

## 1769sc-IT6I

# 6-Channel Isolated Thermocouple Input Module

for Allen-Bradley CompactLogix™ and MicroLogix™ 1500 PLCs



- Six channels of thermocouple or millivolt input.
- Automatic cold junction compensation.
- Features 125 Vac channel-to-backplane isolation; 125 Vac channel-to-chassis ground isolation; 125v Vac channel-to-channel isolation.
- Easily configured using RSLogix programming software.
- Channel selectable filtering for maximum speed with minimum noise.
- Low power consumption.

### Improve System Performance

The 1769sc-IT6I can improve system performance by offering high channel-to-channel isolation which reduces the possibility of channel cross talk in electrically noisy environments. The 1769sc-IT6I supports most thermocouple input types and can also measure millivolt inputs from peripheral sensors. Installation is simplified and costs are reduced by eliminating the need for external signal conditioners.

### State-of-the-Art Features

The broad variety of input types and configuration options provide unsurpassed flexibility and simplify integration. Features such as input type, open circuit detection, high and low range alarms are individually programmable for each channel. Accuracy is comparable to non-isolated thermocouple input modules. The module incorporates proprietary Allen-Bradley ASIC technology insuring operation and performance mirror existing Allen-Bradley products. Configuration is accomplished using existing programming software.

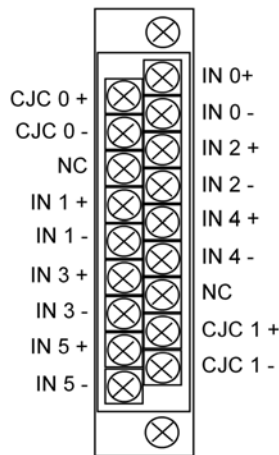
The Spectrum Controls 1769sc-IT6I compatible with Allen-Bradley MicroLogix 1500 and CompactLogix controllers. It offers the functionality of standard thermocouple input modules without compromising performance or price.

# 1769sc-IT6I

## 6-Channel Isolated Termocouple Input Module

for Allen-Bradley CompactLogix™ and MicroLogix 1500 PLCs

1769sc-IT6I Terminal Block



Inputs per Module	6 (six) Thermocouple, Millivolt
Module Location	CompactLogix 1769 , MicroLogix 1500
Input Types Thermocouple Voltage	J, K, T, E, R, B, S, N, C, L ±50mV, ±100mV, ±500mV,
Advanced Features	6 filter frequencies (individually selectable by channel); fully auto-calibration; on-board error checking; open circuit detection for most input types
Update Times With four channels enabled	0.244 sec @ 4.17 Hz 0.104 sec @ 10 Hz 0.064 sec @ 16.7 Hz 0.055 sec @ 19.6 Hz 0.020 sec @ 62 Hz 0.006 sec @ 470 Hz
Communication Formats	16-bit two's complement Engineering units, Engineering units x10 Scaled for PID, Proportional Count, Percen Range
Electrical Isolation (continuous)	125 Vac channel-to-channel 125 Vac field-wiring-to-backplane 125 Vac field-wiring-to-chassis-ground
Input Impedance	>1 Mohm Thermocouple, Voltage
Input Overvoltage Protection	+/-35 Vdc continuous
Maximum Cable Impedance	25 ohms for specifed accuracy
Common Mode Rejection	100 dB @ 50/60 Hz
Normal Mode Rejection	65 dB @ 50/60 Hz
Backplane Current Required	35 mA @ 24 V max 150 mA @ 5 V max
Thermal Dissipation	3.00 Watts, maximum
Environmental Conditions Operational Temperature Storage Temperature Relative Humidity	0° to 60°C (32° to 140°F) -45° to 85°C (-49° to 185°F) 5 to 95% (non-condensing)
Certifications	UL/cUL (Class I, Div 2, Groups ABCD) and CE
Recommended Cable	For TC inputs: Shielded, twisted-pair TC extension wire For mV Inputs: Belden 8761 or equivalent



Corporate Headquarters  
Spectrum Controls, Inc.  
P.O. Box 5533 • Bellevue, WA 98006 USA  
Tel 425-746-9481 • Fax 425-641-9473  
Email [spectrum@spectrumcontrols.com](mailto:spectrum@spectrumcontrols.com)  
[www.spectrumcontrols.com](http://www.spectrumcontrols.com)

