Round Water-resistant Connectors (M12)
XS2

Water- and Environment-resistive FA Connectors Save Wiring and Maintenance Effort

- Compact FA connectors satisfy IP67 requirements and ensure a 94V-0 fire retardant rating.
- A wide array of connectors makes a wiring system more modular, simplifies maintenance, and reduces downtime.
- Connectors with Cables and Connector Assemblies are available.
- Three types of Connector Assembly: Crimping, soldering, and screw-on.

■ Ratings and Specifications

Item	4,5 Poles	8 Poles
Rated current	4 A	1.5 A
Rated voltage	125 VDC, 250 VAC	36 VDC
Contact resistance	40 mΩ max. (20 mV max., 100 mA max.)	
Insulation resistance	1,000 MΩ min. (at 500 VDC)	
Dielectric strength (leakage current: 1 mA max.)	1,500 VAC for 1 min	1,000 VAC for 1 min
Degree of protection	IP67 (IEC60529)	
Insertion tolerance	200 times min.	

■ Material

Contact / Surface	Copper Alloy / Nickel base, Au 0.4 µm
Connector housing	PBT resin (UL94V-0)
Nut / Surface	Copper Alloy / Nickel plated
Cover (XS2F/H/W/R)	PBT resin (UL94V-0)
Body (XS2C/G)	PBT resin (UL94V-0)

■ PVC Cable

Item	3 cores	4 cores	5 cores	8 cores
Color	Black			Light Grey
Outer diameter	5 mm dia.	5.4 mm dia.	5.8 mm dia.	6 mm dia.
Conductor size	AWG22 0.34 mm² (43 × 0.1)			0.25 mm² (20 × 0.127)
Approvals	AWM			—
Features	Flame retardant			—
Temperature range	Cable fixed: -10 to +80°C / Cable moved: -0 to +60°C			-25°C to +70°C

■ PVC Cable (For IP69K)

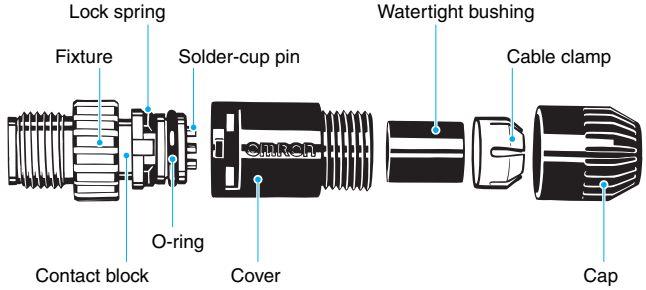
Item	Standard	Heat-resistant
Color	Light Gray	Black
Outer diameter	6 mm dia.	
Conductor size	AWG20 0.5 mm² (100 × 0.08)	AWG20 0.5 mm² (45 × 0.12)
Approvals	CL3	- - -
Features	Flame retardant	Heat and chemical resistant
Temperature range	-25 to +70°C	-25 to +105°C

■ PUR Cable

Item	3 cores	4 cores	5 cores
Color	Black		
Outer diameter	4.3 mm dia.	4.7 mm dia.	5 mm dia.
Conductor size	AWG22 0.34 mm² (43 × 0.1)		
Approvals	AWM		
Features	Flame retardant Halogen free Oil resistance		
Temperature range	Cable fixed: -50 to +80°C / Cable moved: -25 to +80°C		

■ Construction

(XS2G Soldering Plug Connector Assembly)



Note: 1. See "XS5/XS2 - Assembly Tooling and Accessories" datasheet for information regarding assembly, tooling and accessories that are common to the XS5 and XS2 connectors

2. See "XS5" datasheet for specifics regarding those connectors

4-Pin and 5-Pin Connectors with Cable Attached

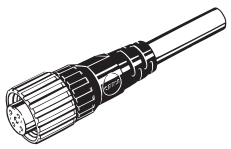
■ XS2F - Socket on One Cable End

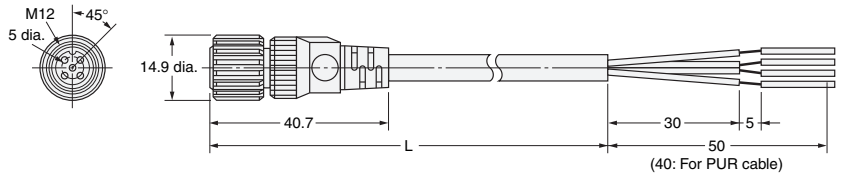
XS2F-M12PVC□□□□M PVC Cable
XS2F-M12PUR□□□□M PUR Cable

Dimensions

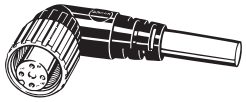
(Unit: mm)

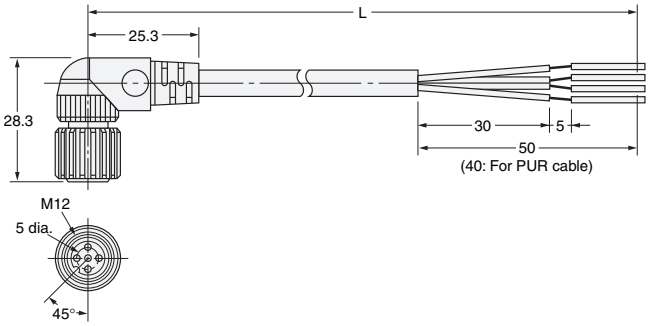
Straight



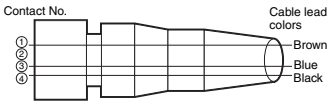
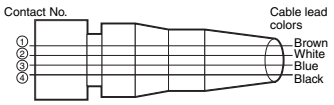
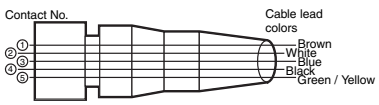


Angled





Wiring Diagram

3 cores	4 cores	5 cores
		

Ordering Information

Connector	Size	Cable material	Cores	Shape	Length (m)	Product description
Socket	M12	PVC	3	Angled	2	**XS2F-M12PVC3A2M**
					5	**XS2F-M12PVC3A5M**
					10	**XS2F-M12PVC3A10M**
				Straight	2	**XS2F-M12PVC3S2M**
					5	**XS2F-M12PVC3S5M**
					10	**XS2F-M12PVC3S10M**
			4	Angled	2	**XS2F-M12PVC4A2M**
					5	**XS2F-M12PVC4A5M**
					10	**XS2F-M12PVC4A10M**
				Straight	2	**XS2F-M12PVC4S2M**
					5	**XS2F-M12PVC4S5M**
					10	**XS2F-M12PVC4S10M**
			5	Angled	2	**XS2F-M12PVC5A2M**
					5	**XS2F-M12PVC5A5M**
				Straight	2	**XS2F-M12PVC5S2M**
					5	**XS2F-M12PVC5S5M**
		PUR	3	Angled	2	**XS2F-M12PUR3A2M**
					5	**XS2F-M12PUR3A5M**
					10	**XS2F-M12PUR3A10M**
				Straight	2	**XS2F-M12PUR3S2M**
					5	**XS2F-M12PUR3S5M**
					10	**XS2F-M12PUR3S10M**
			4	Angled	2	**XS2F-M12PUR4A2M**
					5	**XS2F-M12PUR4A5M**
					10	**XS2F-M12PUR4A10M**
				Straight	2	**XS2F-M12PUR4S2M**
					5	**XS2F-M12PUR4S5M**
					10	**XS2F-M12PUR4S10M**
			5	Angled	2	**XS2F-M12PUR5A2M**
					5	**XS2F-M12PUR5A5M**
				Straight	2	**XS2F-M12PUR5S2M**
					5	**XS2F-M12PUR5S5M**

Model Number Legend

Use this model number legend to identify products from their model number.
When ordering, use a model number from the table in *Ordering Information.*

