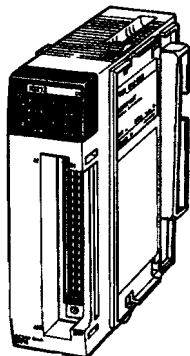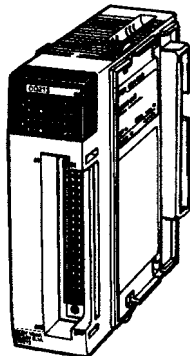# Peripheral Devices

■ Labor-saving Connectors

Converts the wiring of the 32-point I/O Unit connector into a terminal block, simplifying wiring and reducing the amount of wiring within the panel.
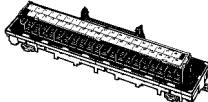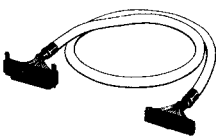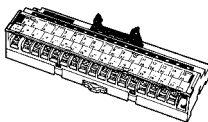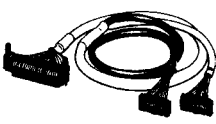
Units with I/O Connectors

CQM1-ID213
CQM1-ID214
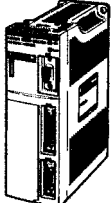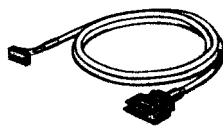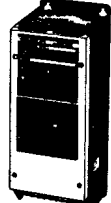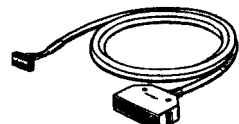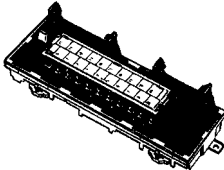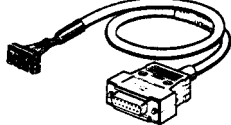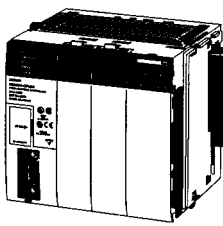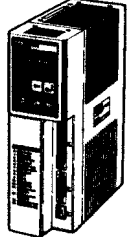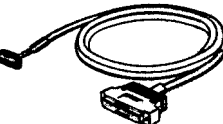
CQM1-OD213
CQM1-OD216

Cables and Connectors

Connector/Terminal Conversion Unit	Connecting Cable	PLC Unit
XW2B-40G5 XW2B-40G4	XW2Z-□□□B	CQM1-ID213 CQM1-ID214 CQM1-OD213 CQM1-OD216
XW2C-20G5-IN16 (see note)	XW2Z-□□□D	CQM1-ID213 CQM1-ID214

Note: This Unit is for an Input Unit only, with LED input indicators and NPN inputs.

Servo Relay Unit and Cables

Servo Driver	Connecting Cables	Servo Relay Unit	Relay Cable	PLC CPU Unit
U-series R88D-UP□□□	For U-series Servo Drivers XW2Z-□□□J-B1	XW2B-20J6-3B	XW2Z-□□□J-A3	CQM1H-CPU61/51 (CQM1H-PLB21)
M-series R88D-MT□□	XW2Z-□□□J-B2			
H-series R88D-H□□□	XW2Z-□□□J-B3			

Peripheral Devices

I/O Blocks and Cables
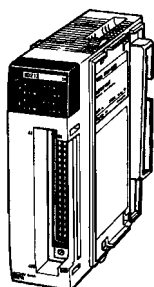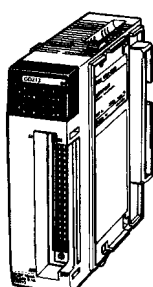
CQM1-ID213/214   CQM1-OD213

Cables with Connectors
Each Cable connects to two I/O Blocks.

Model		Length (mm)	
For inputs	For outputs	Long	Short
G79-I100C-75	G79-O100C-75	1,000	750
G79-I150C-125	G79-O150C-125	1,500	1,250
G79-I200C-175	G79-O200C-175	2,000	1,750
G79-I300C-275	G79-O300C-275	3,000	2,750
G79-I500C-475	G79-O500C-475	5,000	4,750

