



2559-RTD

8-Channel RTD Input Module



Description

The 2559-RTD is a high-speed 8-channel RTD input module designed to be compatible with the SIMATIC® 505 I/O base. The Model 2559-RTD translates RTD input signals into scaled temperature values.

Features

- SIMATIC® 505 base format
- 1500V channel-to-PLC backplane isolation
- Fast 2 mSec update time per channel
- Detects open in RTD or field wiring
- Compensates for lead wire resistance
- Supports 0 - 100 millivolt inputs on any channel

Specifications

Input Channels:

8 independently configurable RTD input channels

RTD Types:

100Ω platinum: (TCR = 0.003850, Ω/Ω/°C)
(European DIN43760)

Temperature Range:

-198°C to 849.8°C (-327.6°F to 1561.6°F)

120Ω nickel: (TCR = 0.00672, Ω/Ω/°C)

Temperature Range: -79.8°C to 260.0°C
(-111.6°F to 500.0°F)

(Other RTD types by special request) 10Ω Cu

Absolute Temp Accuracy: ±0.4°C (±0.8°F)

Millivolt Range: 0 to 103.04 Millivolts

Millivolt Input Impedance: >10KΩ @ 60Hz
>1000MΩ @ DC

Absolute Millivolt Accuracy: ±0.5% full scale or
±500μV

Lead Compensation: 20Ω per lead wire

Bias Current to RTD Probe: 250 microamps
(nominal)

Digital Filtering Time Constant: 0.3 Sec

Output Units: Degrees C or F, (jumper selectable
for all outputs)

Repeatability: .05% full scale

Resolution: .025% full scale

Update Time: 2 mSec per channel

Common Mode Rejection: >110db @ 60Hz
(digital filtering disabled)

Normal Mode Rejection: >145db @ 60Hz
(digital filtering enabled)

Input Protection:

Input ESD Protectin: 20,000V

Overrange Protection: 20 VDC input to common

Isolation: 1500 VDC channel-to-PLC

Standard Shipping Configuration:

3 wire 100Ω platinum

Digital filtering enabled

Degrees Centigrade

Connector: Fixed 32 position terminal strip,
labeled 1-32 from top to bottom

Wire Gauge: 18-24 AWG

Backplane Power: 2.75W @ 5 VDC

Module Size: Single-wide

Operating Temperature: 0° to 60°C (32° to 140°F)

Storage Temperature: -40° to 85°C (-40° to 185°F)

Relative Humidity: 5% to 95% (non-condensing)

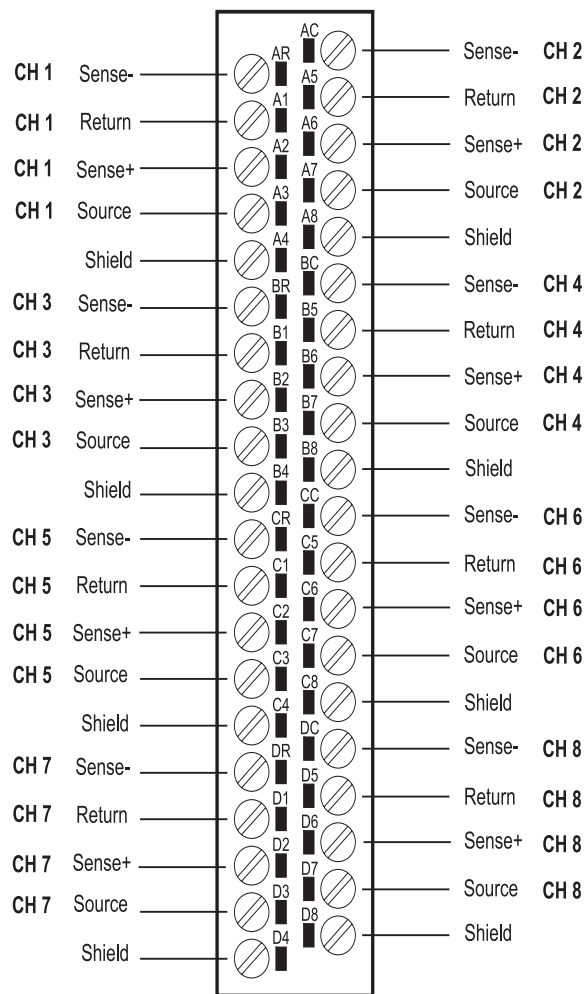
Agency Approvals Pending: UL, ULC, CE
FM (Class 1, Div.2)

Shipping Weight: 1.5 lb. (0.68 Kg)

Control Technology Inc.

5734 Middlebrook Pike, Knoxville, TN 37921 Phone: 865/584-0440 Fax: 865/584-5720

www.controltechnology.com



2559-RTD Connector