

## M12 male 90° A-cod. / MSUD valve plug BI-11mm

PUR 3x0.75 ye UL/CSA+drag ch. 1.5m

**MSUD** 

Form BI (11 mm) - M12, male 90° 24 V AC ±20% / DC ±25%

LED and suppression

Further cable lengths on request.

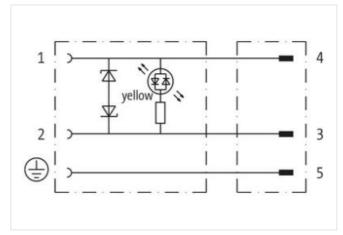
Plastic housings with good resistance against chemicals and oils.

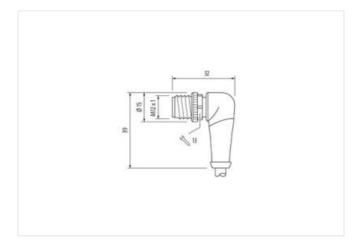
The resistance to aggressive media should be individually tested for your application. Further details on request.

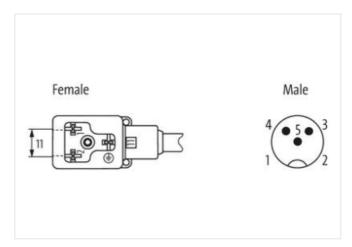
## **Link to Product**

## Illustration



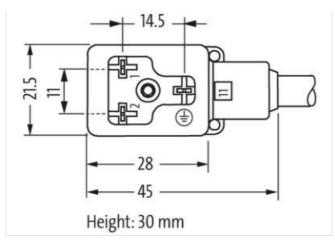








stay connected



Product may differ from Image



Cable length	1,5 m
Side 1	
Tightening torque	0,4 Nm
Family construction form	MSUD BI
Thread	M3
No. of poles	3
Degree of protection (EN IEC 60529)	IP67
Side 2	
Tightening torque	0,6 Nm
Family construction form	M12
Thread	M12 x 1
suitable for corrugated tube (internal Ø)	10 mm
Coding	A
No. of poles	3
Width across flats	SW13
Degree of protection (EN IEC 60529)	IP67
Commercial data	
ECLASS-6.0	27279218
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	4048879609753
Packaging unit	1
Electrical data	
Drop-out delay time max.	20 ms
Electrical data   Supply	



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Operating voltage AC	24 V
Operating voltage AC min.	19,2 V
Operating voltage AC max.	28,8 V
Operating voltage DC	24 V
Operating voltage DC min.	18 V
Operating voltage DC max.	30 V
Cut-off peak voltage max.	55 V
Current operating per contact max.	4 A
Current consumption max.	12 mA
Diagnostics	
Status indication LED	yellow
Device protection   Electrical	
Additional condition protection degree	inserted, screwed
Pollution Degree	3
Rated surge voltage	0,8 kV
Mechanical data   Material data	
·	blook
Color housing  Material housing	black
Material housing	Plastic
Mechanical data   Mounting data	
Mounting method	inserted, screwed
Environmental characteristics   Climatic	
Operating temperature min.	-25 °C
Operating temperature max.	85 °C
Additional condition temperature range	depending on cable quality
Important installation notes	
Note on strain relief	Protect the connectors by suitable measures from mechanical loads, e.g. by the usage of cable ties.
Note on bending radius	<b>Attention:</b> Observe the permissible bending radii when laying cables, as the IP protection class can be endangered by excessive bending forces.
Conformity	
Comorning	
Product standard	DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker)
•	DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker)
Product standard	DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker)  black 1, black 2, green-yellow
Product standard  Installation   Cable	
Product standard  Installation   Cable  wire arrangement	black 1, black 2, green-yellow
Product standard  Installation   Cable  wire arrangement  Cable identification	black 1, black 2, green-yellow 036
Product standard  Installation   Cable wire arrangement Cable identification Cable Type	black 1, black 2, green-yellow 036 3
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation	black 1, black 2, green-yellow 036 3 white (isolation black)
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color	black 1, black 2, green-yellow 036 3 white (isolation black) yellow
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate	black 1, black 2, green-yellow 036 3 white (isolation black) yellow cURus
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement	black 1, black 2, green-yellow 036 3 white (isolation black) yellow cURus 1
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR  90 ± 5 Shore A
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR  90 ± 5 Shore A  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR  90 ± 5 Shore A  lead-free, cadmium-free, CFC-free, halogen-free  5,9 mm
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)  Tolerance outer diameter (sheath)	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR  90 ± 5 Shore A  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,9 mm  ± 5 %
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)  Tolerance outer diameter (sheath)  Material wire insulation	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR  90 ± 5 Shore A  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,9 mm  ± 5 %  PP
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)  Tolerance outer diameter (sheath)  Material wire insulation  Amount wires	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR  90 ± 5 Shore A  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free 5,9 mm  ± 5 %  PP  3
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)  Tolerance outer diameter (sheath)  Material wire insulation  Amount wires  Outer diameter insulation	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR  90 ± 5 Shore A  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,9 mm  ± 5 %  PP  3  1,85 mm
Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation  Jacket Color  Type of Certificate  Amount stranding  Stranding  wire arrangement  Cable weigth  Material jacket  Shore hardness jacket  Freedom from ingredients (jacket)  Outer-diameter (jacket)  Tolerance outer diameter (sheath)  Material wire insulation  Amount wires	black 1, black 2, green-yellow  036  3  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  56,1 g/m  PUR  90 ± 5 Shore A  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free 5,9 mm  ± 5 %  PP  3

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: 2024-06-01



Ingredient freeness wire insulation	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Printing color of wire insulation	white (isolation black)
Amount strands (wire)	42
Diameter of single wires	0,15 mm
Conductor crosssection (wire)	0,75 mm <sup>2</sup>
Material conductor wire	Stranded copper wire, bare
Conductor type (wire)	strand class 6
Nominal voltage AC max.	300 V
Current load capacity (standard)	to DIN VDE 0298-4
Current load capacity min. wire	12 A
Electrical resistance line constant wire	26 Ω/km @ 20 °C
AC withstand voltage (wire - wire)	2,5 kV @ 60 s
Power frequency withstand voltage (wire - 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	UL 1581 § 1100 FT2   UL 1581 § 1090   IEC 60332-2-2
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
Torsion speed	35 cycles/min