XS2F - M12 □□□ □ □ □□M
1 2 3 4 5

1. Screw Type
M12: M12 size

2. Cable type
PVC: PVC cable
PUR: PUR cable

3. Number of Poles
3: 3 cores
4: 4 cores
5: 5 cores

4. Shape
A: Angled
S: Straight

5. Cable Length
2M: 2 m
5M: 5 m
10M: 10 m

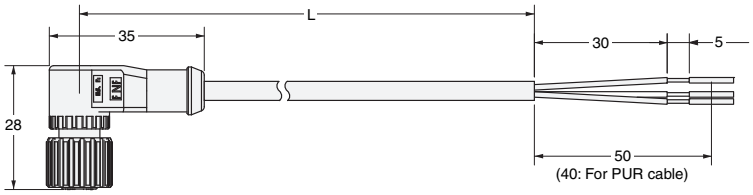
■ XS2F - Socket on One Cable End with LED

XS2F-M12PVC□□□□MLED PVC Cable
XS2F-M12PUR□□□□MLED PUR Cable

Dimensions

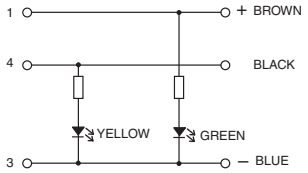
(Unit: mm)

Angled

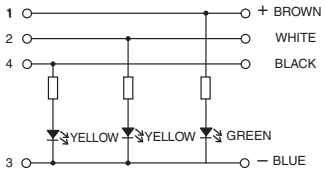


Wiring Diagram

3 poles



4 poles



Ordering Information

Connector Type	Shape	Size	Number of Poles	Cable Material	Cable Length (M)	Model
Socket	Angled	M12	3	PVC	2	**XS2F-M12PVC3A2MLED**
					5	**XS2F-M12PVC3A5MLED**
					10	**XS2F-M12PVC3A10MLED**
			4		2	**XS2F-M12PVC4A2MLED**
					5	**XS2F-M12PVC4A5MLED**
					10	**XS2F-M12PVC4A10MLED**
			3	PUR	2	**XS2F-M12PUR3A2MLED**
					5	**XS2F-M12PUR3A5MLED**
					10	**XS2F-M12PUR3A10MLED**
			4		2	**XS2F-M12PUR4A2MLED**
					5	**XS2F-M12PUR4A5MLED**
					10	**XS2F-M12PUR4A10MLED**

Model Number Legend

Use this model number legend to identify products from their model number.
When ordering, use a model number from the table in *Ordering Information.*

XS2F - M12 □□□ □A □□M LED
1 2 3 4 5 6

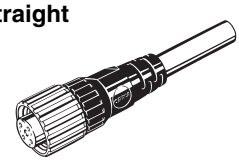
1. **Screw Type**
   M12: M12 size
2. **Cable type**
   PVC: PVC cable
   PUR: PUR cable
3. **Number of Poles**
   3: 3 cores
   4: 4 cores
4. **Shape**
   A: Angled
5. **Cable Length**
   2M: 2 m
   5M: 5 m
   10M: 10 m
6. **LED**
   LED: with LED

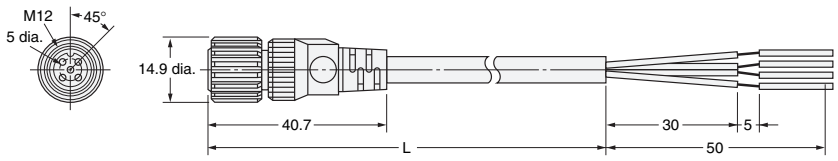
■ XS2F - Sockets on One Cable End with IP69K rating

Dimensions

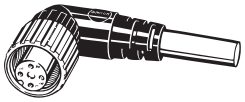
(Unit: mm)

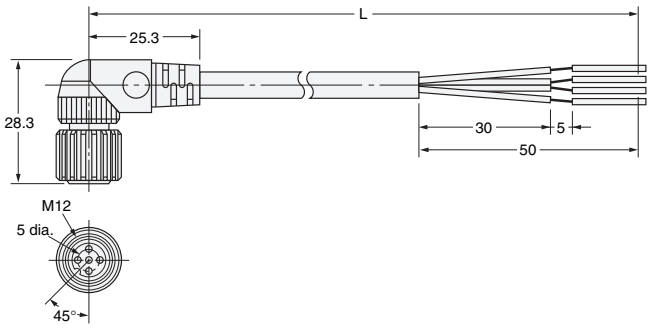
Straight





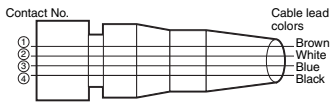
Angled





Wiring Diagram

4 cores



Ordering Information

Connector	Size	Cable material	Cores	Shape	Length (m)	Product description
Socket	M12	Vibration Proof Robot Cable	4	Angled	2	**XS2F-E422-D80-F**
					5	**XS2F-E422-G80-F**
					10	**XS2F-E422-J80-F**
				Straight	2	**XS2F-E421-D80-F**
					5	**XS2F-E421-G80-F**
					10	**XS2F-E421-J80-F**
		Heat Resistant		Angled	2	**XS2F-E422-D80-E**
					5	**XS2F-E422-G80-E**
					10	**XS2F-E422-J80-E**
				Straight	2	**XS2F-E421-D80-E**
					5	**XS2F-E421-G80-E**
					10	**XS2F-E421-J80-E**

Note: XS2F-E42□ models with -F are c*RU*us approved

Model Number Legend

Use this model number legend to identify products from their model number.
When ordering, use a model number from the table in *Ordering Information.*

XS2F - E42□ - □80 - □
1 2 3 4 5 6 7 8

1. **Nut Material**
   E: Stainless
2. **Number of Poles**
   4: 4 cores
3. **Contact Plating**
   2: 0.4-μm gold plating
4. **Shape**
   1: Straight
   2: Angled
5. **Cable Length**
   D: 2 m
   G: 5 m
   J: 10 m
6. **Connections**
   8: Brown, White, Blue, Black
7. **Connectors on One End/Both Ends**
   0: One End
8. **Cable Specification**
   F: Vibration Proof Robot Cable
   E: Heat-resistant cable

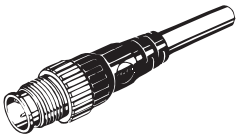
■ XS2H - Plugs on One Cable End

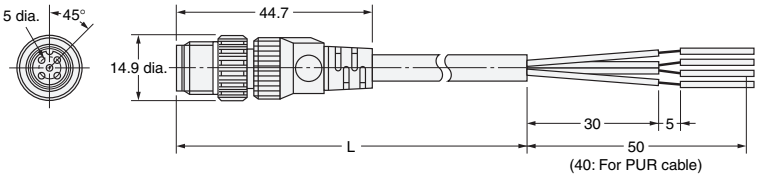
XS2H-M12PVC□S□□M PVC Cable
XS2H-M12PUR□S□□M PUR Cable

Dimensions

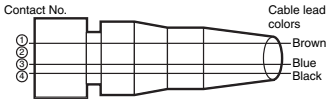
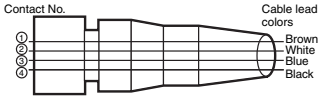
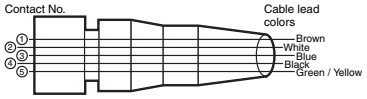
(Unit: mm)

