

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

- CTI 2500 Series™ or Simatic® 505 base format
- 1500V channel-PLC backplane isolation
- Fast 25ms update time for all channels
- Detects open in RTD or field wiring
- Compensates for lead resistance

Specifications

Input Channels:
8 RTD input channels

Supported RTD Types:
Platinum 0.003850 (European DIN)
Platinum 0.003916 (American)
Platinum 0.003902
Platinum 0.003920
Copper 0.004274
Nickel 0.006720
Nickel 0.006178 (European DIN)

Supported Ohm Values @ 0°C:
100Ω, 120Ω, 130Ω, 200Ω, 500Ω, 1000Ω, 10Ω, 9.03Ω

Supported Probe Types: 2,3, 4 wire
RTD Excitation Current: 250μA
Lead Compensation: 1000Ω per lead wire (max)

Input Overrange Protection:

30VDC or VAC continuous

Measurement Ranges:

10Ω Cu: -100°C to 260°C (-148°F to 500°F)
100Ω Pt: -200°C to 850°C (-328°F to 1562°F)
120Ω Pt: -80°C to 260°C (-112°F to 500°F)

Output Units: °C, °F, ohms (selectable)

Repeatability: ±0.1°C, ±0.2°F

Resolution: 0.1°

Accuracy:

100Ω Pt 0.9°C (1.6°F) from 0-60°C
Ωx100 0.36Ω from 0-60°C

Update Time: 25 mSec (all channels, no filtering)

Common Mode Rejection:

>130db @ 60Hz

Normal Mode Rejection:

>80db @ 60Hz

Isolation: 1500 VDC channel-to-PLC

Standard Shipping Configuration:

3 wire 100Ω platinum
Digital filtering enabled
Degrees C

Connector: standard CTI 2500-40F 40-position removeable connector, 14-22 AWG

Backplane Power: 2.8W @ 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)



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