

## M12 male 0° A-cod. / MSUD valve plug CI-9.4mm

PUR 3x0.75 bk UL/CSA+drag ch. 5m

Art.No.: 7000-41041-6360500

Weight: 0.281 Country of origin: CZ

Model designation: MSRL3-A-W636 5.0

**MSUD** 

Form CI (9.4 mm) - M12, male straight

24 V AC  $\pm 20\%$  / DC  $\pm 25\%$ 

LED and suppression

Further cable lengths on request.

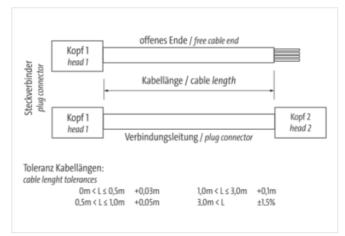
Plastic housings with good resistance against chemicals and oils.

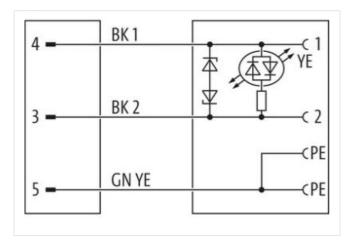
The resistance to aggressive media should be individually tested for your application. Further details on request.

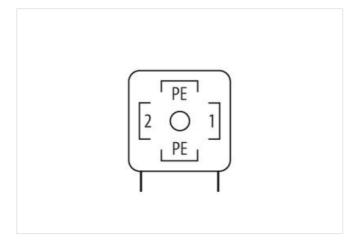
## **Link to Product**

## Illustration



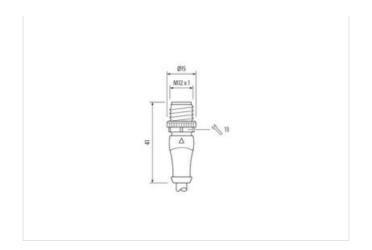


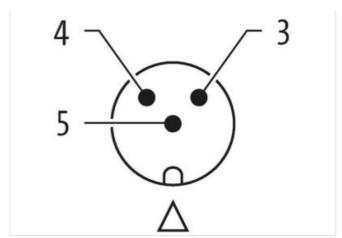


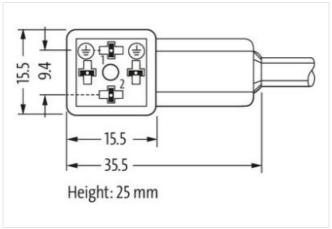




stay connected







Product may differ from Image



Cable length	5 m
Side 1	
Tightening torque	0,4 Nm
Family construction form	MSUD CI
Thread	M3
No. of poles	4
Degree of protection (EN IEC 60529)	IP67
Side 2	
Tightening torque	0,6 Nm
Family construction form	M12
Thread	M12 x 1
suitable for corrugated tube (internal Ø)	10 mm
Coding	A
No. of poles	3
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP67
Commercial data	
ECLASS-6.0	27279218

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: 2025-12-05



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
customs tariff number	85444290
EAN	4048879146609
EAN	4048879146609
Packaging unit	1
Packaging unit	1
Electrical data	
Drop-out delay time max.	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
Diagnostics	
Status indication LED	yellow
Device protection   Electrical	
Additional condition protection degree	inserted, screwed
Pollution Degree	3
Rated surge voltage	0,8 kV
Mechanical data   Material data	
Material housing	Plastic
Color housing	black
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	<b>Attention:</b> Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.
Conformity	
Product standard	DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker)
Installation   Cable	
wire arrangement	black 1, black 2, green-yellow
Cable identification	636
Cable Type	3

