

2: MODULE SPECIFICATIONS

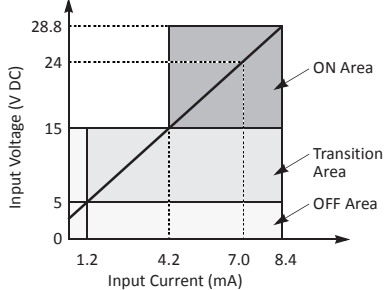
DC Input Module Specifications

Type No.	FC4A-N08B1	FC4A-N16B1	FC4A-N16B3	FC4A-N32B3	
Input Points and Common Lines	8 points in 1 common line	16 points in 1 common line	16 points in 1 common line	32 points in 2 common lines	
Terminal Arrangement	See Input Module Terminal Arrangement on pages 2-38 through 2-40.				
Rated Input Voltage	24V DC sink/source input signal				
Input Voltage Range	20.4 to 28.8V DC				
Rated Input Current	7 mA/point (24V DC)		5 mA/point (24V DC)		
Input Impedance	3.4 kΩ		4.4 kΩ		
Turn ON Time (24V DC)	4 ms				
Turn OFF Time (24V DC)	4 ms				
Isolation	Between input terminals: Internal circuit:	Not isolated 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)		
Connector 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)
	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)
Weight	85g	100g	65g	100g	

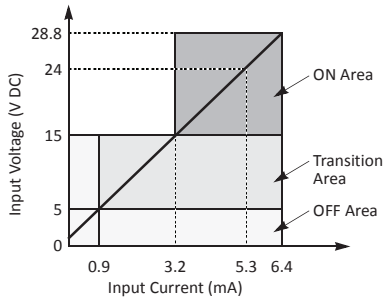
Input Operating Range

The input operating range of the Type 1 (IEC 61131-2) input module is shown below:

FC4A-N08B1 and FC4A-N16B1

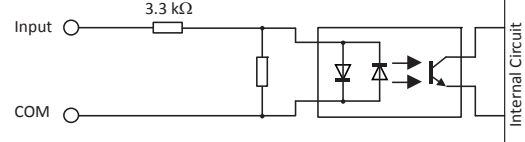


FC4A-N16B3 and FC4A-N32B3

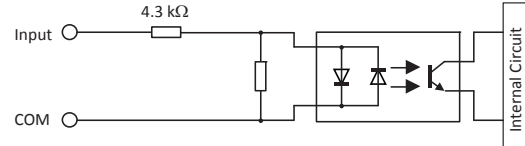


Input Internal Circuit

FC4A-N08B1 and FC4A-N16B1



FC4A-N16B3 and FC4A-N32B3

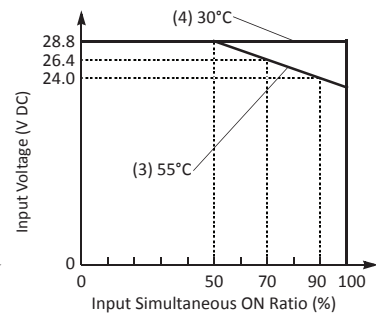
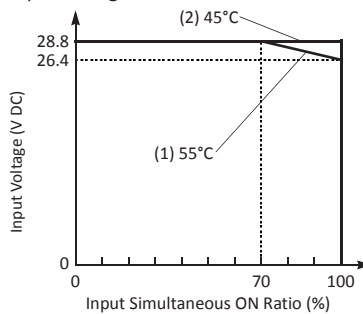


Input Usage Limits

When using the FC4A-N16B1 at 55°C in the normal mounting direction, limit the inputs which turn on simultaneously along line (1). At 45°C, all inputs can be turned on simultaneously at 28.8V DC as indicated with line (2).

When using the FC4A-N16B3 or -N32B3 at 55°C, limit the inputs which turn on simultaneously on each connector along line (3). At 30°C, all inputs can be turned on simultaneously at 28.8V DC as indicated with line (4).

When using the FC4A-N08B1, all inputs can be turned on simultaneously at 55°C, input voltage 28.8V DC.



