



SLC 500 Digital I/O Modules

Input Catalog Numbers 1746-IA4, 1746-IA8, 1746-IA16, 1746-IB8, 1746-IB16, 1746-IC16, 1746-IG16, 1746-IH16, 1746-IM4, 1746-IM8, 1746-IM16, 1746-IN16, 1746-ITB16, 1746-ITV16, 1746-IV8, 1746-IV16

Output Catalog Numbers 1746-OA8, 1746-OA16, 1746-OAP12, 1746-OB8, 1746-OB6EI, 1746-OB16, 1746-OB16E, 1746-OBP8, 1746-OBP16, 1746-OG16, 1746-OV8, 1746-OV16, 1746-OVP16, 1746-OW4, 1746-OW8, 1746-OW16, 1746-OX8

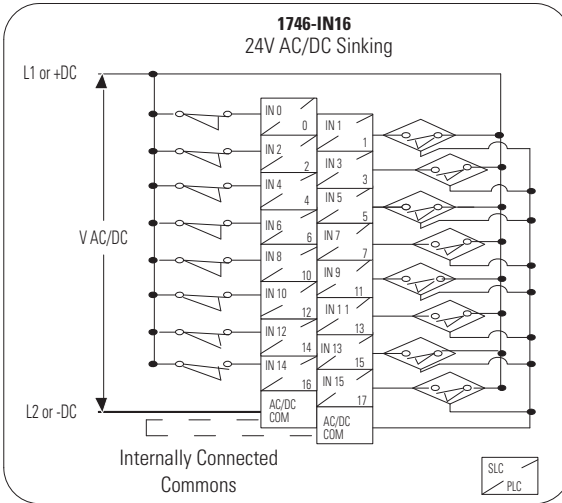
Combination Input/Output Catalog Numbers 1746-IO4, 1746-IO8, 1746-IO12, 1746-IO12DC

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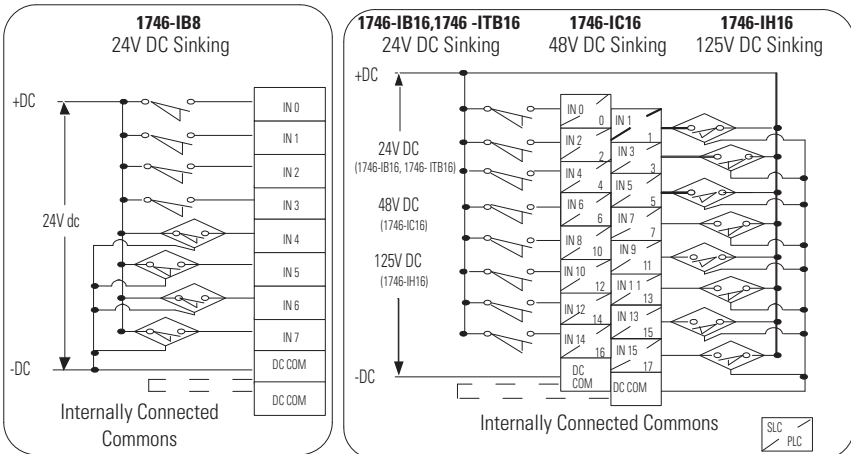
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DC Input Modules Wiring Diagrams

1746-IN16



1746-IB8, 1746-IB16, 1746-ITB16, 1746-IC16, 1746-IH16



Specifications – 1746-IM4, 1746-IM8, and 1746-IM16

Attribute	Value
	1746-IM4 1746-IM8 1746-IM16 ⁽²⁾
Input current	12 mA @ 240V AC, nom
Inrush current, max ⁽¹⁾	1.6 A
Inrush current time duration, max	0.5 ms

⁽¹⁾ An AC input device must be compatible with SLC 500 input circuit inrush current. A current limiting resistor can be used to limit inrush current; however, the operating characteristics of the AC input-circuit will be affected.