A-side: Word m
B-side: Word m+1

Long cable connection: Word m+1
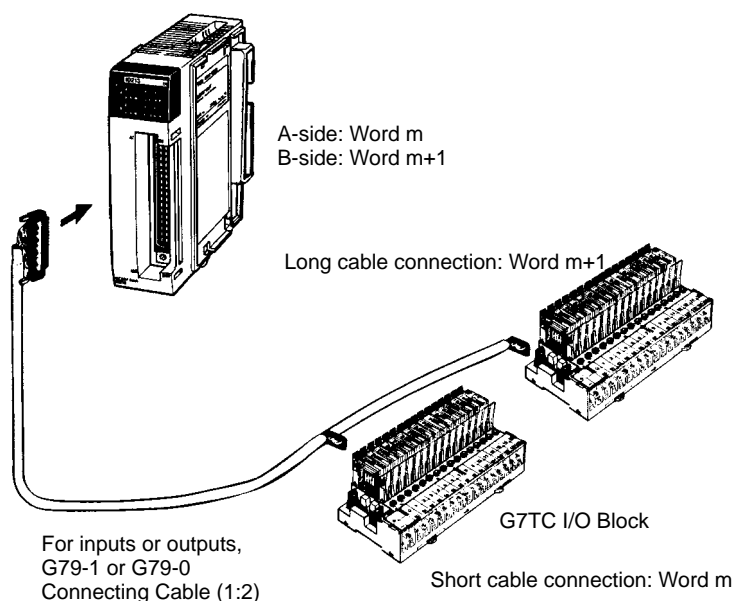
I/O Blocks

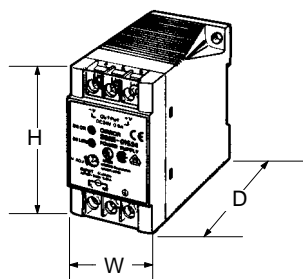| Model	Specifications	
G7TC-IA16	16 inputs	100/110 V AC, 200/220 V AC
G7TC-ID16		24 V DC
G7TC-OC16	16 outputs	Contact output: 24 V DC, 5 A/2 A (cos ϕ = 1/0.4) 220 V AC, 2 A/1 A (cos ϕ = 1/0.4)
G7VC-OC16		Contact output, 24 V DC/220 V AC 2 A (cos ϕ = 1.0) 0.8 A (cos ϕ = 0.4)
G7VC-OA16		SSR, AC output: 75 to 264 V AC, 0.1 to 0.5 A
G7VC-OD16		SSR, DC output: 3 to 26 V DC, 0.1 to 0.5 A

For inputs or outputs,
G79-1 or G79-0
Connecting Cable (1:2)

G7TC I/O Block

Short cable connection: Word m

Note: For more details on I/O Blocks and I/O Terminals, refer to the *I/O Terminal Series Catalog (X44-E1-□)*.

■ Direct DIN Track-mounting Power Supplies

S82K-series Power Supplies
The S82K Power Supplies provide DC power to a variety of I/O devices. Use S82K Power Supplies when using a CQM1H that requires a DC power supply or when the CQM1H cannot supply enough power to the connected I/O devices.

Power Supply Specifications

Model	Input voltage	Output current/voltage	Power rating	Dimensions
S82K-01505	100 to 200 V AC	5 V DC, 2.5 A	15 W	75 × 45 × 96 mm (H×W×D)
S82K-01512		12 V DC, 1.2 A		
S82K-01524		24 V DC, 0.6 A		
S82K-03012	100 or 200 V AC (switchable)	12 V DC, 2.5 A	30 W	75 × 90 × 96 mm (H×W×D)
S82K-03024		24 V DC, 1.3 A		
S82K-05024		24 V DC, 2.1 A	50 W	
S82K-10024		24 V DC, 4.1 A	100 W	75 × 135 × 96 mm (H×W×D)

■ Expansion Memory Unit

The Expansion Memory Unit can be used to upload and download user programs and data memory with the press of a button allowing simply program maintenance.

■ Connections

CPM1-EMU01-V1

CS1W-CN114

CPM2A
CPM1A
CPM1
SRM1
CQM1

CPM2C
CQM1H

The CPM2C-CN111 can also be used.
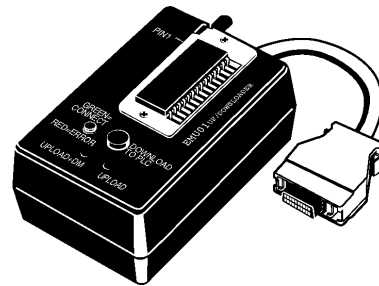
■ Specifications

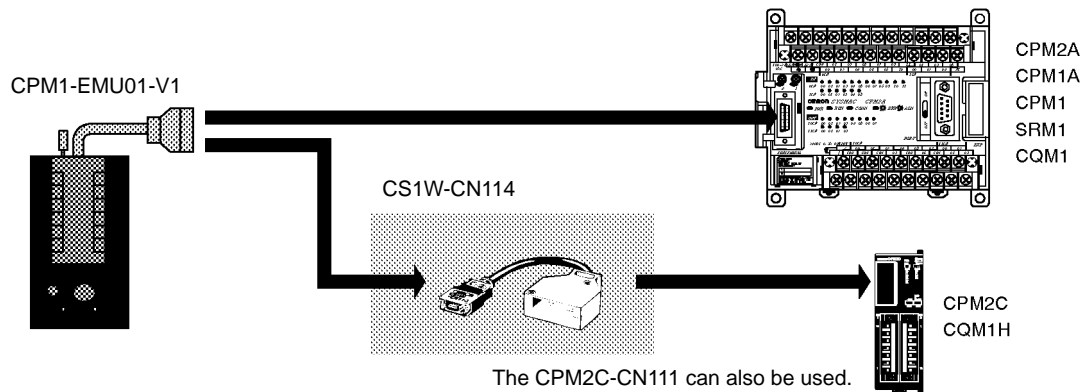| Item	Specification
Supported PCs	CPM1, CPM1A, CPM2A, CPM2C, SRM1 (-V2), CQM1, CQM1H
Read/Write memory areas	User program: 15.2 Kwords max. Data memory: DM 6144 to DM 6655 (Read-only DM and PC Setup) Expansion instructions: 18 instructions
Connector	Connector compatible with peripheral port on CPM1, CPM1A, CPM2A, SRM1 (-V2), and CQM1 PCs. For CPM2C and CQM1H PCs, connect via CS1W-CN114 or CPM2C-CN111 Connecting Cable.