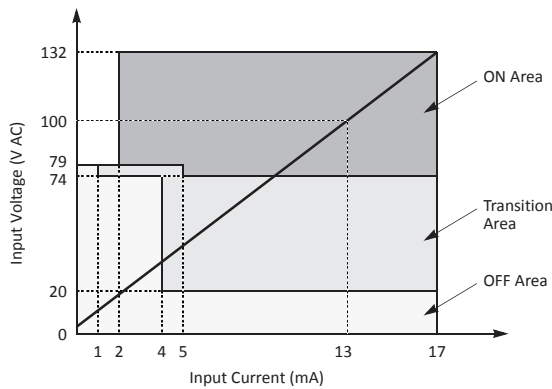
AC Input Module Specifications

Type No.	FC4A-N08A11	
Input Points and Common Lines	8 points in 2 common lines	
Terminal Arrangement	See Input Module Terminal Arrangement on page 2-41.	
Rated Input Voltage	100 to 120V AC (50/60 Hz)	
Input Voltage Range	85 to 132V AC	
Rated Input Current	17 mA/point (120V AC, 60 Hz)	
Input Type	AC input; Type 1, 2 (IEC 61131)	
Input Impedance	0.8 kΩ (60 Hz)	
Turn ON Time	25 ms	
Turn OFF Time	30 ms	
Isolation	Between input terminals in the same common:	Not isolated
	Between input terminals in different commons:	Isolated
	Between input terminals and internal circuits:	Photocoupler isolated
External Load for I/O Interconnection	Not needed	
Signal Determination Method	Static	
Effect of Improper Input Connection	If any input exceeding the rated value is applied, permanent damage may be caused.	
Connector on Mother Board	MC1.5/11-G-3.81BK (Phoenix Contact)	
Connector Insertion/Removal Durability	100 times minimum	
Internal Current Draw	All Inputs ON	60 mA (5V DC) 0 mA (24V DC)
	All Inputs OFF	30 mA (5V DC) 0 mA (24V DC)
Weight	80g	

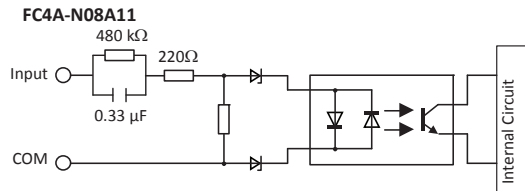
Input Operating Range

The input operating range of the Type 1 and 2 (IEC 61131-2) input module is shown below:

FC4A-N08A11

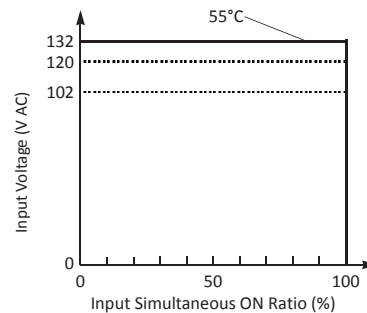


Input Internal Circuit



Input Usage Limits

When using the FC4A-N08A11, all inputs can be turned on simultaneously at 55°C, input voltage 132V AC.

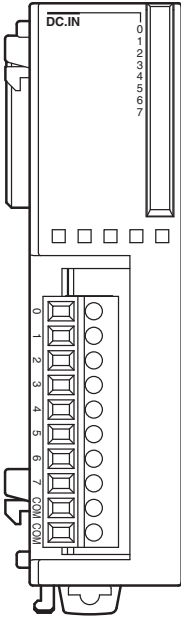


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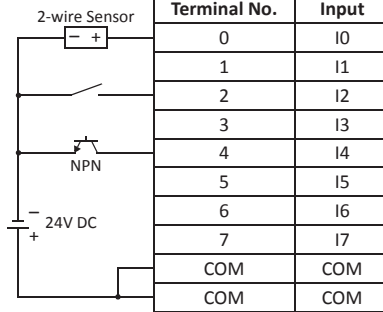
DC Input Module Terminal Arrangement and Wiring Diagrams

FC4A-N08B1 (8-point DC Input Module) — Screw Terminal Type

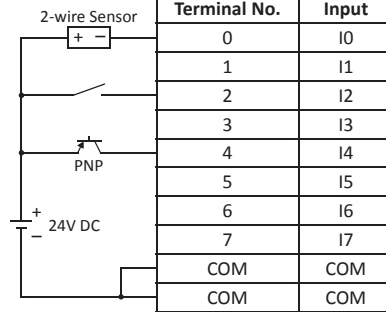
Applicable Terminal Block: FC4A-PMT10P (supplied with the input module)



