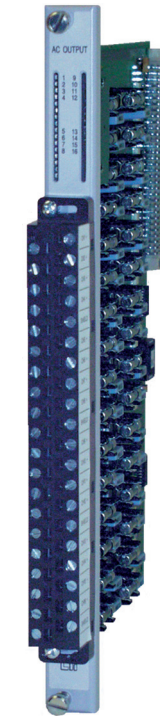


2500 Series PLC System Product Bulletin

2596-8 8-Point DC Discrete Output Module



Description

The 2596-8 8-Point DC Discrete Output Module provides eight sourcing fused outputs from the CTI 2500 Series or Simatic® 505 I/O base. The module utilizes solid-state output circuits to switch on or off external devices such as pilot lamps, motor starters, or solenoids. The 2596-8 is designed to switch externally supplied 11-125 VDC. The internal logic signals are isolated from the external outputs to 2100 VDC.

Features

- 8 DC output points
- Replaces Siemens® 505-4508, -4708
- 3000 VDC group-to-group isolation
- 2100 VDC channel-to-backplane isolation
- Isolation in groups of two
- Wide 11-125 VDC output range
- 2.0 Amps per output
- 16 amps total module output
- Individually sourcing fused outputs
- Single-wide module

Specifications

Outputs per Module: 8

Isolation: 2100 VDC channel-to-backplane
3000 VDC group-to-group

Output Voltage: 11 VDC to 125 VDC

Output Source Current per Circuit:
2.0 Amps max., 1 mA min.

Total Module Output Current: 16 Amps max.
from 0° to 60°C

Maximum Surge Current: 3 Amps for 15 Sec

“ON” State Voltage Drop: 0.5V @ 1.0 Amp

“OFF” State Leakage Current: <20µA

Turn On Time: 1 mSec (nominal)

Turn Off Time: 3 mSec (nominal)

Fuses: 8, 2.5 amp, 250V,
Type: Littlefuse #21602.5,
Bussman GDA-2.5 (Field replaceable)

Connector: Removable

Wire Gauge: 14 - 22 AWG

Backplane Power: 1.0 Watt 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)



