

## M12 male 90° A-cod. / MSUD valve plug A-18mm

PVC 5x0.34 bk UL/CSA 1.5m

MSUD Form A (18 mm) – M12, male 90° 24 V DC ±25% LED (yellow/green) for pressure switches Further cable lengths on request.

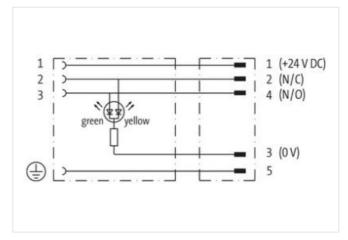
Plastic housings with good resistance against chemicals and oils.

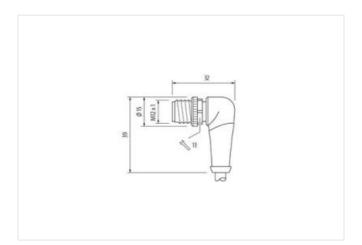
The resistance to aggressive media should be individually tested for your application. Further details on request.

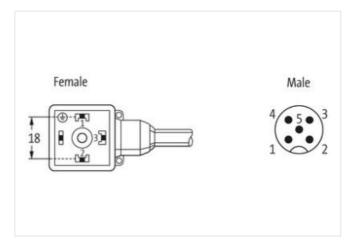
## **Link to Product**

## Illustration











stay connected



Product may differ from Image



Cable length	1,5 m
Side 1	
Tightening torque	0,4 Nm
Family construction form	MSUD
Thread	M3
Degree of protection (EN IEC 60529)	IP66K, IP67
Side 2	
Tightening torque	0,6 Nm
Family construction form	M12
Thread	M12 x 1
Degree of protection (EN IEC 60529)	IP66K, IP67
Commercial data	
ECLASS-6.0	27279218
ECLASS-6.1	27279218
ECLASS-7.0	27279218
ECLASS-8.0	27279218
ECLASS-9.0	27060312
ECLASS-10.1	27060312
ECLASS-11.1	27060312
ECLASS-12.0	27060312
ETIM-5.0	EC001855
customs tariff number	85444290
GTIN	4048879610681
Packaging unit	1
Electrical data   Supply	
Operating voltage DC	24 V
Operating voltage DC min.	18 V
Operating voltage DC max.	30 V
Current operating per contact max.	4 A
Current consumption max.	12 mA
Device protection   Electrical	



stay connected

Nechanical data   Material data   Material data   Material data   Mounting dat	Additional condition protection degree	inserted, screwed
Calter housing black Material housing personal country of the state of	Rated surge voltage	0,8 kV
Calter housing black Material housing personal country of the state of	Mechanical data   Material data	
Mechanical data   Mounting data  Mounting method inserted, sorewed  Environmental characteristics   Climatic Operating improvature man. 25 °C Operating improvature man. 25 °C Additional condition temperature range depending on cable quality  Important installation notes  Note on sharin ristallation notes  Note on sharin ristallation notes  Additional condition temperature range depending on cable quality  Important installation notes  Note on sharin ristallation notes  Additional condition temperature range depending on cable quality  Important installation notes  Additional condition reperature range depending on cable quality  Important installation notes  Additional condition reperature range depending on cable quality  Important installation notes  Additional condition reperature range depending on cable quality  Important installation notes  Additional condition reperature range depending on cable quality  Important installation reperature range depending on cable quality  Important range reperature range reperature range depending range reperature range rang	·	blook
Mounting method inserted, screwed  Furviornmental characteristics   Climatic  Coperating temperature max. 85 °C  Additional condition temperature range depending on cable quality  Important installation notes  Note on strain relief Protect the connections by suitable measures from mechanical loads, e.g. by the usage of cable item.  Note on bending radius Additional condition temperature range depending on the connections by suitable measures from mechanical loads, e.g. by the usage of cable item.  Note on bending radius Additional Condition Charves the permissible bending radis when laying cables, as the IP protection class can be endangered by excessive bending forces.  Installation   Cable  Cable identification   615  Cable 17ype   1  Installation   1  Salete Coder   black  Amount stranding   1  Salete Coder   black  Amount stranding   1  Filter   yes  Wein arrangement   brown, black, blue, white, green yellow  Cable weight   48,4 gm    Material jacket   PVC  Totale weight   85 s S Shoro A  Fireadom from ingrodients (jacket)   5,2 mm  Totalerance outer diameter (jacket)   5,2 mm  Totalerance outer diameter (jacket)   2,5 mm  Outer-diameter (jacket)   2,5 mm  Outer diameter (jacket)   2,5 mm  Outer diameter (jacket)   1,9 mm  Material jacket   Nove   1,9 mm  Material jacket   Nove   1,9 mm  Material jacket   Nove   1,9 mm  Outer diameter (jacket)   2,5 mm  Outer diameter (jacket)   2,5 mm  Outer diameter forlameter or insulation   2,5 mm  Outer diameter forlameter or insulation   2,5 mm  Outer diameter for language AC max.   300 V  Current load capacity (standard)   10 NVDC 0288 4  Current load capacity (standard)   10 NVDC 0288 4  Current load capacity (standard)   2 kV @ 00 s  Min. operating temperature (lacket)   3,0 °C  Oper		
