

Connector Remote Terminal Blocks

SRT2-VID/VOD

Connectors Reduce Size of CompoBus/S Remote I/O Terminals

- SRT2 terminals support both high-speed communications (750 kbps) and long-distance communications (500 m) systems, switch selected
- Connectors simplify installation, reduce wiring time
- Eight-point sensor connector models and 16-point MIL connector models
- Saves space in control panels; measures just 90 H x 32 W x 55 D mm (3.54 x 1.26 x 2.17 inches)
- Mounts on DIN rail track; side- and surface-mounting brackets optional



Ordering Information

■ CONNECTOR TERMINAL BLOCKS

I/O classification	Internal I/O circuit common	I/O points	I/O connection method	Part number
Digital input	NPN (+ common)	8	Sensor connector (Sensor Connectors are required for each I/O point. Order them separately below.)	SRT2-VID08S
	PNP (- common)			SRT2-VID08S-1
Digital output	NPN (- common)			SRT2-VOD08S
	PNP (+ common)			SRT2-VOD08S-1
Digital input	NPN (+ common)	16	MIL ribbon style connector	SRT2-VID16ML
	PNP (- common)			SRT2-VID16ML-1
Digital output	NPN (- common)			SRT2-VOD16ML
	PNP (+ common)			SRT2-VOD16ML-1

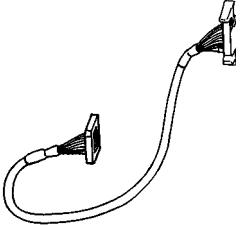
Note: For details about connecting the SRT2-VID or SRT2-VOD to the Master Module, refer to *CompoBus/S Operation Manual (W266)*.

■ ACCESSORIES

Item	Description	Part number
Sensor connectors* (Order one for each I/O point)	For cable conductor sizes 0.3 to 0.5 mm ²	XS8A-0441
	For cable conductor sizes 0.14 to 0.2 mm ²	XS8A-0442
Mounting brackets	Side-mounting DIN rail bracket	SRT2-ATT01
	Surface mounting bracket	SRT2-ATT02

Note: *Refer to the Cable Conductor Size Calculation Formula in the *Precautions* section.

