2557-A 16-Channel Isolated RTD Input Module

DESCRIPTION

The 2557-A is a high-speed 16-channel RTD input module designed to be compatible with the 2500 Series I/O base. The 2557-A translates millivolt level signals from the RTD element into a scaled temperature value. Multiple RTD types are supported as well as millivolt inputs. Scaling, alarm detection, filtering, peak and valley hold, and averaging are supported on a channel by channel basis. All parameters may be loaded into the module directly with relay ladder logic. The standard Classic Mode logs in as a 16 WX input module. The advanced Classic Plus Mode logs in as 16X, 16Y, 32WX, and 32WY registers in the PLC.

FEATURES

- CTI 2500 Series® and Simatic® 505 I/O base format
- 505 Series I/O base format
- 1500 V isolation channel-to-PLC backplane
- 1500 V isolation channel-to-channel
- 16 bit ADC for each channel
- Supports 10Ω Cu, 100Ω Pt, and 120Ω Ni RTDs and millivolt inputs
- Fast 20 mSec update time
- Support for 2, 3, or 4 wire RTD elements
- 8 Removable Connectors

SPECIFICATIONS

Input Channels: 16 RTD or Millivolt inputs

Module Login:
- Classic Mode: 16 WX
- Classic Plus: 16X, 16Y, 32WX, and 32WY

RTD Types:
- 10Ω Cu (TCR= 0.00427 Ω/Ω/°C)
- 100Ω Pt (TCR= 0.003850 Ω/Ω/°C)
- European DIN 43760
- 120Ω Ni (TCR= 0.00672 Ω/Ω/°C)
- 2, 3, and 4 wire modes

RTD Excitation Current: 250 micro amp

Millivolt Input Range: 0 to 100 mV

Millivolt Input Impedance:
- >1000MΩ @ DC
- >10KΩ @ 16 Hz

Absolute Millivolt Accuracy:
- ±1.0% full scale or ±1.0 mV

Lead Compensation: 20 Ω per lead wire

Input Overrange Protection:
- 30 VDC 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 Ni -80°C to 260°C (-112°F to 500°F)

ADC Resolution: 16 Bits

Connector: 8 Removable plug-in connectors
(Included with the module)

Wire Gauge: 18 to 30 AWG

Module Size: Single wide

Backplane Power Consumption: 4.75 Watts

Shipping Weight: 1.5lbs. (0.68kg)

Additional Product Information:

Environmental Specifications and UL Agency Certificates of Compliance are available on our website.
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FRONT PANEL WIRING CONNECTORS

Removable Block 1 for Channels 1 & 2
Removable Block 2 for Channels 3 & 4
Removable Block 3 for Channels 5 & 6
Removable Block 4 for Channels 7 & 8
Removable Block 5 for Channels 9 & 10
Removable Block 6 for Channels 11 & 12
Removable Block 7 for Channels 13 & 14
Removable Block 8 for Channels 15 & 16

The same inputs are repeated on each of the 8 wiring blocks.

Millivolt Input

2557 Millivolt Wiring Application

2 WIRE

3 WIRE

4 WIRE

2557 RTD Wiring Applications

ROCK SOLID PERFORMANCE. TIMELESS COMPATIBILITY.