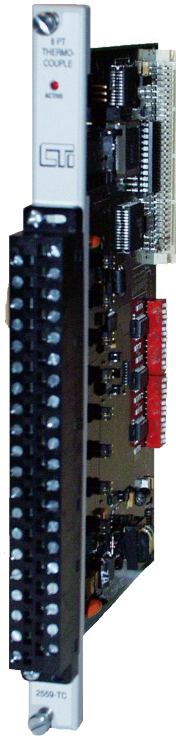


# 2559-TC

## 8 Channel Thermocouple Input Module

Classic



### Description

The 2559-TC is a high-speed 8-point thermocouple input module designed to translate millivolt level signals from the thermocouple element into a scaled temperature value in a CTI 2500 Series or Simatic® 505 I/O base.

### Features

- CTI 2500 Series or Simatic® 505 base format
- Replaces Siemens® 505-7028 with no rewiring
- 1500V channel-to-PLC backplane isolation
- Fast 9 mSec update time all channels
- Microprocessor self-diagnostics
- Supports J, K, T, E, R, S, & N thermocouples and millivolt inputs
- No CJC calibration needed

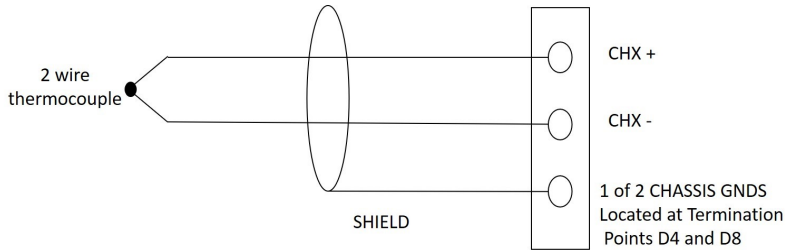
Note: This module requires a special custom Wiring Connector. Model #2559-FPC.

Input Specifications	
Module Logon	8WX
Module Update Time all modes	9mS
Digital Filtering Time Constant	80mS
Thermocouple Measurement Ranges	J: -210°C to 760°C (-350°F to 1400°F) K: -270°C to 1372°C (-450°F to 2500°F) T: -270°C to 400°C (-454°F to 752°F) E: -270°C to 1000°C (-454°F to 1832°F) R: 0°C to 1768°C (32°F to 3214°F) S: 0°C to 1768°C (32°F to 3214°F) N: -260°C to 1300°C (-436°F to 2372°F) mV: -55 to +55mV
Accuracy : Thermocouple Types and mV	J : +/-1°C from 0°C to 60°C K: +/-1°C from 0°C to 60°C T: +/-1°C from 0°C to 60°C E: +/-1°C from 0°C to 60°C R: +/-2°C from 0°C to 60°C* S: +/-2°C from 0°C to 60°C* N: +/-1°C from 0°C to 60°C mV: +/-0.5% full scale or +/- 500µV * reduced accuracy for measurements below 500°C
Open Thermocouple Detection	Less than 1 second
mV input impedance	4.4MΩ DC, >10kΩ @ 60Hz
Repeatability	±1°C, ±2°F for all Thermocouple Types
Measurement Units	Degrees C or Degrees F selectable
Resolution	16 bits (15 bits plus sign)
Data Presentation w/scaling enabled	0-32000(temp) -32000 to +32000(mV)
Data Presentation w/scaling disabled	°C or °F x 10 (temp) -10000 to +10000 (mV)
Common Mode Rejection	>110db @ 60Hz
Normal Mode Rejection	>60db @ 60Hz, >50db @ 50 Hz
Backplane Power (MAX)	1.0 watts
Input ESD Protection	IEC 1000-4-2 Level 4
Isolation	Channel to Backplane 1500VDC
Operating Temperature Range	0°C to 60°C (32°F to 140°F)
Agency Approvals Pending	UL, ULC, UL Class 1, Div 2, CE
Shipping Dimensions and Weight	16"(40.64cm)x11"(27.94cm)x2"(5.08cm), 2.0l b (0.91 kg)
Storage Temperature Range	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	5% to 95% (non-condensing)
Wiring Connector (Sold Separately)	2559-FPC Special CJC Connector Requred
Wire Size	14-22AWG

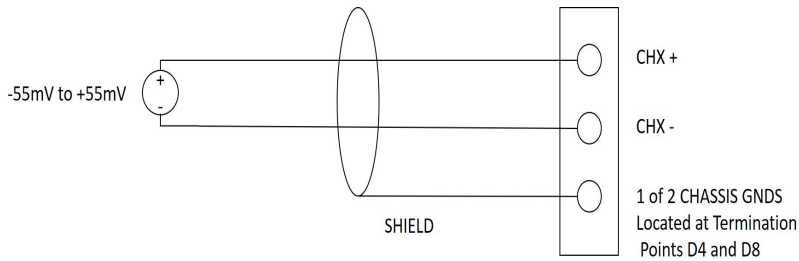


# 2500-TC

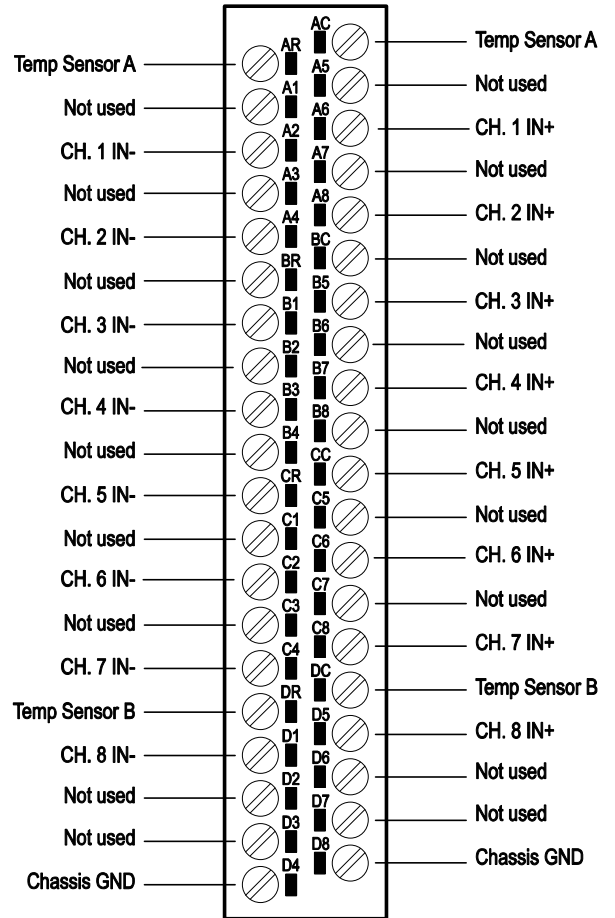
## 8 Channel Thermocouple Input Module



Thermocouple Input Wiring Diagram



Millivolt Input Wiring Diagram



Note: The connector is sold separately. The 2559-FPC is the only connector that will work with the 2559-TC Module.