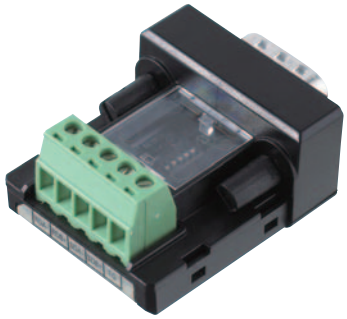
SYSMAC Option RS-422A Converter

CJ1W-CIF11

CSM_CJ1W-CIF11_DS_E_1_1

The RS-232C port of the SYSMAC series can be changed into RS-422A/485 port.

- The CJ1W-CIF11 RS-422A Converter connects directly to a CS/CJ-series RS-232C port and converts RS-232C to RS-422A/485.



CJ1W-CIF11

Features

- You can use RS-422A/RS-485 by connecting the converter to built-in RS-232C port of the CS/CJ series and the RS-232C connector of the Serial Communications Units (D-Sub,9-pin).
- Up to 9 nodes can be linked via built-in RS-232C ports of the CJ1M CPU units, using Serial PLC Links function.

Ordering Information

Name	Specifications	Model	Standards
RS-422A Converter 	Converts RS-233C to RS-422A/RS-485.	**CJ1W-CIF11**	UC1, N, L, CE

International Standards

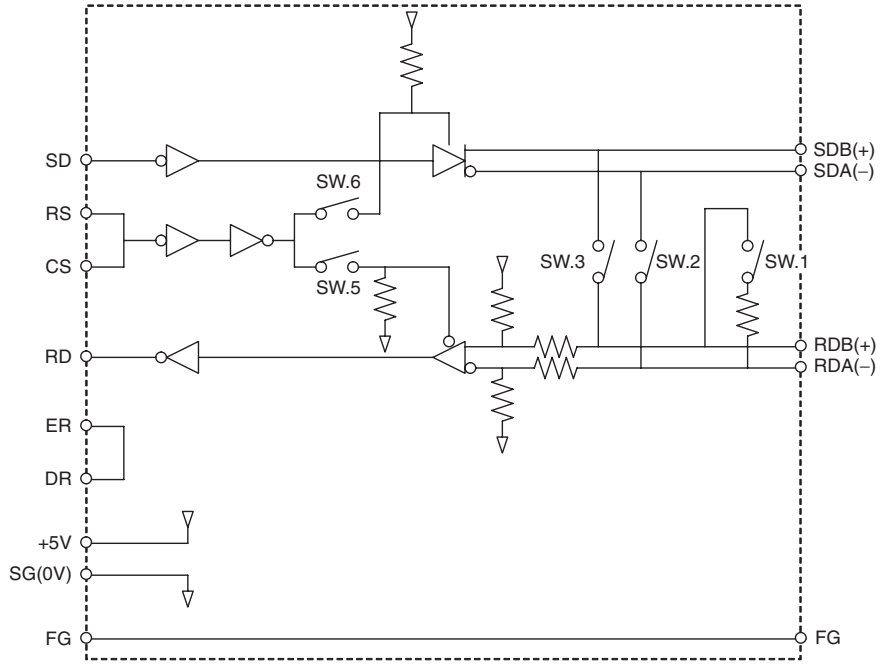
- The standards indicated in the "Standards" column are those current for UL, CSA, cULus, cUL, NK, and Lloyd standards and EC Directives as of the end of September 2008. (The standards are abbreviated as follows: U: UL, U1: UL Class I Division 2 Products for Hazardous Locations, C: CSA, US: cULus Class I Division 2 Products for Hazardous Locations, CU: cUL, N: NK, L: Lloyd, and CE: EC Directives.
- Ask your OMRON representatives for the conditions under which the standards were met.

Specifications

General Specifications

Item	Specification	
Dimensions	18.2 × 34.0 × 38.8 mm (W × H × D)	
Weight	20 g max.	
Ambient operating temperature	0 to 55°C	
Ambient storage temperature	–20 to 75°C	
Ambient operating humidity	10% to 90% (with no condensation)	
Rated power supply voltage	5 V	(Supplied from pin 6 of the RS-232C connector.)
Current consumption	40 mA max.	
Operating atmosphere	No corrosive gases	
Vibration resistance	Same as SYSMAC CS/CJ Series.	
Shock resistance	Same as SYSMAC CS/CJ Series.	
Isolation method	Not isolated	
Maximum communications distance	50 m	

