

## M12 male 90° D-cod. with cable shielded

PUR 1x4xAWG22 shielded gn UL/CSA+torsion 20m

**Ethernet CAT5** Male 90° M12, 4-pole D-coded shielded

Transmission properties with channel transmission up to 100 m

Further cable lengths on request.

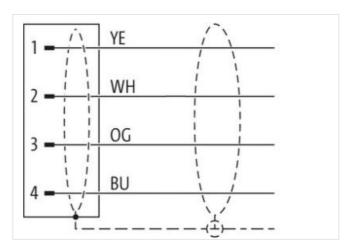
Plastic housings with good resistance against chemicals and oils.

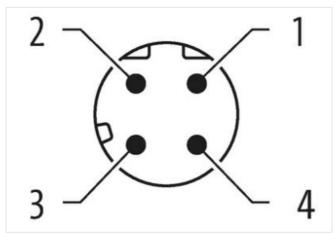
The resistance to aggressive media should be individually tested for your application. Further details on request.

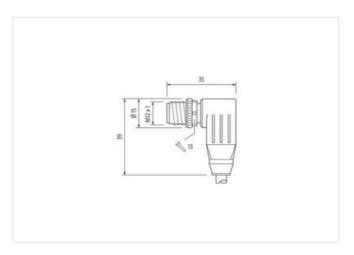
## **Link to Product**

## Illustration









Product may differ from Image











Cable length

20 m



stay connected

Manufact   Martical	Side 1	
Missing	Tightening torque	0,6 Nm
Price   Pri	Mounting method	inserted, screwed
December	Family construction form	M12
Adaminal PUR Width across files SW13  SUR 2  Stripping Ingrift (dacket) 20 mm  COMMENCIAL SECTION (EN IEC 60529)  SIGN 2  SURPHY (CAMPACH SECTION COMMENCIAL SECTION	Thread	M12 x 1
Width across flats	Coding	
Degree of protection (EN IEC 60528)         IP65, IP68K, IP67           Side 2         Signification (EN IEC 60528)           Singinging length (jacket)         20 mm           COLASS 6.0         27061801           COLASS 7.0         27063007           COLASS 7.0	Material	
Side 2           Commercial data           CLASS-R-0         27061801           CLASS-6-1         27060307           CLASS-70         27060307           CLASS-9.0         27060307           CLASS-9.0         27060307           CLASS-11.1         27060307           CLASS-11.1         27060307           CLASS-12.0         27060307           CLASS-12.0         27060307           CLASS-10.1         68444290           SITIM 40 M8879863001           Seaking unit         1            69 V           Departing voltage DC max         60 V           Departing voltage DC max         60 V           Departing voltage DC max         60 V           Industrial communication         1.5 A           Industrial communication         1.5 A           Industrial communication         1.5 M           Industrial communication [Ethernet functional time]         1.00 MBHs           Industrial communication [Ethernet functional tim		
Stripping length (lacked)   20 mm	Degree of protection (EN IEC 60529)	IP65, IP66K, IP67
Commercial data           CLASS-6.0         27061801           CLASS-7.0         27060307           CLASS-8.0         27060307           CLASS-8.0         27060307           CLASS-10.1         27060307           CLASS-11.1         27060307           CLASS-11.1         27060307           CLASS-11.1         27060307           CLASS-11.1         27060307           ETIM-5.0         EC002599           STIN         404897863001           Packaging unit         1           Electrical data   Suppty           Outering oper data por De max.         60 V           Durrent operating per contact max.         1,5 A           Industrial communication         For State transmission rate max.           Industrial communication   Element functionality           Implication   Connection           Stripping length (socket)         20 mm           Mounting set         M12 x 1           Device protection   Electrical           Volution Degree         3           Validitional confloin protection degree         inserted, screwed           Volution Degree         3           Validitional confloin protection degree         inserted, screwed           Volution Degree	Side 2	
CLASS-6.0   27061801   27060307   CLASS-8.0   27060307   CCLASS-9.0   27060307   CCLASS-9.0   27060307   CCLASS-9.0   27060307   CCLASS-9.0   27060307   CCLASS-9.0   27060307   CCLASS-1.1   27060307   CCLASS-1.1   27060307   CCLASS-1.1   27060307   CCLASS-1.1   27060307   CCLASS-1.1   27060307   CCLASS-1.2   270603	Stripping length (jacket)	20 mm
ECLASS-6.1 27060307  ECLASS-7.0 27060307  ECLASS-9.0 27060307  ECLASS-9.0 27060307  ECLASS-9.0 27060307  ECLASS-10.1 27060307  ECLASS-11.1 27060307  ECLASS-11.1 27060307  ECLASS-12.0 27060307  ECLASS-12.0 27060307  ECLASS-12.0 27060307  ECLASS-13.1 27060307  ECLASS-13.1 27060307  ECLASS-14.0 ECO02599  usustoms tariff number 85444290  Satin 4048879863001  **Tarked as Supply**  **Departing voltage DC max. 60 V  **Durrent operating per contact max. 1.5 A  **Industrial communication**  **Irransfer parameters CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1)  **Data transmission rate max. 100 MBitrs  **Industrial communication**  **In	Commercial data	
CLASS-7.0   27060307	ECLASS-6.0	27061801
CLASS-8.0   27060307	ECLASS-6.1	27060307
CLASS-9.0   27060307	ECLASS-7.0	27060307
ECLASS-10.1 27060307 ECLASS-11.1 27060307 ECLASS-12.0 27060307 ETIM-5.0 EC002599  usustoms tarff number 85444290 STIIN 404887980301 Packaging unit 1  Electrical data   Supply  Operating voltage DC max. 60 V  Departing voltage DC max. 60 V  Industrial communication  Irransfer parameters CATS, Class D (ISO/IEC 11801:2002), (EN 50173-1) Data transmission rate max. 100 MBil/s  Industrial communication   Ethernet functionality  Upper (Industrial communicational industrial communicationality)  Upper (Industrial communicationality)  Up	ECLASS-8.0	27060307
