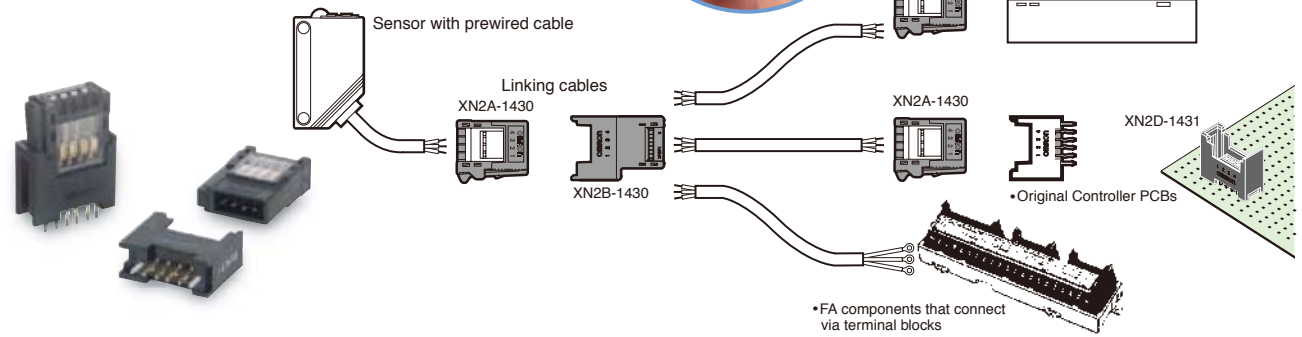
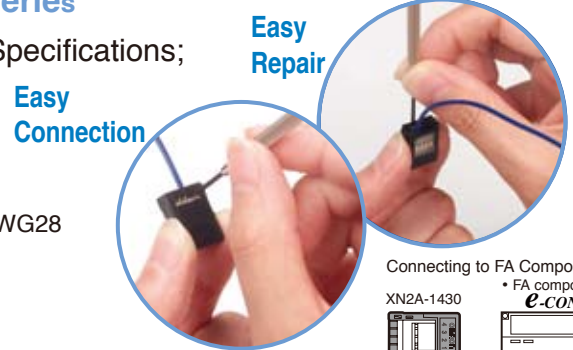


Industrial PCB Connectors XN2 Series

Easy-wire Connectors with *e-CON* Specifications; Ideal for Connecting Sensors.

- Use industry-proven spring clamps for wiring.
- No special tools required.
- Easy to rewire and repair.
- Each Connector accepts any size wire from AWG28 (0.08mm²) to AWG20 (0.5mm²). (External sheath diameter: 1.5 mm max.)



Ordering Information

Type	Cable Plug Connector	Cable Socket Connector	Single-socket PCB Socket Connector	Four-socket PCB Socket Connector
Appearance				
Model	XN2A-1430	XN2B-1430	XN2D-1431	XN2D-4431

Ratings and Specifications

Rated current	3 A/pole (Using 0.5 mm ² wire) 2 A/pole (Using 0.3 mm ² wire) 1 A/pole (Using 0.2 mm ² wire) 0.5 A/pole (Using 0.1 mm ² wire)
Rated voltage	32 VDC
Contact resistance *1	30mΩ max. (20 mVDC max., 100 mA max.)
Insulation resistance	1000MΩ min. (at 500 VDC)
Dielectric strength	1,000 VAC for 60 s (leakage current: 1 mA max.)
Insertion tolerance	50 times
Ambient temperature *2	Operating: -30°C to 75°C
Applicable wires	0.08 mm ² (AWG28) to 0.5mm ² (AWG20), The external diameter of the cable sheath is 1.5 mm max.

*1. This value is the contact resistance of the connector.
*2. The temperature is limited, however, to the maximum operating temperature for the cables.

Cat. No. G017-E1-01 In the interest of product improvement, specifications are subject to change without notice.

