

CompactLogix™

1769sc-IT6I

6-Channel Isolated Thermocouple Input Module



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

Reduce System Costs

- Six channels of thermocouple or millivolt input.
- Twelve input types.
- Measures millivolt inputs from peripheral sensors.
- Individually programmable input type, open circuit detection, and high and low alarms for each channel.
- Easy to configure using RSLogix programming software.
- Channel-selectable filtering for fastest analog update time and noise rejection.
- Automatic cold junction compensation included for thermocouples.
- Accuracy comparable with dedicated, non-isolated analog modules.

1769sc-IT6I Specifications

Input Types	6 TC, Millivolt					
Input Ranges						
Thermocouple	J, K, T, E, R, B, S, N, C, L					
Voltage	±50 mV, ±100 mV					
Resolution	16 bits					
Advanced Features	6 filter frequencies (individually selectable by channel)					
Update Times (sec) *	4.17Hz	10 Hz	16.7 Hz	19.6 Hz	62 Hz	470 Hz
4-Channel Sample Time (sec)	0.244	0.104	0.064	0.055	0.020	0.006
* with TC, update times may be longer						
Electrical Isolation (continuous)	125 VAC channel-to-channel isolation 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 mA continuous					
Backplane Current Required	150 mA at 5 V maximum, 35 mA at 24 V maximum					
Common Mode Rejection	100 dB at 50/60 Hz					
Normal Mode Rejection	65 dB at 50/60 Hz					
Environmental Conditions						
Operational Temperature	-0 °C - 60 °C (32 °F - 140 °F)					
Storage Temperature	-40 °C - 85 °C (-40 °F - 185 °F)					
Relative Humidity	5% - 95% (non-condensing)					
Thermal Dissipation	3.00 Watts, maximum					
Certifications	UL/cUL Listed ANSI ISA 12.12.01 (Class I, Div 2, Groups ABCD), CE					
Recommended Cable	For TC inputs: shielded, twisted-pair TC extension wire; For mV inputs: Belden 8761 or equivalent					