Inserted, screwed   Inserted, screwed   Inserted, screwed   Inserted, screwed   Inserted, screwed   Inserted, screwed   Inserted		i idatio
Cyperating temperature max. 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 sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending forces.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by sociesive bending the permissible bending radii when laying cables, as the IP protection when laying cables are called to the protection class can be protected by the usage of cabl	Mechanical data   Mounting data	
Operating temperature min. 25 °C Operating temperature max. 85 °C  Mode on bending radius  Attention: Observe the connectors by suitable measures from mechanical loads, e.g. by the usage of cable fee.  Note on bending radius  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.  Installation (Cable  Cable Type  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mounting method	inserted, screwed
Operating temperature max. 85 °C depending on cable quality Important installation notes Note on strain relief Note on strain relief Note on strain relief Protect the connectors by suitable measures from mechanical toads, e.g. by the usage of cable ties. Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.  Installation   Cable  Cable identification   615 Cable	Environmental characteristics   Climatic	
Additional condition temperature range depending on cable quality	Operating temperature min.	-25 °C
Important Installation notes         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 bross.           Installation (Cable)         Cable identification         615           Cable Itype         1           Jacket Color         black           Type of Certificate         cull William           Stranding         5 wires around Core filler twisted           Filter         yes           wire arrangement         brown, black, blue, white, green-yellow           Cable weight         48.4 g/m           Material jacket         PVC           Shore hardness jacket         85 ± 5 Shore A           Freadom from ingredients (jacket)         5 ± 7 mm           Tolerance outer diameter (sheath)         ± 5 %           Material were insulation         1 £ 5 mm           Outer diameter (sheath)         ± 5 % remained the properties wire insulation           Material properties wire insulation         45 ± 5 Shore D           Material properties wire insulation         45 ± 5 Shore D           Material properties wire insulation         45 ± 5 Shore D           Material properties wire insulation         90 mm c	Operating temperature max.	85 °C
Note on strain relief Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.  Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.  Installation   Cable    Cable identification   615    Caple identific	Additional condition temperature range	depending on cable quality
Altention: Chserve the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.  Cable identification 615  Cable Type 1 1 Ausketl Color black Type of Certificate cURs Type of Certificate cURs Amount stranding 1 Swires around Core filler twisted Filler yes Wire arrangement brown, black, blue, white, green-yellow Cable wight 48,4 gm Material jacket PVC Shore hardness jacket PVC Shore hardness jacket 5,2 mm Colurer diameter (sheath) 5,2 mm Colurer diameter (sheath) 5,2 mm Colurer diameter (sheath) 5,2 mm Colurer diameter insulation PVC Amount wires 5 Colurer diameter insulation 45 ± 5 Shore D Material properties wire insulation 45 ± 5 Shore D Material properties wire insulation 45 ± 5 Shore D Material properties wire insulation good machinability ingredient freeness wire insulation 190. Jim m  Conductor crosses wire insulation 190. Jim m  Material or single wires 0,15 mm  Material properties wire insulation 190. Jim m  Material properties wire insulation 190. Jim m  Material conductor vires wire insulation 190. Jim m  Material conductor vires wire insulation 190. Jim m  Material conductor vire 0,34 mm²  Material conductor vire 0.34 mm²  Material conductor vire 0.57 ukm @ 20 °C  Current load capacity min. wire 4.5 A  Current load capacity min. wire 4.5 A  Current load capacity withstand voltage (wire - wire) 2 kV @ 60 s  Power frequency withstand voltage (wire - wire) 2 kV @ 60 s  Currenting permenture (stud) 0.30 °C  Operating temperature (stud) 0.30 °C  Operating temperature (stud) 0.5° °C	Important installation notes	
