

# CJ-series CompoBus/S Master Unit

# CJ1W-SRM21

CSM\_CJ1W-SRM21\_DS\_E\_2\_2

CompoBus/S is a high-speed I/O bus

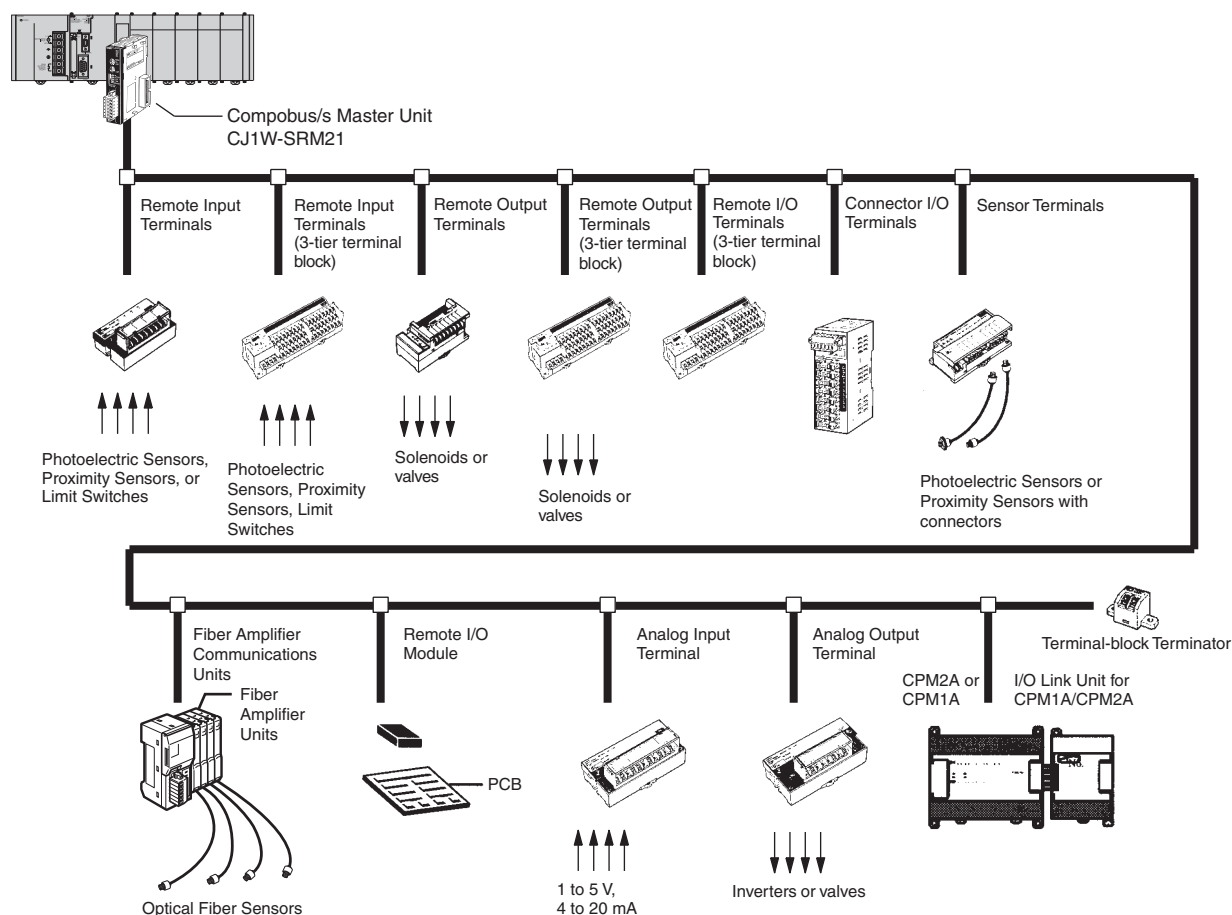


CJ1W-SRM21

## Features

- Up to 256 I/O points per Master.
- Up to 32 Slaves per Master.
- Communications cycle time: 0.5 ms (at 750 kbps).
- Communications distance: Up to 500 m (at 93.75 kbps).
- Free wiring with any branching method for up to 200 m (in long-distance communications mode).