⁽²⁾ Removable terminal block.

DC Input Modules**Specifications – 1746-IB8, 1746-IB16, 1746-ITB16, and 1746-IC16**

Attribute		Value			
		1746-IB8	1746-IB16 ⁽¹⁾	1746-ITB16 ⁽¹⁾	1746-IC16 ^{(1) (3)}
Voltage category		24V DC signal input (sinking)			48V DC signal input (sinking)
Number of inputs		8	16	16	16
Points per common		8	16	16	16
Voltage, operating		10...30V DC (sinking)			30...60V DC @ 55 °C (131 °F) sinking 30...55V DC @ 60 °C (140 °F) sinking
Backplane current consumption	5V DC	0.050 A			
	24V DC	0.0 A			
Signal delay, max		On = 8 ms Off = 8 ms	On = 8 ms Off = 8 ms	On = 0.3 ms Off = 0.5 ms ⁽²⁾	On = 4 ms Off = 4 ms
Off-state voltage, max		5.0V DC			10.0V DC
Off-state current, max		1 mA	1 mA	1.5 mA	1.5 mA
Input current, nom		8 mA @ 24V DC			4.1 mA @ 48V DC

⁽¹⁾ Removable terminal block.

⁽²⁾ Use ID Code 0509 when configuring your system with programming software or the HHT.

⁽³⁾ Typical signal delay for these modules: ON = 0.1 ms, OFF = 0.25 ms @ 24V DC.

Combination Input/Output Modules

Specifications – 1746-IO4, 1746-IO8, 1746-IO12, and 1746-IO12DC

Attribute	Value			
	1746-IO4 ⁽¹⁾⁽²⁾	1746-IO8 ⁽¹⁾⁽²⁾	1746-IO12 ⁽¹⁾⁽³⁾⁽⁴⁾	1746-IO12DC ⁽³⁾⁽⁵⁾⁽⁶⁾⁽⁷⁾
Points per module	2 inputs 2 outputs	4 inputs 4 outputs	6 inputs 6 outputs	6 inputs 6 outputs
Points per common	2	4	6	6
Voltage category	120V AC			24V DC
Voltage, operating (inputs)	85...132V AC			10...30V DC
Voltage category (outputs)	100/120V AC Relay contact output			
Voltage, operating (outputs)	5...265V AC 5...125V DC			
Backplane current consumption	5V DC	0.030 A	0.060 A	0.090 A
	24V DC	0.025 A	0.045 A	0.070 A

⁽¹⁾ Certified for Class 1, Division 2 hazardous location by CSA.

⁽²⁾ See specifications for catalog numbers 1746-IA4 and 1746-OW4. Continuous Current per 1746-IO4 Module is 4.0 A. Continuous Current per 1746-IO8 Module is 8.0 A.

⁽³⁾ Removable terminal block.

⁽⁴⁾ See specifications for catalog numbers 1746-IA16 and 1746-OW16. Continuous Current per 1746-IO12 Module is 8.0 A.

⁽⁵⁾ See specification for catalog numbers 1746-IB16 and 1746-OW16. Continuous Current per 1746-IO12DC Module is 8.0 A.

⁽⁶⁾ Certified for Class 1, Division 2 hazardous location by C-UL.

⁽⁷⁾ Use the following ID Code when configuring your system with programming software or the HHT: 1746-IO12DC = 1512.

TIP For combination I/O modules 1746-IO4, 1746-IO8, 1746-IO12 and 1746-IO12DC):

The first several seconds of any powerup or when power is applied to a rack that is not under processor control, the output LED indicators of the combination input and output modules in the rack will be illuminated.

Racks are not under processor control if one of the following conditions exist:

- Modular Hardware Style (only): Processor is absent from the rack or the rack interconnect cable is not properly connected.
- Modular Hardware Style and Fixed Hardware Style: The processor does not have the firmware PROM installed or the processor is not functioning properly.