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M8/M12 Sensor Connector Selection Guide

M12/M8 TypeXS2/3



M12/M8 for IP69K



***e-CON* Type XN2**



M12 Smartclick Type XS5



1. Fast Connection

Shortest locking rotation of 1/8th of a turn greatly reduces time and effort when wiring

2. Click Feeling

An audible "click" and tactile response tells you that the Connector is securely locked.

3. Backward Compatibility

Possible to connect with standard screw-type M12 connector

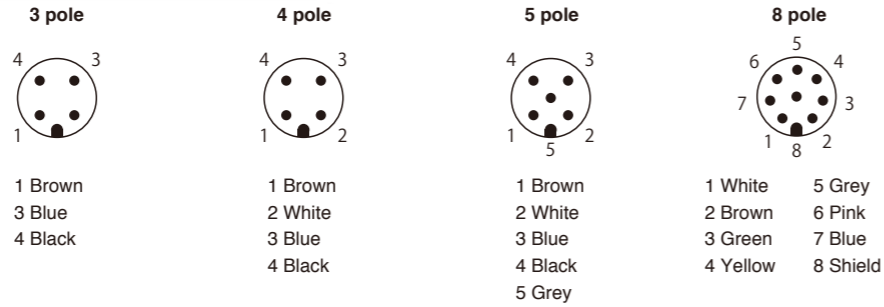
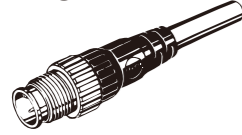
4. Same degree of protection

Meeting IP67 requirement

Omron Corporation reserves the right to make any changes to the specifications of the products described on this packaging at its sole discretion and without prior notice. Please note: Part pictures are not to scale. Not all product variations and data shown - please refer to datasheets for further models and data. TypeXS2/3: Cat.No.X073-E1-01, TypeXS5: Cat.No.G016-E1-02

M12 Cable type

Plug (Male)
Straight



Cable Length (m)					
PVC	0.3	XS2H-D421-AC0-A	XS2H-D421-A80-A	XS2H-D521-AG0-A	XS2H-D821-AH0-C
	1.0	XS2H-D421-CC0-A	XS2H-D421-C80-A	XS2H-D521-CG0-A	XS2H-D821-CH0-C

Technical data					
Rated voltage		125VDC,250VAC		36VDC	
Rated current		4A		1.5A	
Protection class (IEC60529)		IP67		IP67	
Temperature range		-25C to +70C		-25C to +70C	

PVC Cable					
Color		Light Grey	Light Grey	Light Grey	Light Grey
Outer diameter		Φ6mm	Φ6mm	Φ6mm	Φ6mm
Conductor size		AWG20 (49 x 0.12)	AWG20 (49 x 0.12)	0.3mm ² (30 x 0.12)	0.25mm ² (20 x 0.127)
Approvals		UL Approved	UL Approved	-	-

M12 Smartclick Cable type

Socket (Female)
Straight



Cable Length (m)		
PVC	2.0	XS5F-D421-D80-A
	5.0	XS5F-D421-G80-A
	10.0	XS5F-D421-J80-A

Plug (Male)
Straight



Cable Length (m)			
PVC	0.3	XS5H-D421-A80-A	
	1.0	XS5H-D421-C80-A	

Angled



Cable Length (m)		
PVC	2.0	XS5F-D422-D80-A
	5.0	XS5F-D422-G80-A
	10.0	XS5F-D422-J80-A

Angled



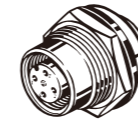
Cable Length (m)			
PVC	0.3	XS5H-D422-A80-A	
	1.0	XS5H-D422-C80-A	
	2.0	XS5H-D422-D80-A	

Technical data					
Rated voltage		125VDC,250VAC		36VDC	
Rated current		4A		1.5A	
Protection class (IEC60529)		IP67		IP67	
Temperature range		-25C to +70C		-25C to +70C	

