

Input/Relay Output Specifications (Expansion Modules)

Input Module Specifications

		DC Input				AC Input
		FC4A-N08B1	FC4A-N16B1	FC4A-N16B3	FC4A-N32B3	FC4A-N08A11
Input Points		8 points (8/1 common)	16 points (16/1 common)		32 points (16/1 common)	8 points (4/1 common)
Rated Input Voltage		24V DC sink/source input signal				100 - 120V AC (50-60Hz)
Input Voltage Range		20.4 to 28.8V DC				85 to 132V AC
Rated Input Current		7mA/point (24V DC)		5mA/point (24V DC)		7.5mA/pt (100V AC, 60Hz)
Input Impedance		3.4 kΩ		4.4 kΩ		0.8kΩ (60Hz)
Input Delay Time		ON time: 4 msec OFF time: 4 msec				ON time: 25 msec OFF time: 30 msec
Isolation	Between input terminals	Not isolated				In the same commons: not isolated In different commons: 500V
	Internal circuit	Photocoupler isolated				2500V (photocoupler isolated)
External Load for I/O Interconnection		Not needed				
Signal Determination Method		Static				
Effect of Improper Input Connection		Both sinking and sourcing input signals can be connected. If any input exceeding the rated value is applied, permanent damage may be caused.				
Cable Length		3m (9.84 ft) in compliance with electromagnetic immunity				
Connector	On Mother Board	MC1.5/10-G-3.81BK (Phoenix contact)			FL20A2MA (Oki Electric Cable)	
	Insertion/Removal Durability	100 times minimum				
Internal Current Draw	All Inputs ON	25 mA (5V DC) 0 mA (24V DC)	40 mA (5V DC) 0 mA (24V DC)	35 mA (5V DC) 0 mA (24V DC)	65 mA (5V DC) 0 mA (24V DC)	60mA (5V DC) 0mA (24V DC)
	All Inputs OFF	5 mA (5V DC) 0 mA (24V DC)	5 mA (5V DC) 0 mA (24V DC)	5 mA (5V DC) 0 mA (24V DC)	10 mA (5V DC) 0 mA (24V DC)	30mA (5V DC) 0mA (24V DC)
Weight		85g	100g	65g	100g	-

Relay Output Module Specifications

		FC4A-R081	FC4A-R161
Output Points and Common Lines		8 points (4/1 common)	16 points (8/1 common)
Output Type		1NO	
Maximum Load Current	per point	2A	
	per common	7A	8A
Minimum Switching Load		0.1 mA/0.1V DC (reference value)	
Initial Contact Resistance		30 mΩ maximum	
Electrical Life		100,000 operations minimum (rated load 1,800 operations/hour)	
Mechanical Life		20,000,000 operations minimum (no load 18,000 operations/hour)	
Rated Load (resistive/inductive)		240V AC/2A, 30V DC/2A	
Dielectric Strength		Between output and ⊕ terminals: 1500V AC, 1 minute Between output terminals and internal circuit: 1500V AC, 1 minute Between output terminals (COMs): 1500 V AC, 1 minute	
Connector	On Mother Board	MC1.5/11-G-3.81BK (Phoenix contact)	MC1.5/10-G-3.81BK (Phoenix contact)
	Insertion/Removal Durability	100 times minimum	
Internal Current Draw	All Inputs ON	30 mA (5V DC) 40 mA (24V DC)	45 mA (5V DC) 75 mA (24V DC)
	All Inputs OFF	5 mA (5V DC) 0 mA (24V DC)	5 mA (5V DC) 0 mA (24V DC)
Weight		110g	145g