

# 2552-A 8-Channel Isolated RTD Input Module



## Description

The 2552-A is a high-speed 8-channel isolated RTD input module designed to be compatible with the CTI 2500 Series™ or Simatic® 505 I/O base in local, remote I/O, and Profibus configurations. The 2552-A translates RTD input signals into a scaled temperature value.

## Features

- CTI 2500 Series™ or Simatic® 505 base format
- 1500V channel-to-channel isolation
- 1500V channel-to-PLC backplane isolation
- Fast 2msec 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 RTD input channel, independently isolated and configurable

**RTD Types:**

**100Ω platinum:**

TCR = 0.003850, Ω/Ω/°C

European DIN 43760

-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: 0Ω Cu

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

**Millivolt Range:** 0 to 103.04 Millivolts

**Millivolt Input Impedance:** >10KΩ @ 60Hz

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

**Lead Compensation:** 20Ω per lead wire

**Bias Current to RTD Probe:** 250 microamps

**Digital Filtering Time Constant:** 0.3 Sec

**Output Units:** Degrees C or F

**Repeatability:** 0.05% full scale

**Resolution:** 0.025% full scale

**Update Time:** 2msec per channel

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

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

**Input ESD Protection:** 20,000V

**Overrange Protection:** 20 VDC input to common

**Isolation:** 1500V channel-to-channel  
1500 VDC channel-to-PLC

**Connector:** Fixed 32 position terminal strip

**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:** UL, ULC, CE, FM (Class 1, Div.2)

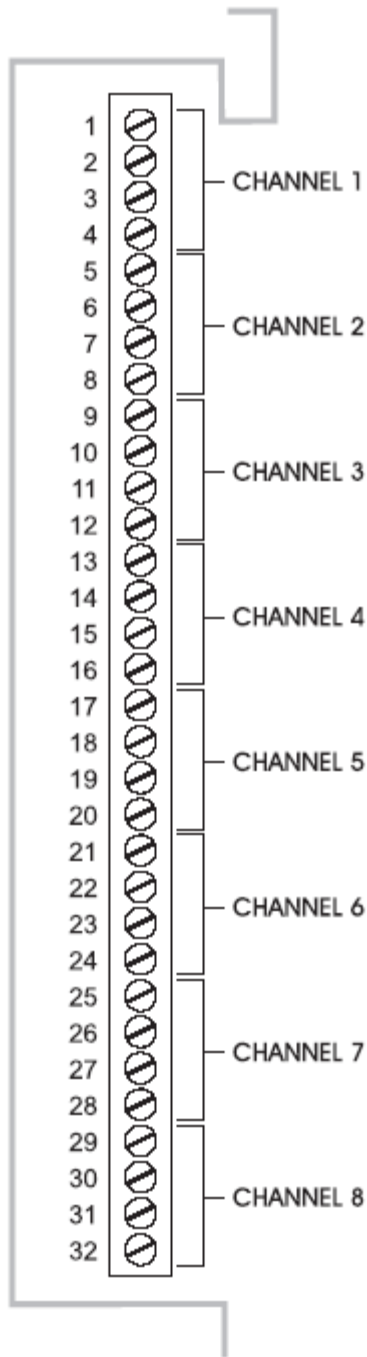
**Shipping Weight:** 1.5 lb. (0.68 Kg)



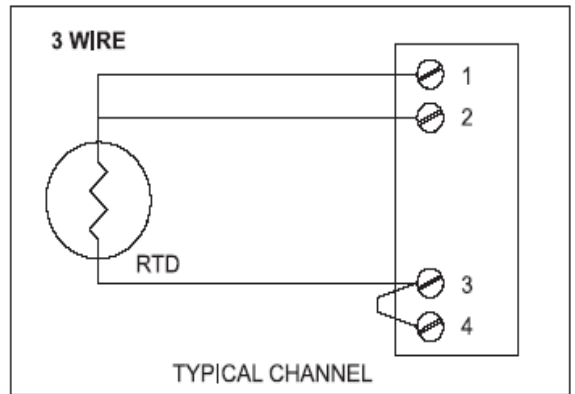
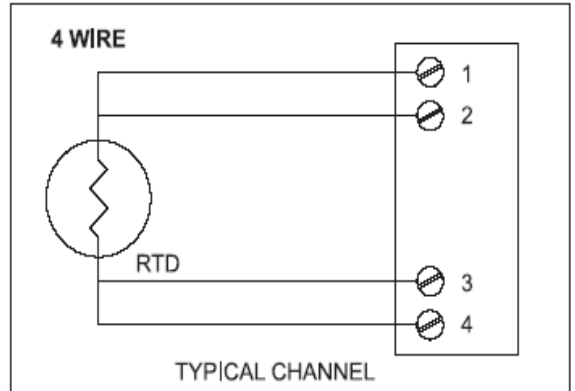
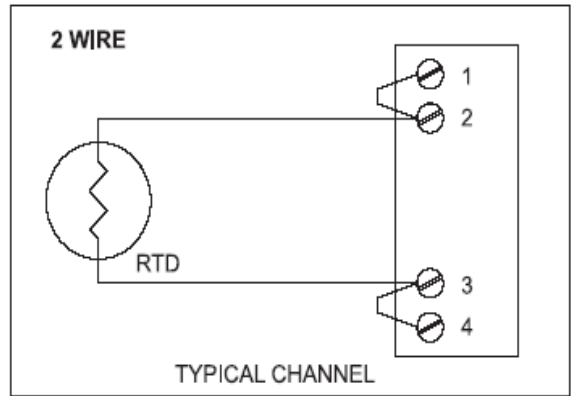
**Control Technology Inc.**

5734 Middlebrook Pike, Knoxville, TN 37921-5962

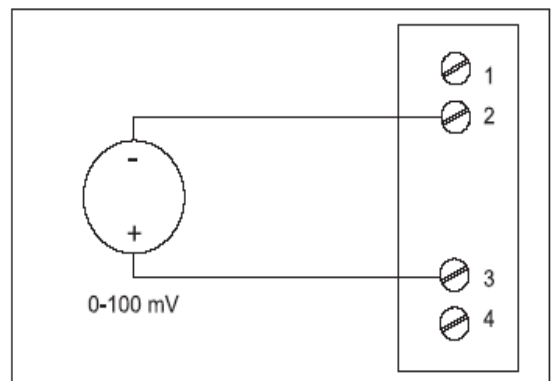
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**2552-A Input Connector**



**2552-A RTD Wiring Applications**



**2552-A Millivolt Wiring Application**