

## CompoBus/S

## IP67 I/O Module

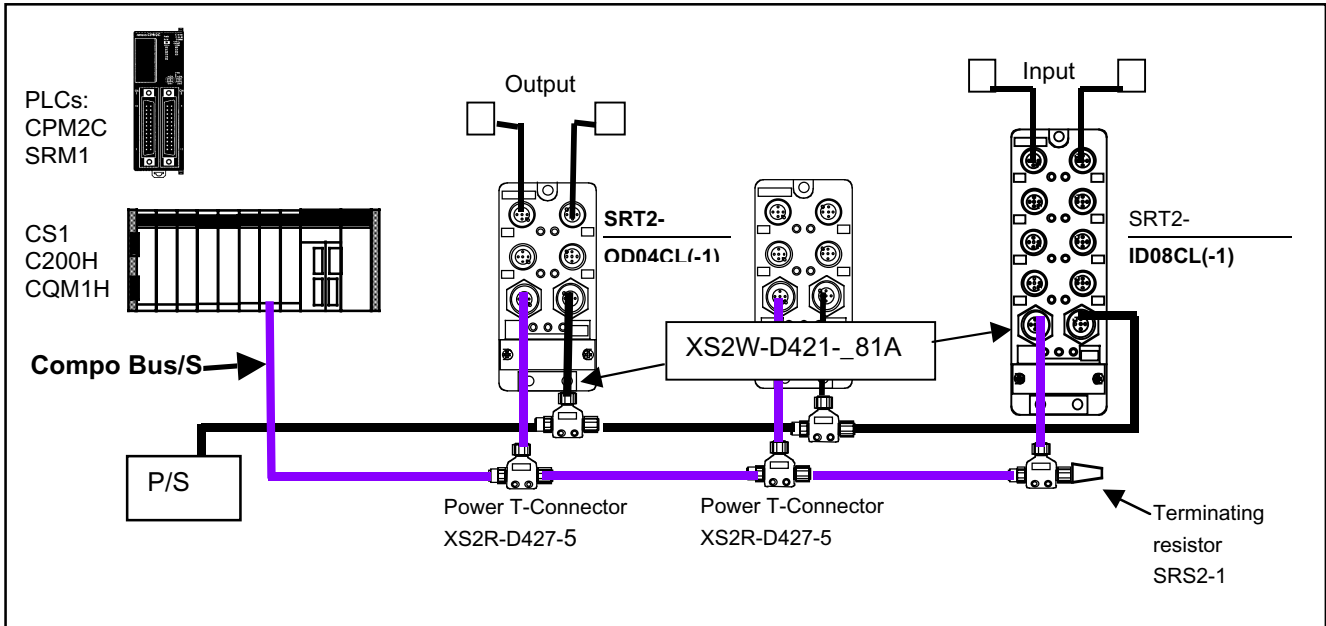
New waterproof input and output blocks make wiring a snap and replacement of sensors or actuators a quick twist of a connector. These IP67 rated blocks are perfect for plug and go applications and offer the high-speed performance of Omron's CompoBus/S distributed I/O network. 4-point and 8-point Input and Output blocks are available in both NPN and PNP versions. Pre-terminated cables prevent wiring errors and reduce installation time by over 50%.



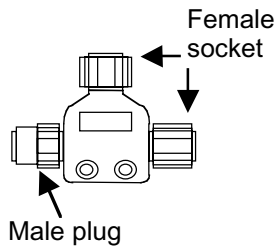
- **IP67 sealing enables installations in wet environments**
- **M12 connectors for all I/O connections and power**
- **LEDs provide visible diagnostics information at the block location**
- **Input and output versions available; choose NPN or PNP models**
- **Supports both high speed and long distance modes of operation**
- **Remove and insert under power**
- **Securely mount using two screws through the mounting holes**
- **Compact size: 160 X 54 X 45mm (8-pt models)**
- **UL, CSA and CE rated**

# Application

The diagram below shows how cables and I/O modules are connected to form a plug and go system:



