 °C   horizontal         Travel speed (C-track)       3 m/s @ 25 °C         No. of torsion cycles       2 Mio.         Torsion stress       ± 180 °/m	Nominal voltage AC max.	300 V
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 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  No. of bending cycles (C-track) 10 m @ 25 °C   horizontal  Traver speed (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	Current load capacity (standard)	to DIN VDE 0298-4
AC withstand voltage (wire - wire)  2.5 kV @ 60 s  Power frequency withstand voltage (wire - jacket)  Min. operating temperature (static)  -40 °C  Max. operating temperature (fixed)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  -25 °C  Operating temperature max. (dynamic)  Bo °C / 90 °C @ 10000 h Operation  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 bending cycles (C-track)  10 Mio. @ 25 °C  Traversing distance (C-track)  10 m @ 25 °C   horizontal  Travel speed (C-track)  3 m/s @ 25 °C  No. of torsion cycles  ± 180 °/m	Current load capacity min. wire	9 A
Power frequency withstand voltage (wire - jacket)  Min. operating temperature (static)  Au °C  Max. operating temperature (fixed)  Operating temperature min. (dynamic)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  Operating temperature max. (dynamic)  Bu °C / 90 °C @ 10000 h Operation  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 bending cycles (C-track)  10 Mio. @ 25 °C  Traversing distance (C-track)  10 m @ 25 °C   horizontal  Travel speed (C-track)  3 m/s @ 25 °C  No. of torsion cycles  ± 180 °/m	Electrical resistance line constant wire	26 Ω/km @ 20 °C
jacket)  Min. operating temperature (static)  Max. operating temperature (fixed)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  Operating temperature max. (dynamic)  Elec 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 bending cycles (C-track)  10 m @ 25 °C  Traversing distance (C-track)  10 m @ 25 °C  No. of torsion cycles  2 Mio.  Torsion stress  ± 180 °/m	AC withstand voltage (wire - wire)	2,5 kV @ 60 s
Max. operating temperature (fixed)  Operating temperature min. (dynamic)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  Operating temperature max. (dynamic)  Bo °C / 90 °C @ 10000 h Operation  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 bending cycles (C-track)  10 Mio. @ 25 °C  Traversing distance (C-track)  10 m @ 25 °C   horizontal  Travel speed (C-track)  3 m/s @ 25 °C  No. of torsion cycles  2 Mio.  Torsion stress  ± 180 °/m	Power frequency withstand voltage (wire - jacket)	2,5 kV @ 60 s
Operating temperature min. (dynamic)       -25 °C         Operating temperature max. (dynamic)       80 °C / 90 °C @ 10000 h Operation         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 bending cycles (C-track)       10 Mio. @ 25 °C         Traversing distance (C-track)       10 m @ 25 °C   horizontal         Travel speed (C-track)       3 m/s @ 25 °C         No. of torsion cycles       2 Mio.         Torsion stress       ± 180 °/m	Min. operating temperature (static)	-40 °C
Operating temperature max. (dynamic)       80 °C / 90 °C @ 10000 h Operation         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 bending cycles (C-track)       10 Mio. @ 25 °C         Traversing distance (C-track)       10 m @ 25 °C   horizontal         Travel speed (C-track)       3 m/s @ 25 °C         No. of torsion cycles       2 Mio.         Torsion stress       ± 180 °/m	Max. operating temperature (fixed)	80 °C / 90 °C @ 10000 h Operation
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 bending cycles (C-track) 10 Mio. @ 25 °C  Traversing distance (C-track) 10 m @ 25 °C   horizontal  Travel speed (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	Operating temperature min. (dynamic)	-25 °C
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 bending cycles (C-track) 10 Mio. @ 25 °C Traversing distance (C-track) 10 m @ 25 °C   horizontal  Travel speed (C-track) 3 m/s @ 25 °C No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	Operating temperature max. (dynamic)	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  No. of bending cycles (C-track) 10 Mio. @ 25 °C  Traversing distance (C-track) 10 m @ 25 °C   horizontal  Travel speed (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	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 bending cycles (C-track) 10 Mio. @ 25 °C  Traversing distance (C-track) 10 m @ 25 °C   horizontal  Travel speed (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	chemical resistance	Good, application-related testing
Bending radius (fixed) 5 x Outer diameter  Bending radius (dynamic) 10 x Outer diameter  No. of bending cycles (C-track) 10 Mio. @ 25 °C  Traversing distance (C-track) 10 m @ 25 °C   horizontal  Travel speed (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	Gasoline resistance	Good, application-related testing
Bending radius (dynamic) 10 x Outer diameter  No. of bending cycles (C-track) 10 Mio. @ 25 °C  Traversing distance (C-track) 10 m @ 25 °C   horizontal  Travel speed (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	Oil resistance	DIN EN 60811-404   Good, application-related testing
No. of bending cycles (C-track)  Traversing distance (C-track)  10 m @ 25 °C   horizontal  Travel speed (C-track)  3 m/s @ 25 °C  No. of torsion cycles  2 Mio.  Torsion stress  ± 180 °/m		5 x Outer diameter
Traversing distance (C-track) 10 m @ 25 °C   horizontal  Travel speed (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	Bending radius (dynamic)	10 x Outer diameter
Travel speed (C-track) 3 m/s @ 25 °C  No. of torsion cycles 2 Mio.  Torsion stress ± 180 °/m	No. of bending cycles (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
Torsion stress ± 180 °/m		3 m/s @ 25 °C
		2 Mio.
Torsion speed 35 cycles/min	Torsion stress	± 180 °/m
	Torsion speed	35 cycles/min