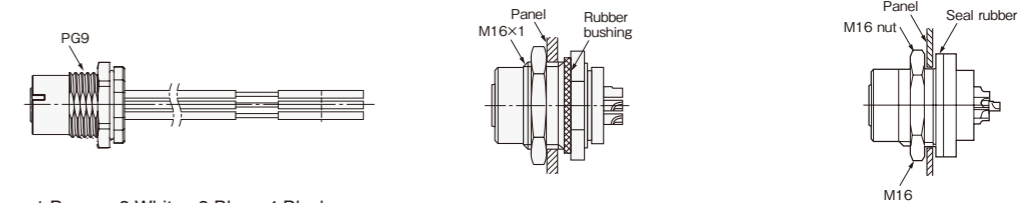
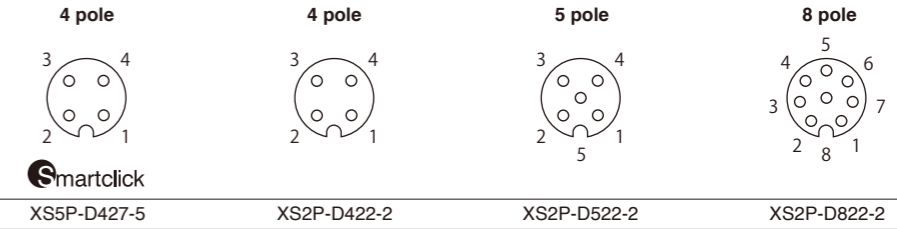
PVC Cable					
Color		Light Grey			
Outer diameter		Φ6mm			
Conductor size		AWG20 (49 x 0.12)			
Approvals		UL Approved			

M12 / M12 Smartclick Panel Mount Type

Socket (Female)



Front Lock Model
Solder Cup or With cable

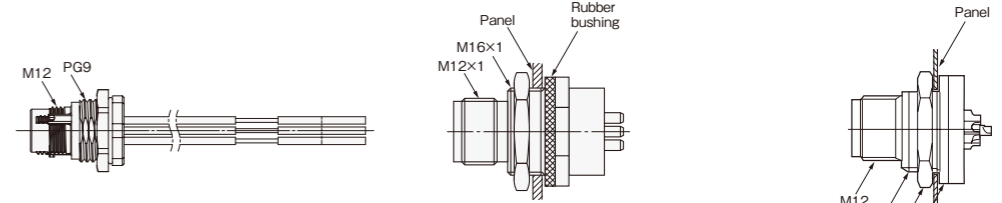
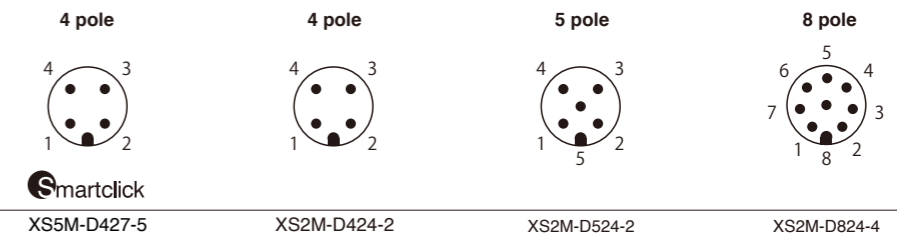


1 Brown 2 White 3 Blue 4 Black
Cable Length : 50cm

Plug (Male)



Front Lock Model
Solder Cup or With cable

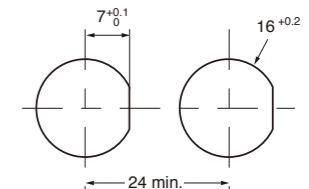


1 Brown 2 White 3 Blue 4 Black
Cable Length : 50cm

Panel Cutout



Panel Cutout



Note: The panel thickness is 1 to 4 mm.