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Jacket Color	Printing color of wire insulation	white (isolation black)
Annount stranding	Jacket Color	· ,
Stranding   1	Type of Certificate	cURus
wire arrangement black 1, black 2, green-yellow Cable weight 55,1 g/m  Malarian jacket PUR Shore hardness jacket PUR Shore hardness jacket 99.5 Shore A Freedom from ingredients (jacket) 5.9 mm  Tolerance outer diameter (jacket) 7.9 mm  Amount wires 3  Outer diameter insulation PP  Amount wires 3  Outer diameter freeness wire insulation 70.1 S Shore D  Shore hardness wire insulation 70.1 S Shore D  Shore hardness wire insulation 70.1 S Shore D  Shore hardness wire insulation white (jacket) 42  Diameter of a ling wire insulation white (jacket) 42  Diameter of a ling wire insulation white (jacket) 42  Diameter of a ling wire wire on the control of the provided of the prov	Amount stranding	
wire arrangement         black 1, black 2, green-yellow           Cable weight         55,1 g/m           Malariania Jacket         PUR           Shore hardness jacket         90 ± 5 Shore A           Freedom from ingredients (jacket)         5.9 mm           Outer diameter (jacket)         5.9 mm           Tolerance outer diameter (jacket)         5.9 mm           Amount wires         3           Outer diameter (jacket)         ± 5 %           Amount wires         3           Outer diameter (jacket)         ± 5 %           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         white (solation black)           Ingredient freeness wire insulation         vivia (solation black)           Ingredient freeness wire insulation         white (solation black)           Ingredient freeness wire insulation         vivia (solation black)           Ingredient freeness wire insulation         white (solation black)           Ingredient freeness wire insulation         vivia (solation black)           Ingredient freeness wire insulation         vivia (solation black)           Ingredient freene	Stranding	3 wires twisted
Cable weight         56,1 g/m           Material picket         PUR           Shore hardness jacket         90 ± 5 Shore A           Freedom from ingredients (jacket)         least-free, cadmium-free, CFC-free, halogen-free, silicone-free           Outer diameter (jacket)         5,9 mm           Tofferance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         3           Outer diameter insulation         1,85 mm           Outer diameter insulation         1,85 mm           Outer diameter insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         42 Shore D           Printing policy of wire insulation         42 Shore D           Printing policy of wire insulation         42 E           Printing policy of wire insulation         42 E           Diameter of single wires         0,15 mm           Conductor or sessection (wire)         0,75 mm²           Markerial conductor wire         Strand class 6           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (sandard)         10 DIN VDE 0298-4           Current load capacity (sandard)         10 DIN VDE 0298-4           Cur	wire arrangement	
Material jacket         PUR           Shore hardness jacket         90.5 Shore A           Freedoom from ligoredients (jacket)         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Outer diameter (jacket)         5,9 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         3           Outer diameter insulation         ± 5 %           Shore bardness wire insulation         ± 5 %           Printing color of wire insulation         white (solation black)           Amount strands (wire)         42           Diameter of single wires         0,15 mm           Conductor orossection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor by Every (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298 4           Current load capacity win. wire         12 A           Electrical resistance line constant wire         26 (kim @ 20 °C           AC	Cable weigth	
Shore hardness jacket         90 ± 5 Shore A           Freedom from ingredients (jacket)         lead free, cadmum free, CFC-free, halogen-free, silicone-free           Outer-diameter (jacket)         5,9 mm           Toterance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         3           Outer diameter insulation         1,85 mm           Outer diameter insulation         1,85 mm           Outer diameter insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         lead-free, cadmim-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           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0299-4           Current load capacity (standard)         to DIN VDE 0299-4           Current load capacity (wire - wire)         2,5 kV @ 60 s	Material jacket	PUR
Outer diameter (jacket)         5,9 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         3           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         1,85 mm           Unter diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         lead-free, cadmum-free, CFC-free, halogen-free, silicone-free           Injection of vire insulation         white (solation black)           Amount strands (wire)         42           Diameter of single wires         0,15 mm           Conductor or sessection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand diass 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 (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           Mire. operating temperature (ixed)         80 °C / 90 °C @ 100000 h O	Shore hardness jacket	90 ± 5 Shore A
Outer diameter (jacket)         5,9 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         3           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         1,85 mm           Unter diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         lead-free, cadmum-free, CFC-free, halogen-free, silicone-free           Injection of vire insulation         white (solation black)           Amount strands (wire)         42           Diameter of single wires         0,15 mm           Conductor or sessection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand diass 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 (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           Mire. operating temperature (ixed)         80 °C / 90 °C @ 100000 h O	Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Tolerance outer diameter (sheath)		5,9 mm
