

FLEX IO™

1794sc-IRT8I

8-Channel Isolated Thermocouple RTD Input Module



The 1794sc-IRT8I Input Module provides full isolated, Thermocouple, RTD/Resistance input capability for noisy environments, in one I/O module. The 1794sc-IRT8I module can replace Thermocouple, Resistance/RTD modules without compromising performance or price:

- Eight channels of thermocouple, RTD/resistance.
- 22 input types.
- Use any combination of input types at one time.
- Supports multiple thermocouple and RTD input types.
- Individually programmable input type, open circuit detection, and high and low range alarms for each channel.
- Easy to configure using ladder register settings or RSLogix programming software.
- Channel-selectable filtering for fastest analog update time and noise rejection.
- Cold junction compensation included for thermocouples.
- Accuracy comparable with dedicated analog modules.

1794sc-IRT8I Specifications



Input Types	8 TC, RTD/Res												
Input Ranges: Thermocouple RTD Resistance	J, K, T, E, R, B, S, N, C T385/3916, Ni618/672, NiFe518, Cu426 0-150, 0-1000, 0-3000 ohms												
Resolution	16 bits												
Advanced features	6 filter frequencies (individually selectable by channel)												
Update Times (sec) * 8-Channel Sample Time (sec) *with TC, update times may be longer	<table border="1"> <tr> <td>4.17Hz</td> <td>10 Hz</td> <td>16.7 Hz</td> <td>19.6 Hz</td> <td>62 Hz</td> <td>470 Hz</td> </tr> <tr> <td>0.30</td> <td>0.63</td> <td>0.53</td> <td>0.15</td> <td>0.09</td> <td>0.07</td> </tr> </table>	4.17Hz	10 Hz	16.7 Hz	19.6 Hz	62 Hz	470 Hz	0.30	0.63	0.53	0.15	0.09	0.07
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Electrical Isolation (continuous)	120 VAC channel-to-channel isolation 120 VAC field-wiring-to-backplane 120 VAC field-wiring-to-chassis-ground												
Input Impedance	Greater than 1 Mohm thermocouple, voltage, RTD Less than 250 ohm, current												
Input Overvoltage Protection	+24 VDC continuous												
Input Overcurrent Protection	31 mA continuous												
Backplane Current Required	240 mA at 24 V maximum (19.1 VDC to 31.2 VDC); 80 mA at 5 VB												
Common Mode Rejection	60 dB at 50/60 Hz												
Normal Mode Rejection	65 dB at 50/60 Hz (20 Hz filter); 70 dB at 50/60 Hz (4.17 Hz filter)												
Environmental Conditions Operational Temperature Storage Temperature Relative Humidity	0 °C -+55 °C (32 °F - +131 °F) -40 °C - +85 °C (-40 °F - +185 °F) 5% - 95% (non-condensing)												
Thermal Dissipation	5.18 Watts												
Certifications	UL/cUL Listed ANSI ISA 12.12.01 (Class I, Div 2, Groups ABCD), CE, ATEX, CCC, CMIM, UKCA, IECEx												
Terminal Base	1794-TB3G												