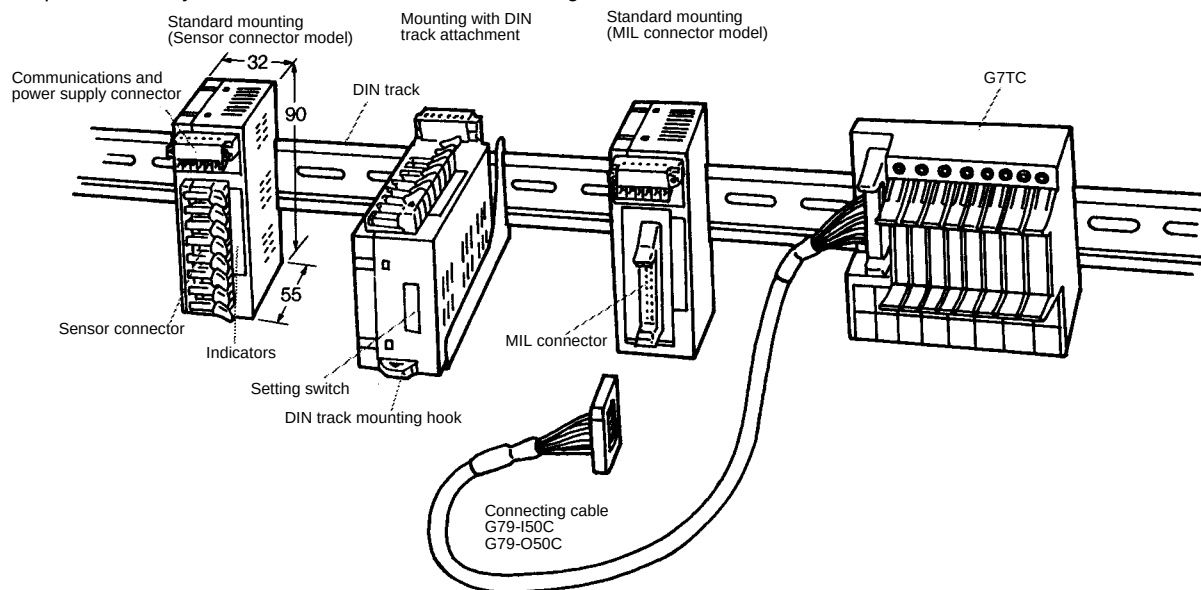
■ APPLICABLE CABLES

Connectable product	Product family	Cable appearance	Cable length	Part number
I/O block	G7TC-OC16 G7TC-OC08 G7TC-ID16-5 G7TC-IA16-5 G7VC Series G70A Series G70D Series		0.5 m (1.64 ft)	G79-O50C
	G7TC-ID16 G7TC-IA16		0.5 m (1.64 ft)	G79-I50C

Application Examples

Vertical or horizontal DIN track mounting according to the available space is possible.

Saves space and easily connects to other devices without wiring effort.



Specifications

RATINGS

Inputs

Item	SRT2-VID08S SRT2-VID08S-1	SRT2-VID16ML SRT2-VID16ML-1
Input current	6 mA max./point at 24 V, 3 mA max./point at 17 V	
ON delay time	1.5 ms max.	
OFF delay time	1.5 ms max.	
ON voltage	15 VDC min. (Between each input terminal and V: NPN. Between each input and G: PNP.)	
OFF voltage	5 VDC max. (Between each input terminal and V: NPN. Between each input and G: PNP.)	
OFF current	1 mA max.	
Insulation method	Photocoupler	
Maximum number of inputs	8	12
Number of circuits	8 points/common, 1 circuit	16 points/common, 1 circuit

Outputs

Item	SRT2-VID08S SRT2-VID08S-1	SRT2-VID16ML SRT2-VID16ML-1
Rated output current	0.3 A/point	0.3 A/point, 2 A common (See Note.)
Residual voltage	1.2 V max.	
ON delay time	0.5 ms max.	
OFF delay time	1.5 ms max.	
Leakage current	0.1 mA max.	
Insulation method	Photocoupler	
Number of circuits	8 points/common, 1 circuit	16 points/common, 1 circuit

Note: When using V/G terminals in an MIL connector, ensure that the current per terminal for the V/G terminals does not exceed 1 A.

CHARACTERISTICS

Communications power supply voltage	14 to 26.4 VDC
I/O power supply voltage	20.4 to 26.4 VDC (24 VDC $+10\%$ / -15%)
I/O power supply current	Sensor connector: 2.4 A max., MIL ribbon style connector: 2.0 A max.
Current consumption (See Note)	50 mA max. at 24 VDC
Noise immunity	$\pm 1,500$ V with a pulse width of 100 ns to 1 μ s and 1 ns onset (tested with noise simulator)
Vibration resistance	10 to 150 Hz, 1.0 mm double amplitude or 70 m/s ² (50 m/s ² for SRT2-ATT02)
Shock resistance	200 m/s ²
Dielectric strength	500 VAC between insulated circuits
Ambient temperature	Operating: -10°C to 55°C (14°F to 131°F) with no icing or condensation Storage: -25°C to 65°C (-13°F to 149°F) with no icing or condensation
Ambient humidity	Operating: 25% to 85% with no condensation Storage: 25% to 85%
Mounting strength	No damage when 100 N pull load was applied in all directions (40 N load for SRT2-ATT02)
Terminal strength	No damage when the following loads were applied: Communications connector: 100 N Sensor connector: 40 N MIL connector: 100 N
Screw tightening torque	Communications connector: 0.25 N • m
Node address setting	Settings made at DIP switch (set before supplying power for Slave communications)
Weight	Approx. 75 g max.

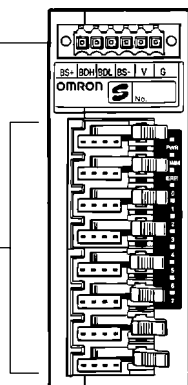
Note: The above current consumption is the value with all points turned ON excluding the current consumption of the external sensor connected to the input Remote Terminal and the current consumption of the load connected to the output Remote Terminal.