Altention: Chserve the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.  Cable identification 615  Cable Type 1 1 Ausketl Color black Type of Certificate cURs Type of Certificate cURs Amount stranding 1 Swires around Core filler twisted Filler yes Wire arrangement brown, black, blue, white, green-yellow Cable wight 48,4 gm Material jacket PVC Shore hardness jacket PVC Shore hardness jacket 5,2 mm Colurer diameter (sheath) 5,2 mm Colurer diameter (sheath) 5,2 mm Colurer diameter (sheath) 5,2 mm Colurer diameter insulation PVC Amount wires 5 Colurer diameter insulation 45 ± 5 Shore D Material properties wire insulation 45 ± 5 Shore D Material properties wire insulation 45 ± 5 Shore D Material properties wire insulation good machinability ingredient freeness wire insulation 190. Jim m  Conductor crosses wire insulation 190. Jim m  Material or single wires 0,15 mm  Material properties wire insulation 190. Jim m  Material properties wire insulation 190. Jim m  Material conductor vires wire insulation 190. Jim m  Material conductor vires wire insulation 190. Jim m  Material conductor vire 0,34 mm²  Material conductor vire 0.34 mm²  Material conductor vire 0.57 ukm @ 20 °C  Current load capacity min. wire 4.5 A  Current load capacity min. wire 4.5 A  Current load capacity withstand voltage (wire - wire) 2 kV @ 60 s  Power frequency withstand voltage (wire - wire) 2 kV @ 60 s  Currenting permenture (stud) 0.30 °C  Operating temperature (stud) 0.30 °C  Operating temperature (stud) 0.5° °C	Note on strain relief	Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.
Installation   Cable   Cable identification   615   Cable Type   1   Jacket Color   black   Type of Certificate   cURus   Amount stranding   1   Stranding   5 wires around Core filler twisted   Filler   yes   Wite arrangement   brown, black, blue, white, green-yellow   Cable weight   48,4 g/m   Meterial jacket   PVC   Shore hardness jacket   PVC   Shore hardness jacket   85 ± 5 Shore A   Freedom from ingredients (jacket)   1,25 mm   Couter diameter (jacket)   5,2 mm   Couter diameter (jacket)   5 ± 5 Shore A   Freedom from insulation   PVC   Amount wires   5   Couter diameter insulation   PVC   Amount wires   5   Shore hardness wire insulation   1,25 mm   Couter diameter insulation   1,25 mm   Couter diameter insulation   45 ± 5 Shore D   Material yer insulation   45 ± 5 Shore D   Material yer insulation   900 machinability   Ingredient feeness wire insulation   900 machinability   Ingredient feeness wire insulation   904 machinability   Ingredient feeness wire insulation   905 machinability   Ingredient feeness the insulation   905 machinability   Ingredient feeness wire insulation   905 machinability   Ingredient f	Note on bending radius	Attention: Observe the permissible bending radii when laying cables, as the IP protection class can be
Cable Identification         615           Cable Type         1           Jackel Color         black           Type of Certificate         cURus           Amount stranding         1           Strinding         5 wires around Core filler twisted           Filler         yes           wire arrangement         brown, black, blue, white, green-yellow           Cable weight         48,4 g/m           Material jacket         PVC           Shore hardness jacket         85 ± 5 Shore A           Freedom from ingredients (jacket)         lead-free, cadmium-free, CFC-free, silicone-free           Outer-diameter (jacket)         5.2 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PVC           Amount wires         5           Outer diameter insulation         ± 5 %           Material properties wire insulation         ± 5 %           Material properties wire insulation         ± 5 ± 5 Shore D           Material properties wire insulation         ± 5 ± 5 Shore D           Material properties wire insulation         ± 5 ± 5 Shore D           Material properties wire insulation         ± 6 ± 7 Shore D           Diameter of single wires         0,15 mm	•	endangered by excessive bending forces.
