

■ I/O EXPANSION AND CONTROL INTERFACE ADAPTERS

Stock Note: Shaded models are normally stocked.

Use I/O Expansion and Control Interface adapters for applications that require 11 to 16 I/O modules.

Memory	Memory capacity/Clock function		International standards	Part number
I/O control adapter	Connects to right-hand side of CPU block		U, C, CE	CQM1H-IC101
I/O interface adapter	Connects to left-hand side of Expansion I/O block			CQM1H-II101
I/O extension cable	Connects the I/O control module to the I/O interface module	Cable length: 0.3 m	L, CE	CS1W-CN313
		Cable length: 0.7 m		CS1W-CN713

Note: U: UL, C: CSA, N: NK, L: LLOYD, CE: EC Directives

■ I/O MODULES

Stock Note: Shaded models are normally stocked.

Input Modules

Input type	Number of inputs	Input voltage	Input current	Common type	Connector type	International standards	Part number
DC inputs	8	12 to 24 VDC	10 mA	Independent	Terminal block	U, C, N, L, CE	CQM1-ID211
	16	12 VDC	6 mA	Shared		U, C	CQM1-ID111
		24 VDC				U, C, N, L, CE	CQM1-ID212
	32	12 VDC	4 mA	Shared	Connector	U, C	CQM1-ID112
		24 VDC				U, C, N, L, CE	CQM1-ID213
	AC inputs	8	100 to 120 VAC	5 mA	Shared	Terminal block	U, C, L, CE
200 to 240 VAC			6 mA	CQM1-IA221			

Output Modules

Output type	Number of outputs	Max. switching voltage	Max. switching current	Common type	Connector type	International standards	Part number
Contact outputs	8	250 VAC, 24 VDC	2 A	Independent	Terminal block	U, C, N, L	CQM1-OC221
	16			Shared			CQM1-OC222
	8			Independent		CE, U	CQM1-OC224
Transistor	8	24 VDC	2 A (NPN)	Shared (fused)	Terminal block	U, C, N, L, CE	CQM1-OD211
	16		0.3 A (NPN)		Connector		CQM1-OD212
	32		0.1 A (NPN)	CQM1-OD213			
Transistor	8	24 VDC	1 A (PNP)	Shared (fused)	Terminal block	U, C, L, CE	CQM1-OD215
	16		0.3 A (PNP)		Connector		CQM1-OD214
	32		0.5 A (PNP)	CE			CQM1-OD216
Triac	8	240 VAC	0.4 A	Shared (short circuit protected)	Terminal block	U, C, L	CQM1-OA221
	6					CE	CQM1-OA222

■ INPUT SPECIFICATIONS

All of the Input Modules listed in the following tables have photocoupler isolation and LED input indicators.

CPUs

Number of inputs	Input voltage	Input current	Input impedance	Operating voltage		Response times (See Note)		External connection	Inputs/common	Current consumption (5 VDC)	Weight
				ON voltage	OFF voltage	ON delay	OFF delay				
16 pts	24 VDC +10%/15%	10 mA for IN04/05 6 mA for the rest (24 VDC)	2.2 k Ω for IN04/05 3.9 k Ω for the rest	17.4 VDC min.	5.0 VDC max.	8 ms max.	8 ms max.	Terminal block	16	—	—

Note: Selectable from 1 to 128 ms in the PLC Setup.

DC Input Modules

Model	Number of inputs	Input voltage	Input current	Input impedance	Operating voltage		Response times (See Note)	
					ON voltage	OFF voltage	ON delay	OFF delay
CQM1-ID211	8 pts	12 to 24 VDC +10%/15%	10 mA (24 VDC)	2.4 k Ω	10.2 VDC min.	3.0 VDC max.	8 ms max.	8 ms max.
CQM1-ID111	16 pts	12 VDC +10%/15%	6 mA (12 VDC)	1.8 k Ω	8.0 VDC min.	3.0 VDC max.	8 ms max.	8 ms max.
CQM1-ID212	16 pts	24 VDC +10%/15%	6 mA (24 VDC)	3.9 k Ω	14.4 VDC min.	5.0 VDC max.	8 ms max.	8 ms max.
CQM1-ID112	32 pts	12 VDC +10%/15%	4 mA (12 VDC)	2.2 k Ω	8.0 VDC min.	3.0 VDC max.	8 ms max.	8 ms max.
CQM1-ID213	32 pts	24 VDC +10%/15%	4 mA (24 VDC)	5.6 k Ω	14.4 VDC min.	5.0 VDC max.	8 ms max.	8 ms max.

Note: Selectable from 1 to 128 ms in the PLC Setup.

Model	Number of inputs	External connection	Inputs/common	Current consumption (5 VDC)	Weight
CQM1-ID211	8 pts	Terminal block	8 independent commons	50 mA max.	180 g max.
CQM1-ID111	16 pts		16	85 mA max.	180 g max.
CQM1-ID212	16 pts		16	85 mA max.	180 g max.
CQM1-ID112	32 pts	Connector	32	170 mA max.	160 g max.
CQM1-ID213	32 pts		32	170 mA max.	160 g max.
CQM1-ID214	32 pts		32	170 mA max.	160 g max.

AC Input Modules

Model	Number of inputs	Input voltage	Input current	Input impedance	Operating voltage		Response times	
					ON voltage	OFF voltage	ON delay	OFF delay
CQM1-IA121	8 pts	100 to 120 VAC +10%/15%	5 mA (100 VAC)	20 k Ω (50 Hz) 17 k Ω (60 Hz)	60 VAC min.	20 VAC max.	35 ms max.	55 ms max.
CQM1-IA221	8 pts	200 to 240 VAC +10%/15%	6 mA (200 VAC)	38 k Ω (50 Hz) 32 k Ω (60 Hz)	150 VAC min.	40 VAC max.	35 ms max.	55 ms max.

Model	Number of inputs	External connection	Inputs/common	Current consumption (5 VDC)	Weight
CQM1-IA121	8 pts	Terminal block	8	50 mA max.	210 g max.
CQM1-IA221	8 pts		8	50 mA max.	210 g max.