

### 32 Pt Mode: 8 Common Configuration

The module can also be configured so that eight channels share a common user power. The same jumpers mentioned above, J2, J4, J5, and J6, are used for this selection.

In this example, if jumper J2 was placed in the 8 Common position, then Channels 1-8 would share the same common user power and only one supply voltage could be used on these eight channels. With this selection each group of eight channels is isolated from the other, allowing up to four different supply voltages to be accommodated per module.

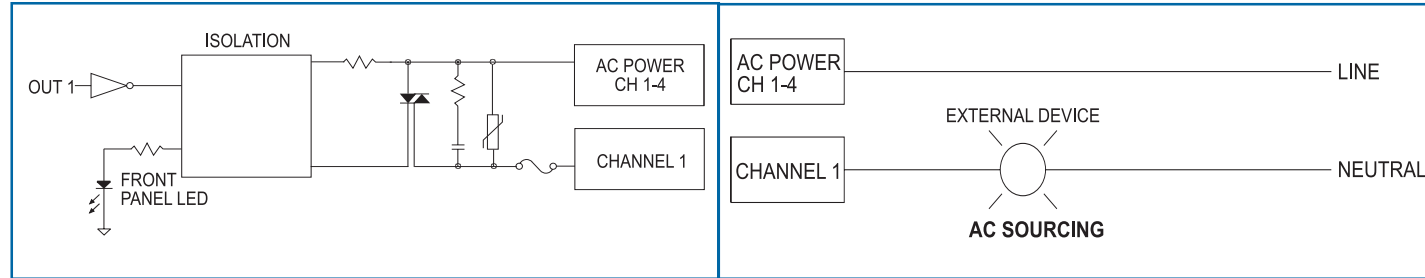


Figure 4. Typical Internal Circuit

Figure 5. Typical External Wiring Diagram

**16 Point Mode:** Move jumper in "Login" box to location JP2 to choose 16pt mode. Ensure the Isolation jumpers J2,4,5, & 6 are in '8 Common' positions to correspond to the Siemens® counterpart 16 point modules (4 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 Also, note that many of the printed channels (CH 1-CH 32) on the PC board are no longer valid, nor are the front panel connector labels.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 16 pt. connector labels shipped with the product.) If 16 Point is enabled, the following table's 16pt. row is the new correlation of PC board printing and front panel label's LED area printing. For example, in 16 Point Login Configuration, the board marking for channel 10 (CH 10) would be the input channel 6. Likewise, the PC board marking for CH 28 would correlate to input channel 16.

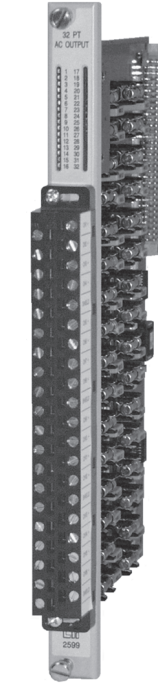
**8 Point Mode:** Move jumper in "Login" box to location JP3 to choose 8pt mode. Ensure the Isolation jumpers J2,4,5, & 6 are in '8 Common' positions to correspond to the Siemens® counterpart 8 point modules (2 inputs/common). Also, note that many of the printed channels (CH 1-CH 32) on the PC board are no longer valid, nor are the front panel connector labels.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 4. Likewise, the PC board marking for CH 25 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](http://www.controltechnology.com/support.htm).

## 2599 8/16/32-Point AC Discrete Output Module



### Specifications

**Outputs per Module:** 8, 16, or 32

**Isolation:** 2100 VAC channel-to-backplane  
3000 VAC group-to-group

**Output Voltage:** 11 VAC to 240 VAC

**Maximum Output Current:**

- 2A per point
- 8A per group
- 32A per module (32pt login)

for Class 1 Div 2 locations:  
2A per point @ 50C  
1.5A per point @ 60C

**Maximum Surge Current:** 3 Amps for 15 Sec

**"ON" State Voltage Drop:** 1.0 V @ 1.0 Amp

**"OFF" State Leakage Current:** 1 mA @ 120 VAC

**Turn On Time:** 1 AC cycle

**Turn Off Time:** 1 AC cycle

**Fuses:** 32, 2.5 amp, 250V,  
Type Littlefuse #21602.5,  
Bussman GDA-2.5, (Field replaceable)

**Connector:** Removable

**Wire Gauge:** 14 - 22 AWG

**Backplane Power:** 1.75 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, UL-Canada, Class 1, Div 2, CE

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

### Description

The 2599 8/16/32-Point AC Discrete Output Module provides up to thirty-two 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 2599 is designed to switch externally supplied 11 to 240 VAC. The internal logic signals are isolated from the external outputs to 2100 VDC.

