

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

PVC 3x0.75 ye 0.4m

Form A (18 mm) – M12, male 90° 24 V AC ±20% / DC ±25% LED and suppression Bridged PE

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

Further cable lengths on request.

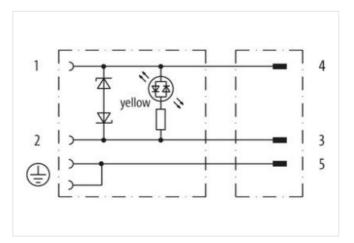
Plastic housings with good resistance against chemicals and oils.

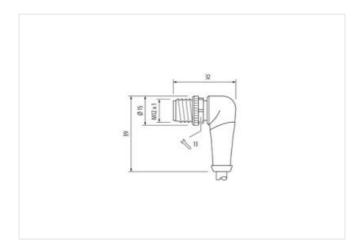
The resistance to aggressive media should be individually tested for your application. Further details on request.

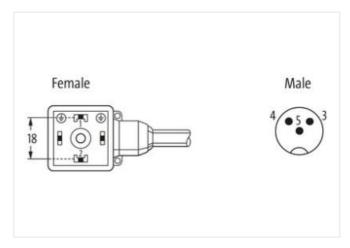
## **Link to Product**

## Illustration



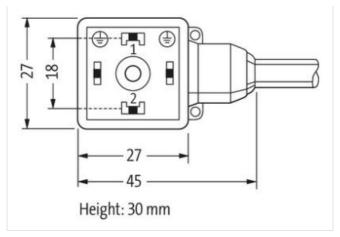








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Product may differ from Image









