

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

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

Female 90° Zinc die casting, save-cover coated M12, 4-pole 3× LED (PNP)

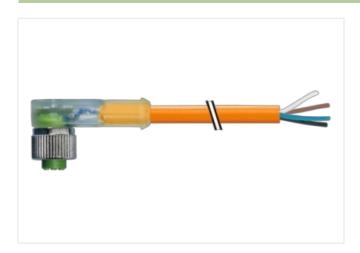
Art-No. 7005 - M12 Lite - (plastic hexagonal screw) on request

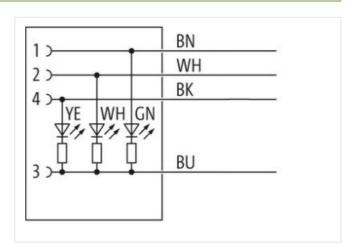
Plastic housings with good resistance against chemicals and oils.

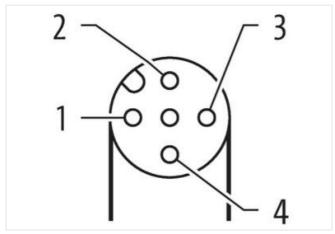
The resistance to aggressive media should be individually tested for your application. Further details on request. Further cable lengths on request.

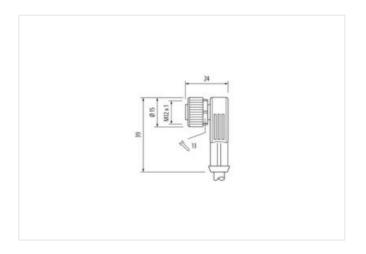
## **Link to Product**

## Illustration









Product may differ from Image











Cable length

3 m

Side 1



stay connected

Tightening torque	0,6 Nm
Mounting method	inserted, screwed
Family construction form	M12
Thread	M12 x 1
suitable for corrugated tube (internal Ø)	10 mm
Coding	A
Material	PUR
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP65, IP66K, IP67
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
customs tariff number	85444290
GTIN	4048879441827
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
Diagnostics	
Status indication LED	green, white, yellow
Installation   Connection	
Mounting set	M12 x 1
	WILAI
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 locking	safe-cover coated
Coating of fitting	nickel plated
Locking material	Zinc die-casting
Material screw connection	Zinc die-casting
Mechanical data   Mounting data	
Mounting method	inserted, screwed, Shaking protection
Environmental characteristics   Climatic	
Operating temperature min.	-25 °C
Operating temperature max.	85 °C
Additional condition temperature range	depending on cable quality
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.