Straight





Wiring Diagram

3 cores	4 cores	5 cores
		

Ordering Information

Connector	Size	Cable material	Cores	Shape	Length (m)	Product description
Plug	M12	PVC	3	Straight	2	**XS2H-M12PVC3S2M**
					5	**XS2H-M12PVC3S5M**
					10	**XS2H-M12PVC3S10M**
			4		2	**XS2H-M12PVC4S2M**
					5	**XS2H-M12PVC4S5M**
					10	**XS2H-M12PVC4S10M**
			5		2	**XS2H-M12PVC5S2M**
					5	**XS2H-M12PVC5S5M**
		PUR	3		2	**XS2H-M12PUR3S2M**
					5	**XS2H-M12PUR3S5M**
					10	**XS2H-M12PUR3S10M**
			4		2	**XS2H-M12PUR4S2M**
					5	**XS2H-M12PUR4S5M**
					10	**XS2H-M12PUR4S10M**
			5		2	**XS2H-M12PUR5S2M**
					5	**XS2H-M12PUR5S5M**

Model Number Legend

Use this model number legend to identify products from their model number.
When ordering, use a model number from the table in *Ordering Information.*

XS2H - M12 □□□ □S □□M
1 2 3 4 5

1. Screw Type
M12: M12 size
2. Cable type
PVC: PVC cable
PUR: PUR cable
3. Number of Poles
3: 3 cores
4: 4 cores
5: 5 cores
4. Shape
S: Straight
5. Cable Length
2M: 2 m
5M: 5 m
10M: 10 m

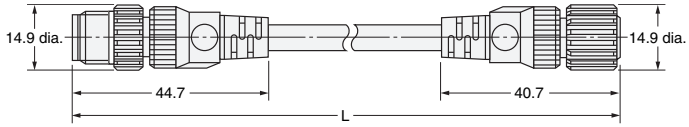
■ XS2W - Socket and Plug on Cable Ends

XS2W-M12PVC□SS□□M PVC Cable
XS2W-M12PUR□SS□□M PUR Cable

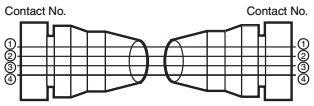
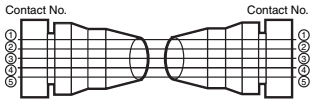
Dimensions

(Unit: mm)

Straight/Straight



Wiring Diagram

4 cores	5 cores
	

Ordering Information

Connector	Size	Cable material	Cores	Shape		Length (m)	Product description
				Plug	Socket		
Both	M12	PVC	4	Straight	Straight	2	**XS2W-M12PVC4SS2M**
						5	**XS2W-M12PVC4SS5M**
						10	**XS2W-M12PVC4SS10M**
			5			2	**XS2W-M12PVC5SS2M**
						5	**XS2W-M12PVC5SS5M**
						10	**XS2W-M12PVC5SS10M**
		PUR	4			2	**XS2W-M12PUR4SS2M**
						5	**XS2W-M12PUR4SS5M**
						10	**XS2W-M12PUR4SS10M**
			5			2	**XS2W-M12PUR5SS2M**
						5	**XS2W-M12PUR5SS5M**
						10	**XS2W-M12PUR5SS10M**

Model Number Legend

Use this model number legend to identify products from their model number.
When ordering, use a model number from the table in *Ordering Information.*

XS2W - M12 □□□ □SS □□M
1 2 3 4 5

1. **Screw Type**
   M12: M12 size
2. **Cable type**
   PVC: PVC cable
   PUR: PUR cable
3. **Number of Poles**
   4: 4 cores
   5: 5 cores
4. **Shape**
   SS: Straight / Straight
5. **Cable Length**
   2M: 2 m
   5M: 5 m
   1M: 10 m

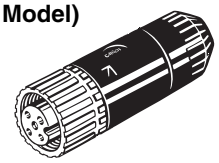
4-Pin and 5-Pin Assembly Connector

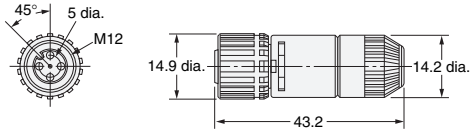
■ XS2C - Sockets, Crimping / Soldering Terminals

Dimensions

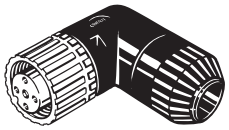
(Unit: mm)

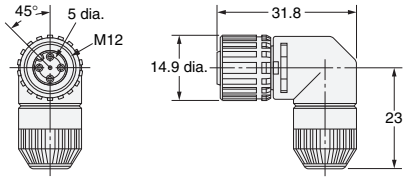
XS2C-□4C□ (Crimping Model)
XS2C-□42□ (Soldering Model)
Straight





Angled





Ordering Information

Suitable cable dia. (mm)	Cable connection direction	Connection method	Model	Minimum order
6-mm-dia. model (5 to 6 mm dia.)	Straight	Crimping	**XS2C-D4C1**	50
		Soldering	**XS2C-D421**	
	Angled	Crimping	**XS2C-D4C2**	
		Soldering	**XS2C-D422**	
4-mm-dia. model (4 to 5 mm dia.)	Straight	Crimping	**XS2C-D4C3**	
		Soldering	**XS2C-D423**	
	Angled	Crimping	**XS2C-D4C4**	
		Soldering	**XS2C-D424**	
3-mm-dia. model (3 to 4 mm dia.)	Straight	Crimping	**XS2C-D4C5**	
		Soldering	**XS2C-D425**	
	Angled	Crimping	**XS2C-D4C6**	
		Soldering	**XS2C-D426**	

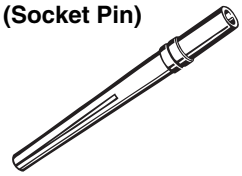
Note: Crimping plug contacts are sold separately.

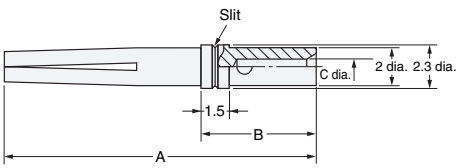
■ XS2U (Crimping Pin for XS2C)

Dimensions

(Unit: mm)

XS2U-222□ (Socket Pin)





Dimensions

Model	Suitable core size (mm^2)	Dimension (mm)			No. of slits
		A	B	C	
XS2U-2221	0.18 to 0.3	16.7	6.1	0.8	1
XS2U-2222	0.5 to 0.75	16.8	6.2	1.3	0

Note: A special tool must be used for crimping. For details, refer to the “XS5/XS2 - Assembly Tooling and Accessories” datasheet.

Ordering Information

Note: Orders are accepted in multiples of the minimum order.

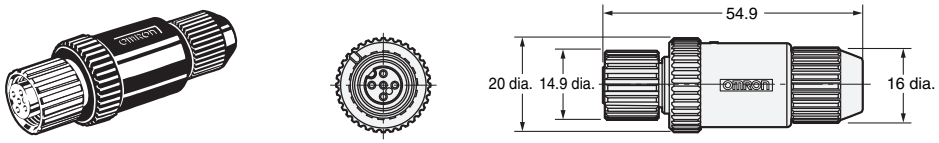
Suitable core size (mm^2)	Model	Minimum order
0.18 to 0.3	**XS2U-2221**	100
0.5 to 0.75	**XS2U-2222**	

■ XS2C - Sockets, Screw Terminals

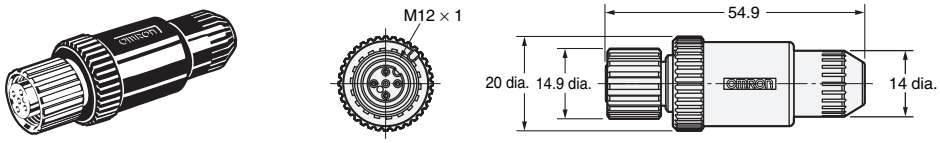
Dimensions

(Unit: mm)