ECLASS-1.1.1         27060307           ECLASS-12.0         27060307           ETIM-5.0         EC002599           sustoms tarff number         85444290           3TIN         4048873863001           Peckaging unit         1           Electrical data   Supply         Deparating voltage DC max.           Durrent operating per contact max.         1,5 A           Industrial communication         Transfer parameters           Cata transmission rate max.         100 MBib's           Industrial communication   Ethernet functionality           upupex         Full duplex           Installation   Connection           Stripping length (jacket)         20 mm           Mounting set         M12 x 1           Device protection   Electrical           Vaditional condition protection degree         inserted, screwed           Pollution Degree         3           3alated surge voltage         1,5 kV           Mechanical data         Loctour for corrugated hose           Mechanical data   Material data         Lockeled           Coating of fitting         nickel plated           Cocking material         Zinc die-casting           Mounting method         inserted, screwed, Shaking protection	ECLASS-9.0	27060307
ECLASS-12.0         27060307           ETIM-5.0         EC002599           sestotions tariff number         85444290           3TIN         4048879863001           Packaging unit         1           Electrical data   Supply           Operating voltage DC max.         60 V           Durrent operating per contact max.         1,5 A           Industrial communication         CAT5, Class D (ISO/IEC 11801-2002), (EN 50173-1)           Data transmission rate max.         100 MBit/s           Industrial communication   Ethernet functional industrial communicational industrial industrial communicational industrial industrial industrial industrial industrial in	ECLASS-10.1	27060307
ETIM-5.0 EC002599  sustoms tariff number 85444290  STIN 404879963001  Packaging unit 1  Electrical data   Supply  Deparating voltage DC max. 60 V  Current operating per contact max. 1,5 A  Industrial communication  Transfer parameters CATS, Class D (ISO/IEC 11801-2002), (EN 50173-1)  Stata transmission rate max. 100 MBit/s  Industrial communication   Ethernet functionality  Unique you will be a supply of the supply of	ECLASS-11.1	
automs tariff number         85444290           DaTIN         4048879863001           Packaging unit         1           Electrical data   Supply           Dorrating voltage DC max.         60 V           Dorrating per contact max.         1,5 A           Industrial communication           Transfer parameters         CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1)           Data transmission rate max.         100 MBit/s           Industrial communication   Ethernet functionality           Industrial communication   Ethernet functionality           Industrial communication   Ethernet functionality           Industrial communication   Ethernet functionality           Industrial Connection           Industrial Connection           Industrial Connection           Industrial Connection           Industrial Connection           Installation   Connection	ECLASS-12.0	
Additional condition protection degree   1,5 kV	ETIM-5.0	
Packaging unit 1  Electrical data   Supply  Deparating voltage DC max. 60 V  Deparating voltage DC max. 1,5 A  Industrial communication  Fransfer parameters CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1)  Data transmission rate max. 100 MBit/s  Industrial communication   Ethernet functionality  Buplex Full duplex  Industrial communication   Ethernet functionality  Buplex Full duplex  Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Depre 3  Palated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Donotor for corrugated hose without  Mechanical data   Material data  Docating locking Nickeled  Docating of fitting nickel plated  Jinc die-casting  Methanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	customs tariff number	
Electrical data   Supply  Operating voltage DC max. 60 V  Ourrent operating per contact max. 1,5 A  Industrial communication  Firansfer parameters CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1)  Outat transmission rate max. 100 MBit/s  Industrial communication   Ethernet tunctionality  Upplex Full duplex  Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Alterda surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating of lifting nickel plated  Joaching locking Nickeled  Joaching locking Nickeled  Joaching locking Nickeled  Joaching locking Zinc die-casting  Methanical data   Mounting data  Mounting method inserted, screwed, Shaking protection		
Operating voltage DC max. 1,5 A  Industrial communication  Transfer parameters CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1)  Data transmission rate max. 100 MBit/s  Industrial communication   Ethernet functionality  duplex Full duplex  Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Alaterial group (IEC 60664-1) 1  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking inserted   Zinc die-casting   Material screw connection   Zinc die-casting   Material screw connection   Zinc die-casting   Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Packaging unit	1
Current operating per contact max. 1,5 A  Industrial communication  Transfer parameters CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1)  Data transmission rate max. 100 MBit/s  Industrial communication   Ethernet functionality  duplex Full duplex  Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating locking inserted in ickel plated  Locking material Zinc die-casting  Methanical data   Mounting data  Mounting method inserted, screwed, Shaking protection  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Electrical data   Supply	
Industrial communication Fransfer parameters CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1) Data transmission rate max. 100 MBit/s Industrial communication   Ethernet functionality Industrial co	Operating voltage DC max.	60 V