Cable Institution   Cable         84.6           Cable Type   5         5           Jacket Color   Orange   CUPus   CUPu	Troto on bonding radias	endangered by excessive bending forces.
Cable Institution   Cable         84.6           Cable Type   5         5           Jacket Color   Orange   CUPus   CUPu	Conformity	
Cable Institution ( Cable	Product standard	DIN EN 61076-2-101 (M12)
Cable intentification         846           Cable Type         5           Lacked Cofor         orange           Type of Cartificate         cLPLus           Approvable         cLPLus (AWM-Style 20549/10483), CE compliant, VASS 8 compliant, according to MgU-H209-H1 (March 2021)           Amount stranding         1           Stranding         4 wires Evisited           Wise a rangement         brown, Dack, Due, white           Cable weigh         38,5 gm           Malerial jacket         PUR           Shore hardness jacket         54 ± 5 Shore D           Freedom from ingredients (jacket)         48 mm           Coller-diameter (jacket)         4 8 mm           Toller-ance outer clameter (jacket)         4 5 %           Material view in missalization         PP           Amount views         4           Outer diameter brievance core insulation         1,5 %           Shore hardness wire insulation         1,2 5 Shore D           Outer diameter brievance core insulation         1,5 %           Shore hardness wire insulation         1,2 5 Shore D           Outer diameter brievance core insulation         1,5 %           Shore hardness wire insulation         1,2 5 mm           Outer diameter brievance insulation         1,2 5 m		
Cable Type         5           Jacked Color         orange           Type of Certificate         CURus           Approvals         cURus (AWW-Style 20549/10493), CE compliant, VASS 6 compliant, according to MgU+1809-41 (March 2021)           Annount stranding         1           Stranding         4 wirce twisted           wire arrangement         brown, black, blue, white           Cable weigh         38.5 pm           Material jacket         PUR           Shore hardness jacket         FUR           Freedom from impedients (jacket)         4.8 mm           Outser-diameter (jacket)         4.8 mm           Tolerance outset diameter (sheath)         5.5 %           Material wire insulation         PP           Amount wires         4           Outer diameter (sheath)         1.25 mm           Outer diameter (sheath)         2.5 %           Shore branches sin insulation         1.25 mm           Outer diameter (sheath)         2.5 %           Shore branches wire insulation         7.2 ± 5 Shore D           Ingredient floreance ozore insulation         7.2 ± 5 Shore D           Ingredient floreance ozore insulation         7.2 ± 5 Shore D           Ingredient floreance swire insulation         7.2 ± 5 Shore D		0.10
Jacket Color		
Type of Certificate         CURus         CURus           Approvales         CURus (AWM-Style 20549*10493), CE compliant, VASS 6 compliant, according to MgU+B09-41 (March 2021)           Amount stranding         1           Stranding         4 vires brisided           wire arrangement         brown, black, blue, white           Cable weight         38,5 g/m           Material jacket         PUR           Shore hardness jacket         FUR           Freedom from ingradients (gacket)         64.5 Shore D           Cuber diameter (jacket)         4.6 mm           Cuber diameter (jacket)         4.6 mm           Tolerance outer diameter (jacket)         4.6 mm           Outer diameter (jacket)         4.5 mm           Outer diameter (jacket)         7.5 mm		
Approvals  cURus (AWM-Style 20549/10493), CE compliant, According to MgU+809-41 (March 2021) Amount stranding  1 1 Stranding 4 wires twisted  trown, black, blue, white  Cable weight Material jacket PUR Shore hardness jacket PUR Shore hardness jacket PUR Shore hardness jacket PRecedent from ingedents (jacket) 1 (as five, cadmium-free, CFC-free, halogen-free, ellicone-free  Cuter-diameter (jacket) 4,8 mm  Tolerance outer diameter (heabath) 4,5 mm  Amount wires  Cuter diameter insulation PP  Amount wires  Cuter diameter insulation PP  Amount strands (wire) 4,5 mm  Cuter diameter insulation Cuter diameter insulation PP  Amount strands (wire) 4,2 mm  Conductor or single wires Conductor or single wires Conductor or single wires Conductor vire Conduct		<del>-</del>
Amount stranding 1  Stranding 4 wires twisted wire arrangement brown, black, blue, white  Cable weight 36.5 g/m  Material jacket PUR  Shore hardness jacket 54.1.5 Shore D  Freedom from ingredients (jacket)   lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  Outer-diameter (jacket)   4.8 mm   Tolerance outer diameter (sheath) ± 5 %  Material vire insulation PP  Amount wires 4  Outer diameter insulation PP  Amount wires 4  Outer diameter insulation 1,25 mm  Outer diameter insulation 1,25		
Stranding   4 wires twisted   wire arrangement   brown, black, blue, white   Soym   Shore hardness jacket   PUR   Shore hardness jacket   PUR   Shore hardness jacket   54 ± 5 Shore D   Shore hardness jacket   Shore D   Shore hardness wire insulation   PP   Shore D   Shore hardness wire insulation   PP   Shore D   Shore hardness wire insulation   73 ± 5 Shore D   Shore hardness wire insulation   73 ± 5 Shore D   Shore hardness wire insulation   73 ± 5 Shore D   Shore hardness wire insulation   Shore hardness wire insulation   73 ± 5 Shore D   Shore hardness wire insulation   Shore h		