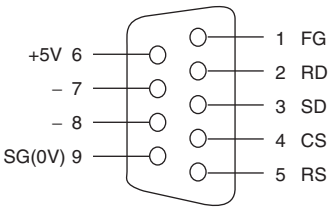
Block Diagram



External Interface

RS-232C Connector

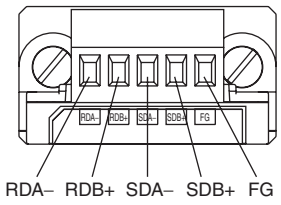
Connector Pin Arrangement for RS-232C Port



Pin number	Signal
1	FG
2	RD
3	SD
4	CS
5	RS
6	+5V
7, 8	NC
9	SG (0 V)
Hood	NC

Note: The hood will have the same electrical potential as the connector on the other end of the cable.

RS-422A/485 Terminal Block

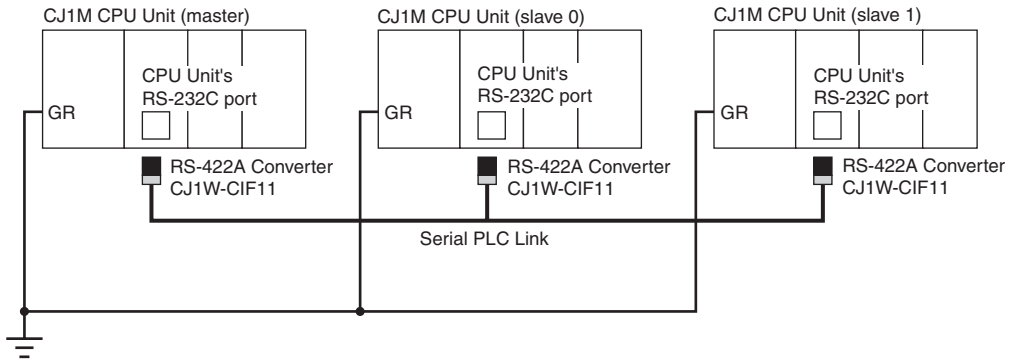


Signal
RDA–
RDB+
SDA–
SDB+
FG

Wiring the RS-422A/485 Terminal Block

- Use either two-wire or four-wire shielded cable.
  Recommended cable: CO-HC-ESV-3P×7/0.2 (Hirakawa Hewtech)
- Connect the shield wire at both ends of the cable carrying RS-422A/485 signals to ground, and ground the ground terminal on the Power Supply Unit of the CPU or Expansion Rack to 100 Ω max.

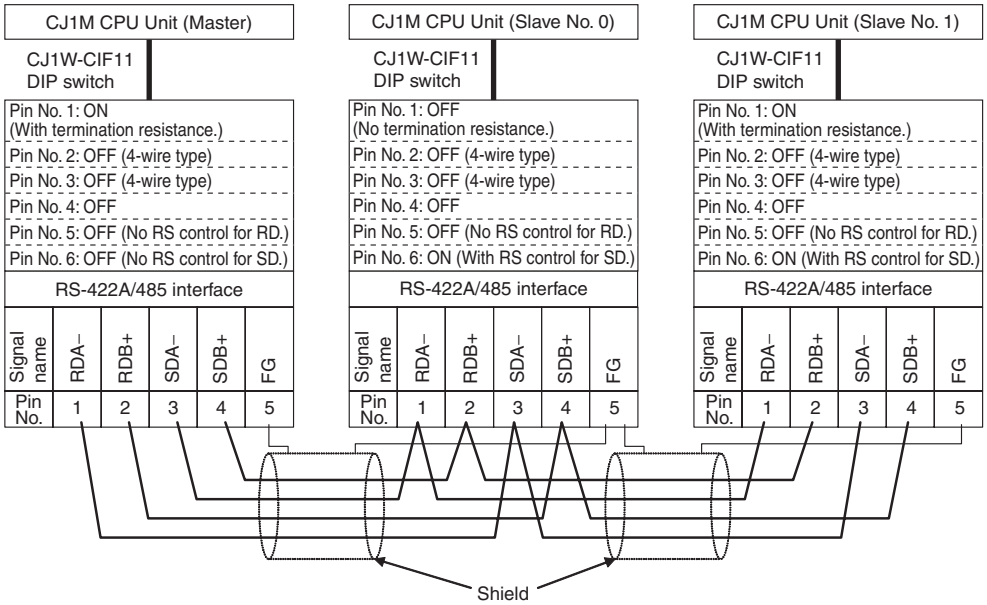
Wiring Example (CJ1M CPU Units Connected via Serial PLC Link)



