



Installation Instructions

ControlLogix DC (10-30V) Sourcing Input Module

(Catalog Number 1756-IV16)

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Obtain a User Manual

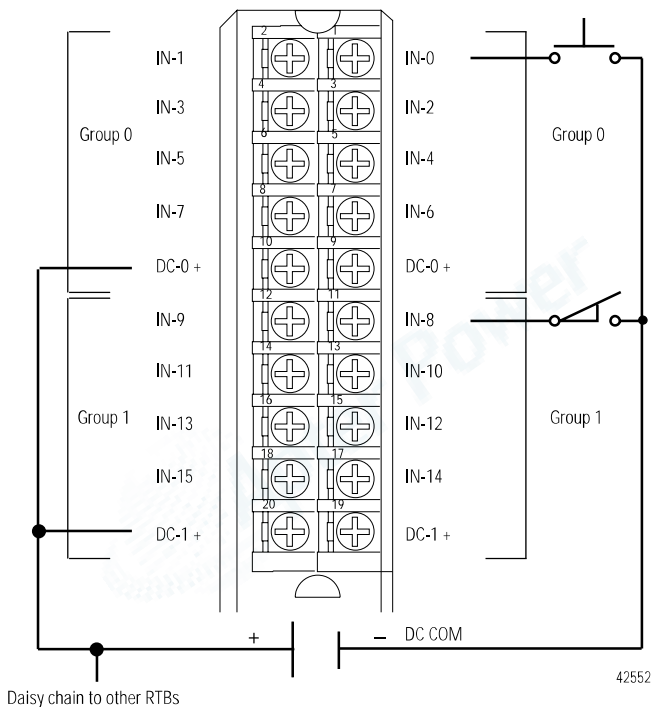
This product also has a user manual (pub. no. 1756-UM058C-EN-P). To view it, visit www.ab.com/manuals or www.theautomationbookstore.com You can also purchase a printed manual by:

- contacting your local distributor or Rockwell Automation representative

Wire the Module

You can only connect wiring to your module through an RTB or IFM. The example below shows how to wire the module.

1756-IV16



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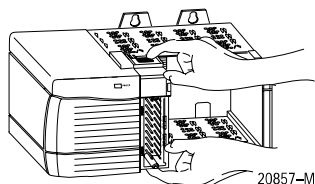
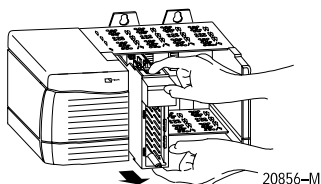
- NOTES:
1. All terminals with the same name are connected together on the module. For example, DC (+) can be connected to either terminal marked DC-1+. If you are daisy chain wiring from one of these terminals to other RTBs, **only** connect wiring to one terminal.
 2. When you daisy chain from a group to another RTB, **always** connect the daisy chain to the terminal directly connected to the supply wire, as shown above.
 3. This wiring example shows a single voltage source.
 4. If separate power sources are used, do not exceed the specified isolation voltage.

After completing field-side wiring, secure the wires in the strain relief area with a cable-tie.

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Remove the Module

1. Push in top and bottom locking tabs.
2. Pull module out of the chassis.



1756-IV16 Specifications

Number of Inputs	16 (8 points/common)
Module Location	1756 ControlLogix Chassis
Backplane Current	110mA @ 5.1V dc & 2mA @ 24V dc (Total backplane power 0.61W)
Maximum Power Dissipation (Module)	5.41W @ 60°C
Thermal Dissipation	18.47 BTU/hr
On-State Voltage Range	10-30V dc
Nominal Input Voltage	24V dc
On-State Current	2.0mA @ 10V dc minimum 10mA @ 30V dc maximum
Maximum Off-State Voltage	5V
Maximum Off-State Current	1.5mA
Maximum Input Impedance @ 30V dc	3.2k Ω
Input Delay Time	
OFF to ON	Programmable filter: 0ms, 1ms or 2ms
Hardware delay	1ms maximum plus filter time
ON to OFF	Programmable filter: 0ms, 1ms, 2ms, 9ms or 18ms
Hardware delay	2ms maximum plus filter time
Diagnostic Functions	
Change of State	Software configurable
Timestamp of Inputs	+/- 200 μ s
Maximum Inrush Current	250mA
Cyclic Update Time	User selectable (100 μ s minimum/750ms maximum)
Reverse Polarity Protection	Yes

Isolation Voltage Group to group	100% tested at 2546V dc for 1s (250V ac max. continuous voltage between groups)
User to system	100% tested at 2546V dc for 1s
RTB Screw Torque (NEMA clamp)	7-9 inch-pounds (0.8-1Nm)
Module Keying (Backplane)	Software configurable
RTB Keying	User defined mechanical keying
Field Wiring Arm	20 Position RTB (1756-TBNH or TBSH) ¹
Environmental Conditions	
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Relative Humidity	5 to 95% noncondensing
Conductors	
Wire Size	22-14 gauge (2mm ²) stranded ¹ 3/64 inch (1.2mm) insulation maximum
Category	1 ^{2, 3}
Screwdriver Blade Width for RTB	5/16 inch (8mm) maximum
Agency Certification (when product is marked)	 Listed Industrial Control Equipment  Certified Process Control Equipment Certified Class I, Division 2, Group A, B, C, D  Approved Class I, Division 2, Group A, B, C, D  Marked for all applicable directives  Marked for all applicable acts N223

¹ Maximum wire size will require extended housing - 1756-TBE.

² Use this conductor category information for planning conductor routing as described in the system level installation manual.

³ Refer to publication 1770-4.1 "Industrial Automation Wiring and Grounding Guidelines".

Additional Notes

The ControlLogix system must be mounted within a suitable enclosure to prevent personal injury resulting from accessibility to live parts. The interior of this enclosure must be accessible only by the use of a tool.

This industrial control equipment is intended to operate in a Pollution Degree 2 environment, in overvoltage category II applications, as defined in IEC publication 664A, at altitudes up to 2000 meters without derating.