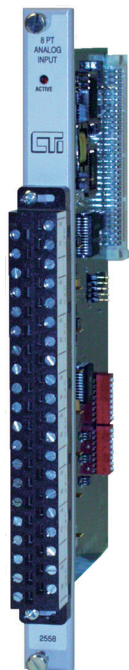


# 2558

## 8-Channel Analog Input Module



### Description

The 2558 is an 8-channel analog input module designed to be compatible with the SIMATIC® 505 series I/O base. The 2558 translates analog input signals into equivalent digital words. The 2558 is fully compatible with all versions of the 545 and 555 PLCs.

### Features

- SIMATIC® 505 base format
- 8 analog input channels
- 140Vrms isolation between channels
- 1500V channel-to-PLC backplane isolation
- Supports 16-bit and 13-bit resolution
- Fast 5 mSec update time for all 8 channels
- No external power supply required for module
- No external current resistor required
- On-board calculations for 4-20 mA offset inputs
- Single-wide module

### Specifications

**Input Channels:** 8 analog input channels

**Signal Range:**

Unipolar: 0 to 5 VDC, 0 to 10 VDC, or 0 to 20 mA

Bipolar: -5 to +5 VDC, -10 to +10 VDC, or -20 to +20 mA

**Update Time:** 8 WX mode;  
5 mSec all channels

**Digital Filtering Time Constant:** 0.3 Sec

**DC Input Resistance:**

Voltage mode: 780kΩ

Current mode: 250Ω

**Repeatability:** 0.0025%

**Accuracy:**

Voltage mode: 0.125% of full scale from 0° to 60°C

Current mode: 0.225% of full scale from 0° to 60°C

**Resolution 8 WX Mode:**

Unipolar 15 bits plus sign:

0 - 5 VDC range = 156μV/step

0 - 10 VDC range = 312μV/step

0 - 20 mA range = .625μA/step

Bipolar 15 bits plus sign:

-5 to +5 VDC range = 156μV/step

-10 to +10 VDC range = 312μV/step

-20 to +20 mA range = .625μA/step

**Common Mode Rejection:**

>120db @ 60 Hz (digital filtering disabled)

**Normal Mode Rejection:**

>40db @ 500 Hz (digital filtering enabled)

**Connector:** Removable

**Wire Gauge:** 14-22 AWG

**Backplane Power:** 3 Watts (maximum)

**Module Size:** Single-wide

**Input Protection:**

Input ESD Protection: 20,000 V,  
IEC 1000-4-2,  
Level 4

Overrange Protection: +/- 300 VDC

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

**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, FM (Class 1, Div. 2), CE

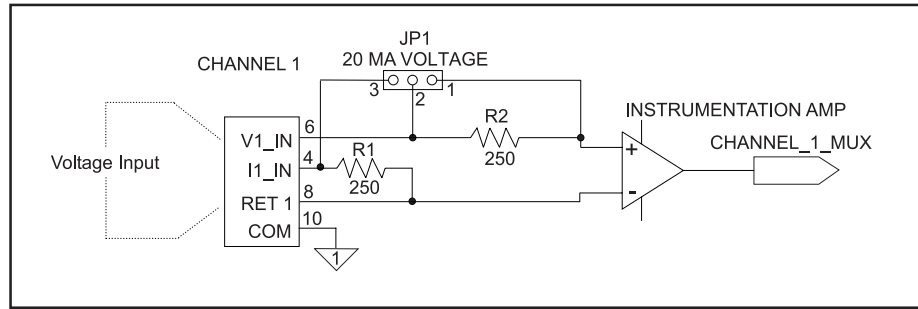
**Shipping Weight:** 1.5 lb. (0.68 Kg)



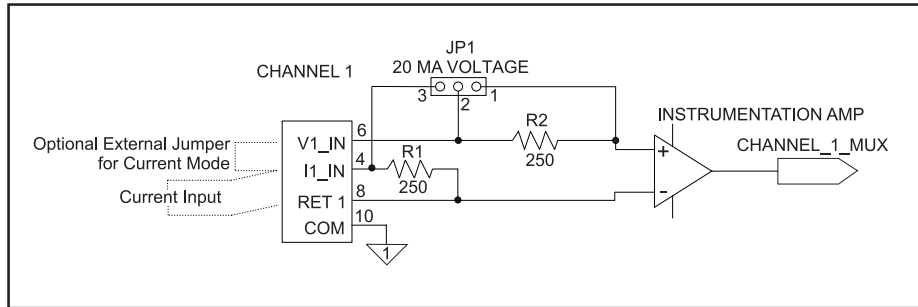
**Control Technology Inc.**

5734 Middlebrook Pike, Knoxville, TN 37921-5962

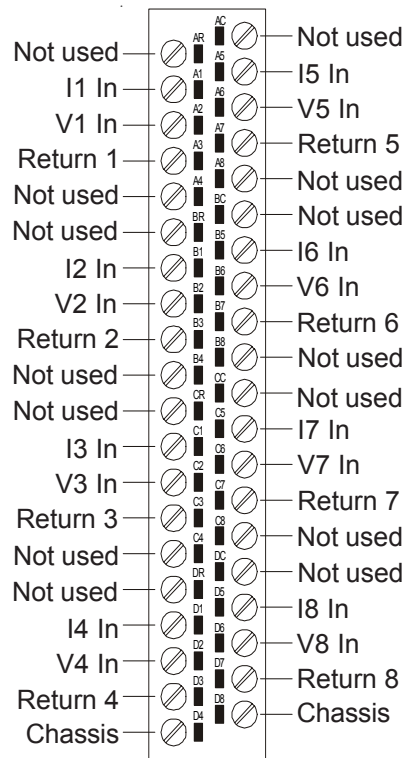
Phone: 865/584-0440 Fax: 865/584-5720 www.controltechnology.com



**Typical Internal Circuit -  
Voltage Mode**



**Typical Internal Circuit -  
Current Mode**



**2558 Wiring Connector**