Amount wires 3 Outer diameter insulation 1.85 mm Outer diameter insulation 2.5 mm Outer diameter insulation 70 ± 5 Shore D Ingredient freeness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation 1 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 Strande dosper wire, bare Conductor type (wire) strand class 6 Nominal voltage AC max. 300 V Current load capacity (standard) 10 DIN VDE 0298-4 Current load capacity min. wire 12 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 - 25 °C Operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation UV resistance Good, application-related testing Casalone resistance Good, application-related testing   DIN EN ISO 4892-2 A Elementer actions (Kixed) 5 x Quiter diameter Bending radius (fixed) 5 x Quiter diameter No. of bending cycles (C-track) 10 Mio. @ 25 °C Traversing distance (C-track) 10 Mio. @ 25 °C Torsion stress ± ±180 °/m	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)           Amount strands (wire)         42           Diameter of Isnje wires         0,15 mm           Conductor crosssection (wire)         0,75 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (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         12 A           Electrical resistance line constant wire         26 G/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 (fixed)         -40 °C           Operating temperature (istatic)         -40 °C           Operating temperature min. (dynamic)         25 °C           Operating temperature max. (dynamic)         80 °C / 90 °C @ 10000 h Operation           UV resistance         Inc 60332-2.2   U. I. 1581 § 1100 FT2   U. I. 1581 § 1090           Otherwistance	Material wire insulation	PP
Outer diameter tolerance core insulation	Amount wires	3
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)   42	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  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 (wire) 2.5 kW @ 60 s  Electrical resistance line constant wire 2.5 kW @ 60 s  Power frequency withstand voltage (wire - yiecket) 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  Ur resistance DIE C60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090  chemical resistance Good, application-related testing  Gasoline resistance Good, application-related testing  Oil resistance Good, application-related testing  Bending radius (fixed) 5 x Outer diameter  Bending radius (fixed) 10 m @ 25 °C   Inorizontal  Travel speed (C-track) 10 m @ 25 °C   Inorizontal  Travel speed (C-track) 3 m/s @ 25 °C  Traversing distance (C-track) 10 m @ 25 °C   Inorizontal  Torsion stress ± 180 °/m	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 12 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) 4,0 °C Max. operating temperature (static) 40 °C Max. operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance Flame resistance Good, application-related testing Gasoline resistance Good, application-related testing Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter 10 x Outer diamete	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         12 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 - sizekt)         2,5 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           UV resistance         DIN EN ISO 4892-2 A           Flame resistance         IEC 60332-22   Jul. 1581 § 1100 FT2   UL. 1581 § 1090           chemical resistance         Good. application-related testing           Oil resistance	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         12 A           Electrical resistance line constant wire         26 Q/km @ 20 °C           AC withstand voltage (wire - wire)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - igacket)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - igacket)         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         DIN EN ISO 4892-2 A           Flame resistance         IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090           chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Oil resistance         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         12 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)         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           UV resistance         IEC 60332-22   UL 1581 § 1100 FT2   UL 1581 § 1090           Chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Oil resistance         Good, application-relat	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         12 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 with a voltage (wire - wire)         2,5 kV @ 60 s           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 UL. 1581 § 1100 FT2   UL 1581 § 1090           chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Oil resistance         Good, application-related testing   DIN EN 60811-404           Bending radius (fixed)         5 x Outer diameter           Bending radius (dynamic)         10 x Outer diameter           No. of bendin	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         12 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 - igacket)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - igacket)         40 °C           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           UV resistance         DIN EN ISO 4892-2 A           Flame resistance         IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090           chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing   DIN EN 60811-404           Bending radius (fixed)         5 x Outer diameter           Bending radius (fixed)         5 x Outer diameter           No. of bending cycles (C-track)         10 Mio. @ 25 °C           Traversing distance (C-track)	Conductor crosssection (wire)	0,75 mm²
Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         12 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           UV resistance         DIN EN ISO 4892-2 A           Flame resistance         IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090           chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Oil resistance         Good, application-related testing           Bending radius (fixed)         5 × Outer diameter           Bending radius (dynamic)         10 × Outer diameter           Bending radius (dynamic)         10 Mio. @ 25 °C           Traversing distance (C-track)         10 Mio. @ 25 °C   horizontal           Traver sing distance (C-track)         3 m/	Material conductor wire	Stranded copper wire, bare
Current load capacity (standard)  Current load capacity min. wire  12 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 - aick)  Alicket)  Min. operating temperature (static)  40 °C  Max. operating temperature (fixed)  Operating temperature min. (dynamic)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  UV resistance  DIN EN ISO 4892-2 A  Flame resistance  IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090  chemical resistance  Good, application-related testing  Gasoline resistance  Good, application-related testing  Oil resistance  Good, application-related testing   DIN EN 60811-404  Bending radius (fixed)  5 × Outer diameter  No. of bending cycles (C-track)  10 m @ 25 °C  Traversing distance (C-track)  10 m @ 25 °C  No. of torsion cycles  ± 180 °/m	Conductor type (wire)	strand class 6
Current load capacity min. wire         12 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           UV resistance         DIN EN ISO 4892-2 A           Flame resistance         IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090           chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Oil resistance         Good, application-related testing   DIN EN 60811-404           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.	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 - iacket) 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  UV resistance DIN EN ISO 4892-2 A  Flame resistance IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090  chemical resistance Good, application-related testing  Gasoline resistance Good, application-related testing  Oil resistance Good, application-related testing   DIN EN 60811-404  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	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)  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 § 1100 FT2   UL 1581 § 1090  chemical resistance  Good, application-related testing  Gasoline resistance  Good, application-related testing  Oil resistance  Good, application-related testing   DIN EN 60811-404  Bending radius (fixed)  5 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	12 A
Power frequency withstand voltage (wire - jacket)  Min. operating temperature (static)  A0 °C  Max. operating temperature (fixed)  Operating temperature min. (dynamic)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  UV resistance  DIN EN ISO 4892-2 A  Flame resistance  IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090  chemical resistance  Good, application-related testing  Gasoline resistance  Good, application-related testing   DIN EN 60811-404  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  ± 180 °/m	Electrical resistance line constant wire	26 Ω/km @ 20 °C
All Comparing temperature (static)   A0 °C	AC withstand voltage (wire - wire)	2,5 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 § 1100 FT2   UL 1581 § 1090  chemical resistance  Good, application-related testing  Gasoline resistance  Good, application-related testing  Oil resistance  Good, application-related testing   DIN EN 60811-404  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)  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 § 1100 FT2   UL 1581 § 1090  chemical resistance  Good, application-related testing  Gasoline resistance  Good, application-related testing  Oil resistance  Good, application-related testing   DIN EN 60811-404  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  UV resistance  DIN EN ISO 4892-2 A  Flame resistance  IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090  chemical resistance  Good, application-related testing  Gasoline resistance  Good, application-related testing  Oil resistance  Good, application-related testing   DIN EN 60811-404  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	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 § 1100 FT2   UL 1581 § 1090  chemical resistance  Good, application-related testing  Gasoline resistance  Good, application-related testing  Oil resistance  Good, application-related testing   DIN EN 60811-404  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
Flame resistance IEC 60332-2-2   UL 1581 § 1100 FT2   UL 1581 § 1090  chemical resistance Good, application-related testing  Gasoline resistance Good, application-related testing  Oil resistance Good, application-related testing   DIN EN 60811-404  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
chemical resistance Good, application-related testing  Gasoline resistance Good, application-related testing  Oil resistance Good, application-related testing   DIN EN 60811-404  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	UV resistance	DIN EN ISO 4892-2 A
Gasoline resistance Good, application-related testing Oil resistance Good, application-related testing   DIN EN 60811-404  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 § 1100 FT2   UL 1581 § 1090
Oil resistance Good, application-related testing   DIN EN 60811-404  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	Good, application-related testing   DIN EN 60811-404
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	Bending radius (fixed)	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	Travel speed (C-track)	3 m/s @ 25 °C
	No. of torsion cycles	2 Mio.
Torsion speed 35 cycles/min	Torsion stress	± 180 °/m
	Torsion speed	35 cycles/min