Transfer parameters CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1) Data transmission rate max. 100 MBit/s Industrial communication   Ethernet functionality  duplex Full duplex Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3 Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Locking material  Locking material  Methanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Current operating per contact max.	1,5 A
Data transmission rate max. 100 MBit/s  Industrial communication   Ethernet functionality  duplex Full duplex  Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Locking material corrugated without  Methanical data   Muniting data  Mounting method inserted, screwed, Shaking protection  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Industrial communication	
Data transmission rate max. 100 MBit/s  Industrial communication   Ethernet functionality  duplex Full duplex  Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Locking material corrugated without  Methanical data   Muniting data  Mounting method inserted, screwed, Shaking protection  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Transfer parameters	CAT5, Class D (ISO/IEC 11801:2002), (EN 50173-1)
Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Jocking material Zinc die-casting  Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Data transmission rate max.	
Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Jocking material Zinc die-casting  Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Industrial communication   Ethernet fur	octionality
Installation   Connection  Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Locking material Zinc die-casting  Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	·	,
Stripping length (jacket) 20 mm  Mounting set M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Locking material  Locking material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	•	i dii dupiex
Mounting set  M12 x 1  Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3  Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled Coating of fitting nickel plated Coating material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection		
Device protection   Electrical  Additional condition protection degree inserted, screwed  Pollution Degree 3 Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data  Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Coating material zinc die-casting  Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	11 0 0 0 7	
Additional condition protection degree inserted, screwed  Pollution Degree 3 Rated surge voltage 1,5 kV  Material group (IEC 60664-1) I  Mechanical data Contour for corrugated hose without  Mechanical data   Material data  Coating locking Nickeled Coating of fitting nickel plated Coating material Zinc die-casting Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Mounting set	M12 x 1
Pollution Degree 3 Rated surge voltage 1,5 kV Material group (IEC 60664-1) I  Mechanical data Contour for corrugated hose without  Mechanical data   Material data Coating locking Nickeled Coating of fitting nickel plated Coating material Zinc die-casting Material screw connection Zinc die-casting  Mechanical data   Mounting data Mounting method inserted, screwed, Shaking protection	Device protection   Electrical	
Acted surge voltage 1,5 kV Material group (IEC 60664-1) I  Mechanical data Contour for corrugated hose without  Mechanical data   Material data Coating locking Nickeled Coating of fitting nickel plated Coating material Zinc die-casting Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Additional condition protection degree	inserted, screwed
Material group (IEC 60664-1)  Mechanical data Contour for corrugated hose without  Mechanical data   Material data Coating locking Nickeled Coating of fitting nickel plated Coating material Zinc die-casting Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Pollution Degree	3
Mechanical data Contour for corrugated hose without  Mechanical data   Material data Coating locking Nickeled Coating of fitting nickel plated Cocking material Zinc die-casting Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Rated surge voltage	1,5 kV
Mechanical data   Material data Coating locking Coating of fitting Coating of fitting Cocking material Cocki	Material group (IEC 60664-1)	· · · · · · · · · · · · · · · · · · ·
Mechanical data   Material data  Coating locking Nickeled  Coating of fitting nickel plated  Locking material Zinc die-casting  Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Mechanical data	
Coating locking  Nickeled Coating of fitting  nickel plated Cocking material  Zinc die-casting  Material screw connection  Zinc die-casting  Mechanical data   Mounting data  Mounting method  inserted, screwed, Shaking protection	Contour for corrugated hose	without
Coating locking  Nickeled Coating of fitting  nickel plated Cocking material  Zinc die-casting  Material screw connection  Zinc die-casting  Mechanical data   Mounting data  Mounting method  inserted, screwed, Shaking protection	Mechanical data   Material data	
Coating of fitting nickel plated  Locking material Zinc die-casting  Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection		Nickeled
Locking material Zinc die-casting  Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection		
Material screw connection Zinc die-casting  Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Locking material	·
Mechanical data   Mounting data  Mounting method inserted, screwed, Shaking protection	Material screw connection	
Mounting method inserted, screwed, Shaking protection	Mechanical data   Mounting data	
		inserted screwed Shaking protection
Environmental characteristics   Climatic		<del>-</del> `
	Environmental characteristics   Climation	



