

#### M12 female 90° A-cod. with cable LED

PUR 4x0.34 bk UL/CSA+drag ch. 3m

Art.No.: 7000-12421-6340300

Weight: 0.133 Country of origin: DE

Model designation: MSDL2-T634\_3.0

# Advantages of our connectors:

Our connectors are versatile and specially optimised for industrial environments. All connectors are 100% tested during the manufacturing process to ensure the highest quality and reliability.

The contacts are gold-plated, which ensures optimum conductivity. Thanks to the high degree of protection, the connectors are ideal for demanding industrial environments. They are also vibration-resistant - this is ensured by the union nut with vibration protection.

Our connectors are resistant to oils and cooling lubricants, but resistance to aggressive media should be tested for each specific application. Different cable lengths available on request

If you are missing technical information? Please feel free to use our dictionary to find more technical details.

## **Product details:**

Female 90°

M12, 4-pole

3× LED (PNP)

Art-No. 7005 - M12 Lite - (plastic hexagonal screw) on request

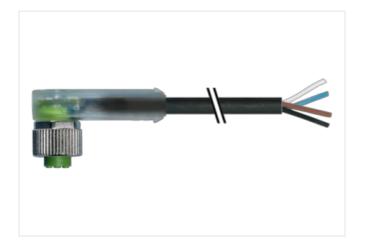
Plastic housings with good resistance against chemicals and oils.

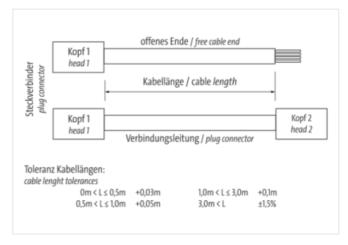
The resistance to aggressive media should be individually tested for your application. Further details on request.

Further cable lengths on request.

#### **Link to Product**

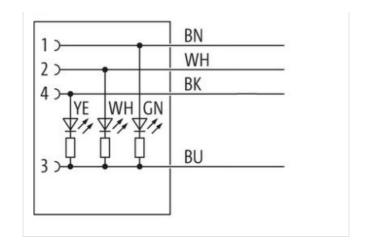
## Illustration

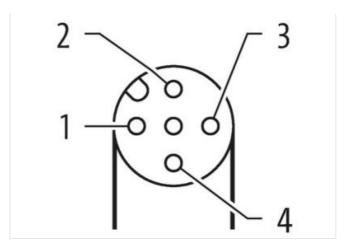


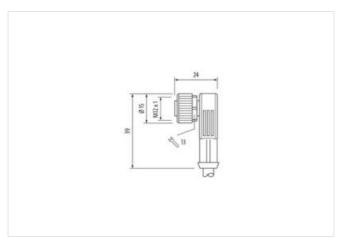




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Product may differ from Image











Cable length	3 m
Side 1	
Tightening torque	0,6 Nm
Mounting method	inserted, screwed
Coating contact	gold plated
Family construction form	M12
Thread	M12 x 1
suitable for corrugated tube (internal Ø)	10 mm
Cable outlet	angled
Coding	A
Material contact	Copper alloy
Material	PUR
No. of poles	4
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP65, IP66K, IP67
Side 2	
Stripping length (jacket)	20 mm
Family construction form	free cable end