## Power T-Connector XS2R-D427-5



# Specifications

## CompoBus/S Communications

Communications method		CompoBus/S protocol
Coding method		Manchester coding method
Connection method		Multi-drop method and T-branch method (See Note 1)
Communications baud rate		750,000 bps/93,750 bps (See Note 2)
Communications cycle time	High-speed communications mode	0.5 ms with 8 Slaves for inputs and 8 Slaves for outputs
		0.8 ms with 16 Slaves for inputs and 16 Slaves for outputs
	Long-distance communications mode	4.0 ms with 8 Slaves for inputs and 8 Slaves for outputs
		6.0 ms with 16 Slaves for inputs and 16 Slaves for outputs
Communications cable		2-conductor Belden #9409 or VCTF cable (0.75 x 20) Dedicated flat cable
Communications distance	High-speed communications mode	Belden #9409 or VCTF cable: Main line length: 100 m (328.1 ft) max. Branch line length: 3 m (9.84 ft) max. Total branch line length: 50 m (164.0 ft) max.  Flat cable: Main line length: 30 m (98.4 ft) max. Branch line length: 3 m (9.84 ft) max. Total branch line length: 30 m 98.4 ft) max. (When flat cable is used to connect fewer than 16 Slaves, the main line can be up to 100 m (328.1 ft) long and the total branch line length can be up to 50 m (164.0 ft).)
	Long-distance communications mode	Belden #9409 or VCTF cable: Main line length: 500 m (1640.5 ft) max. Branch line length: 6 m (19.69 ft) max. Total branch line length: 120 m (393.7 ft) max.
Max. number of connecting nodes		32
Error control checks		Manchester code check, frame length check, and parity check

Note: 1. A terminator must be connected to the point in the system farthest from the Master.

2. The communications baud rate is switched using Data Memory (DM) settings. The default setting is 750,000 bps.

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**IP67 CompoBus/S I/O Modules**  
**Product Overview**  
**POV07 05/01**

## General Block Specifications

Item	Specification	
	SRT2-ID04CL(-1)/SRT2-OD04CL(-1)	SRT2-ID08CL(-1)/SRT2-OD08CL(-1)
Communications power supply voltage	14 to 26.4VDC supplied via Communications connector	
I/O power supply voltage	20.4 to 26.4 VDC (24 VDC -15%/+10%)	
Communications power supply current consumption	15 mA max.	20 mA max.
Ambient operating temperature	-10 to 55 C (with no icing)	
Ambient operating humidity	25% to 85% with no condensation	
Connector tightening torque	0.39 to 0.49 N•m	
Construction	IEC IP67	
Mounting method	Mounted using M5 screws	
Weight	Approx. 180g	Approx. 240g

## Input Specifications

Item	SRT2-ID04CL(-1)	SRT2-ID08CL(-1)
Input type	SRT2-ID0 <sub>o</sub> CL is a sinking block and uses NPN (sinking) sensors or actuators SRT2-ID0 <sub>o</sub> CL-1 is a sourcing block and uses PNP (sourcing) sensors or actuators	
Input current	6.0 mA typical at 24 VDC 3.0 mA min. at 17 VDC	
ON delay time	1.5 ms max.	
OFF delay time	1.5 ms max.	
ON voltage	15 VDC min.	
OFF voltage	5 VDC max.	
OFF current	1.0 mA max.	
Number of circuits	4 points with 1 common	8 points with 1 common

## Output Specifications

Item	SRT2-OD04CL(-1)	SRT2-OD08CL(-1)
Output type	SRT2-OD0 <sub>o</sub> CL is a sinking block and uses NPN (sinking) devices SRT2-OD0 <sub>o</sub> CL-1 is a sourcing block and uses PNP (sourcing) devices	
Rated outputs current	0.5 A per point (2 A per common)	0.5 A per point (2.4 A per common)
Residual voltage	1.2V max.	
Leakage current	0.1 mA max.	
ON delay time	0.5 ms max.	
OFF delay time	1.5 ms max.	
Number of circuits	4 points with 1 common	8 points with 1 common



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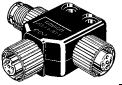



# Ordering Information

## I/O Modules

Item	Number of points	Input type	Part Number
 CompoBus/S IP67 input blocks	4	NPN input points	<b>SRT2-ID04CL</b>
		PNP input points	<b>SRT2-ID04CL-1</b>
	8	NPN input points	<b>SRT2-ID08CL</b>
		PNP input points	<b>SRT2-ID08CL-1</b>
 CompoBus/S IP67 output blocks	4	NPN input points	<b>SRT2-OD04CL</b>
		PNP input points	<b>SRT2-OD04CL-1</b>
	8	NPN input points	<b>SRT2-OD08CL</b>
		PNP input points	<b>SRT2-OD08CL-1</b>

