

CompactLogix™

1769sc-IT6I/1769sc-IT6IK

6-Channel Isolated Thermocouple Input Module



The 1769sc-IT6I/1769sc-IT6IK Input Modules provide full channel-to-channel isolated Thermocouple or millivolt input capability for noisy environments, in one I/O module. The 1769sc-IT6IK Input Module is conformally coated. The 1769sc-IT6I module can replace Thermocouple or Millivolt modules without compromising performance or price.

- Six channels of thermocouple or millivolt input.
- Twelve input ranges.
- Measures millivolt inputs from peripheral sensors.
- Individually programmable for each channel.
- Easy to configure using Studio 5000 programming software.
- Automatic cold junction compensation included for thermocouples.
- Accuracy comparable with dedicated, non-isolated analog modules.

1769sc-IT6I(K)

Specifications



Channels Per Module	6 Thermocouple, millivolt
Input Ranges Thermocouple Voltage	J, K, T, E, R, B, S, N, C, L ± 50 mV, ± 100 mV
Resolution	16 bits
Advanced Features	
Filtering	6 filter frequencies (individually selectable by channel)
Input Overvoltage Protection	± 35 VDC continuous
Update Times (sec) * 4-Channel Sample Time (sec)	0.246 sec at 4.17 Hz to 0.008 sec at 470 Hz
Data Formats	Eng. units, Eng. units X10, Scaled for PID, Prop. Counts, Percent of Full Scale
Electrical Isolation (continuous)	125 VAC field-wiring-to-backplane 125 VAC field-wiring-to-chassis-ground. 125 VAC channel-to-channel isolation
Input Impedance	>1 Mohm: thermocouple; voltage
Input Cable Impedance	25 ohms maximum for specified accuracy
Common Mode Rejection	100 dB at 50/60 Hz
Normal Mode Rejection	65 dB at 50/60 Hz
Backplane Current Required	150 mA at 5 V maximum, 35 mA at 24 V maximum
Thermal Dissipation	3.00 Watts, maximum
Environmental Conditions Operational Temperature Storage Temperature Relative Humidity	0 °C - 60 °C (32 °F - 140 °F) -40 °C - 85 °C (-40 °F - 185 °F) 5% - 95% (non-condensing)
Conformal Coating	ANSI/ISA 71.04.2013 G3 Environment Standard
Certifications	UL/cUL Listed ANSI ISA 12.12.01 (Class I, Div 2, Groups ABCD), CE, CMIM, UKCA