

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

PVC 3x0.75 bk 1.5m

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.

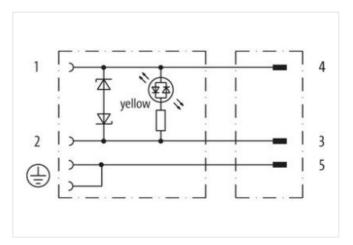
Plastic housings with good resistance against chemicals and oils.

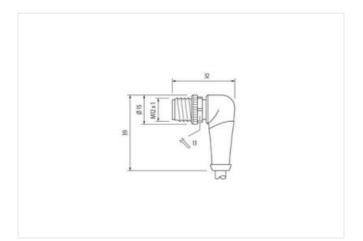
The resistance to aggressive media should be individually tested for your application. Further details on request.

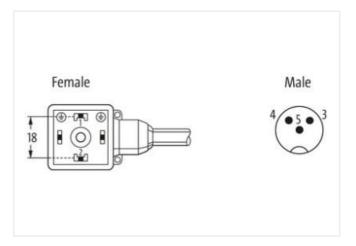
## **Link to Product**

## Illustration











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Product may differ from Image









Side 1           Tightening torque         0,6 Nm           Family construction form         MSUD           Interial         M12 x 1           Material         PUR           Degree of protection (EN IEC 60529)         IP67           Side 2         Tightening torque           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 9.0         27060312           ECLASS 9.0         27060312           ECLASS 9.1.1         27060312           ECLASS 9.1.2         27060312           ECLASS 9.0         E001855           customs tariff number         85444290           GTIN         4048879151184           Packaging unit         1           Electrical data         Supplementation of the properties of	Cable length	1,5 m
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 corrugated tube (internal Ø)         10 mm           Material         PBT           Width across flats         SW13           Degree of protection (EN IEC 60529)         IP67           Commercial date           ECLASS-6.0         27279218           ECLASS-7.0         27279218           ECLASS-8.0         27279218           ECLASS-9.0         27060311           ECLASS-1.1         27060312           ECLASS-11.1         27060312           ECLASS-12.0         27060312           ETIM-5.0         E001855           customs tariff number         85444290           GTIN         4048879151184           Packaging unit         1           Electrical data   Supply	Side 1	
Thread         M12 x 1           Material         PUR           Degree of protection (EN IEC 60529)         IP67           Side 2         Image: Control of the control	Tightening torque	0,6 Nm
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-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         27060312         ETIM-5.0         EC01855           customs tariff number         85444290         GTIN         4048879151184           Packaging unit         1         Electrical data           Electrical data   Supply	Family construction form	MSUD
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         27060312           ECLASS-10.1         27060312           ECLASS-11.1         27060312           ECLASS-12.0         27060312           ECLASS-12.0         27060312           ETIM-5.0         ECO01855           customs tariff number         85444290           GTIN         4048879151184           Packaging unit         1           Electrical data         Supply	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         27279218           ECLASS-7.0         27279218           ECLASS-9.0         27060311           ECLASS-9.0         27060312           ECLASS-10.1         27060312           ECLASS-12.0         27060312           ECLASS-12.0         27060312           ETIM-5.0         ECOMB55           customs tariff number         85444290           GTIN         4048879151184           Packaging unit         1           Electrical data         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-10.1 27060312 ECLASS-10.0 27060312 ETIM-5.0 27060312 ETIM-5.0 4048879151184 Packaging unit 1  Electrical data  Capacity CX 20 ms  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         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         4048879151184           Packaging unit         1           Electrical data         Capacity CX           Electrical data   Supply	Side 2	
Thread	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           ETIM-5.0         EC001855           customs tariff number         85444290           GTIN         4048879151184           Packaging unit         1           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-9.1.1         27060312           ECLASS-11.1         27060312           ECLASS-12.0         27060312           ETIM-5.0         EC001855           customs tariff number         85444290           GTIN         4048879151184           Packaging unit         1           Electrical data         Capacity CX         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-9.1.1       27060312         ECLASS-11.1       27060312         ECLASS-12.0       27060312         ETIM-5.0       EC001855         customs tariff number       85444290         GTIN       4048879151184         Packaging unit       1         Electrical data         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       4048879151184         Packaging unit       1         Electrical data       Capacity CX       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 4048879151184 Packaging unit 1  Electrical data Capacity CX 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 4048879151184  Packaging unit 1  Electrical data  Capacity CX 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       4048879151184         Packaging unit       1         Electrical data       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 4048879151184  Packaging unit 1  Electrical data  Capacity CX 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 4048879151184 Packaging unit 1  Electrical data Capacity CX 20 ms  Electrical data   Supply		27279218
ECLASS-11.1 27060312  ECLASS-12.0 27060312  ETIM-5.0 EC001855  customs tariff number 85444290  GTIN 4048879151184  Packaging unit 1  Electrical data  Capacity CX 20 ms  Electrical data   Supply	ECLASS-9.0	27060311
ECLASS-12.0       27060312         ETIM-5.0       EC001855         customs tariff number       85444290         GTIN       4048879151184         Packaging unit       1         Electrical data         Capacity CX       20 ms         Electrical data   Supply		
ETIM-5.0		
customs tariff number         85444290           GTIN         4048879151184           Packaging unit         1           Electrical data         20 ms           Electrical data   Supply		
GTIN         4048879151184           Packaging unit         1           Electrical data         20 ms           Electrical data   Supply         20 ms		
Packaging unit 1  Electrical data  Capacity CX 20 ms  Electrical data   Supply		
Electrical data Capacity CX 20 ms Electrical data   Supply		4048879151184
Capacity CX 20 ms  Electrical data   Supply	Packaging unit	1
Electrical data   Supply	Electrical data	
	Capacity CX	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
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)	
Additional suppressor	Diode, Z-Diode
Mechanical data   Material data	
	AP-11d
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	
Cable identification	616
Cable Type	1
Printing color of wire insulation	white (isolation black)
Jacket Color	black
Amount stranding	1
Stranding	3 wires twisted
wire arrangement	black 1, black 2, green-yellow
Cable weigth	61,6 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 insulation  Outer diameter tolerance core insulation	± 5 %
Shore hardness wire insulation	± 5 % 43 ± 5 Shore D
Onore naturess with insuid[i0]]	40 ± 0 011016 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
UV resistance	DIN EN ISO 4892-2 A
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