## Applicable Connectors

### Power Cables and Connectors

Item	Description	Part Number
 Power cable	4 conductor cable with straight connectors on each end	<b>XS2W-D421-<math>\circ</math> 81-A</b>
 Power cable	4 conductor cable with female straight connector on one end	<b>XS2F-D421-<math>\circ</math> 80-A_</b>
 Power cable	4 conductor cable with male straight connector on one end	<b>XS2H-D421-<math>\circ</math> 80-A</b>
 Power T-connector	4 conductor, 2 parallel circuit T-connector	<b>XS2R-D427-5</b>
 Terminating resistor	Circular style terminating resistor for CompoBus/S	<b>SRS2-1</b>
 Field-attachable, straight connector	6 mm, 4 conductor, straight, plug assembly	<b>XS2G-D4S1</b>
 Field-attachable, right angle connector	6 mm, 4 conductor, right angle, plug assembly	<b>XS2G-D4S2</b>

To complete the cable part numbers, use the following code to fill in the  $\circ$  :

C = 1 meter

D = 2 meters

G = 5 meters

J = 10 meters

\_ = leave blank (XS2F only)

\_ = Add ZZ (XS2F only)

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## I/O Connectors

Item	Description	Part Number
I/O connectors	4 conductor cable with straight connectors on each end	<b>XS2W-D421-○ 81-A</b>
	4 conductor cable with right angle connector on each end	<b>XS2W-D422-○ 81-A</b>
	4 conductor cable, one straight connector, one right angle connector	<b>XS2W-D423-○ 81-A</b>
I/O connectors	4 conductor cable, one straight connector, stripped wires	<b>XS2F-D421-○ 80-A_</b>
Field-attachable, straight connector	6 mm, 4 conductor, straight plug assembly	<b>XS2G-D4S1</b>

To complete the cable part numbers, use the following code to fill in the ○ :

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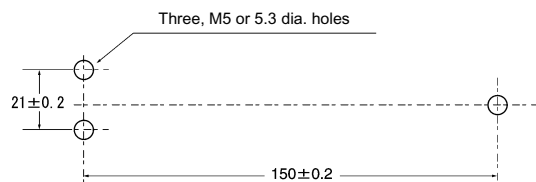
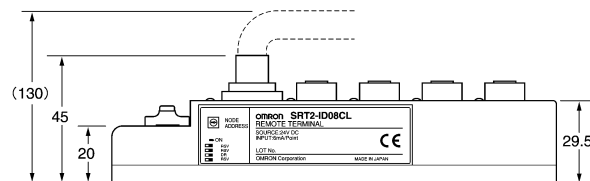
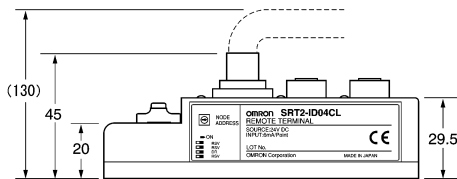
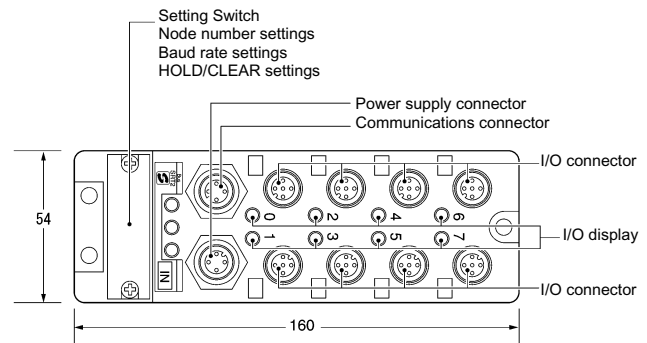
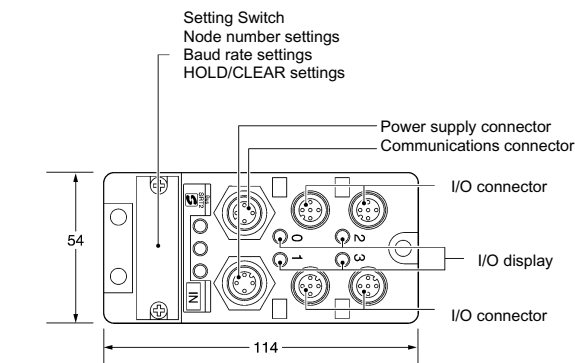
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## Dimensions



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