Allen-Bradley 1756-IA16I

ControlLogix Isolated AC Input Module

Allen-Bradley 1756-IA16I brings 16 separate 120V AC field signals into a ControlLogix system. Each input is individually isolated, making this module suitable where input circuits must remain electrically separate. The complete 1756-IA16I catalog number distinguishes it from grouped-input alternatives.



Technical Specifications

Product Identity	
Manufacturer	Allen-Bradley
Catalog number	1756-IA16I
Chassis width	1 slot
Functional Configuration	
Input points	16, individually isolated
Nominal input voltage	120V AC, 50/60Hz
Operating input range	79–132V AC at 47–63Hz
Isolation	125V continuous, input-to-backplane and input-to-input
Removable terminal block	1756-TBCH or 1756-TBS6H; 36 positions
Performance & Power	
Off-to-on delay	10ms maximum hardware delay plus selectable 1ms or 2ms filter
On-to-off delay	8ms maximum hardware delay plus selectable 9ms or 18ms filter
Maximum off-state voltage	20V AC
Maximum off-state current	2.5mA
On-state current	5mA minimum at 79V AC; 15mA maximum at 132V AC
Backplane current	125mA at 5.1V DC; 3mA at 24V DC
Environment	
Operating temperature	0–60°C

Selected original manufacturer material follows on page 3.

Compatibility & Selection Guide

System compatibility. The 1756-IA16I is part of the ControlLogix AC input family. For replacement, match the individual-input isolation, AC signal range, filter configuration and terminal arrangement to the existing application. A 1756-IA16 grouped-input module has a different terminal block and grouping, so the similar catalog number does not establish interchangeability.

Wiring & Installation Reference

Signal and terminal selection

IN-0 to IN-15. AC input signal terminals · Match each field circuit to its designated input.

L2-0 to L2-15. Corresponding AC returns · Preserve individual return wiring for isolated circuits.

1756-JMPR. Optional L2 commoning · Use only for an intentional nonisolated wiring arrangement.

Installation checks

Prepare and isolate. Install the chassis and power supply, then establish a safe power and equipment state before inserting the module or wiring the RTB.

Match the RTB. Use the 36-position 1756-TBCH or 1756-TBS6H. Set mechanical keying to match the module and follow the individual-input diagram.

Secure and verify. Provide strain relief, assemble the housing, close the cover and fully seat and lock the RTB. Verify each field voltage and input filter in the project.

Installation precautions. Remove field power before RTB handling; remove power or confirm a nonhazardous area before module insertion, removal or disconnection. Follow electrostatic-discharge precautions and prevent unintended machine motion while I/O is disconnected.

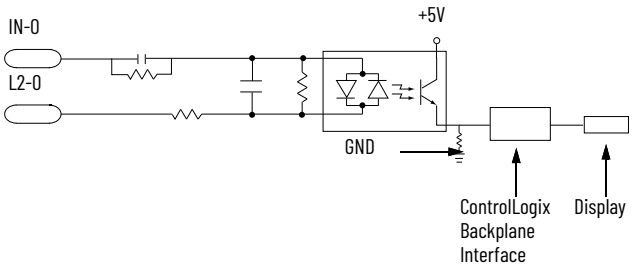
View terminal diagram (PDF) · PDF page 3 | View installation guide · PDF page 2

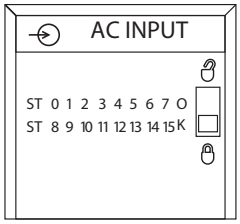
Manufacturer sources: ControlLogix System Selection Guide / ControlLogix I/O Modules Technical Data / ControlLogix AC Digital I/O Modules Installation Instructions.

1756-IA16I, 1756-IA16IK

ControlLogix 120V AC isolated input module

Simplified Schematic





Additional jumper bars are available as catalog number 1756-JMPR.