Cable Type	Installation   Cable	
Jacket Color   black   CURus	Cable identification	615
Type of Certificate	Cable Type	1
Amount stranding 1 Stranding 5 wires around Core filler twisted    Stranding 5 wires around Core filler twisted   Stranding 5 wires around Core filler twisted   Stranding 5 wires around Core filler twisted   Wes	Jacket Color	black
Stranding 5 wires around Core filler twisted Filler yes wire arrangement brown, black, blue, white, green-yellow  Cable weight 48,4 g/m Material jacket PVC Shore hardness jacket 92 5 shore A Freedom from ingredients (jacket) lead-free, cadmium-free, CFC-free, silicone-free Outer-diameter (jacket) 5.2 mm Tolerance outer diameter (sheath) ± 5 % Material wire insulation PVC Amount wires 5 Outer diameter insulation PVC Amount wires 5 Outer diameter insulation 1,25 mm Outer diameter insulation 45 ± 5 % Shore hardness wire insulation 45 ± 5 % Shore hardness wire insulation good machinability Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, silicone-free Amount strands (wire) 19 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) Stranded copper wire, bare Conductor type (wire) Stranded copper wire, bare Conductor lead-gacity min. wire 4,5 A Electrical resistance line constant wire 57 Ωkm @ 20 °C AC withstand voltage (wire - wire) 2 kV @ 60 s Power frequency withstand voltage (wire - iacket) Min. operating temperature (static) 45 °C Coperating temperature min. (dynamic) -5 °C Coperating temperature min. (dynamic) -5 °C	Type of Certificate	cURus
yes	Amount stranding	1
	Stranding	5 wires around Core filler twisted
Cable weigth         48,4 g/m           Material jacket         PVC           Shore hardness jacket         85 ± 5 Shore A           Freedom from ingredients (jacket)         lead-free, cadmium-free, CFC-free, silicone-free           Outer-diameter (jacket)         5,2 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PVC           Amount wires         5           Outer diameter insulation         1,25 mm           Outer diameter insulation         ± 5 %           Shore hardness wire insulation         45 ± 5 Shore D           Material properties wire insulation         good machinability           Ingredient freeness wire insulation         lead-free, cadmium-free, CFC-free, silicone-free           Amount strands (wire)         19           Diameter of single wires         0,15 mm           Conductor crosssection (wire)         0,34 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         Stranded class 5           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 wirin. wire         4,5 A	Filler	yes
Material jacket         PVC           Shore hardness jacket         85 ± 5 Shore A           Freedom from Ingredients (jacket)         lead-free, cadmium-free, CFC-free, silicone-free           Outer-diameter (jacket)         5,2 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PVC           Amount wires         5           Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         45 ± 5 Shore D           Material properties wire insulation         good machinability           Ingredient freeness wire insulation         lead-free, cadmium-free, CFC-free, silicone-free           Amount strands (wire)         19           Diameter of single wires         0,15 mm           Conductor crosssection (wire)         0,34 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         Strand class 5           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         4,5 A           Electrical resistance line constant wire         2 kV @ 60 s           Power frequency withstand volt	wire arrangement	brown, black, blue, white, green-yellow
