

## M12 male 0° A-cod. / MSUD valve plug CI-9.4mm

PUR 3x0.75 ye UL/CSA+robot+drag ch. 1m

**MSUD** 

Form CI (9.4 mm) - M12, male straight

24 V AC ±20% / DC ±25%

LED and suppression

Further cable lengths on request.

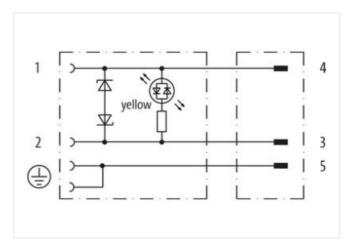
Plastic housings with good resistance against chemicals and oils.

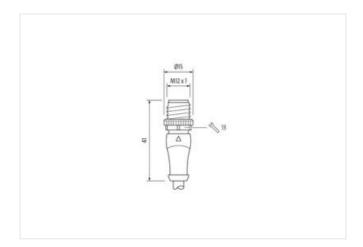
The resistance to aggressive media should be individually tested for your application. Further details on request.

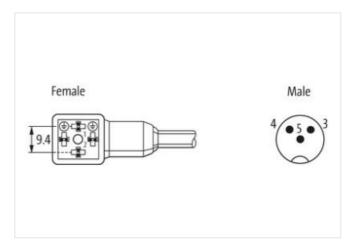
## **Link to Product**

## Illustration



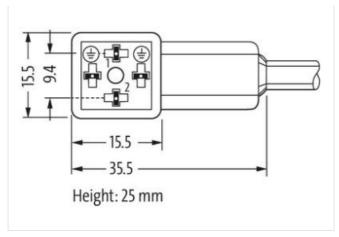








stay connected



Product may differ from Image



| Cable length   | 1 m           |
|--|---------------|
| Side 1   |               |
| Tightening torque                                    | 0,4 Nm        |
| Family construction form                             | MSUD CI       |
| Thread   | M3            |
| No. of poles   | 4             |
| 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-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   | 4048879416405 |
| 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   |
| Diagnostics   |   |
| Status indication LED   | yellow  |
| Device protection   Electrical  | <i>.</i>  |
| Additional condition protection degree  | inserted, screwed   |
| Pollution Degree  | 3   |
| Rated surge voltage   | 0,8 kV  |
| Mechanical data   Material data   |   |
| ·   | black   |
| 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.   |
| 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.  |
| Conformity  |   |
|   |   |
| Product standard  | DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker)   |
| Product standard  | DIN EN 61076-2-101 (M12); DIN EN 175301-803 (Ventilstecker)   |
| 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<br>056   |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  | black 1, black 2, green-yellow 056 5  |
| Product standard  Installation   Cable  wire arrangement  Cable identification  Cable Type  Printing color of wire insulation   | black 1, black 2, green-yellow 056 5 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 056 5 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 056 5 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  | black 1, black 2, green-yellow 056 5 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   | black 1, black 2, green-yellow  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  |
| 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  |
| 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 g/m  PUR  58 ± 3 Shore D   |
| 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 g/m  PUR  58 ± 3 Shore D  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free                               |
| 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 g/m  PUR  58 ± 3 Shore D  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,2 mm                       |
| 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 g/m  PUR  58 ± 3 Shore D  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,2 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 g/m  PUR  58 ± 3 Shore D  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,2 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 g/m  PUR  58 ± 3 Shore D  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,2 mm  ± 5 %  PP  3         |
| 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 g/m  PUR  58 ± 3 Shore D  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,2 mm  ± 5 %  PP  3  1,7 mm |
| 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  Outer diameter tolerance core insulation | black 1, black 2, green-yellow 056 5 white (isolation black) yellow cURus 1 3 wires twisted black 1, black 2, green-yellow 48,4 g/m PUR 58 ± 3 Shore D lead-free, cadmium-free, CFC-free, halogen-free, silicone-free 5,2 mm ± 5 % PP 3 1,7 mm ± 5 %            |
| 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  056  5  white (isolation black)  yellow  cURus  1  3 wires twisted  black 1, black 2, green-yellow  48,4 g/m  PUR  58 ± 3 Shore D  lead-free, cadmium-free, CFC-free, halogen-free, silicone-free  5,2 mm  ± 5 %  PP  3  1,7 mm |



| Printing color of wire insulation                 | white (isolation black)                              |
|---|--|
| Amount strands (wire)                             | 42   |
| Diameter of single wires                          | 0,15 mm  |
| Conductor crosssection (wire)                     | 0,75 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                   | 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   IEC 60332-2-2   UL 1581 § 1090  |
| 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  |
| Torsion speed                                     | 35 cycles/min  |