## System Configuration



**Note:** Production will be discontinued in March 2015.

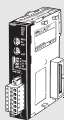
## Communication Specifications

Item		Specification
Communications method		Special CompoBus/S protocol
Communications baud rate		High-speed Communications Mode: 750 kbps Long-distance Communications Mode: 93.75 kbps
Modulation method		Baseband method
Coding method		Manchester coding method
Error control checks		Manchester code check, frame length check, and parity check
Cable	VCTF cable (JIS C 3306)	Two 0.75 mm <sup>2</sup> conductors (2 signal wires) Four 0.75 mm <sup>2</sup> conductors (2 signal wires and 2 power supply wires)
	Special Flat Cable	Four 0.75 mm <sup>2</sup> conductors (2 signal wires and 2 power supply wires)
Communications distance	2-conductor VCTF cable	High-speed Communications Mode Main line length: 100 m max. Branch line length: 3 m max. Total branch line length: 50 m max.
		Long-distance Communications Mode Main line length: 500 m max. Branch line length: 6 m max. Total branch line length: 120 m max.
	4-conductor VCTF cable	High-speed Communications Mode Main line length: 30 m max. Branch line length: 3 m max. Total branch line length: 30 m max.
		Long-distance Communications Mode: Flexibly branched, provided that the total length of cable is a maximum of 200 m.
	Special Flat Cable	High-speed Communications Mode Main line length: 30 m max. Branch line length: 3 m max. Total branch line length: 30 m max.
		When 4-conductor VCTF cable or Special Flat Cable is used to connect fewer than 16 Slaves, the main line can be up to 100 m long and the total branch line length can be up to 50 m in High-speed Communications Mode. Long-distance Communications Mode: Flexibly branched, provided that the total length of cable is a maximum of 200 m.

## Ordering Information

### International Standards

- The standards are abbreviated as follows: U: UL, U1: UL (Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, and CE: EC Directives.
- Contact your OMRON representative for further details and applicable conditions for these standards.

Unit type	Name	Specifications			No. of unit numbers allocated	Current consumption (A)		Model	Standards
		Communications functions	No. of I/O points	Max. Units mountable per CPU Unit		5 V	24 V		
CJ1 Special I/O Units	 CompoBus/S Master Unit	Remote I/O communications	256 max. (128 inputs and 128 outputs)	40	1 or 2 (variable)	0.15	—	CJ1W-SRM21	UC1, N, L, CE,
			128 max. (64 inputs and 64 outputs)						

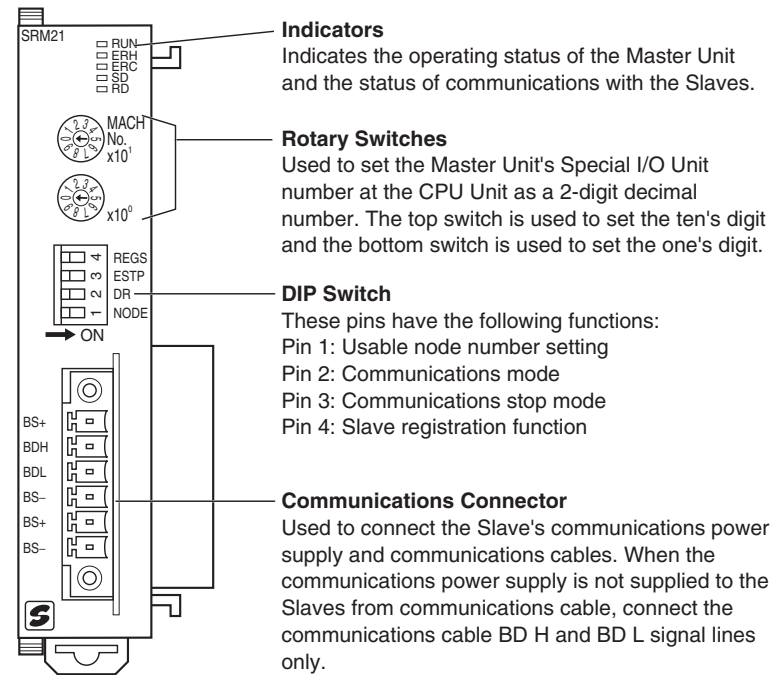
**Note:** This unit cannot be used with the Machine Automation Controller NJ-series.