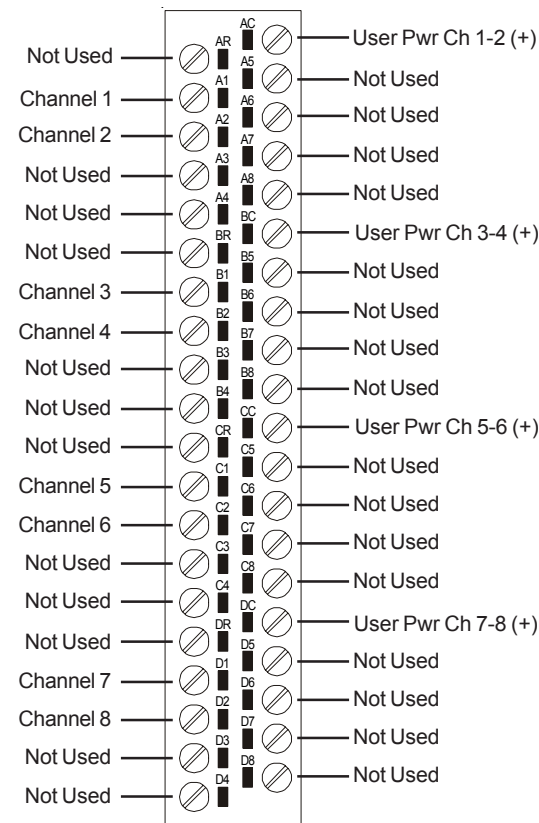


Figure 1. 2596-8 2 Outputs Per Common Wiring Connector

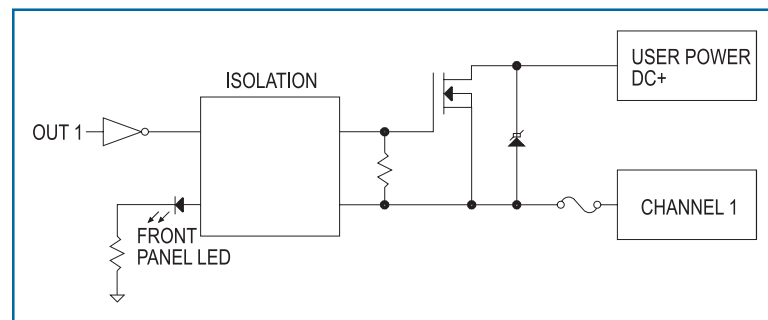


Figure 2. Typical Internal Circuit

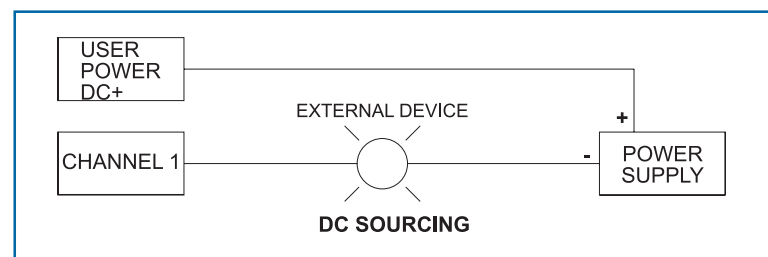


Figure 3. Typical External Wiring Diagram

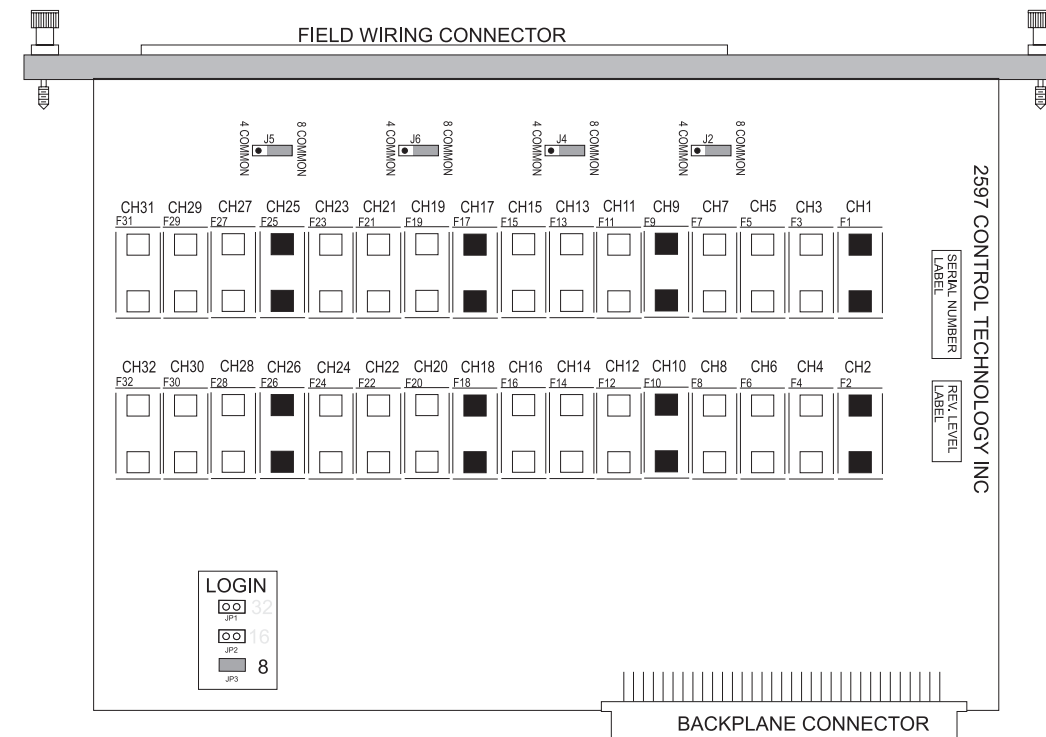


Figure 3. Jumper and Fuse Configuration

(see chart under channel configuration explanation)

Jumper Configuration	
Jumper	Selection
J2, J4, J5, J6	8 Common

Table 1. Jumper Configuration Table

Note:
Do not alter jumper settings from '8 COMMON'. The module is configured as needed for proper wiring compatibility with its Siemens® counterpart.

Channel Configuration Explanation

The 2596-8 was designed using a PCB that could also perform as a 16 or 32pt module. Hence, the PCB printing for channels do not line up with actual 2596-8 channels. See the chart below for the proper correlation of channels. For example, if the module reported channel 4 was blown, then the user would replace the fuse marked 'CH10' on the PCB.

Login Mode	Channel/Fuse Labeling																															
32 pt:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
16 pt:	1	2	3	4	-	-	-	-	5	6	7	8	-	-	-	-	9	10	11	12	-	-	-	-	13	14	15	16	-	-	-	-
8 pt:	1	2	-	-	-	-	-	-	3	4	-	-	-	-	-	-	5	6	-	-	-	-	-	-	7	8	-	-	-	-	-	

Grouping Configuration

Using the 2596-8, two channels are grouped together and share a common field user power, thereby allowing a different user power supply voltage to be used by each grouping. Jumpers J2, J4, J5, and J6 are set in the "8 common" selection from the factory and, for proper module operation, should not be altered. This setting allows for two points per common operation.

For example, Channels 1-2 will share a common user power and Channels 3-4 will share another common user power. In this example each group of two channels is isolated from the other group of two channels. Because each group of two is isolated, the user may also change the supply voltage for each group. So, in this example, Channels 1-2 could be 24VDC outputs and Channels 3-4 could be 60VDC outputs.