Nomenclature

SRT2-VID08S, SRT2-VID08S-1 SRT2-VOD08S, SRT2-VOD08S-1 (Sensor Connector Models)

Communications
Connectors

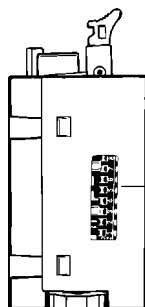
I/O Connectors



Indicators

Indicators

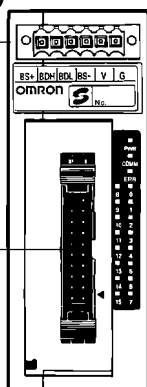
Indicator	Name	Color	Display	Meaning
PWR	Power	Green	Lit	The communications power supply is ON.
			Not lit	The communications power supply is OFF.
COMM	Commu- nications	Yellow	Lit	Normal communications
			Not lit	A communications error has occurred or the Unit is in standby status.
ERR	Commu- nications error	Red	Lit	A communications error has occurred.
			Not lit	Normal communications or the Unit is in standby status.
0 to 7 (for 8-point I/O)	Input (output)	Yellow	Lit	The corresponding I/O signal is ON.
			Not lit	The corresponding I/O signal is OFF.



SRT2-VID16ML, SRT2-VID16ML-1 SRT2-VOD16ML, SRT2-VOD16ML-1 (MIL Connector Models)

Communications
Connectors

I/O Connectors



DIP Switch



Output HOLD/CLEAR Mode Setting Output HOLD/CLEAR Mode

SW8 (HOLD)	Setting
OFF	Output status is cleared.
ON	Output status is maintained.

Communications Mode Setting Communications Mode

SW7 (HOLD)	Setting
OFF	High-speed communications mode
ON	Long-distance communications mode

Reserved for System Use (Always OFF) Node Address Setting

Node Number Settings

Node number	Pin 4 8	Pin 3 4	Pin 2 2	Pin 1 1
0	OFF	OFF	OFF	OFF
1	OFF	OFF	OFF	ON
2	OFF	OFF	ON	OFF
3	OFF	OFF	ON	ON
4	OFF	ON	OFF	OFF
5	OFF	ON	OFF	ON
6	OFF	ON	ON	OFF
7	OFF	ON	ON	ON
8	ON	OFF	OFF	OFF
9	ON	OFF	OFF	ON
10	ON	OFF	ON	OFF
11	ON	OFF	ON	ON
12	ON	ON	OFF	OFF
13	ON	ON	OFF	OFF
14	ON	ON	ON	OFF
15	ON	ON	ON	ON

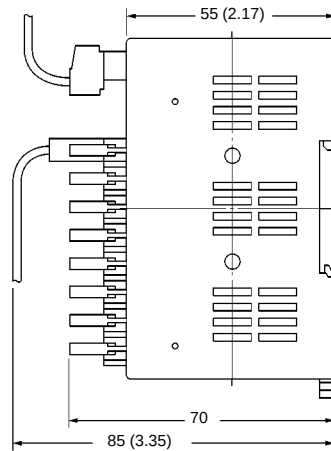
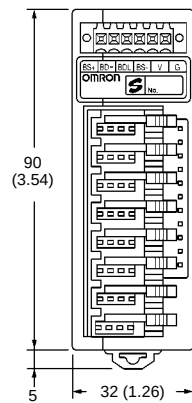
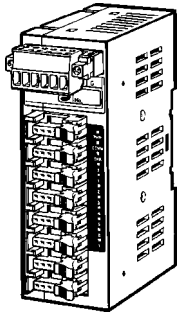
Note: Be sure to perform settings with the Slave power supply OFF.

Dimensions

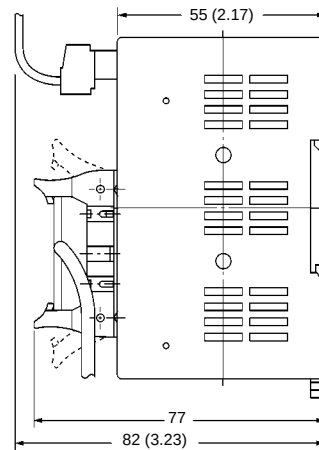
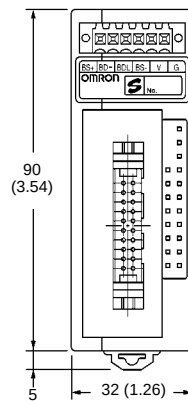
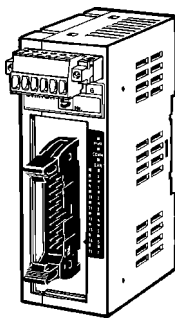
Unit: mm (inch)