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: 2025-08-05



Commercial data	
ECLASS-6.0	27279218
ECLASS-6.1	27279218
ECLASS-7.0	27279218
ECLASS-8.0	27279218
ECLASS-9.0	27060311
ECLASS-10.1	27060311
ECLASS-11.1	27060311
ECLASS-12.0	27060311
ETIM-5.0	EC001855
ETIM-6.0	EC001855
ETIM-7.0	EC001855
ETIM-8.0	EC001855
customs tariff number	85444290
customs tariff number	85444290
EAN	4048879202596
EAN	4048879202596
Packaging unit	1
Packaging unit	1
Electrical data   Supply	
Operating voltage DC	24 V
Operating voltage DC min.	18 V
Operating voltage DC max.	30 V
Operating voltage DC max. (UL-listed)	30 V
Current operating per contact max.	4 A
	70
Diagnostics	
Status indication LED	green, white, yellow
Status indication LED  Installation   Connection	green, white, yellow
	green, white, yellow 20 mm
Installation   Connection	
Installation   Connection Stripping length (jacket)	20 mm
Installation   Connection  Stripping length (jacket)  Mounting set  Gender	20 mm M12 x 1
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical	20 mm M12 x 1 female
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree	20 mm M12 x 1 female inserted, screwed
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree	20 mm M12 x 1 female inserted, screwed 3
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage	20 mm M12 x 1 female inserted, screwed 3 0,8 kV
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)	20 mm M12 x 1 female inserted, screwed 3
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage	20 mm M12 x 1 female inserted, screwed 3 0,8 kV
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)	20 mm M12 x 1 female inserted, screwed 3 0,8 kV
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data	20 mm M12 x 1 female inserted, screwed 3 0,8 kV I
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking	20 mm M12 x 1 female  inserted, screwed 3 0,8 kV I
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting	20 mm M12 x 1 female  inserted, screwed 3 0,8 kV I Nickeled nickel plated
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material	20 mm M12 x 1 female  inserted, screwed 3 0,8 kV I  Nickeled nickel plated Zinc die-casting
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material  Material screw connection  Mechanical data   Mounting data	20 mm  M12 x 1 female  inserted, screwed 3 0,8 kV I  Nickeled nickel plated Zinc die-casting Zinc die-casting
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material  Material screw connection  Mechanical data   Mounting data  Mounting method	20 mm M12 x 1 female  inserted, screwed 3 0,8 kV I  Nickeled nickel plated Zinc die-casting
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material  Material screw connection  Mechanical data   Mounting data  Mounting method  Environmental characteristics   Climatic	20 mm M12 x 1 female  inserted, screwed 3 0,8 kV I  Nickeled nickel plated Zinc die-casting Zinc die-casting inserted, screwed, Shaking protection
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material  Material screw connection  Mechanical data   Mounting data  Mounting method  Environmental characteristics   Climatic  Operating temperature min.	20 mm M12 x 1 female  inserted, screwed 3 0,8 kV I  Nickeled nickel plated Zinc die-casting Zinc die-casting inserted, screwed, Shaking protection
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material  Material screw connection  Mechanical data   Mounting data  Mounting method  Environmental characteristics   Climatic  Operating temperature min.	20 mm M12 x 1 female  inserted, screwed  3 0,8 kV I  Nickeled nickel plated Zinc die-casting Zinc die-casting inserted, screwed, Shaking protection
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material  Material screw connection  Mechanical data   Mounting data  Mounting method  Environmental characteristics   Climatic  Operating temperature min.	20 mm M12 x 1 female  inserted, screwed 3 0,8 kV I  Nickeled nickel plated Zinc die-casting Zinc die-casting inserted, screwed, Shaking protection
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material  Material screw connection  Mechanical data   Mounting data  Mounting method  Environmental characteristics   Climatic  Operating temperature min.	20 mm M12 x 1 female  inserted, screwed  3 0,8 kV I  Nickeled nickel plated Zinc die-casting Zinc die-casting inserted, screwed, Shaking protection
Installation   Connection  Stripping length (jacket)  Mounting set  Gender  Device protection   Electrical  Additional condition protection degree  Pollution Degree  Rated surge voltage  Material group (IEC 60664-1)  Mechanical data   Material data  Coating locking  Coating of fitting  Locking material  Material screw connection  Mechanical data   Mounting data  Mounting method  Environmental characteristics   Climatic  Operating temperature min.  Operating temperature max.  Additional condition temperature range	20 mm M12 x 1 female  inserted, screwed  3 0,8 kV I  Nickeled nickel plated Zinc die-casting Zinc die-casting inserted, screwed, Shaking protection