Shore hardness jacket         85 ± 5 Shore A           Freedom from ingredients (jacket)         lead-free, cadmium-free, CFC-free, silicone-free           Outer-diameter (jacket)         5,2 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PVC           Amount wires         5           Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         45 ± 5 Shore D           Material properties wire insulation         45 ± 5 Shore D           Material properties wire insulation         lead-free, cadmium-free, CFC-free, silicone-free           Amount strands (wire)         19           Diameter of single wires         0,15 mm           Conductor orsesection (wire)         0,34 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         Strand class 5           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity min. wire         4,5 A           Electrical resistance line constant wire         57 Ω/km @ 20 °C           AC withstand voltage (wire - wire)         2 kV @ 60 s           Powe	Cable weigth	48,4 g/m
Freedom from ingredients (jacket)   lead-free, cadmium-free, CFC-free, silicone-free	Material jacket	PVC
Outer-diameter (jacket)         5,2 mm           Tolerance outer diameter (sheath)         ± 5 %           Material wire insulation         PVC           Amount wires         5           Outer diameter insulation         1,25 mm           Outer diameter tolerance core insulation         ± 5 %           Shore hardness wire insulation         45 ± 5 Shore D           Material properties wire insulation         good machinability           Ingredient freeness wire insulation         good machinability           Ingredient freeness wire insulation         lead-free, cadmium-free, CFC-free, silicone-free           Amount strands (wire)         19           Diameter of single wires         0,15 mm           Conductor crosssection (wire)         0,34 mm²           Material conductor wire         Stranded copper wire, bare           Conductor type (wire)         Stranded copper wire, bare           Conductor type (wire)         Strand class 5           Nominal voltage AC max.         300 V           Current load capacity (standard)         to DIN VDE 0298-4           Current load capacity (min. wire)         4,5 A           Electrical resistance line constant wire         57 Ω/km @ 20 °C           AC withstand voltage (wire - wire)         2 kV @ 60 s           Power frequenc	Shore hardness jacket	85 ± 5 Shore A
Tolerance outer diameter (sheath) ± 5 %  Material wire insulation PVC  Amount wires 5  Outer diameter insulation 1,25 mm  Outer diameter tolerance core insulation ± 5 %  Shore hardness wire insulation 45 ± 5 Shore D  Material properties wire insulation good machinability  Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, silicone-free  Amount strands (wire) 19  Diameter of single wires 0,15 mm  Conductor crosssection (wire) 0,34 mm²  Material conductor wire Stranded copper wire, bare  Conductor type (wire) Stranded copper wire, bare  Conductor type (wire) Strand class 5  Nominal voltage AC max. 300 V  Current load capacity (standard) to DIN VDE 0298-4  Current load capacity min. wire 4,5 A  Electrical resistance line constant wire 57 Ω/km @ 20 °C  AC withstand voltage (wire - wire) 2 kV @ 60 s  Power frequency withstand voltage (wire - iacket)  Min. operating temperature (static) -30 °C  Max. operating temperature (fixed) 80 °C  Operating temperature min. (dynamic) -5 °C	Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, silicone-free