CONNECTOR TERMINAL BLOCKS

SRT2-VID08S
SRT2-VID08S-1
SRT2-VOD08S
SRT2-VOD08S-1

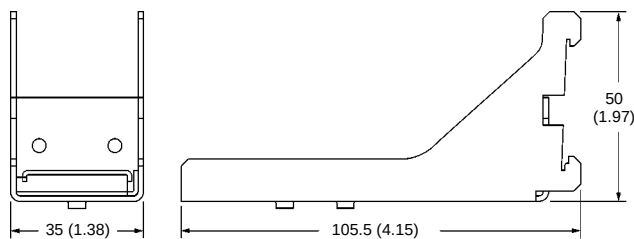


SRT2-VID16ML
SRT2-VID16ML-1
SRT2-VOD16ML
SRT2-VOD16ML-1

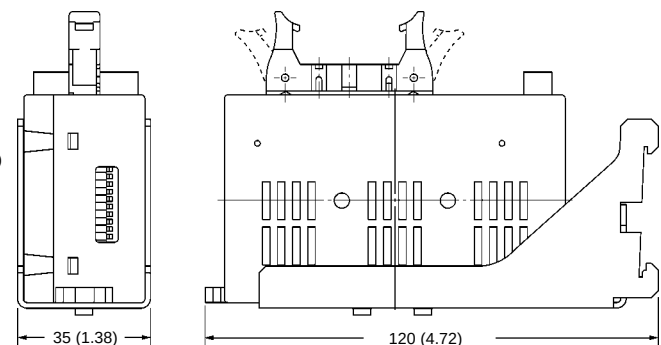


MOUNTING BRACKETS

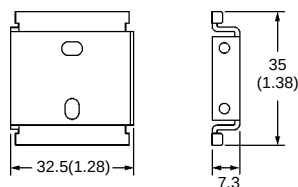
SRT2-ATT01



Dimensions when Unit is mounted.