## Specifications

I/O points	256 (128 inputs and 128 outputs) or 128 (64 inputs and 64 outputs) (Switch-selectable)
Applicable PLC models	CJ-series PLCs
Unit type	Special I/O Unit
Allocated words *	For 256 I/O: 20 words (8 for inputs, 8 for outputs, 4 for status) For 128 I/O: 10 words (4 for inputs, 4 for outputs, 2 for status)
No. of mountable Master Units	40
Node address	8 addresses per node
No. of connectable Slaves	32
Status information	Communications Error Flags, Participation Flags

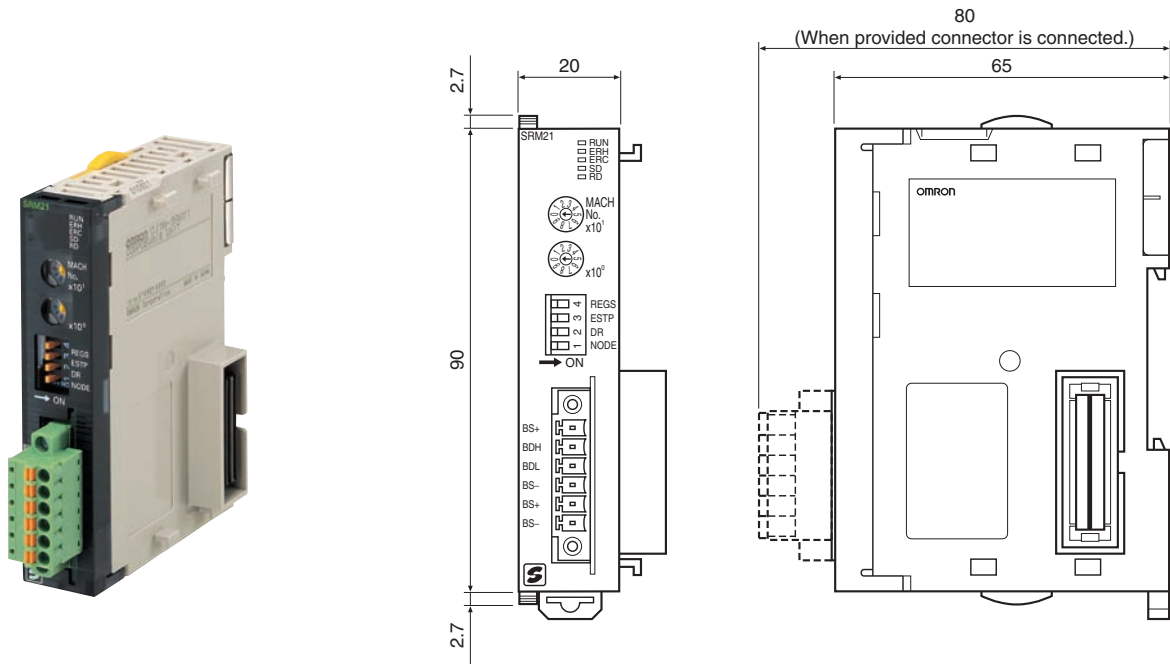
\* Uses Special I/O Unit Area (in CIO Area).

# Part Names and Functions



# Dimensions

(Unit: mm)



Refer to the *CJ-series Operation Manual* for details on installing the CJ1W-SRM21 when it is connected in a CJ-series CPU Rack or Expansion Rack.

# Related Manual

Cat. No.	Manual Name
W266	CompoBus/S Operation Manual
W318	CompoBus/S SRM1 Master Control Units Operation Manual
W377	CPM2C-S Programmable Controllers Operation Manual
W352	CPM2A I/O Link Units Operation Manual
W356	CPM2C I/O Link Units Operation Manual

**Note:** Production will be discontinued in March 2015.

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