

CompactLogix™

1769sc-IR6I/ 1769sc-IR6IK

6-Channel Isolated RTD Input Module



The 1769sc-IR6I/1769sc-IR6IK Input Modules provide full channel-to-channel isolated RTD/Resistance input capability for noisy environments, in one I/O module. The 1769sc-IR6IK Input Module is conformally coated. The 1769sc-IR6I module can replace Resistance/RTD modules without compromising performance or price.

- Six channels of RTD/resistance (2-, 3-, and 4-wire).
- Twelve input ranges.
- Supports most RTD input types.
- Measures resistance inputs from peripheral sensors.
- Individually programmable for each channel.
- Easy to configure using Studio 5000 programming software.
- Channel-selectable filtering for fastest analog update time and noise rejection.
- Accuracy comparable with dedicated analog modules.

1769sc-IR6I(K) Specifications



Channels Per Module	6 RTD/Resistance
Input Ranges RTD Resistance	100 ohm/200 ohm/500 ohm/1000 ohm: PT385/3916, 100 ohm: Ni618, 120 ohm Ni672, 604 ohms: NiFe518, 10 ohms: Cu426 0-150, 0-500, 0-1000, 0-3000 ohms
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)	0.244 ms at 4.17 Hz to 0.006 ms at 470 Hz
Data Formats	Raw/Proportional data, Engineering Units X 1, Engineering Units X, Scaled for PID, Percent Range
Electrical Isolation (continuous)	125 VAC field-wiring-to-backplane 125 VAC field-wiring-to-chassis-ground. 125 VAC channel-to-channel isolation
Input Impedance	>500 Kohm RTD <250 ohm, current
Input Cable Impedance	25 ohms maximum for specified accuracy. 10 ohms maximum for Copper RTD
Common Mode Rejection	110 dB at 50/60 Hz
Normal Mode Rejection	65 dB at 50/60 Hz
Backplane Current Required	190 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) -45 °C - 85 °C (-49 °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