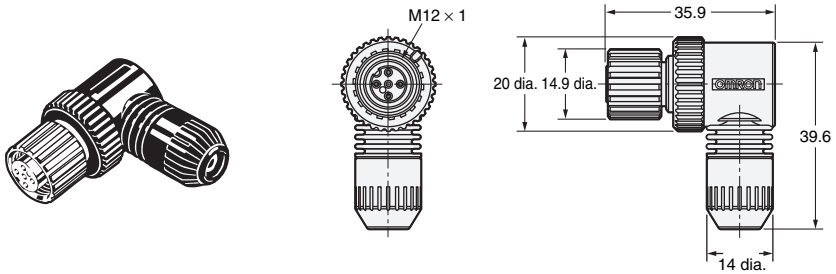
XS2C-D5S7 (5-core, Straight, Applicable Cable Outer Diameter: 8 mm)
XS2C-D5S9 (5-core, Straight, Applicable Cable Outer Diameter: 7 mm)
XS2C-D4S7 (4-core, Straight, Applicable Cable Outer Diameter: 8 mm)
XS2C-D4S9 (4-core, Straight, Applicable Cable Outer Diameter: 7 mm)



XS2C-D5S1 (5-core, Straight, Applicable Cable Outer Diameter: 6 mm)
XS2C-D4S□ (4-core, Straight, Applicable Cable Outer Diameter: 3, 4, or 6 mm)



XS2C-D5S2 (5-core, Angled, Applicable Cable Outer Diameter: 6 mm)
XS2C-D4S□ (4-core, Angled, Applicable Cable Outer Diameter: 3, 4, or 6 mm)



Ordering Information

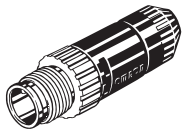
No. of poles	Suitable cable dia. (mm)	Straight connectors	Angled connectors	Minimum order
		Model	Model	
5	8-mm-dia. model (7 to 8 mm dia.)	**XS2C-D5S7**	—	50
	7-mm-dia. model (6 to 7 mm dia.)	**XS2C-D5S9**	—	
	6-mm-dia. model (5 to 6 mm dia.)	**XS2C-D5S1**	**XS2C-D5S2**	
4	8-mm-dia. model (7 to 8 mm dia.)	**XS2C-D4S7**	—	
	7-mm-dia. model (6 to 7 mm dia.)	**XS2C-D4S9**	—	
	6-mm-dia. model (5 to 6 mm dia.)	**XS2C-D4S1**	**XS2C-D4S2**	
	4-mm-dia. model (4 to 5 mm dia.)	**XS2C-D4S3**	**XS2C-D4S4**	
	3-mm-dia. model (3 to 4 mm dia.)	**XS2C-D4S5**	**XS2C-D4S6**	

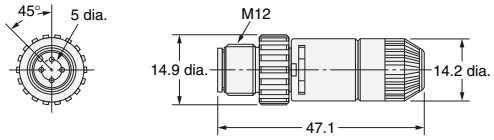
■ XS2G - Plugs, Crimping / Soldering Terminals

Dimensions

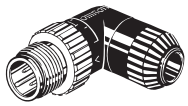
(Unit: mm)

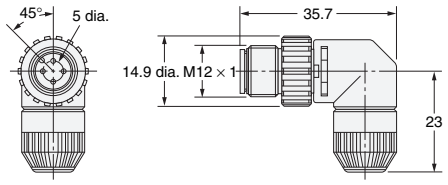
XS2G-□4C□ (Crimping Model)
XS2G-□42□ (Soldering Model)
Straight





XS2G-D42□ (Soldering Model)
Angled





Ordering Information

Suitable cable dia. (mm)	Cable connection direction	Connection method	Model	Minimum order
6-mm-dia. model (5 to 6 mm dia.)	Straight	Crimping	**XS2G-D4C1**	50
		Soldering	**XS2G-D421**	
	Angled	Soldering	**XS2G-D422**	
4-mm-dia. model (4 to 5 mm dia.)	Straight	Crimping	**XS2G-D4C3**	
		Soldering	**XS2G-D423**	
	Angled	Soldering	**XS2G-D424**	
3-mm-dia. model (3 to 4 mm dia.)	Straight	Crimping	**XS2G-D4C5**	
		Soldering	**XS2G-D425**	
	Angled	Soldering	**XS2G-D426**	

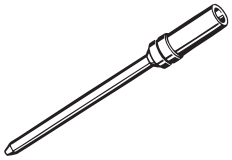
Note: Crimping plug contacts are sold separately.

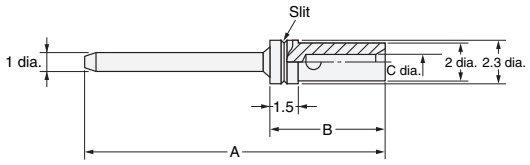
■ XS2U (Crimping Pin for XS2G)

Dimensions

(Unit: mm)

XS2U-312□ (Plug Pin)





Dimensions

Model	Suitable core size (mm^2)	Dimension (mm)			No. of slits
		A	B	C	
XS2U-3121	0.18 to 0.3	20.0	6.1	0.8	1
XS2U-3122	0.5 to 0.75	20.1	6.2	1.3	0

Note: A special tool must be used for crimping. For details, refer to the "XS5/XS2 - Assembly Tooling and Accessories" datasheet.

Ordering Information

Suitable core size (mm^2)	Model	Minimum order
0.18 to 0.3	**XS2U-3121**	100
0.5 to 0.75	**XS2U-3122**	

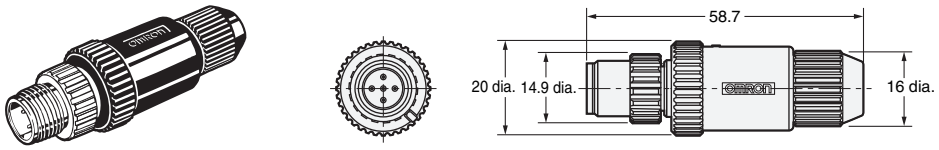
Note: Orders are accepted in multiples of the minimum order.

■ XS2G - Plugs, Screw Terminals

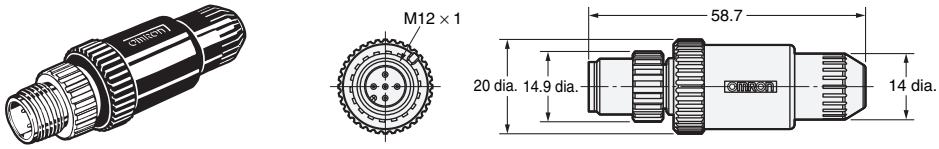
Dimensions

(Unit: mm)

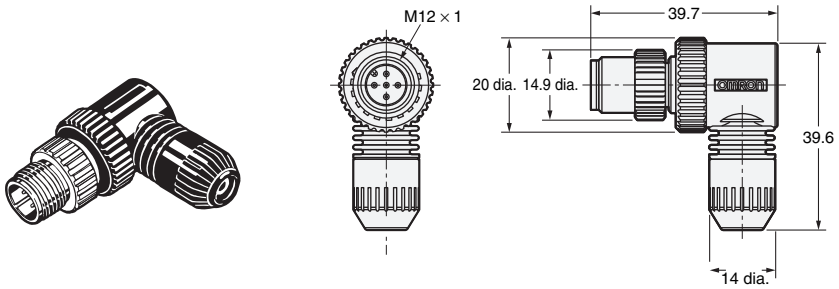
XS2G-D5S7 (5-core, Straight, Applicable Cable Outer Diameter: 8 mm)
XS2G-D5S9 (5-core, Straight, Applicable Cable Outer Diameter: 7 mm)
XS2G-D4S7 (4-core Straight, Applicable Cable Outer Diameter: 8 mm)
XS2G-D4S9 (4-core Straight, Applicable Cable Outer Diameter: 7 mm)



XS2G-D5S1 (5-core Straight, Applicable Cable Outer Diameter: 6 mm)
XS2G-D4S□ (4-core, Straight, Applicable Cable Outer Diameter: 3, 4, or 6 mm)