| Side 1           Tightening torque         0,6 Nm           Family construction form         MSUD           Thread         M12 x 1           Material         PUR           Degree of protection (EN IEC 60529)         IP67           Side 2         Tightening torque         0,4 Nm           Family construction form         M12           Thread         M3           suitable for corrupated tube (internal Ø)         10 mm           Material         PBT           Width across flats         SW13           Degree of protection (EN IEC 60529)         IP67           Commercial data         ECLASS 6.0           ECLASS 8.0         27279218           ECLASS 8.0         27279218           ECLASS 8.0         27279218           ECLASS 9.0         27060312           ECLASS 9.1.1         27060312           ECLASS 9.1.2         27060312           ECLASS 9.1.0         27060312           ECLASS 9.0         E0061855           customs tainf number         85444290           GTIN         4048879340229           Packaging unit         1           Electrical data         Nopo-           Electrical d | Cable length   | 0,4 m         |
|---|--|---------------|
| Family construction form  | Side 1   |               |
| Thread M12 x 1  Material PUR  Degree of protection (EN IEC 60529) IP67  Side 2  Tightening torque 0,4 Nm Family construction form M12  Thread M3 suitable for corrugated tube (internal Ø) 10 mm  Material PBT  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  ECLASS-12.0 27060312  ECLASS-10 ECONISS  Coustoms tariff number 85444290  GTIN 4048879340229  Packaging unit 1  Electrical data   Supply   | Tightening torque                                    | 0,6 Nm        |
| Material         PUR           Degree of protection (EN IEC 60529)         IP67           Side 2         Tightening forque         0,4 Nm           Family construction form         M12           Thread         M3         suitable for corrugated tube (internal Ø)         10 mm           Material         PBT         Width across flats         SW13           Degree of protection (EN IEC 60529)         IP67         PGT           Commercial data         ECLASS-6.0         27279218           ECLASS-7.0         27279218         ECLASS-7.0         27279218           ECLASS-9.0         27060311         ECLASS-9.0         27060312           ECLASS-10.1         27060312         ECLASS-11.1         27060312           ECLASS-12.0         27060312         ECLASS-12.0         EC01855           customs tariff number         85444290         GTIN         4044879340229           Packaging unit         1         Electrical data         Electrical data   Supply   | Family construction form                             | MSUD          |
| Degree of protection (EN IEC 60529)   IP67  | Thread   | M12 x 1       |
| Side 2           Tightening torque         0,4 Nm           Family construction form         M12           Thread         M3           suitable for corrugated tube (internal Ø)         10 mm           Material         PBT           Width across flats         SW13           Degree of protection (EN IEC 60529)         IP67           Commercial data         ECLASS-6.0           ECLASS-6.0         27279218           ECLASS-7.0         27279218           ECLASS-9.0         27060311           ECLASS-9.0         27060312           ECLASS-10.1         27060312           ECLASS-11.1         27060312           ECLASS-12.0         27060312           ETIM-5.0         ECOM855           customs tariff number         85444290           GTIN         4048879340229           Packaging unit         1           Electrical data         Drop-out delay time max.         20 ms           Electrical data   Supply  | Material   | PUR           |
| Tightening torque 0,4 Nm  Family construction form M12  Thread M3 suitable for corrugated tube (internal Ø) 10 mm  Material PBT Width across flats SW13 Degree of protection (EN IEC 60529) IP67  Commercial data  ECLASS-6.0 27279218 ECLASS-7.0 27279218 ECLASS-9.0 27279218 ECLASS-9.0 27060311 ECLASS-10.1 27060312 ECLASS-10.1 27060312 ECLASS-11.1 27060312 ECLASS-12.0 27060312 ETIM-5.0 ECOMBS5 customs tariff number 85444290 GTIN 4048879340229 Packaging unit 1  Electrical data   Supply  Electrical data   Supply  | Degree of protection (EN IEC 60529)                  | IP67          |
| Family construction form         M12           Thread         M3           suitable for corrugated tube (internal Ø)         10 mm           Material         PBT           Width across flats         SW13           Degree of protection (EN IEC 60529)         IP67           Commercial data         ECLASS-6.0           ECLASS-6.0         27279218           ECLASS-7.0         27279218           ECLASS-8.0         27279218           ECLASS-9.0         27060311           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         4048879340229           Packaging unit         1           Electrical data         Drop-out delay time max.         20 ms           Electrical data   Supply   | Side 2   |               |
| Thread M3 suitable for corrugated tube (internal Ø) 10 mm  Material PBT  Width across flats SW13  Degree of protection (EN IEC 60529) IP67  Commercial data  ECLASS-6.0 27279218  ECLASS-7.0 27279218  ECLASS-9.0 27279218  ECLASS-9.0 27060311  ECLASS-10.1 27060312  ECLASS-11.1 27060312  ECLASS-11.1 27060312  ECLASS-12.0 27060312  ETIM-5.0 EC001855  customs tariff number 85444290  GTIN 4048879340229  Packaging unit 1  Electrical data  Drop-out delay time max. 20 ms  Electrical data   Supply   | Tightening torque                                    | 0,4 Nm        |
| suitable for corrugated tube (internal Ø)         10 mm           Material         PBT           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-9.0.1         27060312           ECLASS-10.1         27060312           ECLASS-12.0         27060312           ECLASS-12.0         27060312           ETIM-5.0         EC001855           customs tariff number         85444290           GTIN         4048879340229           Packaging unit         1           Electrical data         Drop-out delay time max.         20 ms           Electrical data   Supply   | Family construction form                             | M12           |
| Material         PBT           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         4048879340229           Packaging unit         1           Electrical data         Drop-out delay time max.         20 ms           Electrical data   Supply   |  | M3            |
| 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-9.1         27060312           ECLASS-10.1         27060312           ECLASS-11.1         27060312           ECLASS-12.0         27060312           ETIM-5.0         EC001855           customs tariff number         85444290           GTIN         4048879340229           Packaging unit         1           Electrical data         Drop-out delay time max.         20 ms           Electrical data   Supply  | suitable for corrugated tube (internal $\emptyset$ ) |               |
| Degree of protection (EN IEC 60529)   IP67  | Material   | PBT           |
| 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       4048879340229         Packaging unit       1         Electrical data       Drop-out delay time max.       20 ms         Electrical data   Supply   |  |               |
| ECLASS-6.0 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 4048879340229  Packaging unit 1  Electrical data  Drop-out delay time max. 20 ms  Electrical data   Supply   | Degree of protection (EN IEC 60529)                  | IP67          |
| 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 4048879340229 Packaging unit 1  Electrical data Drop-out delay time max. 20 ms  Electrical data   Supply   | Commercial data                                      |               |
| 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 4048879340229  Packaging unit 1  Electrical data  Drop-out delay time max. 20 ms  Electrical data   Supply  | ECLASS-6.0   | 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 4048879340229  Packaging unit 1  Electrical data  Drop-out delay time max. 20 ms  Electrical data   Supply   | ECLASS-7.0   | 27279218      |
| ECLASS-10.1 27060312  ECLASS-11.1 27060312  ECLASS-12.0 27060312  ETIM-5.0 EC001855  customs tariff number 85444290  GTIN 4048879340229  Packaging unit 1  Electrical data  Drop-out delay time max. 20 ms  Electrical data   Supply  |  | 27279218      |
| ECLASS-11.1 27060312  ECLASS-12.0 27060312  ETIM-5.0 EC001855  customs tariff number 85444290  GTIN 4048879340229  Packaging unit 1  Electrical data  Drop-out delay time max. 20 ms  Electrical data   Supply  | ECLASS-9.0   | 27060311      |
| ECLASS-12.0 27060312 ETIM-5.0 EC001855 customs tariff number 85444290 GTIN 4048879340229 Packaging unit 1  Electrical data Drop-out delay time max. 20 ms  Electrical data   Supply   |  |               |
| ETIM-5.0  |  | 27060312      |
| customs tariff number 85444290 GTIN 4048879340229 Packaging unit 1  Electrical data Drop-out delay time max. 20 ms  Electrical data   Supply  |  |               |
| GTIN 4048879340229 Packaging unit 1  Electrical data Drop-out delay time max. 20 ms  Electrical data   Supply   |  |               |
| Packaging unit 1  Electrical data  Drop-out delay time max. 20 ms  Electrical data   Supply   | customs tariff number                                | 85444290      |
| Electrical data  Drop-out delay time max. 20 ms  Electrical data   Supply   |  | 4048879340229 |
| Drop-out delay time max. 20 ms  Electrical data   Supply  | Packaging unit                                       | 1             |
| Electrical data   Supply  | Electrical data                                      |               |
|   | Drop-out delay time max.                             | 20 ms         |
| Operating voltage AC 24 V   | Electrical data   Supply                             |               |
|   | Operating voltage AC                                 | 24 V          |



