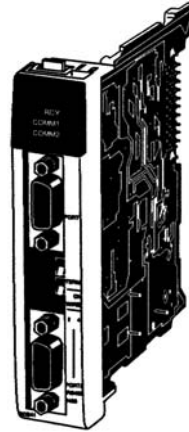


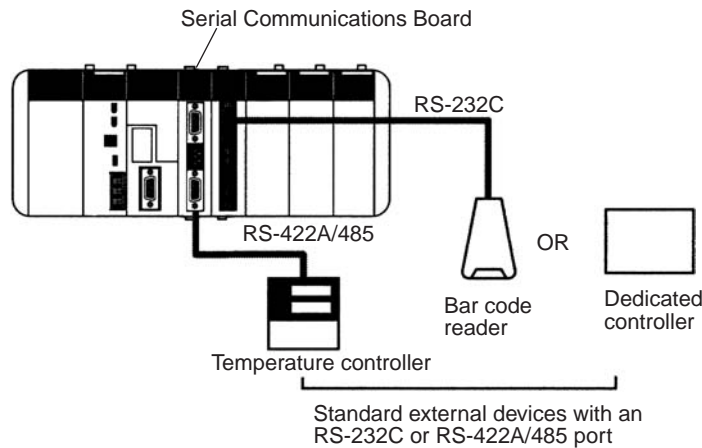
Serial Communications Board CQM1H-SCB41

The Serial Communications Board is an Inner Board equipped with 2 ports that can be used to connect host computers, Programmable Terminals, external serial devices, or Programming Devices other than a Programming Console.

- Unlike the CPU Unit's built-in ports, the Serial Communications Board supports the protocol macro function which can improve communications between the CQM1H and external serial devices.
- The Serial Communications Board has 2 ports: an RS-232C port and an RS-422A/485 port. The RS-422A/485 port supports 1:N connections (protocol macro or NT Link in 1:N mode) without an adapter.



System Configuration



Communications Modes

The following 6 communications modes can be set independently for the two Serial Communications Board ports.

- Host Link: Communications with a host computer, Programming Device, or Programmable Terminal
- No-protocol: No-protocol communications (TXD and RXD) with standard external devices
- Protocol macro: Communications according to the external device's communications specifications
- 1:1 Data Link: Data link with a CQM1H, CQM1, or other C-series PLC
- NT Link in 1:N mode: One-to-one or one-to-N communications with Programmable Terminals
- NT Link in 1:1 mod: One-to-one communications with Programmable Terminal

■ Communications Ports and Serial Communications Modes

Serial communications protocol	CQM1H-SCB41 Serial Communications Board	
	RS-232C port (port 1)	RS-422A/485 port (port 2)
Peripheral bus or Programming Console bus	No	No
Host Link (SYSMAC WAY)	YES	YES ¹
Protocol macro	YES	YES
No-protocol	YES	YES ¹
1:1 Data Link	YES	YES ¹
NT Link in 1:1 mode	YES ²	YES ²
NT Link in 1:N mode	YES ²	YES ²

Note: 1. The 4-wire method must be used if the RS-422A/485 port is used in Host Link, No-protocol, or 1:1 Data Link mode.
2. A Programmable Terminal's Programming Console function cannot be used.

Serial Communications Board Specifications

Item	Specification	
Model	CQM1H-SCB41	
Unit classification	CQM1H-series Inner Board	
Applicable CPU Units	CQM1H-CPU61/51	
Mounting locations and number of Boards	1 Board can be mounted in slot 1.	
Serial Communications ports	Port 1	RS-232C: 19.2 kbps max., 15 m max.
	Port 2	RS-422A/485: 19.2 kbps max., 500 m max.
Protocols	Port 1	Each port can be set independently to Host Link, No-protocol, Protocol macro, 1:1 Data Link, NT Link in 1:N mode, or NT Link in 1:1 mode.
	Port 2	
Current consumption	5 VDC, 200 mA max.	
Dimensions	25 × 110 × 107 mm (W × H × D)	
Weight	90 g max.	
Standard accessories	Plugs: XM2SA-0901 (OMRON) x 2 Hoods: XM2SA-0911 (OMRON) x 2 (ESD)	

Protocol Macros

Protocol macros provide a way to create data communications protocols for the communications specifications of external devices with serial communications ports (half-duplex, start-stop sync only). The protocol macros are made on the CX-Protocol Support Software and then recorded in the Serial Communications Board, where they can be executed at any time using the PMCR instruction in the CPU Unit's ladder program.

Standard system protocols are also provided with the CX-Protocol and Serial Communications Board for easy communications with OMRON components, such as Temperature Controllers, Intelligent Signal Processors, Bar Code Readers, and Modems. The standard system protocols can also be modified for specific applications using the CX-Protocol.