XS2G-D5S2 (5-core, Angled, Applicable Cable Outer Diameter: 6 mm)
XS2G-D4S□ (4-core, Angled, Applicable Cable Outer Diameter: 3, 4, or 6 mm)



Ordering Information

No. of poles	Suitable cable dia. (mm)	Straight connectors	Angled connectors	Minimum order
		Model	Model	
5	8-mm-dia. model (7 to 8 mm dia.)	**XS2G-D5S7**	—	50
	7-mm-dia. model (6 to 7 mm dia.)	**XS2G-D5S9**	—	
	6-mm-dia. model (5 to 6 mm dia.)	**XS2G-D5S1**	**XS2G-D5S2**	
4	8-mm-dia. model (7 to 8 mm dia.)	**XS2G-D4S7**	—	
	7-mm-dia. model (6 to 7 mm dia.)	**XS2G-D4S9**	—	
	6-mm-dia. model (5 to 6 mm dia.)	**XS2G-D4S1**	**XS2G-D4S2**	
	4-mm-dia. model (4 to 5 mm dia.)	**XS2G-D4S3**	**XS2G-D4S4**	
	3-mm-dia. model (3 to 4 mm dia.)	**XS2G-D4S5**	**XS2G-D4S6**	

Note: XS2G Screw terminal Plugs cannot be connected to side by side to the CN1 and CN2 connectors of XS2R Y-Joint Sockets/Plugs.

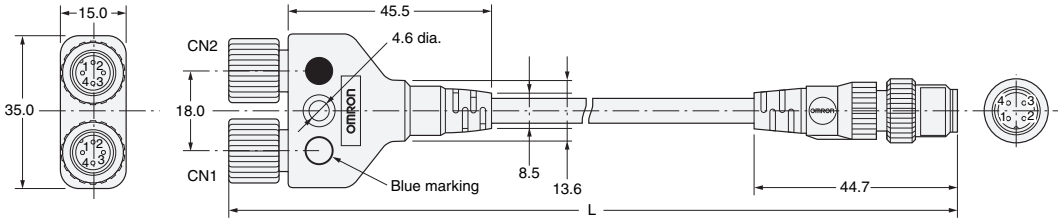
Y-Joint 4-Pin Plug/Socket Connectors

■ XS2R

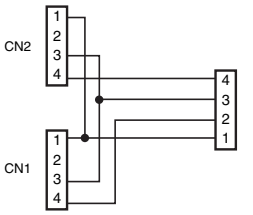
Dimensions

(Unit: mm)

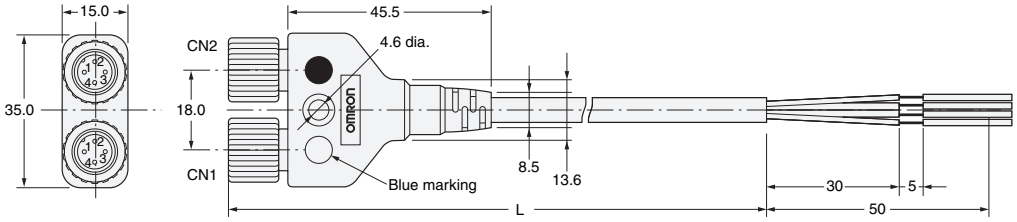
XS2R-D426-□11-F
Connectors on Both Cable Ends (Y-Joint Plug/Socket)



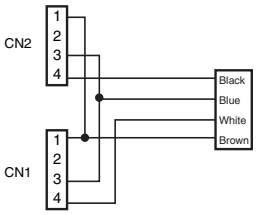
Wiring Diagram



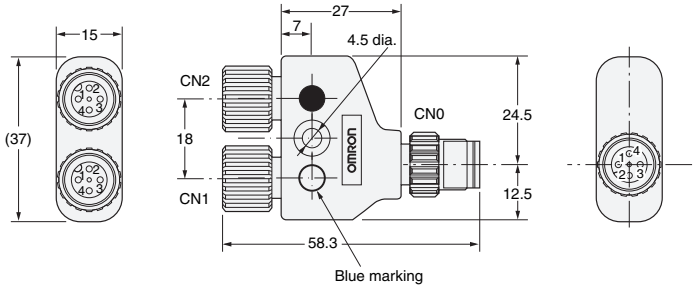
XS2R-D426-□10-F
Connectors on One Cable End (Y-Joint Plug/Socket)



Wiring Diagram

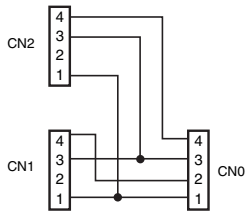


XS2R-D426-1
Y-Joint Plug/Socket without Cable

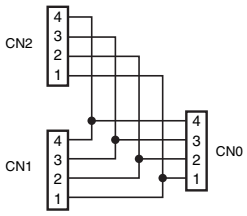


Wiring Diagram

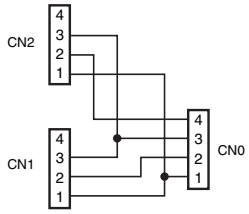
XS2R-D426-1



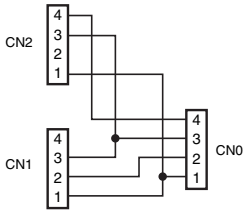
XS2R-D426-5



XS2R-D426-81



XS2R-D426-82



Ordering Information

Type	Connector	Cable length L (m)	Model	Minimum order
With cable	Connectors on both cable ends	0.5	**XS2R-D426-B11-F**	5
		1	**XS2R-D426-C11-F**	
		2	**XS2R-D426-D11-F**	
		3	**XS2R-D426-E11-F**	
	Connector on one cable end	2	**XS2R-D426-D10-F**	
		5	**XS2R-D426-G10-F**	
Without cable	Y-Joint plug/socket	—	**XS2R-D426-1**	10
			XS2R-D426-5	
			XS2R-D426-81	
			XS2R-D426-82	

Note: XS2G Screw-on Plugs cannot be connected side-by-side to the CN1 and CN2 connectors. Consider using a crimping or soldering model instead.

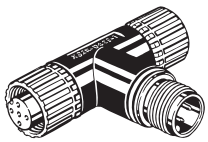
T-Joint Plug/Socket Connectors

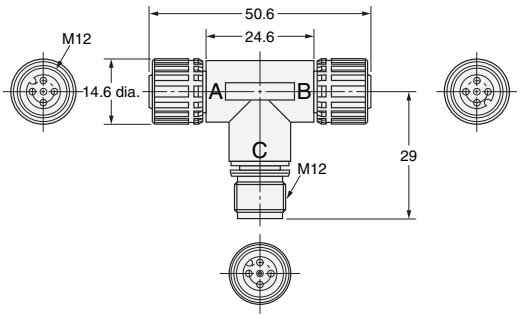
■ XS2R

Dimensions

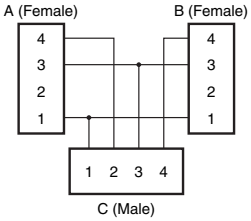
(Unit: mm)

