



DC (12–24V) Input Module

Cat. No. 1771-IB

Installation Data

To The Installer

This document provides information on:

- important pre-installation considerations
- power supply requirements
- initial handling procedures
- installing the module
- using the indicators for troubleshooting
- module specifications

Pre-installation Considerations

The 1771-IB module is compatible with the following 2 and 3-wire devices:

- DC proximity switches
- photoelectric sensors
- pushbuttons
- limit switches
- float switches
- selector switches

The off-state leakage current of your 3-wire devices should not exceed 3mA.

This module contains input filtering to limit the effect of voltage transients caused by contact bounce and/or radiated electrical noise. The delay due to input filtering is nominally 12 ± 7 ms for turning inputs on, and 20 ± 7 ms for turning inputs off.

Power Requirements

Your module receives its power through the 1771 I/O chassis backplane from the chassis power supply. The module requires 74mA from the output of this supply. Add this to the requirements of all other modules in the I/O chassis to prevent overloading the chassis backplane and/or backplane power supply.

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Specifications

Inputs per Module	8	
Module Location	1771 I/O chassis	
Input Voltage Range	10 to 27V dc	
Nominal Input Current	8mA at 12V dc 24mA at 24V dc	
Maximum Off-state Current	3.0mA	
Maximum Off-state Voltage	7.0V dc	
Minimum On-state Voltage	10V dc	
Input Impedance	1 to 2K ohms maximum (on-state) 2 to 3K ohms maximum (off-state)	
Input Signal Delay	Low to high propagation delay 12ms \pm 7ms High to low propagation delay 20ms \pm 7ms	
Power Dissipation	5.7 Watts (max.), 0.4 Watts (min.)	
Thermal Dissipation	19.3 BTU/hr (max.), 1.4 BTU/hr (min.)	
Backplane Current	74mA @ 5V dc \pm 5%	
Opto-electrical Isolation	1500V ac rms	
Environmental Conditions		
Operational Temperature	0° to 60°C (32° to 140°F)	
Storage Temperature	-40° to 85°C (-40° to 185°F)	
Relative Humidity	5 to 95% (without condensation)	
Conductors	Wire Size	14 gage stranded maximum 3/64 inch insulation maximum
	Category	2 ¹
Keying		Between 4 and 6 Between 14 and 16
Field Wiring Arm		Catalog Number 1771-WA

¹ Refer to publication 1770-4.1, Programmable Controller Wiring and Grounding Guidelines.



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