

## 1794sc-IRT8I 8-Channel Isolated Thermocouple / RTD Input Module

for Allen-Bradley FlexI/O™



- Eight channels of thermocouple, RTD/resistance input provide a flexible solution for applications requiring mixed temperature input.
- Any combination of input types may be used at one time.
- Features 120 Vac channel-to-backplane isolation; 120 Vac channel-to-chassis ground isolation; 120 Vac channel-to-channel isolation.
- Easily configured by ladder register settings.
- Channel selectable filtering for maximum speed with minimum noise.
- Fully auto-calibrating for best possible accuracy.
- Cold junction compensation included for thermocouples.
- Low power consumption.

### Reduce System Costs

The 1794sc-IRT8I can reduce system costs by replacing dedicated thermocouple and RTD I/O modules with one module. The 1794sc-IRT8I module can replace thermocouple and RTD modules without compromising performance. Mix and match input types to reduce your analog I/O module count. Installation is simplified and costs are reduced by using a common I/O within your system.

### State-of-the-Art Features

There are 22 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 dedicated analog input modules. The module incorporates proprietary Allen-Bradley ASIC technology insuring operation and performance mirror existing Allen-Bradley products. Configuration is accomplished using existing RSLogix programming software.

The Spectrum Controls 1794sc-IRT8I is compatible with Allen-Bradley FlexI/O remote I/O systems. It offers the functionality of dedicated analog input modules without compromising performance or price.

# 1794sc-IRT8I

## 8-Channel Thermocouple / RTD Input Module

for Allen-Bradley FlexI/O™

Inputs per Module	8 (eight) TC; RTD, Resistance
Module Location	FlexI/O
Input Types Thermocouple RTD Resistance	J, K, T, B, E, R, S, N, C PT385/3916, Ni618/672, NiFe518, Cu 426 0-150, 0-1000, 0-3000 ohm
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 eight channels enabled * = TC update times may be longer	0.30 sec @ 4.1 Hz 0.63 sec @ 10 Hz 0.53 sec @ 16.7 Hz 0.15 sec @ 19.6 Hz 0.09 sec @ 62 Hz 0.07 sec @ 470 Hz
Communication Formats	Percent of Full Scale Engineering units, Engineering units x10 Scaled for PID, Proportional Count
Electrical Isolation (continuous)	120 Vac channel-to-channel 120 Vac field-wiring-to-backplane 120 Vac field-wiring-to-chassis-ground
Input Impedance	>10 Mohm Thermocouple, Voltage, RTD <250 ohm, Current
Input Overvoltage Protection	+24 Vdc continuous
Input Overcurrent Protection	24mA continuous
Common Mode Rejection	45 dB @ 50/60 Hz
Normal Mode Rejection	65 dB @ 50/60 Hz
Backplane Current Required	240 mA @ 24Vdc max (19.1Vdc to 31.2Vdc)
Thermal Dissipation	7.25 Watts, maximum
Environmental Conditions Operational Temperature Storage Temperature Relative Humidity	0° to 55°C (32° to 131°F) -45° to 85°C (-49° to 185°F) 5 to 95% (non-condensing)
Certifications	UL/cUL (Class I, Div 2, Groups ABCD), ATEX and CE
Terminal Base	1794-TB3G



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