

Wired and Fiber-optic Remote I/O Systems Match Your Distance Needs

- Wired remote I/O systems offer up to 200 m maximum distance using shielded twisted pair wire, Belden #9271 or equivalent
- Fiber-optic remote I/O systems prevent electrical noise from fouling long-distance communication signals
- Transmission distance with fiber-optic cables depends on core material: 20 m for all plastic; 200 m for plastic clad; 3 km for quartz crystal core
- Master modules connect to slave racks or remote I/O relay or transistor blocks



Ordering Information

■ WIRED REMOTE I/O SYSTEM

Classification	Description	Specification	Part number
Remote master	For CV/CVM1 controllers	Use up to 8 masters per CPU	C500-RM201
Transmission line	Shielded twisted pair cable	Belden #9271 or equivalent	Commercially available

■ FIBER-OPTIC REMOTE I/O SYSTEM

Classification	Description	Specification	Part number
Remote master for CV/CVM1 controllers	Plastic core fibers	Use up to 8 masters per CPU	3G2A5-RM001-PEV1
	Glass core fibers		3G2A5-RM001-EV1
Transmission media	APF (all plastic) fiber-optic cable (user must assemble connectors)	20 m (65 ft), without connectors	B500-PF212
	Connectors, brown (includes 2)	For cables 0 to 10 m length	3G5A2-CO001
	Connectors, black (includes 2)	For cables 8 to 20 m length	3G5A2-CO002
	HPCF (plastic clad) fiber-optic cable, indoor/outdoor use (user must assemble connectors)	50 m (164 ft)	FCS-HCR-LB-501
		100 m (328 ft)	FCS-HCR-LB-102
		500 m (1640 ft)	FCS-HCR-LB-502
		1 km (3280 ft)	FCS-HCR-LB-103
	Zipcord style, orange, without connectors	50 m (164 ft)	FCS-HCR-CO-501
	Connectors for SYSMAC BUS	Order two, one for each end	S3200-COCH82
Termination kit for HPCF cable	---	FCS-CAK6230-US	
AGF (quartz crystal) fiber-optic cable	---	Commercially available	

■ REMOTE SLAVE RACKS

For part numbers and configuration information, refer to the CV/CVM1 Programmable Controller Catalog or *C-Series Wired Remote I/O Manual (W120)* or *C-Series Fiber-optic Remote IO Manual (W136)*.

Specifications

■ COMMUNICATIONS SPECIFICATIONS

Omron PLC model		CVM1-CPU01, CV500	CVM1-CPU11, CV1000, CV2000
Communications method		Half-duplex	
Coding method		Manchester coding method	
Connection method		RS-485	
Communications baud rate		187.5 kbps	
Max. masters per PLC		4 (fiber and wired)	8 (fiber and wired)
Max. remote expansion racks per master		8	16
Max. I/O points (words) per master		512 (32 words)	512 (32 words)
Max. points per PLC		512	1024
Communications cable		C500-RM201: 2-conductor cable: Belden #9271 or VCTF (JIS L3306) 3G2A5-RM001-PEV1: Fiber-optic cable: all plastic or hard plastic clad fiber media 3G2A5-RM001-EV1: Fiber-optic cable: quartz glass core media	
Communications distance	Wired	Belden #9271 or VCTF cable: 200 m (656 ft) total distance	
	Fiber-optic	All plastic fiber (APF): 20 m (65.6 ft) Hard plastic fiber (HPCF): 200 m (656 ft) Quartz crystal fiber (AGF): 3 km (1.86 mile) 800 m (2640 ft) between nodes, 10 km (6.2 miles) total distance with repeaters	
Error control checks		Manchester code check, frame length check, and parity check	

■ MODULE SPECIFICATIONS

Ports	1 port
Current consumption	C500-RM201 wired master: 0.3 A 3G2A5-RM001-(P)EV1 fiber-optic master: 0.7 A
Module placement	Install Remote I/O Master modules in the CPU Rack, CPU Expansion rack or a Local Expansion Rack
Approved standards	UL 508 (E95399), CSA C22.2 No. 142 (LR51460)

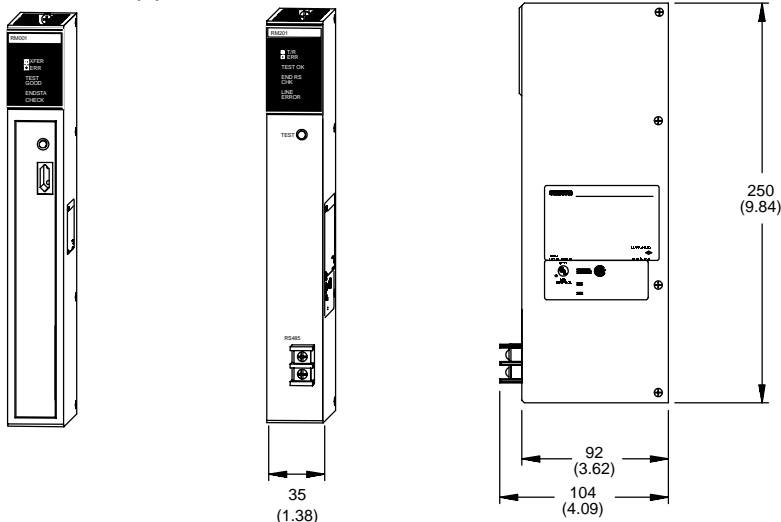
Note: For detailed specifications on wired or fiber-optic SYSMAC BUS systems, refer to the following manuals:

C-Series Wired Remote I/O W120
C-Series Fiber-optic Remote I/O W136

Dimensions

Unit: mm (inch)

3G2A5-RM001-(P)EV1 C500-RM201



Note: Refer to the *CV/CVM1 Operation Manual* for details on the dimensions when the Master Module is installed in the PLC Backplane.

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

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