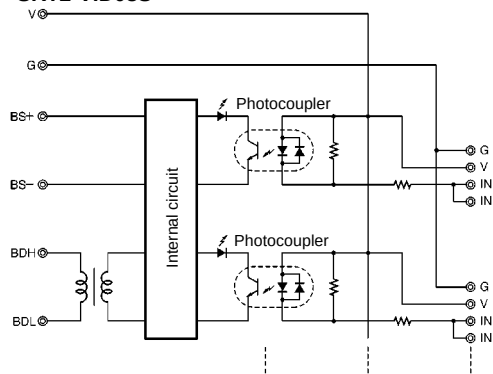
SRT2-ATT02



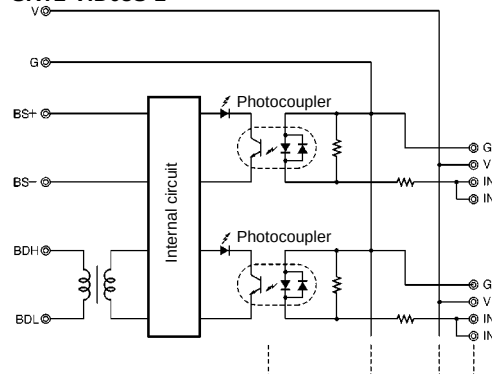
Installation

INTERNAL CIRCUIT CONFIGURATION

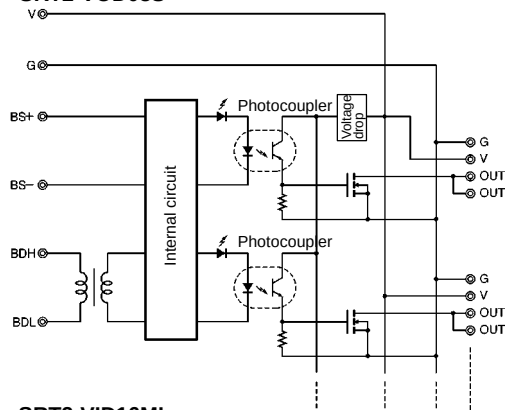
SRT2-VID08S



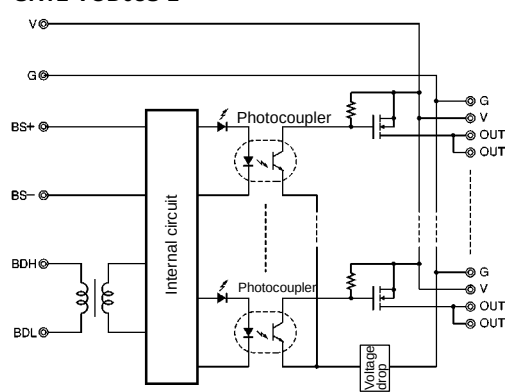
SRT2-VID08S-1



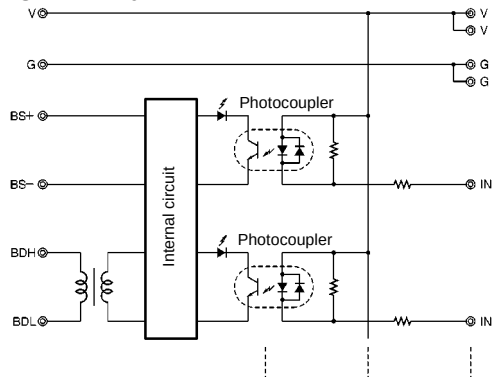
SRT2-VOD08S



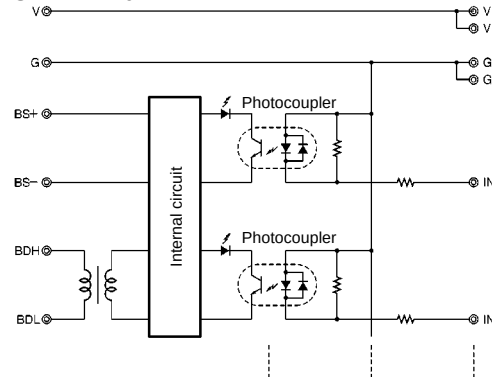
SRT2-VOD08S-1



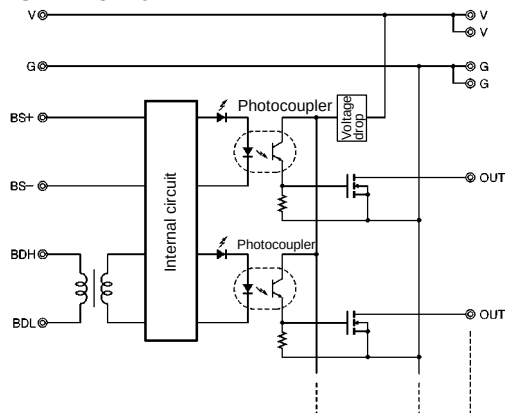
SRT2-VID16ML



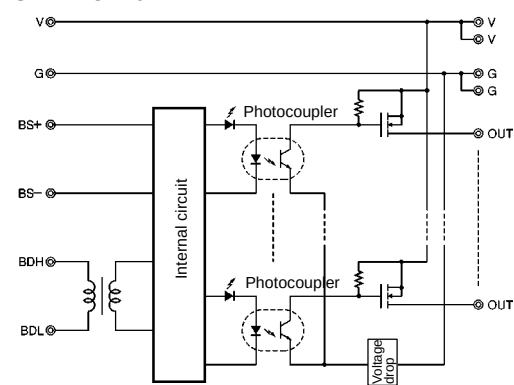
SRT2-VID16ML-1



SRT2-VOD16ML

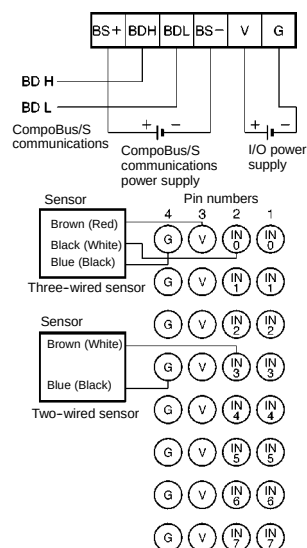


SRT2-VOD16ML-1

