

Figure 4. Typical Internal Circuit

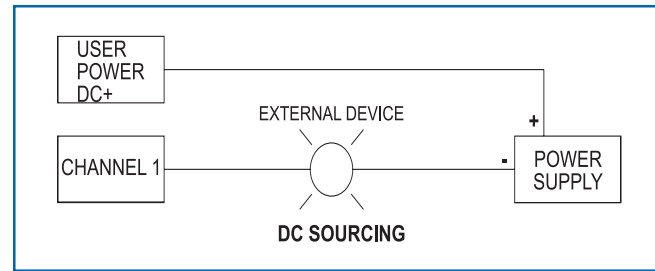


Figure 5. Typical External Wiring Diagram

8/16 Point Configuration Explanation

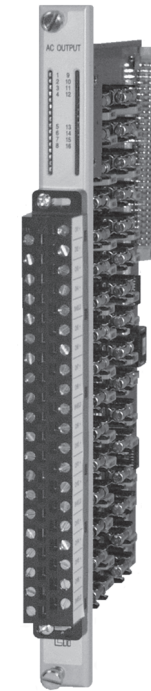
The 2596 was designed to be primarily a 16pt module, and utilizes a PCB that could also perform as a 32pt. module. Hence, the PCB printing for the channels may not all line up with the 2596 channels. See the chart below for the proper channel configuration. Also, in order to provide maximum flexibility for the user, the module may also be configured as an 8 point module. Some details are listed below to help the user better understand the jumper settings and labeling discrepancies for the 8 and 16 point settings.

8 Point Mode: Move jumper in “Login” box to location JP3 to choose 8pt mode. Ensure the Isolation jumpers J2, 4, 5, & 6 are in “8 Common” positions to correspond to the Siemens® counterpart 8 point modules (2 inputs/common). Also, note that many of the printed channels (CH 1-CH 32) on the PC board are no longer valid, nor are the front panel connector labels. (You may find it helpful to utilize the appropriate 8 pt. connector labels shipped with the product.) If 8 Point is enabled, the following table’s 8pt. row is the new correlation of PC board printing and front panel label’s LED area printing. For example, in 8 Point Login Configuration, the board marking for channel 10 (CH 10) would be the input channel 6. Likewise, the PC board marking for CH 13 would correlate to input channel 7.

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	-	-	-	-	-

Note: For CTI Limited Product Warranty and RMA procedures please go to www.controltechnology.com/support.htm.

2596 8/16-Point DC Discrete Output Module



Specifications

- Outputs per Module:** 8 or 16
- 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:** 32 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:** 16, 2.5 amp, 250V, Type: Littelfuse #21602.5, Bussman GDA-2.5 (Field replaceable)

- Connector:** Removable
- Wire Gauge:** 14 - 22 AWG
- Backplane Power:** 1.2 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)

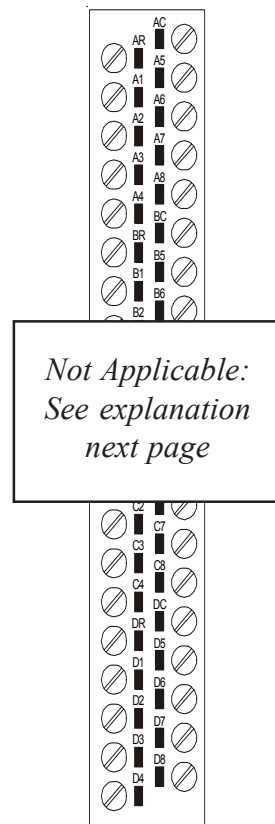
Description

The 2596 8/16-Point DC Discrete Output Module provides eight or sixteen 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 is designed to switch externally supplied 11-125 VDC.