XS2R-D422-1
XS2R-D422-5
Aggregate Models

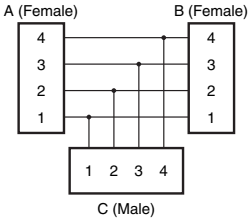




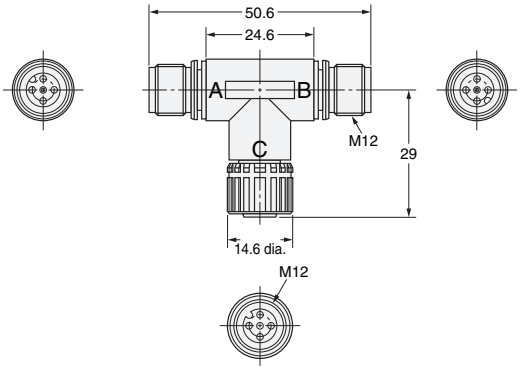
Wiring Diagram
XS2R-D422-1



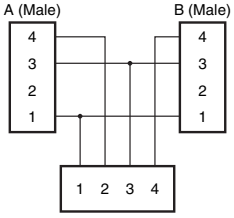
XS2R-D422-5



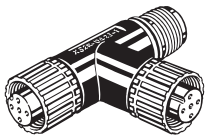
XS2R-D423-1
Bifurcated Model

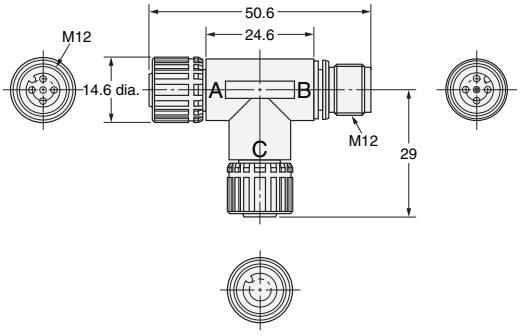


Wiring Diagram

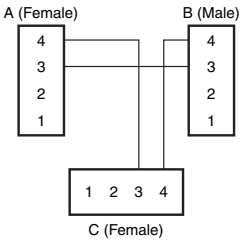


XS2R-D424-1
Daisy-chain Model





Wiring Diagram



Ordering Information

Type	Model	Minimum order
Aggregate model	**XS2R-D422-1**	20
	XS2R-D422-5	
Bifurcated model	**XS2R-D423-1**	
Daisy-chain model	**XS2R-D424-1**	

Safety Precautions

■ Correct Use - XS2R

Do not use this product under ambient conditions that exceed the ratings.

Before using the XS2R for Sensors, make sure that the wiring of the Sensors and the internal connections of the XS2R are correct.

See the end of this datasheet for XS2R Application examples.

See “XS5/XS2 - Assembly Tooling and Accessories” datasheet for information regarding assembly, tooling and accessories that are common to the XS5 and XS2 connectors

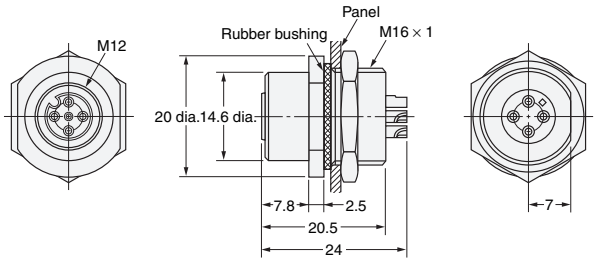
Panel-mount Connectors

■ XS2P - Sockets

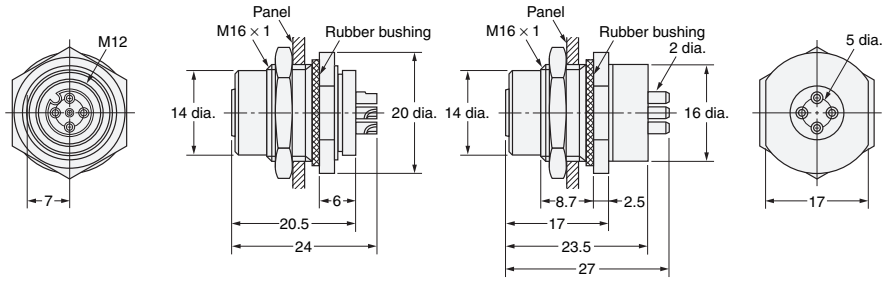
Dimensions

(Unit: mm)

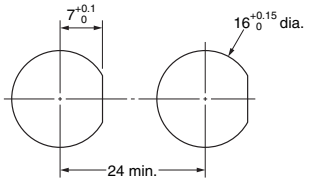
XS2P-D421-2 (with Solder Cup Pins)
Rear Lock Model



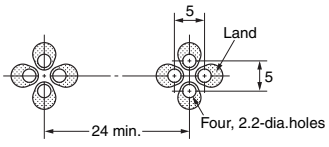
XS2P-D422-1 (with Through-hole PCB Pins)
XS2P-D422-2 (with Solder Cup Pins)
Front Lock Model



Panel Cutout



PCB-mounting Dimensions



Note: The panel thickness is 1 to 4 mm.

Ordering Information

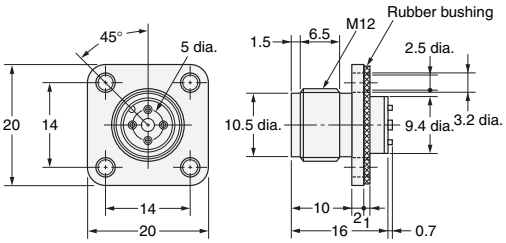
Lock method	Pin shape	Model	Minimum order
Rear lock	Solder cup pin	**XS2P-D421-2**	50
Front lock	Solder cup pin	**XS2P-D422-2**	
	Through-hole PCB pin	**XS2P-D422-1**	

■ XS2M - Plugs

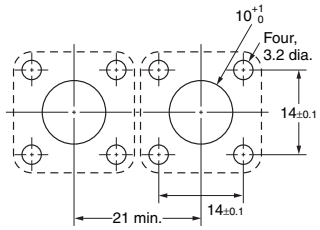
Dimensions

(Unit: mm)

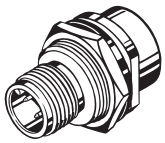
XS2M-D423
(Flange-mounting Model)

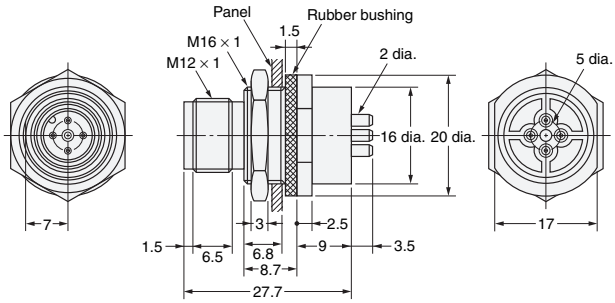


Panel Cutouts

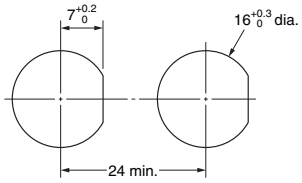


XS2M-D424-1 (With PCB Pins)
XS2M-D424-2 (With Solder Cup Pins)
(Screw-mounting Model)



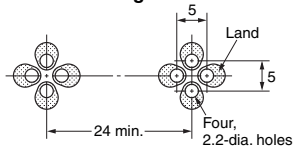


Panel Cutouts



Note: The panel thickness is 1 to 4 mm.

PCB-mounting Dimensions



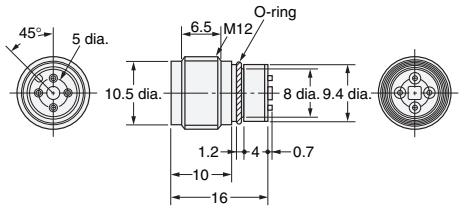
Connectors for Embedding in Sensors

■ XS2M - Plugs

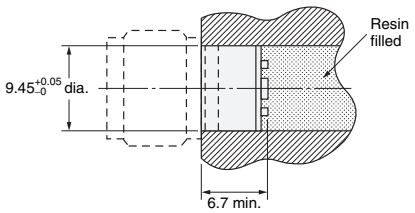
Dimensions

(Unit: mm)

XS2M-D421
(Embedded Plug with Screw Threads)

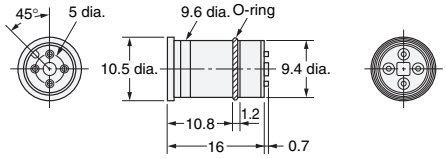


Mounted Dimensions

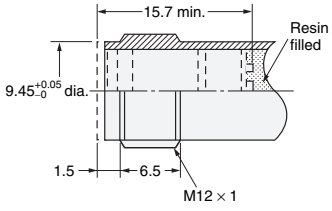


Note: After mounting, anchor the solder cups by injecting resin.