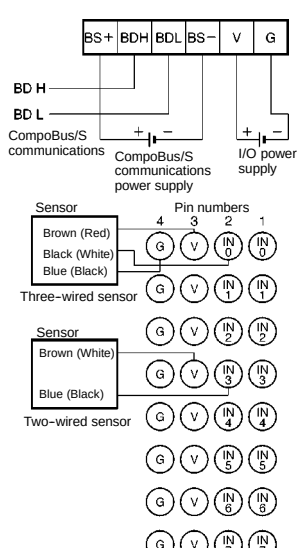


■ TERMINAL ARRANGEMENT AND I/O DEVICE CONNECTION EXAMPLES

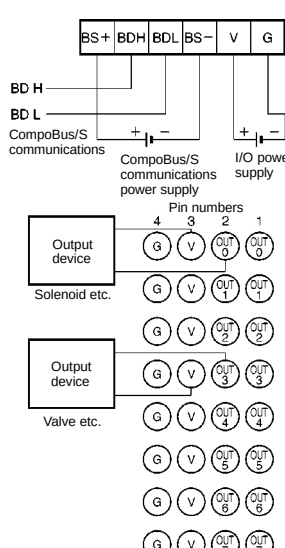
SRT2-VID08S



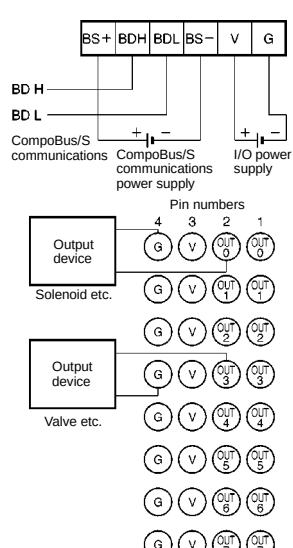
SRT2-VID08S-1



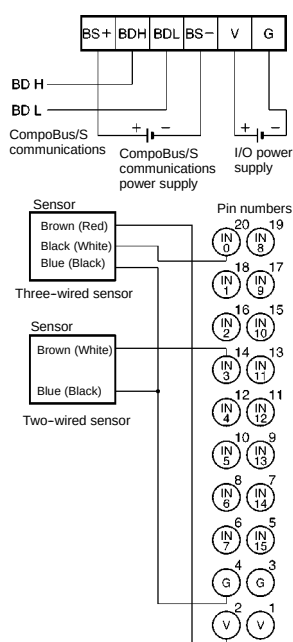
SRT2-VOD08S



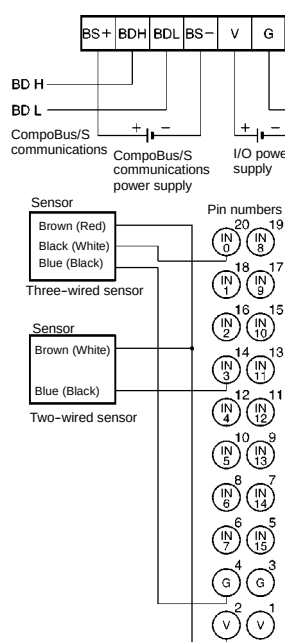
SRT2-VOD08S-1



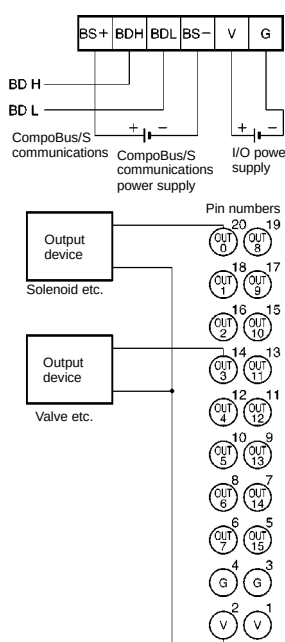
SRT2-VID16ML



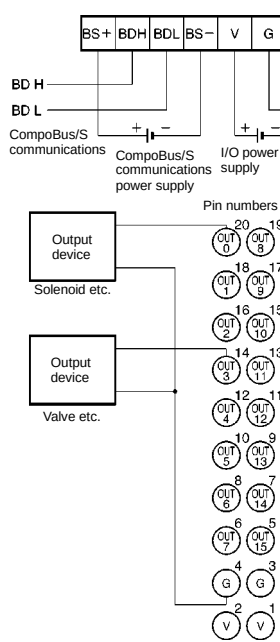
SRT2-VID16ML-1



SRT2-VOD16ML



SRT2-VOD16ML-1



Note: 1. V terminals and G terminals are respectively connected internally.