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Installation   Cable   September   Sept	Conformity	
installation   Cable   wire arrangement   brown, black, blue, white   Cable (dentification   534   Cable (for   black   blue, white   Cable Type   3   Jacket Color   black   Type of Certificate   cURus   Amount stranding   1   Stranding   4 wire swisted   Wire arrangement   brown, black, blue, white   Cable weight   36,3 g/m   Malertal jacket   PUR   Shore hardness jacket   FUR   Shore hardness jacket   FUR   Manual wire insulation   PP   Amount wires   4   Mount diameter (jacket)   1,25 mm   Cuter diameter insulation   PP   Amount wires   4   Mount attand (wire)   1,25 mm   Cuter diameter insulation   70 ± 5 Shore A   Manual wire insulation   70 ± 5 Shore A   Manual wire insulation   70 ± 5 Shore A   Manual wires   4   Mount attand (wire)   42   Manual wire insulation   70 ± 5 Shore A   Manual wires   4   Mount attand (wire)   42   Manual wires   4   Mount attand (wire)   4   Mount attand (wire)   4   Manual wires   4   Mount attand (wire)   6   Mount attand (wire		DIN EN 64076 9 404 (M49)
wire arrangement brown, black, blue, white Cable identification 634 Cable if yep 8 3  Jacket Color block Jacket Color block Jacket Color block Amount stranding 1  Stranding 4 wire twisted Amount stranding 1  Stranding 4 wire twisted Amount stranding 5 4 wire twisted Amount stranding 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		DIN EN 610/6-2-101 (M12)
Cabbie Type         3           Jackel Color         black           Type of Certificate         URus           Amount stranding         1           Stranding         4 wires twisted           wire arrangement         brown, black, blue, white           Gabie weigh         36,3 gm           Material jacket         PUR           Shore hardness jacket         99 ± S Shore A           Freedom from ingredients (jacket)         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Outer-diameter (jacket)         4,5 mm           Tolerance outer diameter (health)         ± 5 %           Material wire insulation         PP           Amount wires         4           Outer diameter insulation         ± 5 %           Shore hardness wire insulation         ± 5 %           Shore hardness wire insulation         ± 5 %           Shore hardness wire insulation         ± 25 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         ± 25 mm           Outer diameter tolerance core insulation         ± 2 mm           Coldred diameter (wire)         ± 2 mm           Shore hardness wire insulation         ± 2 mm           Ingredient Treess wi	Installation   Cable	
Cable Type         3           Jacket Color         black           Amount stranding         1           Stranding         4 wires wisted           wire arrangement         brown, black, blue, white           Cable weight         36,3 gm           Material jacket         PUR           Shore hardness jacket         90 £ Shore A           Freedom from ingredients (jacket)         4,5 mm           Otter-diameter (jacket)         4,5 mm           Tolerance outer diameter (jacket)         4,5 mm           Tolerance outer diameter (jacket)         4,5 mm           Outer-diameter (jacket)         4,5 mm           Outer diameter insulation         PP           Amount wires         4           Outer diameter insulation         1,25 mm           Outer diameter oberrance core insulation         1,25 mm           Outer diameter oberrance wire insulation         1,25 mm           Outer diameter insulation         1,25 mm	wire arrangement	brown, black, blue, white
Jacket Cotor	Cable identification	634
Type of Certificate         cURus           Amount stranding         1           Stranding         4 wires twisted           wire arrangement         brown, black, blue, white           Cable weigh         36,3 g/m           Material jacket         PUR           Shore hardness jacket         90 ± 5 Shore A           Freedom from ingredients (jacket)         15 Sm           Outer-diameter (jacket)         4 Smm           Otlerance outer diameter (health)         2 5 %           Material wire insulation         PP           Amount wires         4           Cuter diameter insulation         1,25 mm           Outer diameter insulation         1,25 %           Bhore hardness wire insulation         1,25 %           Shore hardness wire insulation         1,25 %           Outer diameter insulation         1,25 %           Shore bardness wire insulation         1,25 %	Cable Type	3
Amount stranding 1 Stranding 4 wires twisted  wire arrangement brown, black, blue, white  Cable weight 35.3 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) 4,5 mm  Tolerance outer diameter (sheath) 2.5 %  Material wire insulation PP  Amount wires 4  Outer diameter insulation 1,25 mm  Outer diameter insulation 2.5 %  Shore hardness wire insulation 70.5 Shore D  Shore hardness wire insulation 70.5 Shore D  Ingredient freeness wire insulation 70.5 Shore D  Shore hardness wire insulation 70.5 Shore D  Ingredient freeness wire insulation 70.5 Shore D  Nominat void single wires 0,1 mm  Conductor crossection (wire) 0,34 mm²  Material unductor wire Strand class 6  Nominal voltage AC max. 0.1 mm  Conductor type (wire) strand class 6  Nominal voltage AC max. 0.1 mw 4,8 A  Electrical resistance ine constant wire 7 (Alw m 20° C  AC withstand voltage (wire - wire) 2,5 kV @ 60 s  Power frequency withstand voltage (wire - 40° C) 90° C @ 10000 h Operation 0.1 mm. Ac operating temperature (fixed) 80° C; 90° C @ 10000 h Operation 0.1 ms (sod, application-related testing and and a propietation or polication related testing and and polication-related testing and poli	Jacket Color	black