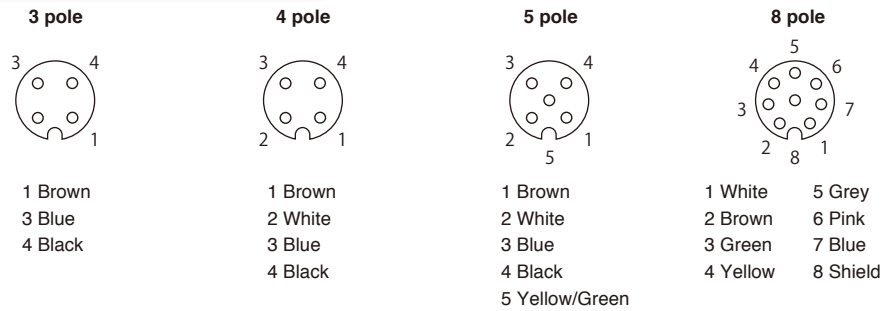
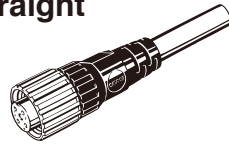
Technical data					
Rated voltage		125VDC,250VAC		36VDC	
Rated current		4A		1.5A	
Protection class (IEC60529)		IP67		IP67	
Temperature range		-25C to +70C		-25C to +70C	

Material			
Contact / Surface		Copper Alloy / Nickel base, Au0.4μm	
Connector housing		4,8 Pole:PBT resin (UL94V-0) / 5 Poles:PA resin(UL94V-0)	
Nut /Surface		Copper Alloy / Nickel plated	

M12 Cable type

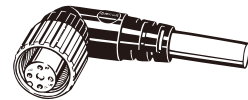
Socket (Female)

Straight



Cable Length (m)					
PVC	2.0	XS2F-M12PVC3S2M	XS2F-M12PVC4S2M	XS2F-M12PVC5S2M	XS2F-D821-DH0-C
	5.0	XS2F-M12PVC3S5M	XS2F-M12PVC4S5M	XS2F-M12PVC5S5M	XS2F-D821-GH0-C
	10.0	XS2F-M12PVC3S10M	XS2F-M12PVC4S10M	-	-
PUR	2.0	XS2F-M12PUR3S2M	XS2F-M12PUR4S2M	XS2F-M12PUR5S2M	-
	5.0	XS2F-M12PUR3S5M	XS2F-M12PUR4S5M	XS2F-M12PUR5S5M	-
	10.0	XS2F-M12PUR3S10M	XS2F-M12PUR4S10M	-	-

Angled



Cable Length (m)					
PVC	2.0	XS2F-M12PVC3A2M	XS2F-M12PVC4A2M	XS2F-M12PVC5A2M	-
	5.0	XS2F-M12PVC3A5M	XS2F-M12PVC4A5M	XS2F-M12PVC5A5M	-
	10.0	XS2F-M12PVC3A10M	XS2F-M12PVC4A10M	-	-
PUR	2.0	XS2F-M12PUR3A2M	XS2F-M12PUR4A2M	XS2F-M12PUR5A2M	-
	5.0	XS2F-M12PUR3A5M	XS2F-M12PUR4A5M	XS2F-M12PUR5A5M	-
	10.0	XS2F-M12PUR3A10M	XS2F-M12PUR4A10M	-	-

Technical data			
Rated voltage	125VDC, 250VAC		36VDC
Rated current	4A		1.5A
Protection class (IEC60529)	IP67		IP67

Material	
Contact / Surface	Copper Alloy / Nickel base, Au0.4µm
Connector housing	3,4,8 Pole:PBT resin (UL94V-0) / 5 Poles:PA resin(UL94V-0)
Cover	3,4,8 Pole:Polyester elastomer / 5 Poles:PVC
Nut /Surface	Copper Alloy / Nickel plated

PVC Cable				
Color	Black	Black	Black	Light Grey
Outer diameter	Φ5mm	Φ5.4mm	Φ5.8mm	Φ6mm
Conductor size	0.34mm ² (43 x 0.1)	0.34mm ² (43 x 0.1)	0.34mm ² (43 x 0.1)	0.25mm ² (20 x 0.127)
Approvals	UL pending	UL pending	UL pending	-
Features	Flame retardant	Flame retardant	Flame retardant	-
Temperature range	-25C to +70C			

