

Link Master Interface Modules

CQM1-B7A□□

Reduce Wiring of 16 or 32 I/O Points to Omron's CQM1 Controller

- Transmission distance up to 500 m
- Master acts like a high-density I/O module connecting 16 or 32 points to the controller with just two or three wires
- Supports 16-point input, output, mixed I/O and 10-point B7A terminal blocks and printed circuit board modules
- Output modules offer Hold and Load OFF handling of transmission errors



Ordering Information

■ B7A MASTER LINK MODULES

I/O classification	Transmission capabilities	Part number
16-point output	Long distance (19.2 ms) and high-speed (3 ms) systems, selectable	CQM1-B7A02
32-point output	Long distance (19.2 ms) and high-speed (3 ms) systems, selectable	CQM1-B7A03
16-point input	Long distance (19.2 ms) and high-speed (3 ms) systems, selectable	CQM1-B7A12
32-point input	Long distance (19.2 ms) and high-speed (3 ms) systems, selectable	CQM1-B7A13
16-point input/16-point output	Long distance (19.2 ms) and high-speed (3 ms) systems, selectable	CQM1-B7A21

■ SWITCHING POWER SUPPLIES

Input voltage	Output rating	Application	Part number
120 to 240 VAC	0.13 A, 24 VDC	Use one to power each input or output block	S82K-00324
	0.3 A, 24 VDC	Use one to power two blocks from a single power supply	S82K-00724
	0.6 A, 24 VDC	Use this to power blocks connected to sensors, relays, indicator lights	S82K-01524
	1.3 A, 24 VDC	Use one where excess power is needed	S82k-03024

Specifications

■ RATINGS

Item	CQM1-B7A21	CQM1-B7A13	CQM1-B7A03	CQM1-B7A12	CQM1-B7A02
No. of I/O points	16 inputs, 16 outputs (See Note 1)	32 inputs (See Note 2)	32 outputs	16 inputs (See Note 1)	16 outputs
Transmission method	Single-direction, time-division multiplex				
Transmission distance	Long distance: 500 m max. or 100 m max. High-speed: 100 m max. or 50 m max. (See Note 3)				
Transmission speed	Normal: 19.2 ms (typical); 31 ms max. High-speed: 3 ms (typical); 5 ms max.				
I/O word allocation (See Note 4)	1 word each for input and output (2 words total)	2 words for input	2 words for output	1 word for input	1 word for out- put
Required power supply	0.11 A min.	0.07 A min.	0.10 A min.	0.05 A min.	0.04 A min.
Current consumption (module as part of CQM1)	100 mA max., 5 VDC				

- Note: 1. Input mode setting allows selection between 16-point input and 15-point input + 1 error input.
 2. Input mode setting allows selection between 32-point input and 30-point input + 2 error inputs.
 3. The transmission distance varies with the transmission speed and depends on where power is applied:

For normal speed setting:

If B7A Master Link and the B7A input and output modules each have power supplies, the transmission distance is 500 m. If one power supply is attached, the transmission distance is 100 m.

For high-speed setting:

If B7A Master Link and the B7A input and output modules each have power supplies, the transmission distance is 100 m. If one power supply is attached, the transmission distance is 50 m.

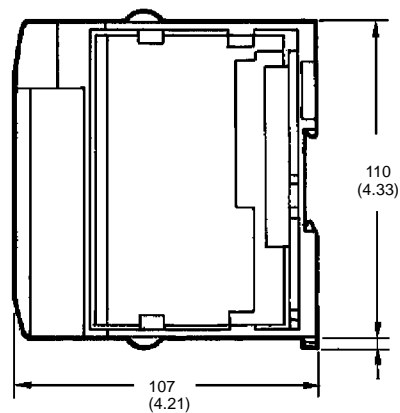
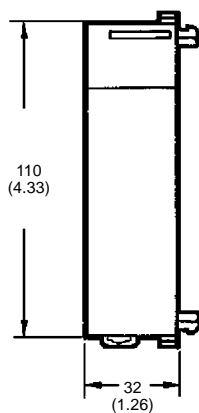
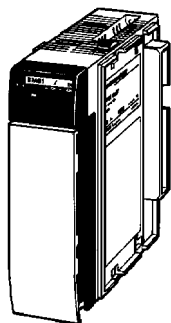
4. For addressing, words are allocated in sequence according to the location of the B7A Master on the PLC, as with other CQM1 I/O modules.

For more details on the B7A Master Link Interface Modules, refer to the *CQM1 Dedicated I/O Modules Operation Manual (W238)*.

Dimensions

Unit: mm (inch)

CQM1-B7A□□



Note: Refer to the *CQM1 Operation Manual* for details on the dimensions when the Master Module is installed as part of the PLC's integrated backplane.

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

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