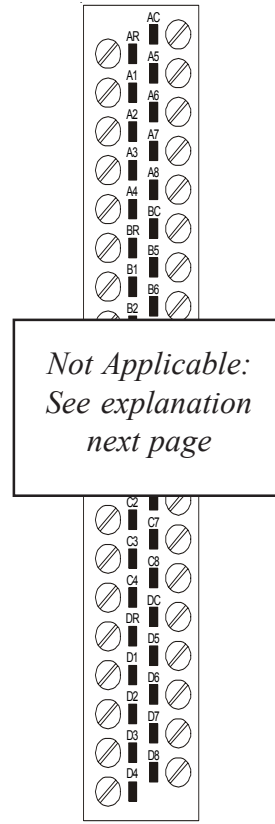
Features

- 8 or 16 DC output points
- Replaces Siemens® 505-4508, -4516, -4708, -4716
- 3000 VDC group-to-group isolation
- 2100 VDC channel-to-backplane isolation
- Isolation in groups of four (16pt.login) or in groups of two (8pt. login)
- Wide 11-125 VDC output range
- 2.0 Amps per output
- 32 Amps total module output
- Individually sourcing fused outputs

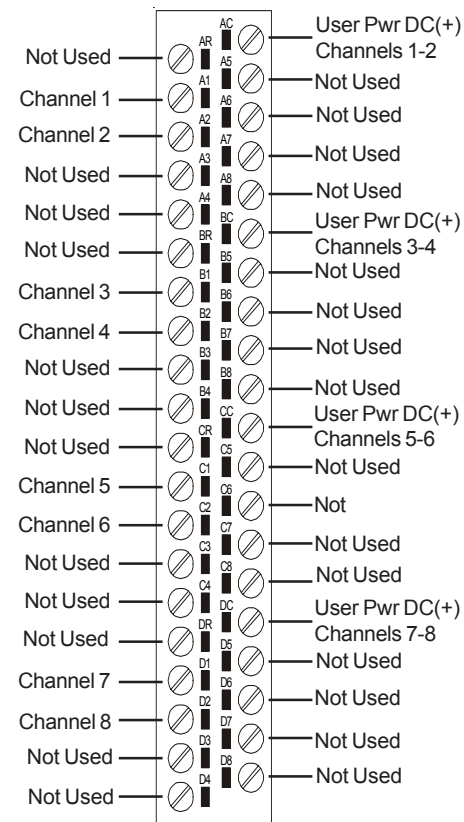
2500 Series PLC System Product Bulletin



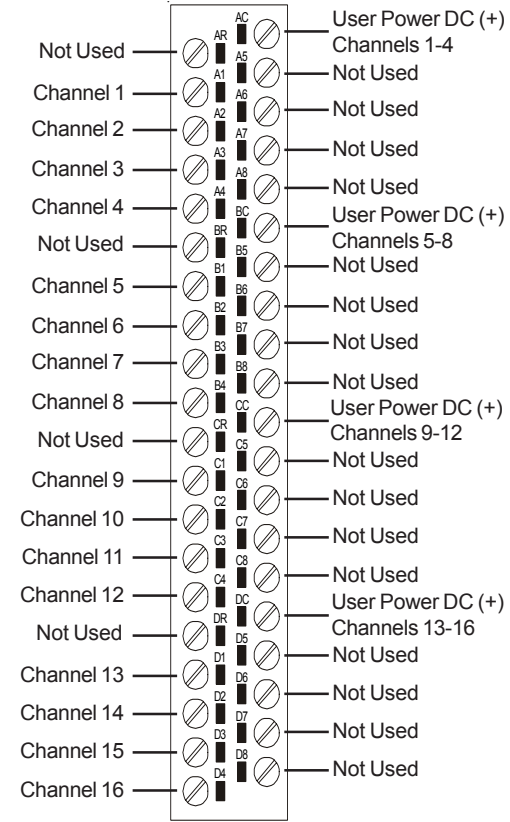
**8 Pt Login
Selection Jumper in
4 Common Position**



