SPECTRUM CONTROLS

1771sc Isolated-Circuit 220/240 Vac/dc Input Module

Catalog No. 1771sc-IMI16

Product Profile

- Installs and operates exactly like an Allen-Bradley product
- Features 1 common per input and 1500 V input-to-input isolation to eliminate concerns with crossing phases and improve overall system integrity
- Can be used in applications requiring from 159 to 264 Vac or 184 to 276 Vdc discrete input, sinking or sourcing. Just like a relay contact module, input types can be mixed
- Designed to work properly with proximity switches (exceeds IEC 1+ requirements)
- Allows direct monitoring of 220 or 240 V circuits, eliminating costly relays and transformers

The 1771sc-IMI16 features 16, individually isolated, high-voltage inputs. The module also features a broad operating range (159 to 264 Vac and 184 to 276 Vdc) for increased versatility. It is designed for use with a wide variety of input devices, such as limit switches, float switches, selector switches, and push-buttons, *and is designed especially for use with proximity switches*.

Simplifies Installation

The 1771sc-IMI16 incorporates proprietary Allen-Bradley technology so it operates and performs like an Allen-Bradley product for easy installation. The module allows you to use up to 16 input devices without worrying about whether they're powered by different supplies (something you cannot do with a non-channel-isolated module). You can also use the 1771sc-IMI16 to monitor the outputs on a Spectrum Controls 1771sc-OMI16 isolated-circuit AC output module without adding a snubber circuit.

Reduces System Costs

The 1771sc-IMI16 can save you hundreds of dollars on system installation costs. The module allows direct monitoring of 220 or 240 V circuits, eliminating the need for costly interposing relays and transformers. One 1771sc-IMI16 can also be used with devices of different voltages and phases (something you can only do with an isolated-circuit module) so you don't need to buy separate modules to use with each power source.

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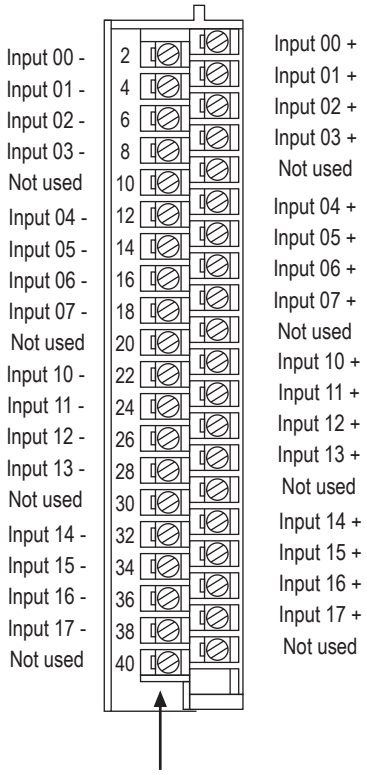
1771sc-IMI16 Specifications

1771sc-IMI16 Wiring



(Actual wiring runs in this direction.)
Always follow the applicable codes and laws in your area.

* Input numbers are shown in octal.

Number of Inputs	16
Points per Common	1
Module Location	1771 I/O chassis
Nominal Input Voltage	220/240 VAC @ 50/60 Hz 250 VDC
Nominal Input Current	11.44 mA @ 220 VAC, 50 Hz 14.08 mA @ 220 VAC, 60 Hz 2.16 mA @ 250 VDC
Input Signal Delay Off to On On to Off	 11 ± 6 ms for AC 3 ± 2 ms for DC 29 ± 8 ms for AC 30 ± 7 ms for DC
On-state Current (minimum)	6.30 mA @ 159 VAC, 50 Hz 8.00 mA @ 159 VAC, 60 Hz 1.30 mA @ 184 VDC
On-state Voltage (range)	159 to 264 VAC 184 to 276 VDC
Off-state Current (maximum)	2.8 mA @ 70 VAC 0.35 mA @ 50 VDC
Off-state Voltage (maximum)	70 VAC 50 VDC
Input Impedance	250 Ω in series with a parallel combination of 0.15 µF and 112.4 kΩ
Power Dissipation	11.5 W maximum 0.10 W minimum
Thermal Dissipation	39.2 BTU/hr maximum 0.34 BTU/hr minimum
Backplane Current	100 mA maximum
Isolation Voltage	1500 VAC input-to-input 1500 VAC field wiring-to-backplane
Environmental Conditions Operational Temperature Storage Temperature Relative Humidity	 0° to 60°C (32° to 140°F) -40° to +85°C (-40° to 185°F) 5 to 95% (non-condensing)
Certifications	CE
Conductors Wire Size Category	14 gage stranded maximum 3/64 inch insulation maximum 1
Field Wiring Arm	A-B Catalog No. 1771-WN (included)

Maximum with all 16 inputs turned on (100% duty cycle); Minimum with no inputs turned on.

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

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