wire arrangement brown, black, blue, white Cable weight 38,5 g/m Material jacket PUR Shore hardness jacket 54 ± 5 Shore D Freedom from ingredients (jacket) lead-free, cadmium-free, CPC-free, halogen-free, silicone-free Outer-diameter (jacket) 4,8 mm Tolerance outer diameter (sheath) ± 5 % Material virio insulation PP Amount wires 4 Outer diameter insulation 1,25 mm Outer diameter insulation 1,25 mm Outer diameter foreace core insulation 2,3 ± 5 Shore D Shore hardness wire insulation 73 ± 5 Shore D Shore hardness wire insulation 73 ± 5 Shore D Shore hardness wire insulation 1,3 ± 5 % Shore hardness wire insulation 42 ± 5 % Shore hardness wire insulation 1,4 ± 5 % Shore hardness wire in		
Cable weigh         38,5 g/m           Material jacket         PUR           Freedom from ingredients (jacket)         lead-free, cadmium-free, CFC-free, halogen-free, allicone-free           Outer diameter (jacket)         4,8 mm           Toferance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         4           Outer diameter roll-carries (sheath)         ± 5 %           Shore hardness wire insulation         1,25 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         73 ± 5 Shore D           Ingredient freeness wire insulation         73 ± 5 Shore D           Ingredient freeness wire insulation         1,25 mm           Ingredient freeness wire insulation         42           Diameter of single wires         0,1 mm           Conductor or sessection (wire)         42           Diameter of single wires         0,1 mm           Conductor type (wire)         5 stranded copper wire, bare           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         5 strand class 6           Nominal voltage AC max.         300 V           Current load capacity min. wire         4,8 A		
Material jacket   PUR		
Shore hardness jacket   S4 ± 5 Shore D		<del>-</del>
Freedom from ingredients (jacket)         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Outer-diameter (jacket)         4,8 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         4           Outer diameter lourance core insulation         1,25 mm           Outer diameter tolerance core insulation         73 ± 5 Shore D           Ingredient freeness wire insulation         73 ± 5 Shore D           Ingredient freeness wire insulation         1,25 mm           Outer diameter of single wires         0,1 mm           Conductor of single wires         0,1 mm           Conductor resssection (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 wirin. wire         4,8 A           Electrical resistance line constant wire         60 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           Max. operating temperature (fixed)         80 °C / 90 °C @ 10	· · · · · · · · · · · · · · · · · · ·	
Outer-diameter (jacket)         4,8 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         4           Outer diameter insulation         1,25 mm           Outer diameter insulation         ± 5 %           Shore hardness wire insulation         73 ± 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 wie         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 rimin wire         4,8 A           Electrical resistance line constant wire         60 \( \Omega \) \( \o	· · · · · · · · · · · · · · · · · · ·	
Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PP           Amount wires         4           Outer diameter insulation         ± 5 mm           Outer diameter lolerance core insulation         ± 5 %           Shore hardness wire insulation         73 ± 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 sossescetion (wire)         0,3 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 0298-4           Current load capacity min. wire         4.8 A           Electrical resistance line constant wire         60 Ωkm @ 20 °C           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 (min. (dynamic)         0.2 °C @ 10000 h Operation           Operating temperature min. (dynamic)         2.5 °C ( 90 °		
Material wire insulation         PP           Amount wires         4           Outer diameter insulation         1,25 mm           Outer diameter follorance core insulation         ± 5 %           Shore hardness wire insulation         73 ± 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, barre           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         60 O/km @ 20 °C           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 (fixed)         80 °C / 90 °C @ 10000 h Operation           Operating temperature max. (dynamic)         80 °C / 90 °C @ 10000 h Operation           Ceperating temperature max.	Outer-diameter (jacket)	
Amount wires         4           Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         1,25 mm           Ingredient freeness wire insulation         lead-free, cadmium-free, CFC-free, halogen-free, silicone-free           Amount strands (wire)         42           Diameter of single wires         0,1 mm           Conductor rosssection (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         60 0/km @ 20 °C           AC withstand voltage (wire - wire)         2.5 kV @ 60 s           Power frequency withstand voltage (wire - jacket)         2.5 kV @ 60 s           Min. operating temperature (static)         40 °C           Max. operating temperature (static)         80 °C / 90 °C @ 10000 h Operation           Operating temperature max. (dynamic)         25 °C           Operating temperature max. (dynamic)         80 °C / 90 °C @ 10000 h Operation           Oli resistance <t< td=""><td>Tolerance outer diameter (sheath)</td><td></td></t<>	Tolerance outer diameter (sheath)	
Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         73 ± 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 min. wire         4,8 A           Electrical resistance line constant wire         60 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           Min. operating temperature (static)         80 °C / 90 °C @ 10000 h Operation           Operating temperature min. (dynamic)         25 °C           Operating temperature max. (dynamic)         80 °C / 90 °C @ 10000 h Operation           Flame resistance         IEC 60332-2-2 IU L 1581 § 1909 I U L 1581 § 1100 FT2           chemical resistance         Good, application-related testing<	Material wire insulation	PP
Outer diameter tolerance core insulation         ± 5 %           Shore bardness wire insulation         73 ± 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         60 Ω/km @ 20 °C           AC withstand voltage (wire - vivire)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - viace)         2,5 kV @ 60 s           Max. operating temperature (fixed)         80 °C / 90 °C @ 10000 h Operation           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         [EC 60332-22 ·2   U. 1581 § 1990   U. 1581 § 1100 FT2           chemical resistance         Good, appl	Amount wires	4
Shore hardness wire insulation   73 ± 5 Shore D	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) strand class 6 Nominal voltage AC max. 300 V Current load capacity (standard) Current load capacity (standard) Current load capacity (standard) Current load capacity (standard) Current load capacity wire) 3.5 kV @ 60 s Electrical resistance line constant wire 6.0 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2.5 kV @ 60 s Power frequency withstand voltage (wire - wire) 3.5 kV @ 60 s Ax. Operating temperature (static) 4.0 °C Ax. Operating temperature (fixed) Min. operating temperature (fixed) Moperating temperature min. (dynamic) 0-perating temperature min. (dynamic) 0-perating temperature max. (dynamic) Coperating temperature max. (dynamic) Coperating temperature max. (dynamic) Gasoline resistance Good, application-related testing Gasoline resistance Good, application-related testing Cil resistance Good, application-related testing Cil resistance Good, application-related testing Cil resistance Bending radius (fixed) 5 x Outer diameter Bending radius (fixed) 5 x Outer diameter Bending radius (dynamic) 10 x Outer diameter Bending radius (dynamic) 10 x Outer diameter Bending radius (dynamic) 10 x Outer diameter No. of bending cycles (C-track) 5 m @ 25 °C Inversing distance (C-track) 5 m @ 25 °C Inversing distance (C-track) 5 m @ 25 °C Inversing distance (C-track) 5 m @ 25 °C No. of torsion cycles 1 Min. Torsion stress ± 360 °/m	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) to DIN VDE 0298-4  Current load capacity (wire - wire) 2,5 kV @ 60 s  Electrical resistance line constant wire 60 Ω/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  Power frequency withstand voltage (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  Power frequency withstand voltage (wire - 2,5 kV @ 60 s  Bo °C / 90 °C @ 10000 h Operation  Operating temperature (fixed) 80 °C / 90 °C @ 10000 h Operation  Operating temperature max. (dynamic) 225 °C  Operating temperature max. (dynamic) 80 °C / 90 °C @ 10000 h Operation  Flame resistance IEC 60322-22   UL 1581 § 1990   UL 1581 § 1100 FT2  chemical resistance Good, application-related testing  Oil 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  Bending radius (dynamic) 10 x Outer diameter  No. of bending cycles (C-track) 10 Mio. @ 25 °C  Traversing distance (C-track) 5 m @ 25 °C   horizontal  Traversing distance (C-track) 1 Mio.  Torsion stress ± 360 °/m	Shore hardness wire insulation	73 ± 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         60 Ω/km @ 20 °C           AC withstand voltage (wire - wire)         2,5 kV @ 60 s           Power frequency withstand voltage (wire - jacket)         2,5 kV @ 60 s           Min. operating temperature (static)         -40 °C           Max. operating temperature (static)         80 °C / 90 °C @ 10000 h Operation           Operating temperature 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         Good, application-related t	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         60 Ω/km @ 20 °C           AC withstand voltage (wire - wire)         2.5 kV @ 60 s           Power frequency withstand voltage (wire - izaket)         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 § 1990   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           Traver sing distance (C-track) </td <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 (standard)  Current load capacity min. wire  4,8 A  Electrical resistance line constant wire  60 \( \Omega \text{km} \) \( \omega \text{cm} \)  AC withstand voltage (wire - wire)  2,5 kV \( \omega \text{00 s} \)  Power frequency withstand voltage (wire - alacket)  Max. operating temperature (static)  40 °C  Max. operating temperature (fixed)  80 °C / 90 °C \( \omega \text{10000 h Operation} \)  Operating temperature min. (dynamic)  Plame resistance  EC 60322-2:2   UL 1581 \( \green \text{100 p   UL 1581 \( \green \text{110 p   T2} \)  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 (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)  5 m \( \omega \text{25 °C} \)  No. of torsion cycles  1 Mio.  Torsion stress  ± 360 °/m	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         4.0 Ω/km @ 20 °C           AC withstand voltage (wire - wire)         2.5 kV @ 60 s           Power frequency withstand voltage (wire - jacket)         4.0 °C           Min. operating temperature (static)         4.0 °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 § 1990   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           No. of bending cycles (C-track)         5 m @ 25 °C   horizontal           Traversing distance (C-track)	Conductor crosssection (wire)	0,34 mm²