Material wire insulation       PVC         Amount wires       5         Outer diameter insulation       1,25 mm         Outer diameter tolerance core insulation       ± 5 %         Shore hardness wire insulation       45 ± 5 Shore D         Material properties wire insulation       good machinability         Ingredient freeness wire insulation       lead-free, cadmium-free, CFC-free, silicone-free         Amount strands (wire)       19         Diameter of single wires       0,15 mm         Conductor crosssection (wire)       0,34 mm²         Material conductor wire       Stranded copper wire, bare         Conductor type (wire)       Strand class 5         Nominal voltage AC max.       300 V         Current load capacity (standard)       to DIN VDE 0298-4         Current load capacity min. wire       4,5 A         Electrical resistance line constant wire       57 Ω/km @ 20 °C         AC withstand voltage (wire - wire)       2 kV @ 60 s         Power frequency withstand voltage (wire - iacket)       2 kV @ 60 s         Min. operating temperature (static)       -30 °C         Max. operating temperature (min. (dynamic)       -5 °C	Outer-diameter (jacket)	5,2 mm
Amount wires 5 Outer diameter insulation 1,25 mm Outer diameter tolerance core insulation ±5 % Shore hardness wire insulation 45 ± 5 Shore D Material properties wire insulation good machinability Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, silicone-free Amount strands (wire) 19 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) Strand class 5 Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,5 A Electrical resistance line constant wire 57 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2 kV @ 60 s Power frequency withstand voltage (wire - 30 °C Max. operating temperature (static) -30 °C Max. operating temperature (fixed) 80 °C Operating temperature min. (dynamic) -5 °C	Tolerance outer diameter (sheath)	± 5 %
Outer diameter insulation 1,25 mm Outer diameter tolerance core insulation ±5 % Shore hardness wire insulation 45 ± 5 Shore D Material properties wire insulation good machinability Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, silicone-free Amount strands (wire) 19 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) Strand class 5 Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,5 A Electrical resistance line constant wire 57 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2 kV @ 60 s Power frequency withstand voltage (wire - glacket) -30 °C Max. operating temperature (static) -30 °C Max. operating temperature (fixed) 80 °C Operating temperature min. (dynamic) -5 °C	Material wire insulation	PVC
Outer diameter tolerance core insulation       ± 5 %         Shore hardness wire insulation       45 ± 5 Shore D         Material properties wire insulation       good machinability         Ingredient freeness wire insulation       lead-free, cadmium-free, CFC-free, silicone-free         Amount strands (wire)       19         Diameter of single wires       0,15 mm         Conductor crosssection (wire)       0,34 mm²         Material conductor wire       Stranded copper wire, bare         Conductor type (wire)       Strand class 5         Nominal voltage AC max.       300 V         Current load capacity (standard)       to DIN VDE 0298-4         Current load capacity min. wire       4,5 A         Electrical resistance line constant wire       57 Ω/km @ 20 °C         AC withstand voltage (wire - wire)       2 kV @ 60 s         Power frequency withstand voltage (wire - giacket)       2 kV @ 60 s         Min. operating temperature (static)       -30 °C         Max. operating temperature (fixed)       80 °C         Operating temperature min. (dynamic)       -5 °C	Amount wires	5
Shore hardness wire insulation  Material properties wire insulation  Material properties wire insulation  Ingredient freeness wire insulation  Ingredient free, CFC-free, silicone-free  Ingredient free  Ingredient free, CFC-free, silicone-free  Ingredient free  Ingredient free  Ingredient freeness wire insulation  Ingredient free, CFC-free, silicone-free  Ingredient free  Ingredient free  Ingredient freeness wire insulation  Ingredient freeness wire insulation  Ingredient freeness wire insulation  Ingredient free, CFC-free, silicone-free  Ingredient free, CFC-free, silicone-free  Ingredient freeness wire  Ingredient freeness wire insulation  Ingredient freenes witchen  Ingredient freenes witchen  Ingredient freeness wire  Ingredient freeness  Ingredient freenes  Ingredient freene  Ingredient freenes  Ingredient freene  Ingredient freene  Ingredient freene  Ingredient freene  Ingredient freenes  Ingredient freene  Ingredient freene  Ingredient freene  I	Outer diameter insulation	1,25 mm