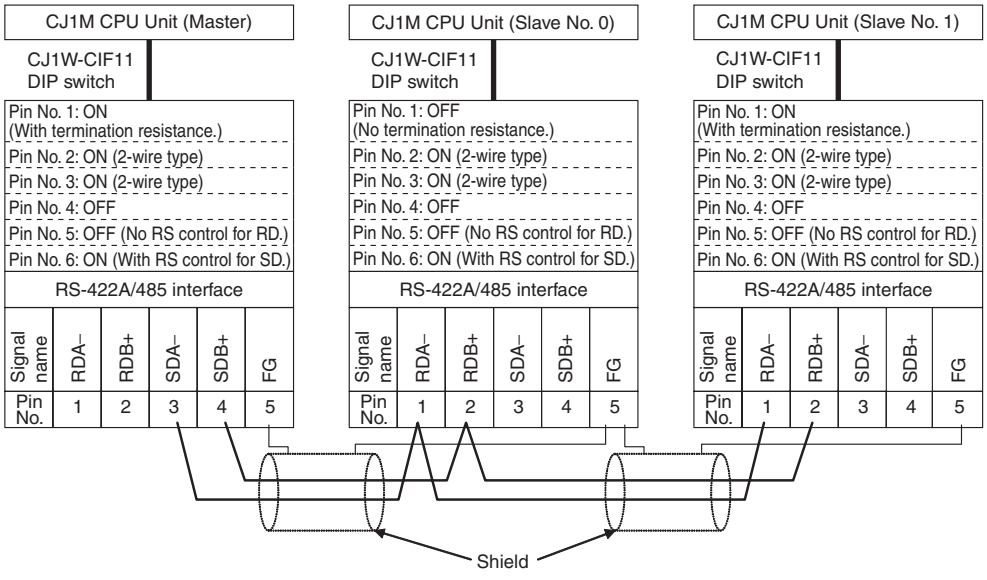
Note: 1. Connect the shield wire at both ends of the cable carrying RS-422A/485 signals to ground, and ground the ground terminal on the Power Supply Unit of the CPU or Expansion Rack to 100 Ω max.

2. The CJ1W-CIF11 is not insulated, so the total transmission distance for the whole transmission path is 50 m max. If the total transmission distance is greater than 50 m, use the insulated NT-AL001, and do not use the CJ1W-CIF11. If only the NT-AL001 is used, the total transmission distance for the whole transmission path is 500 m max.

Wiring for Four-wire Cable



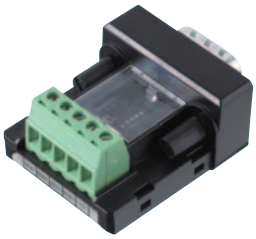
Wiring for Two-wire Cable

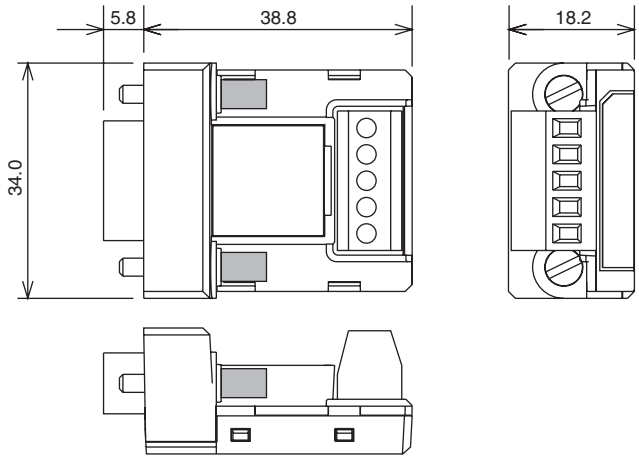


Dimensions

(Unit: mm)

CJ1W-CIF11





Related Manual

Name	Cat. No.	Contents
SYSMAC CJ Series CJ1H-CPU□□H-R, CJ1G/H-CPU□□H, CJ1G-CPU□□P, CJ1G-CPU□□, CJ1M-CPU□□ Programmable Controllers Operation Manual	W393	Provides an outlines of and describes the design, installation, maintenance, and other basic operations for the CJ-series PLCs.

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2008.11

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