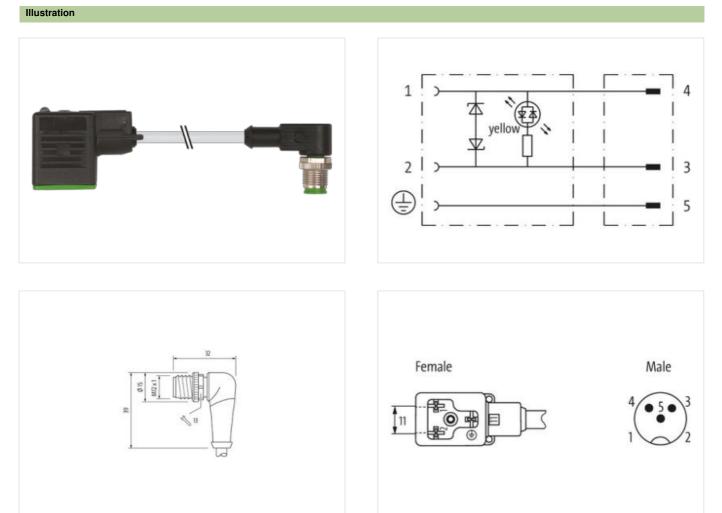


## M12 male 90° A-cod. / MSUD valve plug BI-11mm

PUR 3x0.75 gy UL/CSA+drag ch. 10m

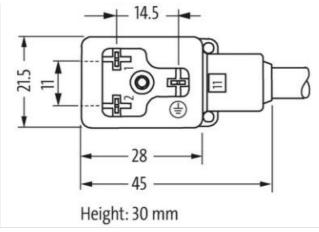
MSUD Form BI (11 mm) – M12, male 90° 24 V AC ±20% / DC ±25% LED and suppression Further cable lengths on request. Plastic housings with good resistance against chemicals and oils. The resistance to aggressive media should be individually tested for your application. Further details on request.

## Link to Product



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Product may differ from Image



Cable length	10 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 $\emptyset$ )	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-7.0	27279218
ECLASS-8.0	27279218
ECLASS-9.0	27060311
ECLASS-10.1	27060312
ECLASS-11.1	27060312
ECLASS-12.0	27060312
ETIM-5.0	EC001855
customs tariff number	85444290
GTIN	4048879530606
Packaging unit	1
Electrical data	
Capacity CX	20 ms
Electrical data   Supply	
Operating voltage AC	24 V

