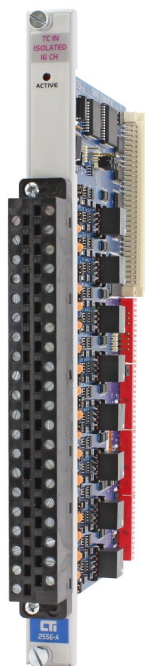


2556-A 16-Channel Isolated Thermocouple Input Module

Classic



DESCRIPTION

The 2556-A is a high-speed 16-channel thermocouple input module designed to be compatible with the CTI 2500 Series® and Simatic® 505 I/O base. The 2556-A translates millivolt level signals from the thermocouple element into a scaled temperature value. Multiple thermocouple 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.

FEATURES

- CTI 2500 Series® and Simatic® 505 I/O base format
- 1500V isolation channel-to-PLC backplane
- 1500V isolation channel-to-channel
- Supports J, K, R, S, T, E, and L thermocouples and millivolt inputs
- Advanced preprocessing with on-board scaling, alarm detection, filtering and averaging jumper selectable function uses 16X/16Y/32WX/32WY login
- Fast 20 mSec update time

Important Note: This module requires a special connector the 2559-FPC. Connector wiring labels are included with the module.

SPECIFICATIONS

Input Channels:

16 isolated thermocouple or millivolt inputs

Thermocouple Types: J, K, R, S, T, E, and L (DIN J).

Each channel individually selectable.

Millivolt Input Range: -55 to +55 mV

Note: Engineering Units must be selected

Millivolt Input Impedance:

>100MΩ@ DC, >10KΩ@ 60 Hz

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

Input Overrange Protection: 30 VAC/VDC

Measurement Ranges:

J -210°C to +760°C (-350°F to 1400°F)

K -270°C to 1372°C (-450°F to +2500°F)

R, S 0°C to +1768°C (32°F to +3214°F)

T -270°C to +400°C (-450°F to +752°F)

E -270°C to +1000°C (-450°F to +1832°F)

L (DIN J) -210°C to +900°C (-350°F to +1652°F)

Measurement Units: Degrees C or F selectable

Digital Filtering Time Constant:

80 mSec (16 WX mode), 80-6000 mSec

(Advanced mode)

Update Time (all 16 channels):

14 mSec no filtering

15 mSec digital filtering enabled

48 mSec advanced functions enabled

Repeatability: ±0.2°C or °F all thermocouple

types (16 WX mode)

±0.1°C or °F all thermocouple types

(advanced mode)

±50 μV (millivolt inputs)

Accuracy

For measurements above 0°C for types J, K, E, T, L or above 500°C for types R and S:

Types J, K, E, T, L

±0.5°C at 25°C ambient

±1°C from 0°C to 60°C ambient

0°C to full measurement range

±1°F at 25°C ambient

±2°F from 0°C to 60°C ambient

32°F to full measurement range

For measurements below 0°C or 32°F:

Types R, S

±1°C at 25°C ambient for

measurement range 500-1768°C

±2°C from 0°C to 60°C ambient

±2°F at 25°C ambient

±4°F from 0°C to 60°C ambient

Reduced accuracy for measurements

below 500C

Millivolt Accuracy: ±50 μV from 0°C to 60°C

Millivolt Temperature Drift: 5ppm / °C

Common Mode Rejection: >130 dB@ >180 dB@ 60 Hz,

>80db @ 50 Hz

ROCK SOLID PERFORMANCE. TIMELESS COMPATIBILITY.



Control Technology Inc.

5734 Middlebrook Pike, Knoxville, TN 37921-5962

Phone: +1.865.584.0440 Fax: +1.865.584.5720

www.controltechnology.com

2556-A 16-Channel Isolated Thermocouple Input Module

Input ESD Protection: 2KV
 Connector: 2559-FPC required for proper operation
 Wire Gauge: 14 to 22 AWG
 Module Size: Single wide
 Backplane Power Consumption: 5 Watts

Isolation:
 1500VDC channel-to-channel
 1500VDC channel-to-backplane

Shipping Weight: 1.5lbs. (0.68kg)

Additional Product Information:

On CTI's Website you find will links to the 2500 Series Std Environmental Specifications and the UL Agency Certificates of Compliance.

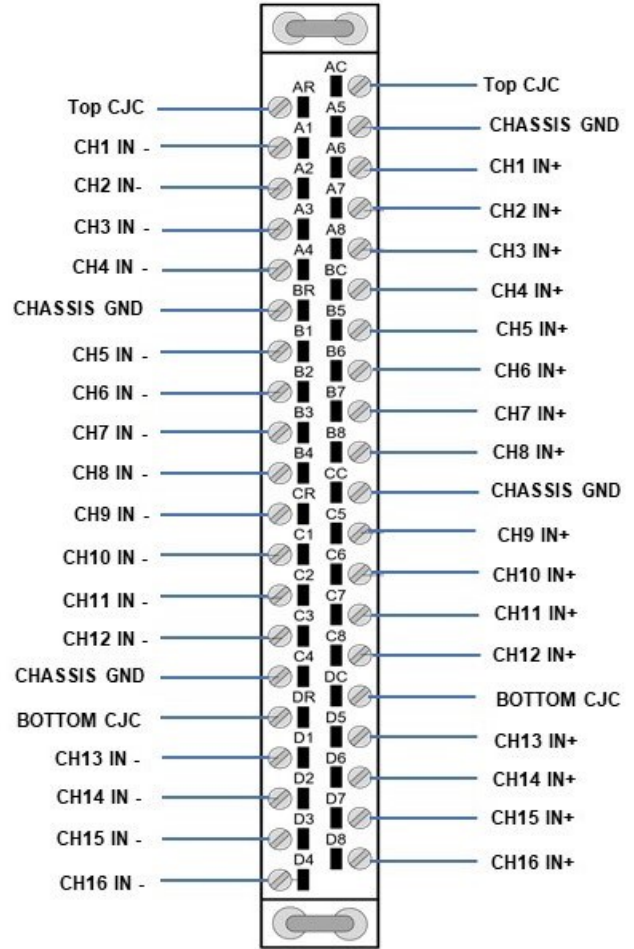
Standard Shipping Configuration:

Type J
 Digital Filtering Enabled
 Degrees C
 16WX mode

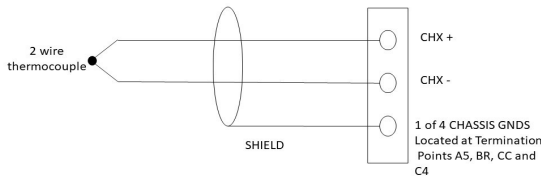
IMPORTANT NOTES:

This module requires a special connector, 2559-FPC, which is ordered separately.

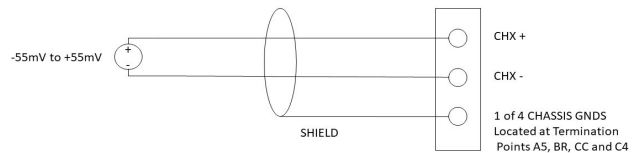
JP65 is a "factory setting" jumper and should not be removed. Note this setting is different than the 2556, which requires this jumper to be OFF



Thermocouple Wiring Example



Millivolt Wiring Example



Note: The front connector on the module provides CHASSIS GND terminals which CTI strongly recommends that the shield wires be terminated to these CHASSIS GNDs.

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