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         60 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           Gaisoline 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           No. of bending cycles (C-track)         10 x Outer diameter           No. of bending cycles (C-track)         5 m @ 25 °C   horizontal           Travel speed (C-track)         3,3 m/s @ 25 °C           No. of torsion	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         60 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         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)         5 m @ 25 °C   horizontal           Travel speed (C-track)         3,3 m/s @ 25 °C           No. of torsion cycles         1 Mio.           Torsion stress	Conductor type (wire)	strand class 6
Current load capacity min. wire 4,8 A  Electrical resistance line constant wire 60 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 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) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles 1 Mio.  Torsion stress ± 360 °/m	Nominal voltage AC max.	300 V
Electrical resistance line constant wire       60 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       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)       5 m @ 25 °C   horizontal         Travel speed (C-track)       3,3 m/s @ 25 °C         No. of torsion cycles       1 Mio.         Torsion stress       ± 360 °/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)  AC oc  Max. operating temperature (fixed)  More of temperature min. (dynamic)  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  Operating temperature max. (dynamic)  EC 60332-2-2   UL 1581 § 1090   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)  5 m @ 25 °C   horizontal  Travel speed (C-track)  3,3 m/s @ 25 °C  No. of torsion cycles  1 Mio.  Torsion stress  ± 360 °/m	Current load capacity min. wire	4,8 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)  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  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)  5 m @ 25 °C   horizontal  Travel speed (C-track)  3,3 m/s @ 25 °C  No. of torsion cycles  1 Mio.  Torsion stress  ± 360 °/m	Electrical resistance line constant wire	60 Ω/km @ 20 °C
Jacket)  Min. operating temperature (static)  Max. operating temperature (fixed)  More of C   10000 h Operation  Operating temperature min. (dynamic)  Operating temperature max. (dynamic)  Deperating temperature max. (dynamic)  EC 60332-2-2   UL 1581 § 1090   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)  5 m @ 25 °C   horizontal  Travel speed (C-track)  3,3 m/s @ 25 °C  No. of torsion cycles  1 Mio.  Torsion stress  ± 360 °/m	AC withstand voltage (wire - wire)	2,5 kV @ 60 s
Max. operating temperature (fixed)  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  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)  5 m @ 25 °C   horizontal  Travel speed (C-track)  3,3 m/s @ 25 °C  No. of torsion cycles  1 Mio.  Torsion stress  ± 360 °/m	Power frequency withstand voltage (wire - jacket)	2,5 kV @ 60 s
Operating temperature min. (dynamic) Operating temperature max. (dynamic) S0 °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 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) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles 1 Mio.  Torsion stress ± 360 °/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  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)  5 m @ 25 °C   horizontal  Travel speed (C-track)  3,3 m/s @ 25 °C  No. of torsion cycles  1 Mio.  Torsion stress  ± 360 °/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 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) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles  1 Mio.  Torsion stress ± 360 °/m	Operating temperature min. (dynamic)	-25 °C
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) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles  1 Mio.  Torsion stress ± 360 °/m	Operating temperature max. (dynamic)	80 °C / 90 °C @ 10000 h Operation
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) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles 1 Mio.  Torsion stress ± 360 °/m	Flame resistance	IEC 60332-2-2   UL 1581 § 1090   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) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles 1 Mio.  Torsion stress ± 360 °/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) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles 1 Mio.  Torsion stress ± 360 °/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) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles 1 Mio.  Torsion stress ± 360 °/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)  5 m @ 25 °C   horizontal  Travel speed (C-track)  3,3 m/s @ 25 °C  No. of torsion cycles  1 Mio.  Torsion stress  ± 360 °/m	Bending radius (fixed)	5 x Outer diameter
Traversing distance (C-track) 5 m @ 25 °C   horizontal  Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles 1 Mio.  Torsion stress ± 360 °/m	Bending radius (dynamic)	10 x Outer diameter
Travel speed (C-track) 3,3 m/s @ 25 °C  No. of torsion cycles 1 Mio.  Torsion stress ± 360 °/m	No. of bending cycles (C-track)	10 Mio. @ 25 °C
No. of torsion cycles         1 Mio.           Torsion stress         ± 360 °/m	Traversing distance (C-track)	5 m @ 25 °C   horizontal
No. of torsion cycles         1 Mio.           Torsion stress         ± 360 °/m	Travel speed (C-track)	3,3 m/s @ 25 °C
Torsion stress ± 360 °/m	No. of torsion cycles	1 Mio.
Torsion speed 35 cycles/min	Torsion stress	± 360 °/m
	Torsion speed	35 cycles/min