



**ATTENTION:** To avoid potential damage to TTL modules, handle them by the ends of the module, not metallic surfaces. Electrostatic discharges can damage the module. Take care to prevent exposure of terminals or components to electrostatic charges.

Careful wire routing within the enclosure helps cut down electrical noise between I/O lines. Refer to the SLC 500 Modular Hardware Style User Manual, publication [1747-UM011](#), for recommended wiring procedures for TTL modules.

Limit cable length to 15 m (50 ft) per point for inputs in standard environments.

Refer to Allen-Bradley Programmable Controller Wiring and Grounding Guidelines, publication [1770-IN041](#), for complete information.

### Specifications – 1746-IN16

Attribute		Value <sup>(1)</sup>
Voltage category		24V AC/DC Signal Input
Number of inputs		16
Points per common		16
Voltage, operating	DC	10...30V DC (sinking)
	AC	10...30V AC
Backplane current consumption	5V DC	0.085 A
	24V DC	0.0 A
Signal delay, max	DC	On = 15 ms Off = 15 ms
	AC	On = 25 ms Off = 25 ms
Off-state voltage, max	DC	3.0V DC
	AC	3.0V AC
Off-state current, max	DC	1 mA
	AC	1 mA
Input current, nom	DC	8 mA @ 24V DC
	AC	8 mA @ 24V AC
Input current		0.02 A (AC only)

<sup>(1)</sup> Removable terminal block.

## Specifications – 1746-IH16

Attribute		Value <sup>(1)(2)(3)</sup>	
Voltage category		125V DC signal input (sinking)	
Number of inputs		16	
Points per common		16	
Voltage, operating		Range: 90...146V DC	Points ON Simultaneously, max: 6 @ 146V DC and 30 °C (86 °F) 12 @ 146V DC and 50 °C (122 °F) 14 @ 132V DC and 55 °C (131 °F) 16 @ 125V DC and 60 °C (140 °F)
Backplane current consumption	5V DC	0.085 A	
	24V DC	0.0 A	
Signal delay, max		On = 9 ms Off = 9 ms	
Off-state voltage, max		20.0V DC	
Off-state current, max		0.8 mA	
Input current, nom		2.15 mA @ 125V DC	
		2.25 mA @ 132V DC	

<sup>(1)</sup> Removable terminal block.

<sup>(2)</sup> Use ID Code 0507 when configuring your system with programming software or the HHT.

<sup>(3)</sup> If the input module is connected in parallel with an inductive load, use surge suppression across the load to protect the input module from damage caused by reverse voltage. Refer to the SLC 500 Modular Hardware Style User Manual, publication [1747-UM011](#), for more information on surge suppression.

## AC Output Modules

### Specifications – 1746-OA8, 1746-OA16, and 1746-OAP12

Attribute	Value		
	1746-OA8	1746-OA16 <sup>(5)</sup>	1746-OAP12 <sup>(5)(6)(7)</sup>
Voltage category	120/240V AC signal input		
Number of outputs	8	16	12
Points per common	4	8	6
Voltage, operating	85...265V AC @ 47...63 Hz		
Backplane current consumption	5V DC	0.185 A	0.370 A
	24V DC	0.370 A	
Signal delay, max resistive load <sup>(1)</sup>	On = 1 ms Off = 11.0 ms		
Off-state leakage, max <sup>(2)</sup>	2 mA		