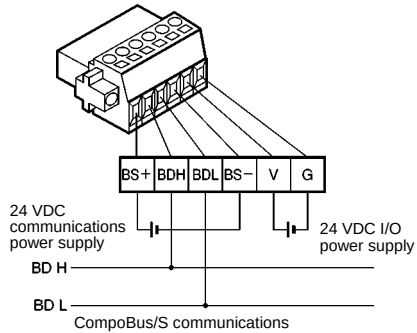
When supplying power for I/O from communications connectors, power can be supplied to the sensor output devices from V and G terminals.

2. When using an inductive load (solenoid, valve etc.), either use one with an internal reverse electromotive force absorption diode or attach a diode externally.

Precautions

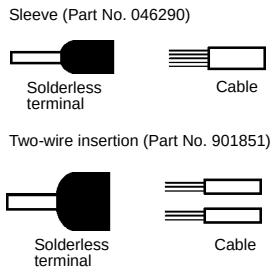
Refer to the *CompoBus/S Operation Manual (W266)* before using the Unit.

COMMUNICATIONS CONNECTOR PIN ARRANGEMENT



The following solderless terminals are recommended.

- Manufacturer: Weidmuller

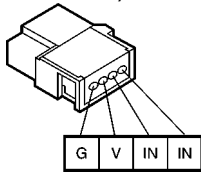


The following product is a dedicated tool.

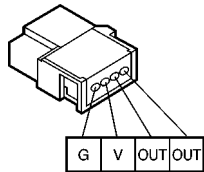
- Manufacturer: Weidmuller
PZ1.5 Crimper (Part No. 900599)

SENSOR CONNECTOR PIN ARRANGEMENT

SRT2-VID08S, SRT2-VID08S-1



SRT2-VOD08S, SRT2-VOD08S-1



Model	Cable conductor size
XS8A-0441	0.3 to 0.5 mm ²
XS8A-0442	0.14 to 0.2 mm ²

Note: The XS8A-0441 or XS8A-0442 Connector is not provided with the SRT2-VID or SRT2-VOD. Place an order for the connector separately.

Cable Conductor Size Calculation Formula

Calculate the cable conductor size as follows.

The following information is given on each sensor cable:

Cable dia. (Number of conductors/Conductor dia.)

$$\text{Conductor size (mm}^2\text{)} = (\text{Conductor dia./2})^2 \times \pi \times \text{Number of conductors}$$

Example: E3S-A

4 dia. (18/0.12)

$$\text{Conductor size (mm}^2\text{)} = (0.12/2)^2 \times 3.14 \times 18 \approx 0.20$$

The conductor size is 0.2 mm². Therefore, use the XS8A-0442.

MIL CONNECTOR PIN ARRANGEMENT

SRT2-VID16ML, SRT2-VID16ML-1

Function	Pin No.		Function	Pin No.
IN0	20		19	IN8
IN1	18		17	IN9
IN2	16		15	IN10
IN3	14		13	IN11
IN4	12		11	IN12
IN5	10		9	IN13
IN6	8		7	IN14
IN7	6		5	IN15
G	4		3	G
V	2		1	V

SRT2-VOD16ML, SRT2-VOD16ML-1

Function	Pin No.		Function	Pin No.
OUT0	20		19	OUT8
OUT1	18		17	OUT9
OUT2	16		15	OUT10
OUT3	14		13	OUT11
OUT4	12		11	OUT12
OUT5	10		9	OUT13
OUT6	8		7	OUT14
OUT7	6		5	OUT15
G	4		3	G
V	2		1	V

Note: 1. No cable connector is provided. Use the G79 Series cables below.

Applicable Connector Cables

G79-O50C

G79-O25C

G79-I50C

G79-I25C

2. Refer to the *Ordering Information* table for applicable Cables.

NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

OMRON®
OMRON ELECTRONICS, INC.
One East Commerce Drive
Schaumburg, IL 60173
1-800-55-OMRON

OMRON CANADA, INC.
885 Milner Avenue
Scarborough, Ontario M1B 5V8
416-286-6465