

2500 Series PLC System Product Bulletin

2588-8 8-Point Universal Discrete Input Module



Specifications

Inputs per Module: 8

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

Input Voltage:

Range Setting	Operating Range
12/24V range	11 - 30 volts
48V range	40 - 56 volts
110V range	79 - 132 volts
220V range	164 - 265 volts

Input Current: AC: 2.1 - 3.6 mA
DC: 2.5 - 4.3 mA

Operating Characteristics for Typical Input:

AC Voltage Input:

Turn ON Time: 4.0mS
Turn OFF Time: 15.0mS

DC Voltage Input:

Turn ON Time: 1.0mS
Turn OFF Time: 15.0mS

Connector: Removable

Wire Gauge: 14 - 22 AWG

Backplane Power: 1.8 Watts max.

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 Pending:

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

Shipping Weight: 1.5 lb. (0.68 Kg)

Description

The 2588-8 8-Point Universal Discrete Input Module accepts a wide range of voltage signals. It is designed to accept both AC and DC voltage allowing the user to pick and choose ranges on a single module. The 2588-8 can replace Siemens® 8 point input products with no rewiring. Motor centers, optical sensors, limit switches and utility control are excellent examples of applications for this product.

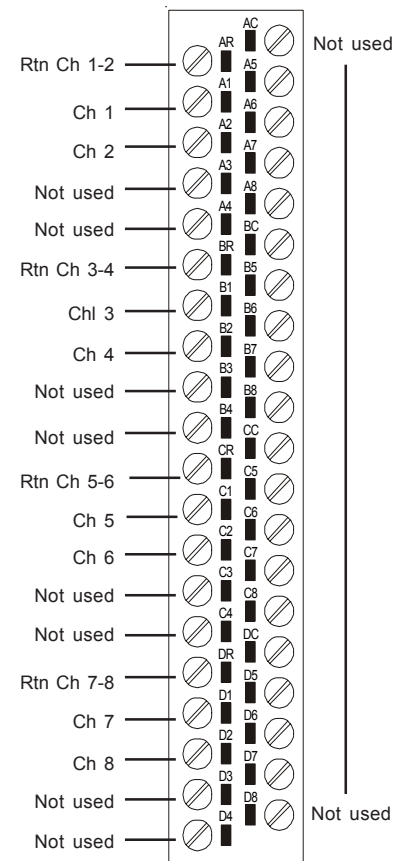
Features

- CTI 2500 Series or Simatic® 505 base format
- 8 universal input points
- Replaces Siemens® 505-4008-A, 4208-A, 4308, and 4408-A with no rewiring
- 1500V channel-to-PLC backplane and group-to-group isolation
- Wide 11V to 250V AC/DC range (selectable by group)
- Isolation in groups of 2
- Sourcing or sinking inputs
- Single-wide module



Control Technology Inc.

5734 Middlebrook Pike, Knoxville, TN 37921-5962
Phone: 865/584-0440 Fax: 865/584-5720 www.controltechnology.com



Front Panel Connector Wiring Diagram

Standard Shipping Configuration

Jumper Configuration	
Jumper	Selection
Ch. 1 through Ch. 8	110V range

WARNING:
Remove field wiring connector before changing jumper settings.

Isolation Configuration

On the 2588-8, two channels share a common return path. In other product variants, jumpers J3-J6 are would be populated to provide options for different isolation configurations.

Voltage Range

The 2588-8 will handle a wide range of AC and DC signals, and has incorporated the ability to select either 12V/24V, 48V, 110V, or 220V on a per channel basis using jumper selection. The selections are made individually for each of the 32 channels using jumpers. The operating ranges are as follows:

Range Setting	Operating Range
12/24V range	11 - 30 volts
48V range	40 - 56 volts
110V range	79 - 132 volts
220V range	164 - 265 volts