Source Input Wiring



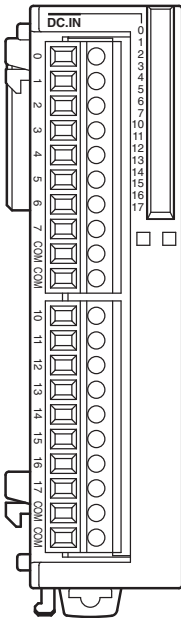
Sink Input Wiring



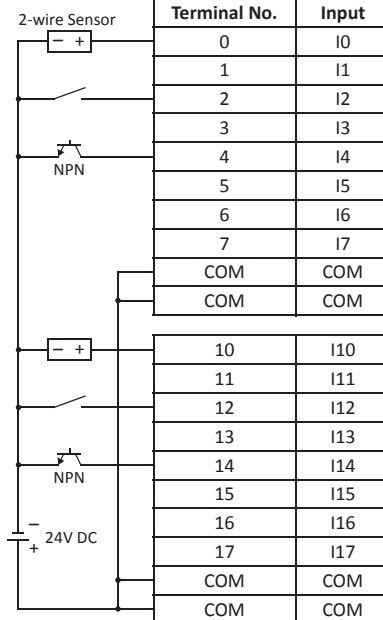
- Two COM terminals are interconnected.
- For input wiring precautions, see page 3-15.

FC4A-N16B1 (16-point DC Input Module) — Screw Terminal Type

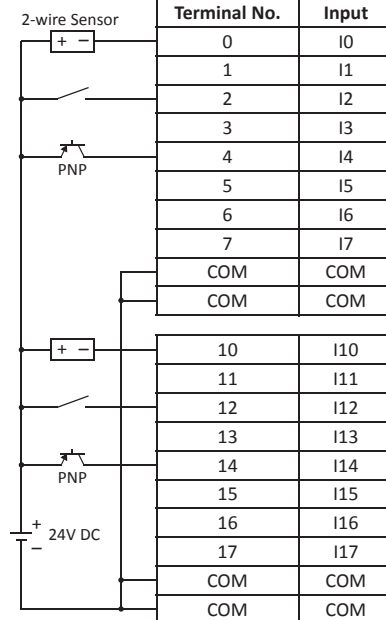
Applicable Terminal Block: FC4A-PMT10P (supplied with the input module)



Source Input Wiring



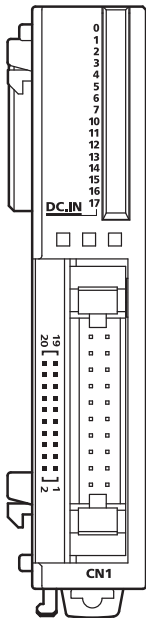
Sink Input Wiring



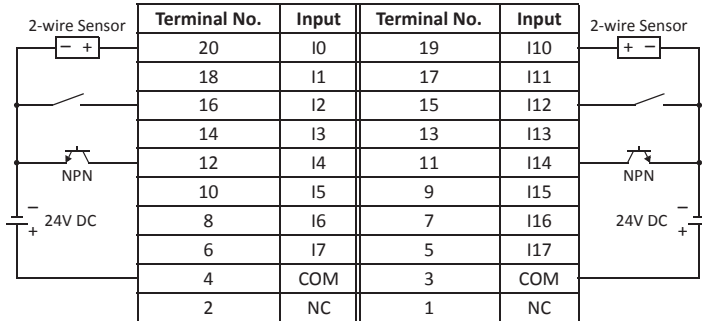
- Four COM terminals are interconnected.
- For input wiring precautions, see page 3-15.

FC4A-N16B3 (16-point DC Input Module) — Connector Type

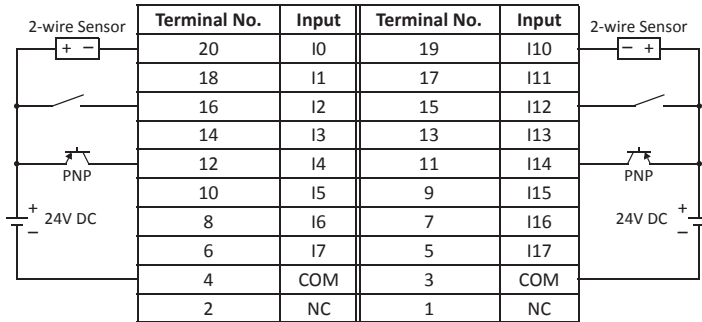
Applicable Connector: **FC4A-PMC20P (not supplied with the input module)**



Source Input Wiring



Sink Input Wiring

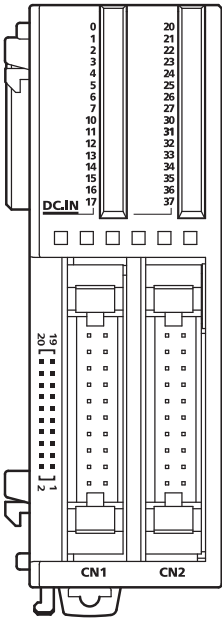


- Two COM terminals are interconnected.
- For input wiring precautions, see page 3-15.