XS2M-D422
(Embedded Plug without Screw Threads)



Mounted Dimensions



Note: After mounting, anchor the solder cups by injecting resin.

8-Pin Connector with Cable Attached/Panel-mount

■ XS2□

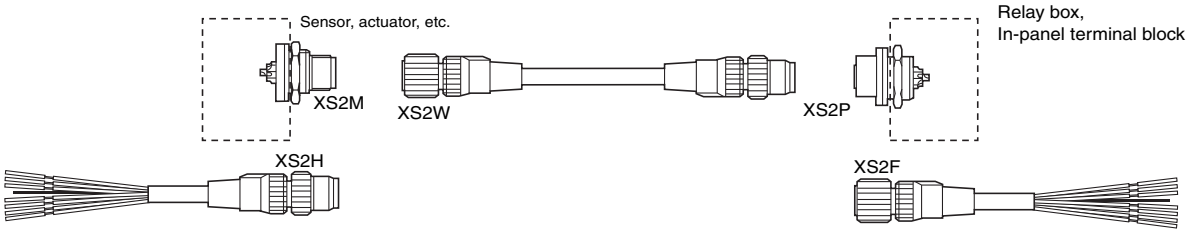
Ordering Information

Connector type	Cable connection direction	Number of cores	Cable length (m)	Model
Panel-mounting socket	—	—	—	**XS2P-D821-2**
				XS2P-D822-2
Panel-mounting plug				**XS2M-D824-4**
Plug on one cable end	Straight	8	0.3	**XS2H-D821-AH0-C**
			1	**XS2H-D821-CH0-C**
Socket on one cable end			2	**XS2F-D821-DH0-C**
			5	**XS2F-D821-GH0-C**
Plug and socket on cable ends			2	**XS2W-D821-DH1-C**
			5	**XS2W-D821-GH1-C**

Pin Numbers and Cable Lead Colors

	Pin number							
XS2F/XS2H/XS2W cable lead colors	1	2	3	4	5	6	7	8
	White	Brown	Green	Yellow	Gray	Pink	Blue	Shield

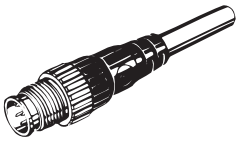
Wiring Example

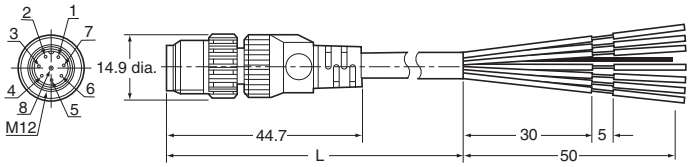


Dimensions

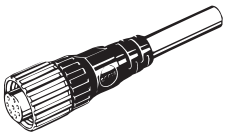
(Unit: mm)

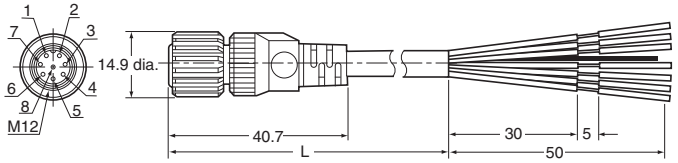
XS2H Plug on One Cable End (M12)



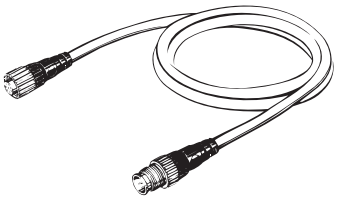


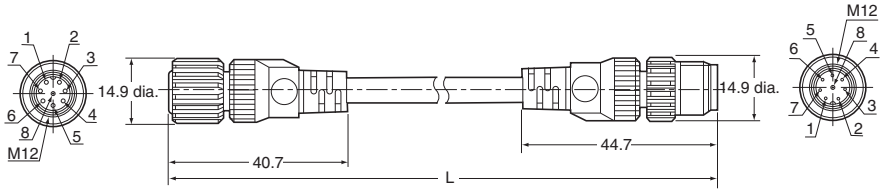
XS2F Socket on One Cable End (M12)



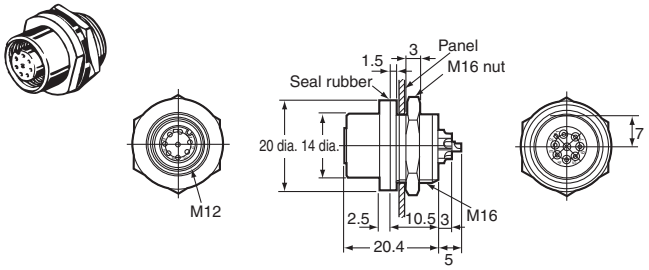


XS2W Plug and Socket on Cable Ends (M12)

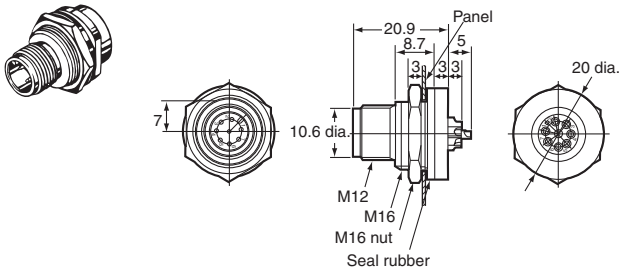




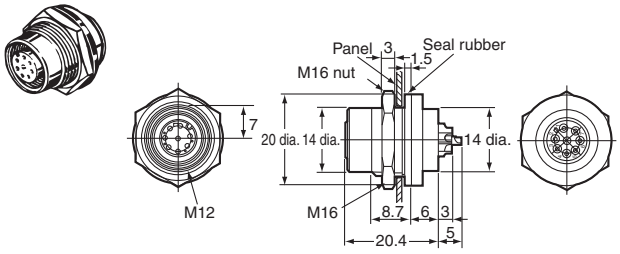
XS2P-D821-2 Panel-mounting Socket (M12) with Solder Cup Pins and Rear Lock



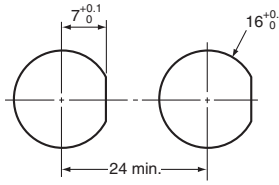
XS2M-D824-4 Panel-mounting Plug (M12) with Solder Cup Pins and Front Lock



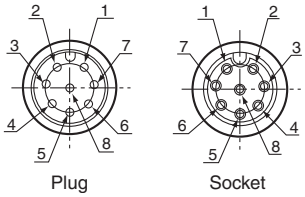
XS2P-D822-2 Panel-mounting Socket (M12) with Solder Cup Pins and Front Lock



Panel Cutouts



Connector Pin Numbers (from Mating Side)



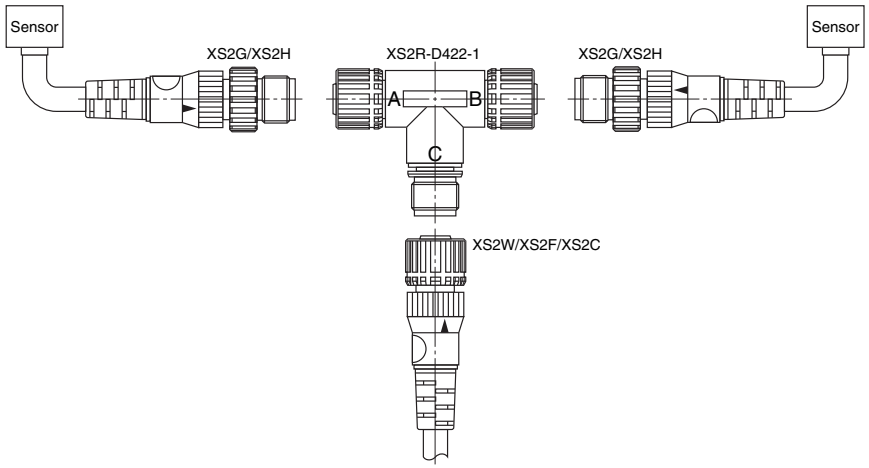
Note: 1. Mounting panel thickness: 1 to 4 mm.
2. Applicable core wire size for solder cup pins: 0.5 mm^2 max.
3. The M16 nut and seal rubber are included.