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| Operating voltage AC min.                | 19,2 V   |
|--|--|
|  | 00.0 \   |
| 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.                 | 15 mA  |
| Diagnostics                              |  |
| Status indication LED                    | yellow   |
| Device protection   Electrical           |  |
| Additional condition protection degree   | inserted, screwed  |
| Pollution Degree                         | 3  |
| Rated surge voltage                      | 0,8 kV   |
| Material group (IEC 60664-1)             | I  |
| Additional suppressor                    | Diode, Z-Diode   |
| Mechanical data   Material data          |  |
| Coating locking                          | Nickeled   |
| Color housing                            | black  |
| Material gasket                          | PUR  |
| Material housing                         | Plastic  |
| Locking material                         | Zinc die-casting   |
| 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.  |
| Installation   Cable                     |  |
| wire arrangement                         | black 1, black 2, green-yellow   |
| Cable identification                     | 016  |
| Cable Type                               | 1  |
| Printing color of wire insulation        | white (isolation black)  |
| Jacket Color                             | yellow   |
| Amount stranding                         | 1  |
| Stranding                                | 3 wires twisted  |
| wire arrangement                         | black 1, black 2, green-yellow   |
| Cable weigth                             | 63,8 g/m   |
| Material jacket                          | PVC  |
| Shore hardness jacket                    | 80 ± 5 Shore A   |
| Freedom from ingredients (jacket)        | lead-free, cadmium-free, CFC-free, silicone-free   |
| Outer-diameter (jacket)                  | 5,9 mm   |
| Tolerance outer diameter (sheath)        | ± 5 %  |
| Material wire insulation                 | PVC  |
| Amount wires                             | 3  |
| Outer diameter insulation                | 1,8 mm   |
| Outer diameter tolerance core insulation | ± 5 %  |
|  |  |

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: 2024-05-18



| Shore hardness wire insulation                    | 43 ± 5 Shore D                                       |
|---|--|
| Material properties wire insulation               | good machinability                                   |
| Ingredient freeness wire insulation               | lead-free, cadmium-free, CFC-free, silicone-free     |
| Printing color of wire insulation                 | white (isolation black)                              |
| Amount strands (wire)                             | 24   |
| Diameter of single wires                          | 0,2 mm   |
| Conductor crosssection (wire)                     | 0,75 mm <sup>2</sup>                                 |
| Material conductor wire                           | Stranded copper wire, bare                           |
| Conductor type (wire)                             | Strand class 5                                       |
| Max. rated voltage (conductor - conductor)        | 500 V  |
| Max. rated voltage (conductor - ground)           | 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)                | 3 kV @ 60 s  |
| Power frequency withstand voltage (wire - jacket) | 3 kV @ 60 s  |
| Min. operating temperature (static)               | -30 °C   |
| Max. operating temperature (fixed)                | 70 °C  |
| Operating temperature min. (dynamic)              | -5 °C  |
| Operating temperature max. (dynamic)              | 70 °C  |
| 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                                    | Good, application-related testing   DIN EN 60811-404 |
| Bending radius (fixed)                            | 5 x Outer diameter                                   |
| Bending radius (dynamic)                          | 10 x Outer diameter                                  |