EEPROM (See note.)	256-Kbit EEPROM
	  ATMEL: AT28C256
	  OMRON: EEROM-JD

Current consumption	129 mA max.
Dimensions	Main body (not including cables or connectors): 57 × 92 × 38 mm (W × H × D)
Weight	200 g max. (not including EEPROM)
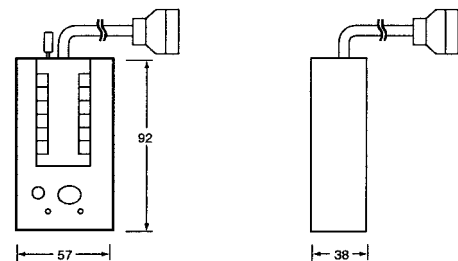
Note: The EEPROM must be purchased separately.

■ Dimensions

92

57

38

■ Memory Areas

The memory areas that are uploaded or downloaded vary with the button used as shown in the following table.

Area	Button		
	UPLOAD + DM	**UPLOAD**	**DOWNLOAD TO PLC**
Ladder program and expansion instructions	Read from PC to EEPROM.	Read from PC to EEPROM.	All contents of EEPROM written to PC.
DM 6144 to 6655		Not affected.	

For details on program size, DM area, and the availability of expansion instructions, refer to the relevant PC manual.

Peripheral Devices

■ Absolute Rotary Encoders

Robust Rotary Encoders Satisfy IP64f Standards and Are Easy to Use with the SYSMAC Cam Positioners.

- E6C2-A Series

- Provides IP64f (drip-proof) enclosure rating.

- Robust shaft 78.4N/49N

- High resolution of 1,024 provides optimal angle control when used in combination with the SYSMAC Cam Positioner.

- Space-saving size (50-mm dia. x 38-mm length)

Ordering Information
Rotary Encoder

Appearance	Connection method	Connecting device	Resolution per rotation	Model
	Cable	Programmable Controller	256, 360, 720, 1,024	E6C2-AG5C
	Connector	H8PS Cam Positioner (connector included)	256	E6C2-AG5C-C

Ratings

Supply voltage	12 V DC (–10%) to 24 V DC (+15%), ripple (p-p) of 5% max.
Current consumption	100 mA max.
Resolution (per rotation)	256, 360, 720, or 1,024
Output code	Gray binary
Output type	NPN open collector output
Output capacity	Applied voltage: 30 V DC max., Sink current: 35 mA max, Residual voltage: 0.4 V max
Max. response frequency	20 kHz

Connecting Cable for CQM1H-ABB21 (Sold Separately)

E69-DC5
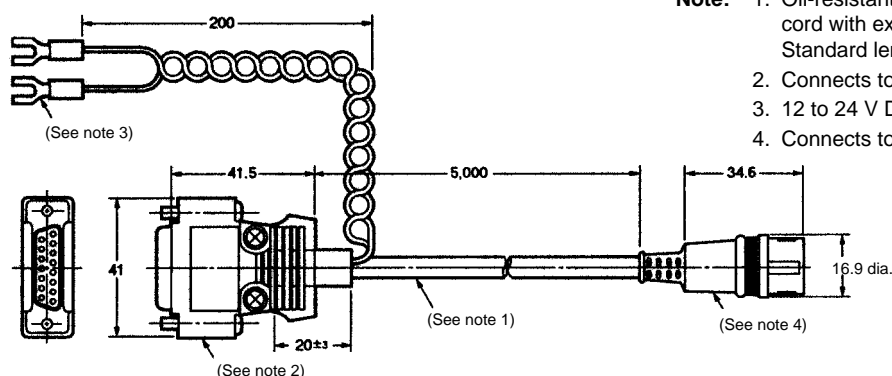
Note:
1. Oil-resistant, vinyl-insulated, round shielded cord with external dia. of 6 (12/7 0.18 dia.) Standard length: 5 m
2. Connects to CQM1H-ABB21.
3. 12 to 24 V DC
4. Connects to E6C2-AG5C-C Encoder

Compatible Models: E6CP-AG5C-C, E6C2-AG5C-C, and E6F-AG5C-C