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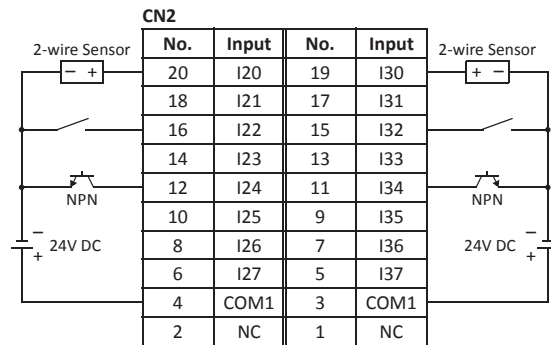
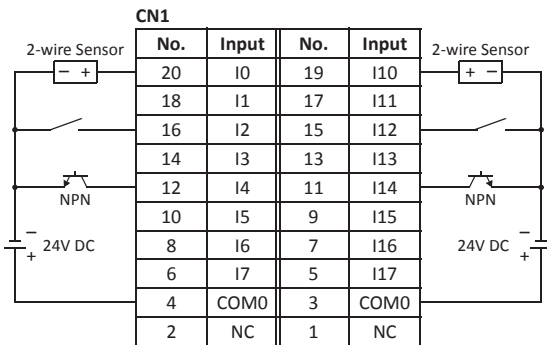
FC4A-N32B3 (32-point DC Input Module) — Connector Type

Applicable Connector: FC4A-PMC20P (not supplied with the input module)

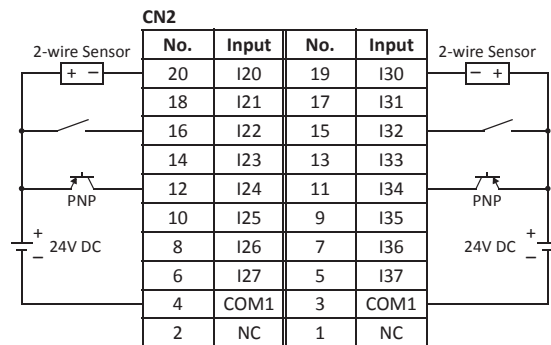
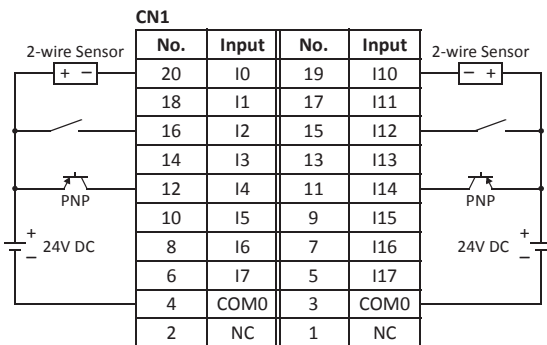


- COM0 terminals are interconnected.
- COM1 terminals are interconnected.
- COM0 and COM1 terminals are *not* interconnected.
- For input wiring precautions, see page 3-15.

Source Input Wiring



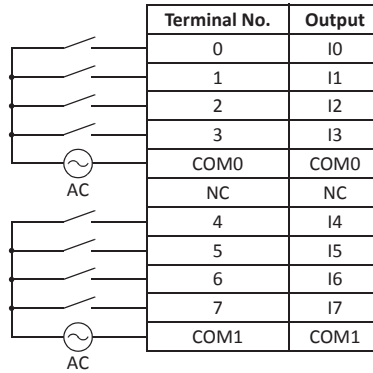
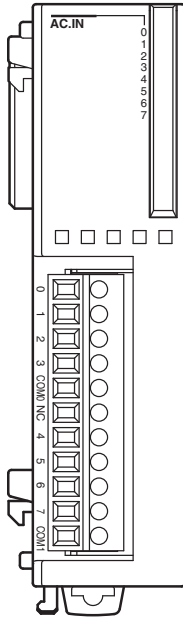
Sink Input Wiring



AC Input Module Terminal Arrangement and Wiring Diagrams

FC4A-N08A11 (8-point AC Input Module) — Screw Terminal Type

Applicable Terminal Block: FC4A-PMT11P (supplied with the input module)



- Two COM terminals are *not* interconnected.
- For input wiring precautions, see page 3-15.
- Do not connect an external load to the input terminals.