stay connected

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	
Product standard	DIN EN 61076-2-101 (M12)
Installation   Cable	
·	700
Cable identification  Jacket Color	793
Type of Certificate	green cURus
**	1
Amount stranding Stranding	4 wires around Filler twisted
Cable shielding (type)	copper braid, tinned
Cable shielding (type)  Cable shielding (coverage)	85 %
Banding	Fleece. Foil
Filler	yes
wire arrangement	white, yellow, blue, orange
Cable weigth	69,3 g/m
Material jacket	PUR
Shore hardness jacket	90 Shore A
Freedom from ingredients (jacket)	lead-free, cadmium-free, CFC-free, halogen-free, silicone-free
Outer-diameter (jacket)	6.6 mm
Tolerance outer diameter (sheath)	± 5 %
Material wire insulation	PE PE
Amount wires	4
Outer diameter insulation	1.6 mm
Outer diameter tolerance core insulation	± 5 %
Shore hardness wire insulation	65 Shore D
Ingredient freeness wire insulation	lead-free, CFC-free, halogen-free
Amount strands (wire)	19
Diameter of single wires	22 AWG
Conductor crosssection (wire)	22 AWG
Material conductor wire	copper stranded wire, tinned
Nominal voltage AC max.	300 V
Current load capacity (standard)	to DIN VDE 0298-4
Current load capacity min. wire	4,8 A
Characteristic impedance	100 Ω ± 15 % MHz
Electrical resistance line constant wire	59,4 Ω/km @ 20 °C
AC withstand voltage (wire - wire)	2 kV @ 60 s
Electrical capacity line constant (wire - wire)	52000 pF/km
Power frequency withstand voltage (wire - jacket)	2 kV @ 60 s
AC withstand voltage (wire - shield)	2 kV @ 60 s
Min. operating temperature (static)	-40 °C
Max. operating temperature (fixed)	80 °C
Operating temperature min. (dynamic)	-20 °C
Operating temperature max. (dynamic)	60 °C
Flame resistance	IEC 60332-2-2   UL 1581 § 1090   UL 1581 § 1100 FT2
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)	8 x Outer diameter
Bending radius (dynamic)	12 x Outer diameter
No. of torsion cycles	4 Mio.
Torsion stress	± 180 °/m