Stranding         4 wires twisted           wire arrangement         brown, black, blue, white           Cable weight         38,3 g/m           Material jacket         PUR           Shore hardness jaket         90 ± 5 Shore A           Freedom from ingredients (jacket)         40 ± 5 Shore A           Outer diameter (jacket)         4,5 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         4           Outer diameter tolerance core insulation         1,25 mm           Outer diameter tolerance core insulation         2,5 % m           Shore bardness wire insulation         10 ± 5 Shore D           Uniter diameter of single wires         0,1 mm           Quiter diameter of single wires         0,1 mm           Diameter of single wires         0,1 mm           Onductor crossection (wire)         9,3 4 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 298-4           Current load capacity wink and voltage (wire - wire)         2,5 kV @ 60 s           Power frequency win	Type of Certificate	cURus
wire arrangement	Amount stranding	1
Cable weight         36,3 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)         4.5 mm           Tolerance outer diameter (sheut)         ± 5 %           Material wire insulation         PP           Amount wires         4           Outer diameter insulation         1,25 mm           Outer diameter lolerance core insulation         ± 5 %           Shore hardness wire insulation         1,25 mm           Outer diameter core insulation         ± 5 %           Shore hardness wire insulation         4 0           User and single wires         0,1 mm           Conductor streeness wire insulation         42           Diameter of single wires         0,1 mm           Conductor vire of single wires         0,1 mm           Conductor (wire)         0,34 mm²           Material conductor wire         Stranded copper wire, bare           Conductor (yee) (wire)         stranded copper wire, bare           Conductor (yee) (wire)         stranded copper wire, bare           Current load capacity (standard)         to IN IV DE 0298-4           Current l	Stranding	4 wires twisted
Material Jacket	wire arrangement	brown, black, blue, white
Shore hardness jacket   90 ± 5 Shore A   lead-free, cadmium-free, CFC-free, halogen-free, silicone-free   Colored-free   Lead-free, cadmium-free, CFC-free, halogen-free, silicone-free   Lead-free, cadmium-free, CFC-free, hal	Cable weigth	36,3 g/m
Freedom from ingredients (jacket)   lead-free, cadmium-free, CFC-free, halogen-free, silicone-free	Material jacket	PUR
Outer-diameter (Jacket)         4,5 mm           Tolerance outer diameter (sheath)         2.5 %           Material wire insulation         PP           Amount wires         4           Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         2.5 %           Shore hardness wire insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Amount strands (wire)         42           Diameter of single wires         0,1 mm           Conductor crosssection (wire)         0,34 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)         10 DIN VDE 0298-4           Current load capacity (standard)         10 DIN VDE 0298-4           Electrical resistance line constant wire         37 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 / 90 °C @ 10000 h Operation           Operating temperature max. (dynamic)         80	Shore hardness jacket	90 ± 5 Shore A
Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         4           Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         2 5 %m           Shore hardness wire insulation         16 5 Shore D           Ingredient freeness wire insulation         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Amount strands (wire)         42           Diameter of single wires         0,1 mm           Conductor or crosssection (wire)         0,34 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         stranded closper wire, bare           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           Min. operating temperature (f	Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Material wire insulation         PP           Amount wires         4           Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         5 %           Shore hardness wire insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Amount strands (wire)         42           Diameter of single wires         0,1 mm           Conductor crosssection (wire)         0,34 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         4,8 A           Electrical resistance line constant wire         7,2 kW @ 60 s           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 °C           Max. operating temperature (static)         80 °C / 90 °C @ 10000 h Operation           Operating temperature min. (dynamic)         25 °C           Operating temperature min. (bynamic)         25 °C </td <td>Outer-diameter (jacket)</td> <td>4,5 mm</td>	Outer-diameter (jacket)	4,5 mm