PUR Cable			
Color	Black	Black	Black
Outer diameter	Φ4.3mm	Φ4.7mm	Φ5mm
Conductor size	0.34mm ² (43 x 0.1)	0.34mm ² (43 x 0.1)	0.34mm ² (43 x 0.1)
Approvals	UL pending	UL pending	UL pending
Features	Flame retardant Halogen free Oil resistance	Flame retardant Halogen free Oil resistance	Flame retardant Halogen free Oil resistance
Temperature range	Cable fixed : -50C to +80C / Cable moved : -25C to +80C		

M8 Cable type

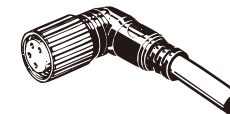
Socket (Female)

Straight



Cable Length (m)			
PVC	2.0	XS3F-M8PVC3S2M	XS3F-M8PVC4S2M
	5.0	XS3F-M8PVC3S5M	XS3F-M8PVC4S5M
	10.0	XS3F-M8PVC3S10M	XS3F-M8PVC4S10M
PUR	2.0	XS3F-M8PUR3S2M	XS3F-M8PUR4S2M
	5.0	XS3F-M8PUR3S5M	XS3F-M8PUR4S5M
	10.0	XS3F-M8PUR3S10M	XS3F-M8PUR4S10M

Angled



Cable Length (m)			
PVC	2.0	XS3F-M8PVC3A2M	XS3F-M8PVC4A2M
	5.0	XS3F-M8PVC3A5M	XS3F-M8PVC4A5M
	10.0	XS3F-M8PVC3A10M	XS3F-M8PVC4A10M
PUR	2.0	XS3F-M8PUR3A2M	XS3F-M8PUR4A2M
	5.0	XS3F-M8PUR3A5M	XS3F-M8PUR4A5M
	10.0	XS3F-M8PUR3A10M	XS3F-M8PUR4A10M

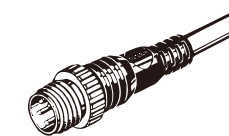
Technical data	
Rated voltage	125VDC
Rated current	1A
Protection class (IEC60529)	IP67

Material	
Contact / Surface	Copper Alloy / Nickel base, Au0.4µm
Connector housing	PBT resin (UL94V-0)
Cover	Polyester elastomer (UL94V-0)
Nut /Surface	Copper Alloy / Nickel plated

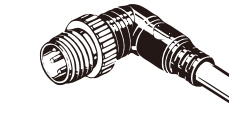
PVC Cable		
Color	Black	Black
Outer diameter	Φ5mm	Φ4.8mm
Conductor size	0.34mm ² (43 x 0.1)	0.25mm ² (32 x 0.1)
Approvals	UL pending	UL pending
Features	Flame retardant	Flame retardant
Temperature range	-25C to +70C	

PUR Cable		
Color	Black	Black
Outer diameter	Φ4.3mm	Φ4.7mm
Conductor size	0.34mm ² (43 x 0.1)	0.34mm ² (43 x 0.1)
Approvals	UL pending	UL pending
Features	Flame retardant Halogen free Oil resistance	Flame retardant Halogen free Oil resistance
Temperature range	Cable fixed : -50C to +80C / Cable moved : -25C to +80C	

Plug (Male)



Cable Length (m)			
PVC	0.3	XS3H-M8PVC3S03M	XS3H-M8PVC4S03M
	1.0	XS3H-M8PVC3S1M	XS3H-M8PVC4S1M
	1.0	XS3H-M8PVC3S1M	XS3H-M8PVC4S1M
PUR	0.3	XS3H-M8PUR3S03M	XS3H-M8PUR4S03M
	1.0	XS3H-M8PUR3S1M	XS3H-M8PUR4S1M
	1.0	XS3H-M8PUR3S1M	XS3H-M8PUR4S1M