Material properties wire insulation good machinability Ingredient freeness wire insulation lead-free, cadmium-free, CFC-free, silicone-free Amount strands (wire) 19 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) Strand class 5 Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,5 A Electrical resistance line constant wire 57 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2 kV @ 60 s Power frequency withstand voltage (wire - iacket) Min. operating temperature (static) -30 °C Max. operating temperature min. (dynamic) -5 °C	Outer diameter tolerance core insulation	± 5 %
Ingredient freeness wire insulation  lead-free, cadmium-free, CFC-free, silicone-free  Amount strands (wire)  Diameter of single wires  O,15 mm  Conductor crosssection (wire)  O,34 mm²  Material conductor wire  Stranded copper wire, bare  Conductor type (wire)  Strand class 5  Nominal voltage AC max.  300 V  Current load capacity (standard)  to DIN VDE 0298-4  Current load capacity min. wire  4,5 A  Electrical resistance line constant wire  57 \( \Omega / \text{km} \end{aligned} \text{e0} \text{s}  AC withstand voltage (wire - wire)  Power frequency withstand voltage (wire - iacket)  Min. operating temperature (static)  -30 °C  Max. operating temperature min. (dynamic)  -5 °C	Shore hardness wire insulation	45 ± 5 Shore D
Amount strands (wire) 19 Diameter of single wires 0,15 mm Conductor crosssection (wire) 0,34 mm² Material conductor wire Stranded copper wire, bare Conductor type (wire) Strand class 5 Nominal voltage AC max. 300 V Current load capacity (standard) to DIN VDE 0298-4 Current load capacity min. wire 4,5 A Electrical resistance line constant wire 57 Ω/km @ 20 °C AC withstand voltage (wire - wire) 2 kV @ 60 s Power frequency withstand voltage (wire - lacket) lacket) 2 kV @ 60 s Min. operating temperature (static) -30 °C Max. operating temperature min. (dynamic) -5 °C	Material properties wire insulation	good machinability
Diameter of single wires  O,15 mm  Conductor crosssection (wire)  O,34 mm²  Material conductor wire  Stranded copper wire, bare  Conductor type (wire)  Strand class 5  Nominal voltage AC max.  300 V  Current load capacity (standard)  to DIN VDE 0298-4  Current load capacity min. wire  4,5 A  Electrical resistance line constant wire  57 Ω/km @ 20 °C  AC withstand voltage (wire - wire)  2 kV @ 60 s  Power frequency withstand voltage (wire - iacket)  Min. operating temperature (static)  -30 °C  Max. operating temperature min. (dynamic)  -5 °C	Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, silicone-free
Conductor crosssection (wire)  Material conductor wire  Stranded copper wire, bare  Conductor type (wire)  Strand class 5  Nominal voltage AC max.  300 V  Current load capacity (standard)  to DIN VDE 0298-4  Current load capacity min. wire  4,5 A  Electrical resistance line constant wire  57 \( \Omega \) / (km \\ \omega 20 \\ \circ C  AC withstand voltage (wire - wire)  2 kV \( \omega 60 \) s  Power frequency withstand voltage (wire - \omega icapacity)  jacket)  Min. operating temperature (static)  -30 \( \circ C  AC \)  Operating temperature min. (dynamic)  -5 \( \circ C  -5 \)  C	Amount strands (wire)	19
Material conductor wire  Stranded copper wire, bare  Conductor type (wire)  Strand class 5  Nominal voltage AC max.  300 V  Current load capacity (standard)  Current load capacity min. wire  4,5 A  Electrical resistance line constant wire  57 \( \Omega \text{/km} \emptysep 20 \cdot \text{C}  AC withstand voltage (wire - wire)  2 kV \( \omega 60 \text{ s}  Power frequency withstand voltage (wire - igacket)  Min. operating temperature (static)  30 °C  Max. operating temperature min. (dynamic)  -5 °C	Diameter of single wires	0,15 mm