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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	yenow
• •	
Additional condition protection degree	inserted, screwed
Pollution Degree	
Rated surge voltage	0,8 kV
Mechanical data   Material data	
Color 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.
	Attentions Observe the convictible bondies rediinted by increating as the ID protection class can be
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.
Note on bending radius Conformity	
-	
Conformity	endangered by excessive bending forces.
Conformity Product standard Installation   Cable	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker)
Conformity Product standard Installation   Cable Cable identification	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236
Conformity Product standard Installation   Cable Cable identification Cable Type	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3
Conformity Product standard Installation   Cable Cable identification Cable Type Printing color of wire insulation	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black)
Conformity         Product standard         Installation   Cable         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray
Conformity         Product standard         Installation   Cable         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus
Conformity         Product standard         Installation   Cable         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1
Conformity         Product standard         Installation   Cable         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding         Stranding	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted
Conformity         Product standard         Installation   Cable         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding         Stranding         wire arrangement	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow
Conformity         Product standard         Installation   Cable         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding         Stranding         wire arrangement         Traversing distance (C-track)	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal
Conformity         Product standard         Installation   Cable         Cable identification         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding         Stranding         wire arrangement         Traversing distance (C-track)         Cable weigth	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 56,1 g/m
Conformity         Product standard         Installation   Cable         Cable identification         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding         Stranding         wire arrangement         Traversing distance (C-track)         Cable weigth         Material jacket	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 56,1 g/m PUR
Conformity         Product standard         Installation   Cable         Cable identification         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding         Stranding         wire arrangement         Traversing distance (C-track)         Cable weigth         Material jacket         Shore hardness jacket	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 56,1 g/m PUR 90 ± 5 Shore A
Conformity         Product standard         Installation   Cable         Cable identification         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding         Stranding         wire arrangement         Traversing distance (C-track)         Cable weigth         Material jacket	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 56,1 g/m PUR
ConformityProduct standardInstallation   CableCable identificationCable TypePrinting color of wire insulationJacket ColorType of CertificateAmount strandingStrandingwire arrangementTraversing distance (C-track)Cable weigthMaterial jacketShore hardness jacketFreedom from ingredients (jacket)Outer-diameter (jacket)	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 56,1 g/m PUR 90 ± 5 Shore A lead-free, cadmium-free, CFC-free, halogen-free, silicone-free 5,9 mm
ConformityProduct standardInstallation   CableCable identificationCable TypePrinting color of wire insulationJacket ColorType of CertificateAmount strandingStrandingwire arrangementTraversing distance (C-track)Cable weigthMaterial jacketShore hardness jacketFreedom from ingredients (jacket)	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 56,1 g/m PUR 90 ± 5 Shore A lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
ConformityProduct standardInstallation   CableCable identificationCable TypePrinting color of wire insulationJacket ColorType of CertificateAmount strandingStrandingwire arrangementTraversing distance (C-track)Cable weigthMaterial jacketShore hardness jacketFreedom from ingredients (jacket)Outer-diameter (jacket)Tolerance outer diameter (sheath)	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 56,1 g/m PUR 90 ± 5 Shore A lead-free, cadmium-free, CFC-free, halogen-free, silicone-free 5,9 mm ± 5 %
Conformity         Product standard         Installation   Cable         Cable identification         Cable identification         Cable Type         Printing color of wire insulation         Jacket Color         Type of Certificate         Amount stranding         Stranding         wire arrangement         Traversing distance (C-track)         Cable weigth         Material jacket         Shore hardness jacket         Freedom from ingredients (jacket)         Outer-diameter (jacket)         Tolerance outer diameter (sheath)         Material wire insulation	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 56,1 g/m PUR 90 ± 5 Shore A lead-free, cadmium-free, CFC-free, halogen-free, silicone-free 5,9 mm ± 5 % PP
ConformityProduct standardInstallation   CableCable identificationCable TypePrinting color of wire insulationJacket ColorType of CertificateAmount strandingStrandingwire arrangementTraversing distance (C-track)Cable weigthMaterial jacketShore hardness jacketFreedom from ingredients (jacket)Outer-diameter (jacket)Tolerance outer diameter (sheath)Material wire insulationAmount wires	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 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
ConformityProduct standardInstallation   CableCable identificationCable TypePrinting color of wire insulationJacket ColorType of CertificateAmount strandingStrandingwire arrangementTraversing distance (C-track)Cable weigthMaterial jacketShore hardness jacketFreedom from ingredients (jacket)Outer-diameter (jacket)Tolerance outer diameter (sheath)Material wire insulationAmount wiresOuter diameter insulation	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 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
ConformityProduct standardInstallation   CableCable identificationCable TypePrinting color of wire insulationJacket ColorType of CertificateAmount strandingStrandingwire arrangementTraversing distance (C-track)Cable weigthMaterial jacketShore hardness jacketFreedom from ingredients (jacket)Outer-diameter (jacket)Tolerance outer diameter (sheath)Material wire insulationAmount wiresOuter diameter tolerance core insulationOuter diameter tolerance core insulation	endangered by excessive bending forces. DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker) 236 3 white (isolation black) gray cURus 1 3 wires twisted black 1, black 2, green-yellow 10 m @ 25 °C   horizontal 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 ± 5 %

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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 § 1090   IEC 60332-2-2   UL 1581 § 1100 FT2
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
Travel speed (C-track)	10 Mio. @ 25 °C
No. of torsion cycles	2 Mio.
Torsion stress	± 180 °/m
Torsion speed	35 cycles/min

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