Cable Length (m)			
PVC	0.3	XS3H-M8PVC3A03M	XS3H-M8PVC4A03M
	1.0	XS3H-M8PVC3A1M	XS3H-M8PVC4A1M
	1.0	XS3H-M8PVC3A1M	XS3H-M8PVC4A1M
PUR	0.3	XS3H-M8PUR3A03M	XS3H-M8PUR4A03M
	1.0	XS3H-M8PUR3A1M	XS3H-M8PUR4A1M
	1.0	XS3H-M8PUR3A1M	XS3H-M8PUR4A1M

Technical data	
Rated voltage	125VDC
Rated current	1A
Protection class (IEC60529)	IP67

Material	
Contact / Surface	Copper Alloy / Nickel base, Au0.4µm
Connector housing	PBT resin (UL94V-0)
Cover	Polyester elastomer (UL94V-0)
Nut /Surface	Copper Alloy / Nickel plated

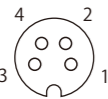
PVC Cable		
Color	Black	Black
Outer diameter	Φ5mm	Φ4.8mm
Conductor size	0.34mm ² (43 x 0.1)	0.25mm ² (32 x 0.1)
Approvals	UL pending	UL pending
Features	Flame retardant	Flame retardant
Temperature range	-25C to +70C	

PUR Cable		
Color	Black	Black
Outer diameter	Φ4.3mm	Φ4.7mm
Conductor size	0.34mm ² (43 x 0.1)	0.34mm ² (43 x 0.1)
Approvals	UL pending	UL pending
Features	Flame retardant Halogen free Oil resistance	Flame retardant Halogen free Oil resistance
Temperature range	Cable fixed : -50C to +80C / Cable moved : -25C to +80C	

M8 Panel Mount /Embedded/Y-Joint Type

Socket (Female)

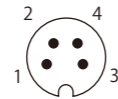
4 pole



Panel Mount Model

Plug (Male)

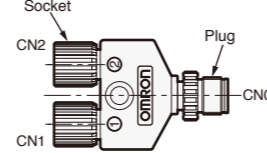
4 pole



Embedded Model

Y-Joint (Plug/Socket)

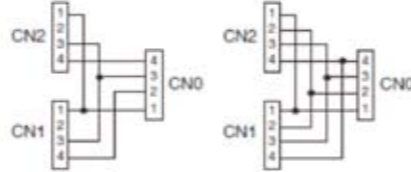
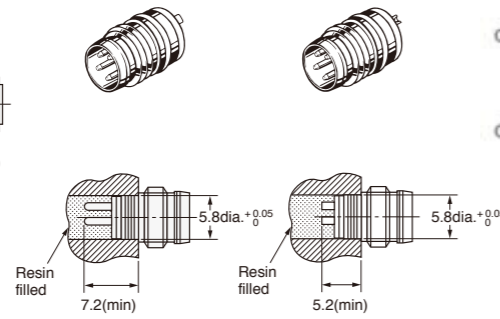
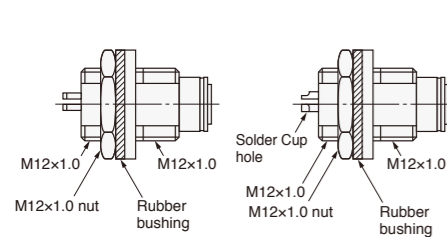
4 pole



XS3R-M426-1 XS3R-M426-5

PCB Terminal	Solder Cup
XS3P-M421-1	XS3P-M421-2

PCB Terminal	Solder Cup
XS3M-K421-1	XS3M-K421-2



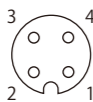
Technical data

Rated voltage	125VDC
Rated current	1A
Protection class (IEC60529)	IP67
Temperature range	-25C to +70C

M12 Smartclick Assembled Type

Socket (Female)