Ordering Information

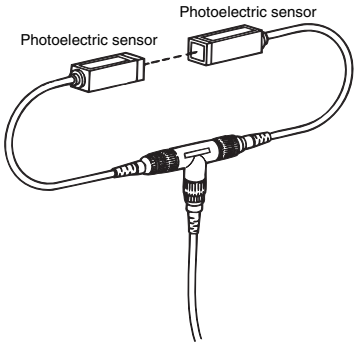
Mounting method	Pin shape	Model	Minimum order
Embedded with screw threads	Solder cup pin	**XS2M-D421**	50
Embedded with no screw threads		**XS2M-D422**	
Flange-mounting		**XS2M-D423**	
Screw-mounting	Through-hole PCB pin	**XS2M-D424-1**	
	Solder cup pin	**XS2M-D424-2**	

XS2R Application Examples

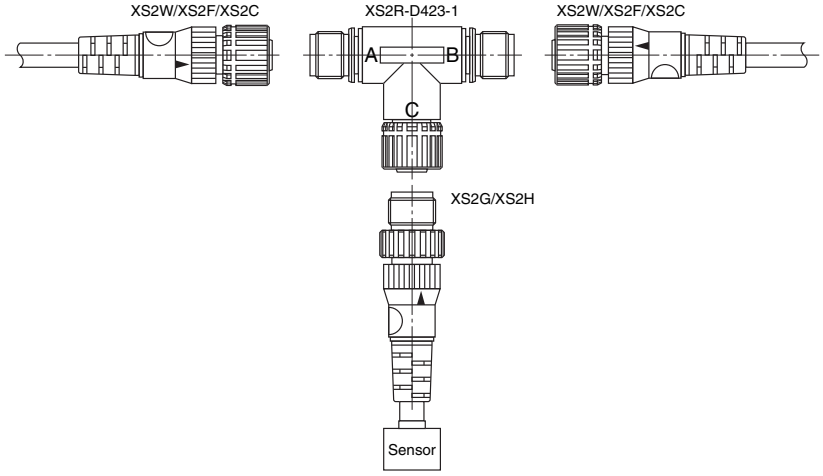
XS2R-D422-1 (Aggregate Model)



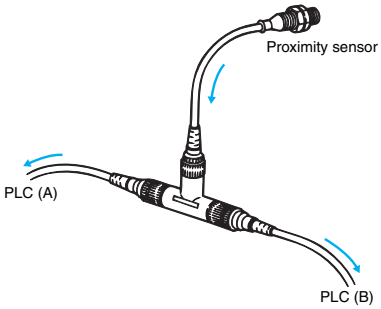
- A pair of Two-wire Sensors or Three-wire Sensors can be connected as shown in the illustration.
- The XS2R-D422-5 has feedthrough connections, thus working as a connector for the extension cable.



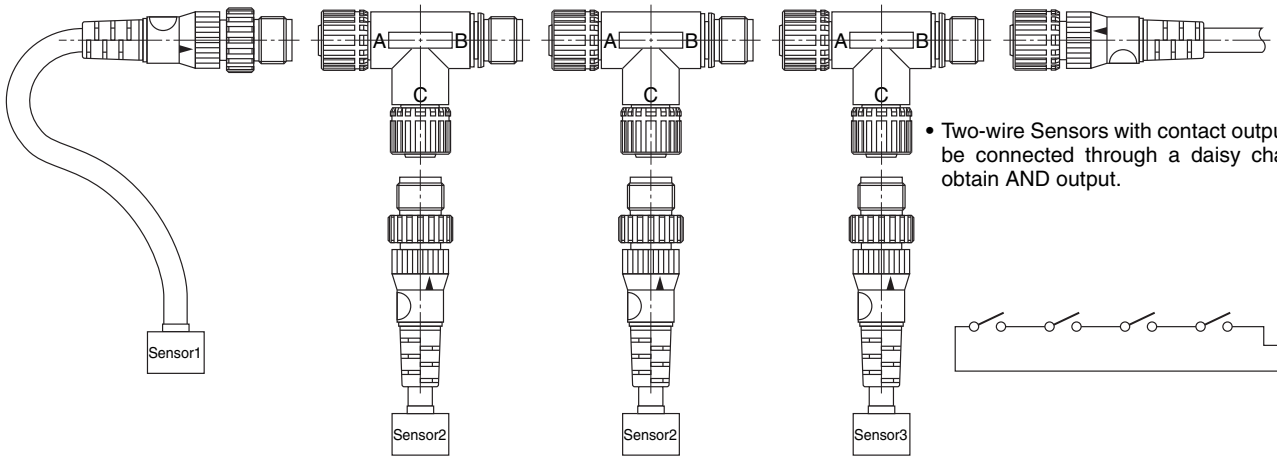
XS2R-D423-1 (Bifurcated Model)



- Two or Three-wire Sensor signals can be bifurcated.

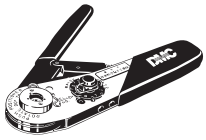
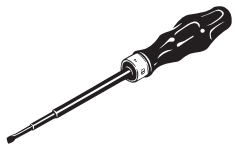
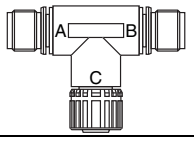
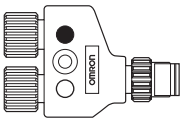
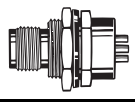


XS2R-D424-1 (Daisy Chain Model)



- Two-wire Sensors with contact output can be connected through a daisy chain to obtain AND output.

List of XS2 Products - Summary

Name	Model		Appearance
1.Connectors attached to Cable	XS2W Sockets and Plugs on Cable Ends		
	XS2F Sockets on One Cable End		
	XS2H Plugs on One Cable End		
2.Connector Assemblies (Crimping, Soldering, or Screw-on) **Used to enable using connectors for sensor cables and relay cables.**	XS2G Plug Assemblies		
	XS2C Socket Assemblies		
	XY2F Crimp Tool (for Crimping Connectors)		
	XW4Z Screwdriver (for Screw-on Connectors)		
3.Terminal Box Connectors **Used to enable using connectors for terminal boxes.**	XS2P Panel-mounting Sockets		
4.T-Joints and Y-Joints **Used for branching and for daisy-chain connections.**	XS2R T-Joint/Y-Joint Plug/ Socket Connectors	T-Joints	
		Y-Joints	
5.Sensor Connector Assemblies **Used to enable using connectors in sensors.**	XS2M Plugs	Embedded Plugs with Screw Threads	
		Embedded Plugs with No Screw Threads	
6. Panel-mounting Connectors **Used to enable using I/O box connectors mounted to panels.**	XS2M Plugs	Flange-mounting Plugs	
		Screw-mounting Plugs	

Note: 1. See “XS5/XS2 - Assembly Tooling and Accessories” datasheet for information regarding assembly, tooling and accessories that are common to the XS5 and XS2 connectors

2. See “XS5” datasheet for specifics regarding those connectors

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