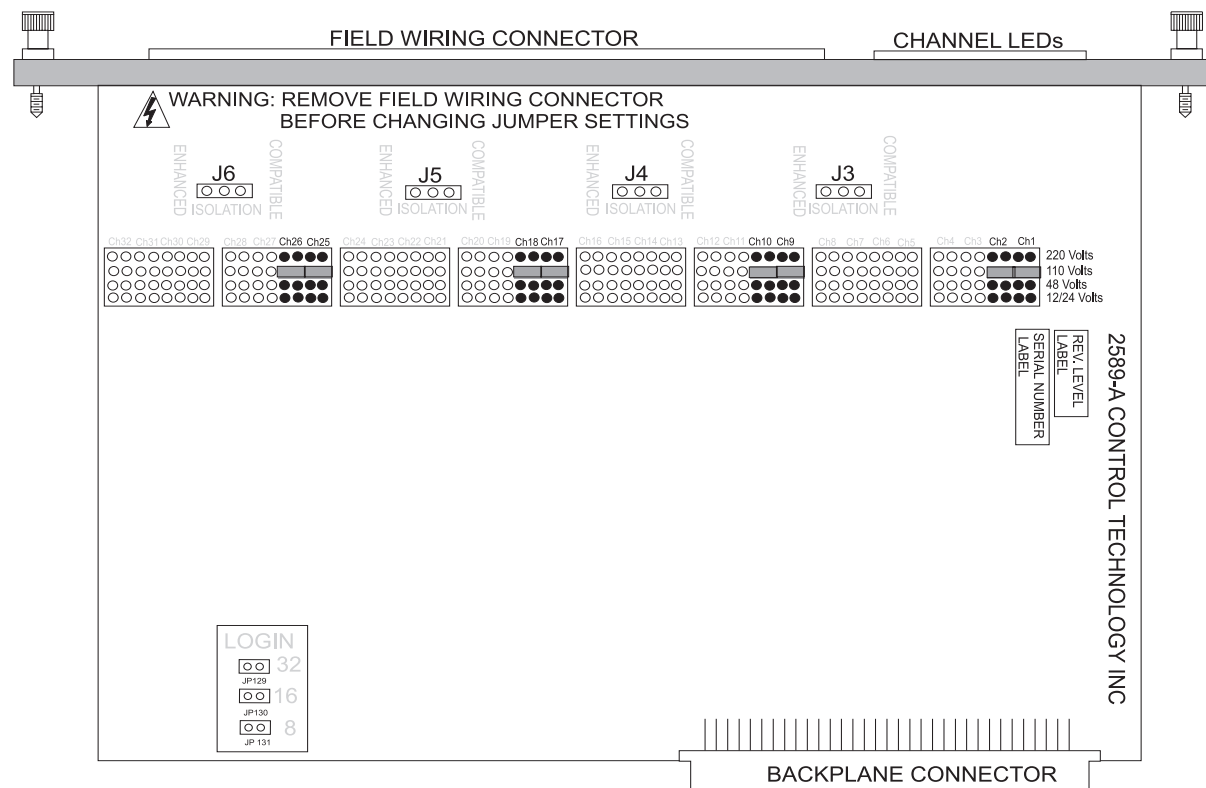


Figure 1. PCB Jumper Configuration Location

NOTE:
Use caution when wiring with mixed voltages (i.e., 5VDC next to 110VAC).

NOTE:
For maximum protection against ESD damage, unused inputs should be tied back to chassis ground.

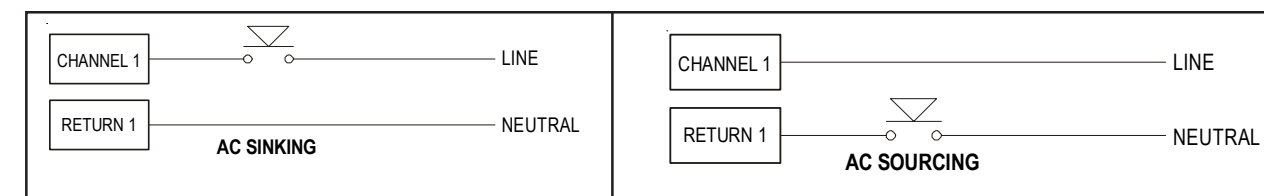


Figure 2. Typical External Wiring Application for the Model 2588-8