4 pole

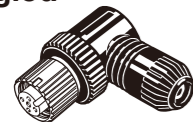


Straight



Cable Diameter	4 pole	5 pole
3-4mm	XS5C-D4S5	XS5C-D5S5
4-5mm	XS5C-D4S3	XS5C-D5S3
5-6mm	XS5C-D4S1	XS5C-D5S1
6-7mm	XS5C-D4S9	XS5C-D5S9
7-8mm	XS5C-D4S7	XS5C-D5S7

Angled



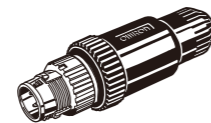
Cable Diameter	4 pole	5 pole
3-4mm	XS5C-D4S6	-
4-5mm	XS5C-D4S4	-
5-6mm	XS5C-D4S2	-

Technical data

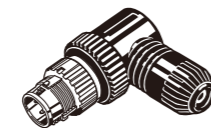
Rated voltage	125VDC,250VAC
Rated current	4A
Protection class (IEC60529)	IP67
Temperature range	-25C to +70C

Plug (Male)

4 pole



Cable Diameter	4 pole	5 pole
3-4mm	XS5G-D4S5	XS5G-D5S5
4-5mm	XS5G-D4S3	XS5G-D5S3
5-6mm	XS5G-D4S1	XS5G-D5S1
6-7mm	XS5G-D4S9	XS5G-D5S9
7-8mm	XS5G-D4S7	XS5G-D5S7



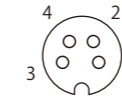
Cable Diameter	4 pole	5 pole
3-4mm	XS5G-D4S6	-
4-5mm	XS5G-D4S4	-
5-6mm	XS5G-D4S2	-

Contact terminations are screws

M8 / M12 Cable type for IP69K

M8 Socket (Female)

4 pole



1 Brown 2 White
3 Blue 4 Black

Straight



Cable Length (m)

PVC	2.0	XS3F-E421-402-A
	5.0	XS3F-E421-405-A
	10.0	XS3F-E421-410-A

Angled



Cable Length (m)

PVC	2.0	XS3F-E422-402-A
	5.0	XS3F-E422-405-A
	10.0	XS3F-E422-410-A

Technical data

Rated voltage	125VDC
Rated current	1A
Protection class (IEC60529)	IP69K
Temperature range	-25C to +70C

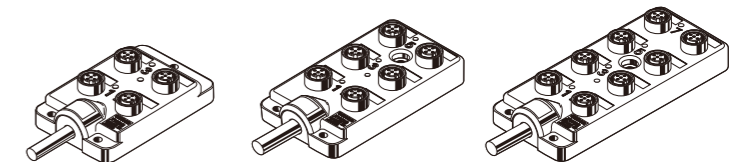
Material

Contact / Surface	Copper Alloy / Nickel base, Au0.4μm
Connector housing	PBT resin (UL94V-0)
Cover	Polyester elastomer (UL94V-0)
Nut /Surface	Stainless Steel

PVC Cable

Color	Dark Grey	Black
Outer diameter	Φ6.0mm	Φ6.0mm
Conductor size	0.2mm ² (18 X 0.12)	0.5mm ² (45 X 0.12)
Approvals	-	-
Features	-	High temperature cable

M12 Terminal Box



	Cable Length 5m	4 Port	6 Port	8 Port
M12	3-wire NPN / 2-wire 3-4	XW3B-P455-G11	XW3B-P655-G11	XW3B-P855-G11
	2-wire 1-4 / without polarity 3-4	XW3B-P452-G11	XW3B-P652-G11	XW3B-P852-G11
	3-wire PNP / 2-wire 1-4	XW3B-P453-G11	XW3B-P653-G11	XW3B-P853-G11
M12 Smartclick	3-wire NPN / 2-wire 3-4	XW3D-P455-G11	-	XW3D-P855-G11
	2-wire 1-4 / without polarity 3-4	XW3D-P452-G11	-	XW3D-P852-G11
	3-wire PNP / 2-wire 1-4	XW3D-P453-G11	-	XW3D-P853-G11