Amount wires 4 Outer diameter insulation 1,25 mm Outer diameter 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 10 tead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 Outer of single wires 10 single wires 10 stranded copper wire, bare Conductor type (wire) stranded copper wire, bare Conductor type (wire) stranded copper wire, bare Current load capacity (standard) to DIN VDE 0298-4 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  Electrical resistance line constant wire 57 Ωkm ⊗ 20 °C AC withstand voltage (wire - wire) 2,5 kV ⊗ 60 s  Power frequency withstand voltage (wire - 2,5 kV ⊗ 60 s  Min. operating temperature (static) -40 °C Max. operating temperature (static) -40 °C Max. operating temperature (static) -40 °C Coperating temperature min. (dynamic) -25 °C Operating temperature min. (dynamic) -25 °C Operating temperature min. (dynamic) -25 °C Operating temperature min. (dynamic) -25 °C Good, application-related testing  Oil resistance Good, application-related testing  Oil resistance Good, application-related testing   DIN EN 60811-404  Bending radius (fixed) 5 x Outer diameter  Bending radius (fixed) 10 m ⊗ 25 °C   toricontal  Travel speed (C-track) 10 m ⊗ 25 °C   toricontal  Travel speed (C-track) 3 m/s ⊗ 25 °C  Traversing distance (C-track) 10 m ⊗ 25 °C   toricontal  Travel speed (C-track) 2 Mio.  Toricon stress 4 ± 180 °m	Tolerance outer diameter (sheath)	± 5 %
Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Ingredient Treeness wire insulation         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Amount strands (wire)         42           Diameter of single wires         0,1 mm           Conductor crossection (wire)         0,34 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         4,8 A           Electrical resistance line constant wire         57 Ω/km @ 20 °C           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 (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 489	Material wire insulation	PP
Outer diameter tolerance core insulation         5 5 %           Shore hardness wire insulation         70 ± 5 Shore D           Ingredient freeness wire insulation         42           Amount strands (wire)         42           Diameter of single wires         0,1 mm           Conductor vire         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         4,8 A           Electrical resistance line constant wire         57 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)         80 °C / 90 °C @ 10000 h Operation           Operating temperature min. (dynamic)         25 °C           Operating temperature min. (dynamic)         80 °C / 90 °C @ 10000 h Operation           UV resistance	Amount wires	4
Shore hardness wire insulation 70 ± 5 Shore D Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, halogen-free, silicone-free Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) strand class 6 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 (standard) to DIN VDE 0298-4 Current load capacity wire 4,8 A Electrical resistance line constant wire 57 ti/km @ 20 °C AC withstand voltage (wire - wire) 2,5 kV @ 60 s Power frequency withstand voltage (wire - 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 UV resistance DIN EN ISO 4892-2 A Flame resistance UL 1.581 § 1909   IEC 60332-2-2   UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oli resistance Good, application-related testing   DIN EN 60811-404 Bending radius (fixed) 5 x Outer diameter  No. of borsion cycles (C-track) 10 Mio. @ 25 °C Traver sing distance (C-track) 10 Mio. @ 25 °C Traver sing distance (C-track) 3 m/s @ 25 °C No. of torsion cycles 2 Mio. Torsion stress ± 180 °/m	Outer diameter insulation	1,25 mm
Ingredient freeness wire insulation Amount strands (wire) 42 Diameter of single wires 0,1 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) Stranded capacity Stranded capacity Stranded copper wire, bare Courrent load capacity (standard) Current load capacity from wire 4,8 A Electrical resistance line constant wire 4,8 A Electrical resistance line constant wire 57 Ω/km @ 20 °C AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - lacket) AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - lacket) AB °C / 90 °C @ 10000 h Operation Operating temperature (static)  Operating temperature min. (dynamic) Operating temperature max. (dynamic) UV resistance DIN EN ISO 4892-2 A D	Outer diameter tolerance core insulation	±5%
Amount strands (wire) 42  Diameter of single wires 0,1 mm  Conductor crosssection (wire) 0,34 mm²  Material conductor wire Stranded copper wire, bare  Conductor type (wire) strand class 6  Nominal voltage AC max. 300 V  Current load capacity (standard) to DIN VDE 0298-4  Current load capacity (standard) 57 0/km @ 20 °C  AC withstand voltage (wire - wire) 2,5 kV @ 60 s  Power frequency withstand voltage (wire - 2,5 kV @ 60 s  Power frequency withstand voltage (wire - 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  UI 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2  chemical resistance Good, application-related testing  Gasoline resistance Good, application-related testing  Oil resistance Good, application-related testing IDIN EN 60811-404  Bending radius (fixed) 5 x Outer diameter  Bending radius (fixed) 10 x Outer diameter  Bending radius (fixed) 10 m @ 25 °C  Traver sing distance (C-track) 10 m @ 25 °C  No. of torsion cycles 2 Min.  Torsion stress ± 180 °/m	Shore hardness wire insulation	70 ± 5 Shore D
Diameter of single wires         0,1 mm           Conductor crosssection (wire)         0,34 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         strand class 6           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         4,8 A           Electrical resistance line constant wire         57 Ω/km @ 20 °C           AC withstand voltage (wire - wire)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - jacket)         2,5 kV @ 60 s           Min. operating temperature (fixed)         80 °C / 90 °C @ 10000 h Operation           Operating temperature min (dynamic)         -25 °C           Operating temperature min. (dynamic)         80 °C / 90 °C @ 10000 h Operation           UV resistance         DIN EN ISO 4892-2 A           Flame resistance         UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2           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<	Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Conductor