**16 Pt Login
Selection Jumper in
4 Common Position**



**8 Pt Login
Selection Jumper in
8 Common Position**



**16 Pt Login
Selection Jumper in
8 Common Position**

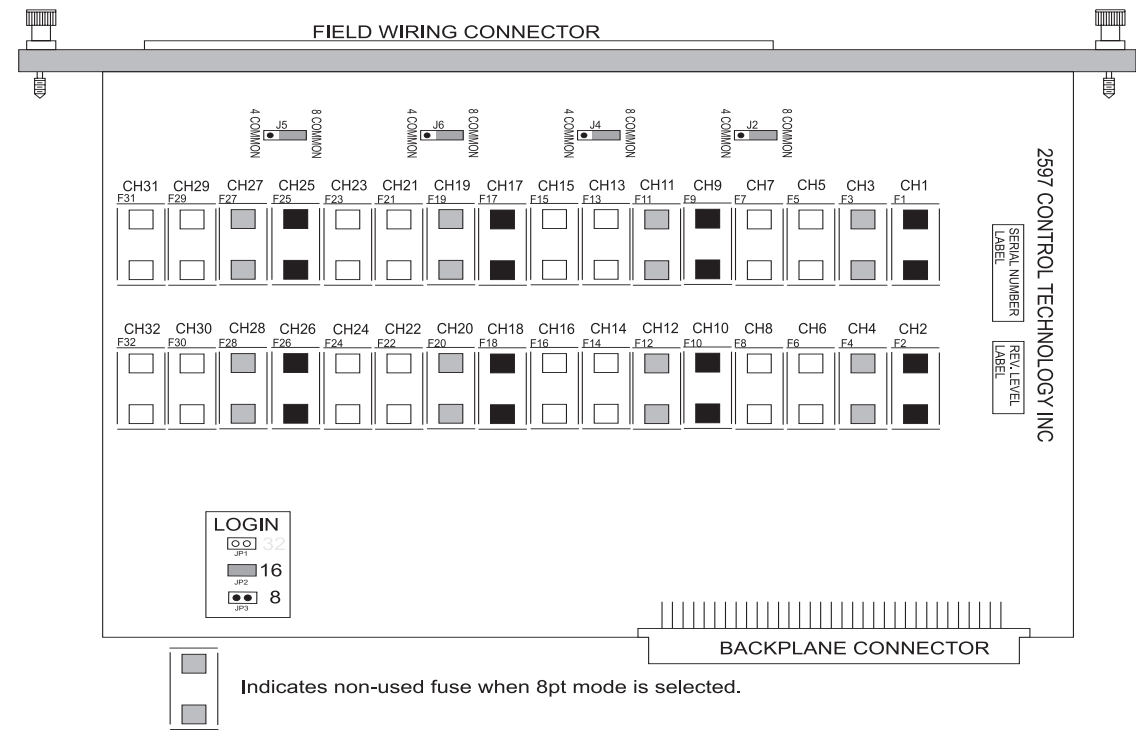


Figure 3. Jumper and Fuse Configuration
(also see chart on back page for actual channel correlations)

Standard Shipping Configuration

Jumper Configuration	
Jumper	Selection
J2, J4, J5, J6	8 Common
JP2, 3	JP2 - 16 pt mode

Table 1. Jumper Configuration Table

WARNING:
Do not alter '8 COMMON' jumper J2, J4, J5, and J6 settings. The module is configured as needed for proper wiring compatibility with its Siemens® counterpart. Remove the module from the 505 base before changing LOGIN jumper JP2 and JP3 settings.

Grouping Configuration

The 2596 is shipped to allow four channels to be grouped 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 come set in the "8 Common" selection from the factory and should not be altered for proper module operation. This setting allows for 4 points per common operation.

For example, Channels 1-4 will share a common user power and Channels 5-8 will share another common user power. In this example each group of four channels is isolated from the other group of four channels. Because each group of four is isolated, the user may also change the supply voltage for each group. So, in this example, Channels 1-4 could be 240VAC outputs and Channels 5-8 could be 120VAC outputs.