Conductor type (wire)       Strand class 5         Nominal voltage AC max.       300 V         Current load capacity (standard)       to DIN VDE 0298-4         Current load capacity min. wire       4,5 A         Electrical resistance line constant wire       57 Ω/km @ 20 °C         AC withstand voltage (wire - wire)       2 kV @ 60 s         Power frequency withstand voltage (wire - jacket)       2 kV @ 60 s         Min. operating temperature (static)       -30 °C         Max. operating temperature (fixed)       80 °C         Operating temperature min. (dynamic)       -5 °C	Conductor crosssection (wire)	
Nominal voltage AC max.  Current load capacity (standard)  Current load capacity min. wire  4,5 A  Electrical resistance line constant wire  57 \( \Omega \text{km} \empsyre 20 \circ C \)  AC withstand voltage (wire - wire)  2 kV \( \empsyre 60 \text{ s} \)  Power frequency withstand voltage (wire - iacket)  Min. operating temperature (static)  -30 \( ^{\circ} C \)  Max. operating temperature min. (dynamic)  -5 \( ^{\circ} C \)	Material conductor wire	Stranded copper wire, bare
Current load capacity (standard) to DIN VDE 0298-4  Current load capacity min. wire 4,5 A  Electrical resistance line constant wire 57 Ω/km @ 20 °C  AC withstand voltage (wire - wire) 2 kV @ 60 s  Power frequency withstand voltage (wire - jacket) 2 kV @ 60 s  Min. operating temperature (static) -30 °C  Max. operating temperature (fixed) 80 °C  Operating temperature min. (dynamic) -5 °C	Conductor type (wire)	Strand class 5
Current load capacity min. wire 4,5 A  Electrical resistance line constant wire 57 Ω/km @ 20 °C  AC withstand voltage (wire - wire) 2 kV @ 60 s  Power frequency withstand voltage (wire - jacket) 2 kV @ 60 s  Min. operating temperature (static) -30 °C  Max. operating temperature (fixed) 80 °C  Operating temperature min. (dynamic) -5 °C	Nominal voltage AC max.	
Electrical resistance line constant wire 57 Ω/km @ 20 °C  AC withstand voltage (wire - wire) 2 kV @ 60 s  Power frequency withstand voltage (wire - jacket) 2 kV @ 60 s  Min. operating temperature (static) -30 °C  Max. operating temperature (fixed) 80 °C  Operating temperature min. (dynamic) -5 °C		to DIN VDE 0298-4
AC withstand voltage (wire - wire) 2 kV @ 60 s  Power frequency withstand voltage (wire - jacket) 2 kV @ 60 s  Min. operating temperature (static) -30 °C  Max. operating temperature (fixed) 80 °C  Operating temperature min. (dynamic) -5 °C	Current load capacity min. wire	· · · · · · · · · · · · · · · · · · ·
Power frequency withstand voltage (wire - jacket)  2 kV @ 60 s  Min. operating temperature (static)  40 °C  Max. operating temperature (fixed)  50 °C  Operating temperature min. (dynamic)  -5 °C	Electrical resistance line constant wire	
jacket)  Z KV @ 60 S  Min. operating temperature (static)  Aux. operating temperature (fixed)  S0 °C  Operating temperature min. (dynamic)  -5 °C	AC withstand voltage (wire - wire)	2 kV @ 60 s
Max. operating temperature (fixed) 80 °C  Operating temperature min. (dynamic) -5 °C	Power frequency withstand voltage (wire - jacket)	2 kV @ 60 s
Operating temperature min. (dynamic) -5 °C	Min. operating temperature (static)	-30 °C
	Max. operating temperature (fixed)	80 °C
Operating temperature max. (dynamic) 80 °C	Operating temperature min. (dynamic)	-5 °C
	Operating temperature max. (dynamic)	80 °C

The information in this Product-PDF has been compiled with the utmost care. Liability for the correctness completeness and topicality of the information is restricted to gross negligence. Version: 2024-05-14



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	DIN EN 60811-404   Good, application-related testing
Bending radius (fixed)	5 x Outer diameter
Bending radius (dynamic)	10 x Outer diameter