crosssection (wire)         0,34 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         4,8 A           Electrical resistance line constant wire         57 Ω/km @ 20 °C           AC withstand voltage (wire - wire)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - iacket)         40 °C           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         UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2           chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Oil resistance         Good, application-related testing           Oil resistance         Good, application-related testing           Bending radius (fixed)         5 x Outer diameter <td>Amount strands (wire)</td> <td>42</td>	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         4,8 A           Electrical resistance line constant wire         57 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 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         UL 1581 § 1909   IEC 60332-2-2   UL 1581 § 1100 FT2           chemical resistance         Good, application-related testing           Gasoline resistance         Good, application-related testing           Oil resistance         Good, application-rel	Diameter of single wires	0,1 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 4,8 A  Electrical resistance line constant wire 57 \(  \text{ \text	Conductor crosssection (wire)	0,34 mm²
Nominal voltage AC max.  300 V Current load capacity (standard) Current load capacity (standard) Current load capacity min. wire  4,8 A Electrical resistance line constant wire AC withstand voltage (wire - wire) Power frequency withstand voltage (wire - in the constant wire of the	Material conductor wire	Stranded copper wire, bare
Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         4,8 A           Electrical resistance line constant wire         57 Ω/km @ 20 °C           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         UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2           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           Bending radius (dynamic)         10 x Outer diameter           Traversing distance (C-track)         10 mio @ 25 °C   horizontal           Travel speed (C-track)         3 m/s @ 25 °C           No. of torsion cycles </td <td>Conductor type (wire)</td> <td>strand class 6</td>	Conductor type (wire)	strand class 6
Current load capacity min. wire       4,8 A         Electrical resistance line constant wire       57 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       UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2         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 Mio. @ 25 °C         No. of torsion cycles       2 Mio.         Torsion stress       ± 180 °/m	Nominal voltage AC max.	300 V
Electrical resistance line constant wire 57 \(\Omega\) km \(\omega\) 20 °C  AC withstand voltage (wire - wire) 2.5 kV \(\omega\) 60 s  Power frequency withstand voltage (wire - iacket) 2.5 kV \(\omega\) 60 s  Min. operating temperature (static) 40 °C  Max. operating temperature (fixed) 80 °C / 90 °C \(\omega\) 10000 h Operation  Operating temperature min. (dynamic) -25 °C  Operating temperature max. (dynamic) 80 °C / 90 °C \(\omega\) 10000 h Operation  UV resistance DIN EN ISO 4892-2 A  Flame resistance UL 1581 \(\si\) 1909   IEC 60332-2-2   UL 1581 \(\si\) 1100 FT2  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 Mio. \(\omega\) 25 °C  Traversing distance (C-track) 10 m \(\omega\) 25 °C  No. of torsion cycles 2 Mio.  Torsion stress \(\omega\) ± 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 - 2,5 kV @ 60 s  Min. operating temperature (static)  Max. operating temperature (fixed)  Operating temperature (fixed)  Operating temperature min. (dynamic)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  Operating temperature max. (dynamic)  Operating temperature max. (dynamic)  No "C / 90 "C @ 10000 h Operation  UV resistance  DIN EN ISO 4892-2 A  Flame resistance  UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2  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 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 min. wire	4,8 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  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	Electrical resistance line constant wire	57 Ω/km @ 20 °C
Acket   Acke	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  UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2  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	Power frequency withstand voltage (wire - jacket)	2,5 kV @ 60 s
Operating temperature min. (dynamic) Operating temperature max. (dynamic) So °C / 90 °C @ 10000 h Operation UV resistance DIN EN ISO 4892-2 A Flame resistance UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2 Chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil resistance Good, application-related testing Oil resistance Good, application-related testing Oil resistance 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 UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2  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	Max. operating temperature (fixed)	80 °C / 90 °C @ 10000 h Operation
UV resistance DIN EN ISO 4892-2 A Flame resistance UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2 chemical resistance Good, application-related testing Gasoline resistance Good, application-related testing Oil 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 UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2  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	UL 1581 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2
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