### Features

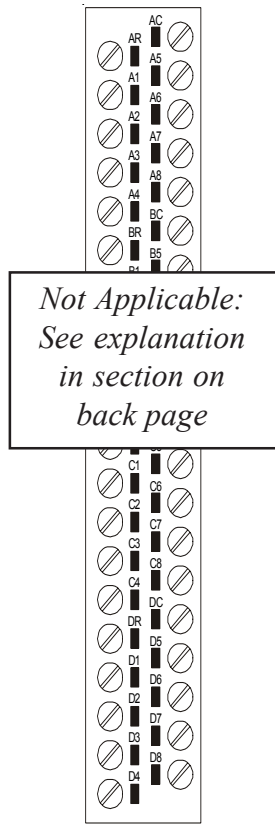
- 8, 16, or 32 AC output points
- Replaces Siemens® 505-4608, -4616, -4632, -4808, -4816, -4832
- 3000 VDC group-to-group isolation
- 2100 VDC channel-to-backplane isolation
- Isolation in groups of 4 or 8 (selectable with 32 pt login configuration)
- Wide 11-240 VAC output range
- 2.0A per output (32 Amps total module output)
- Individually fused outputs
- Sourcing outputs
- Single-wide module

# 2500 Series PLC System Product Bulletin

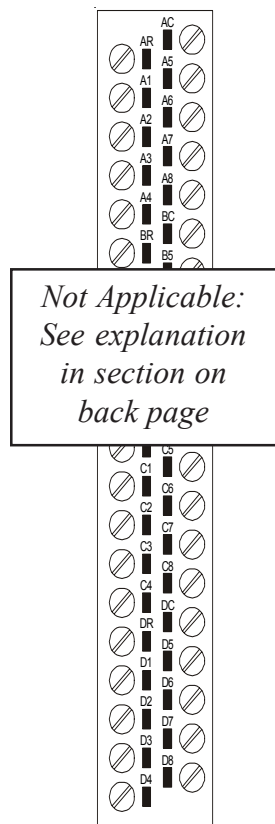


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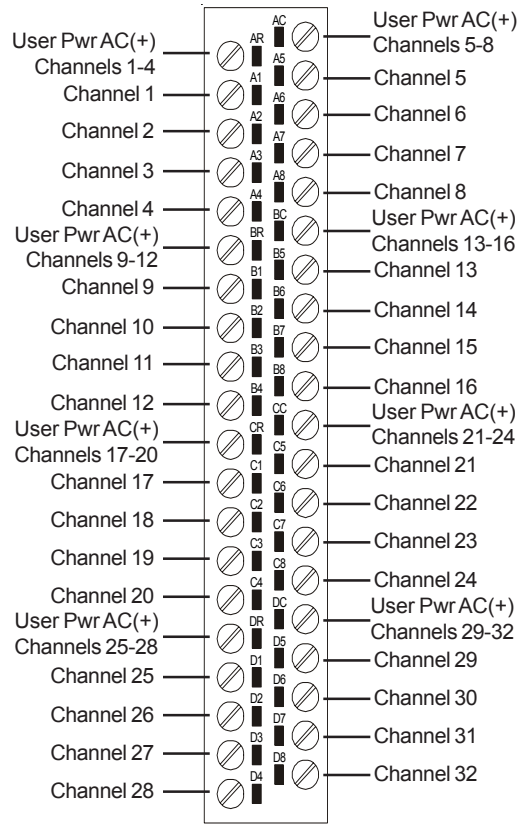
5734 Middlebrook Pike, Knoxville, TN 37921-5962  
Phone: 865/584-0440 Fax: 865/584-5720 [www.controltechnology.com](http://www.controltechnology.com)



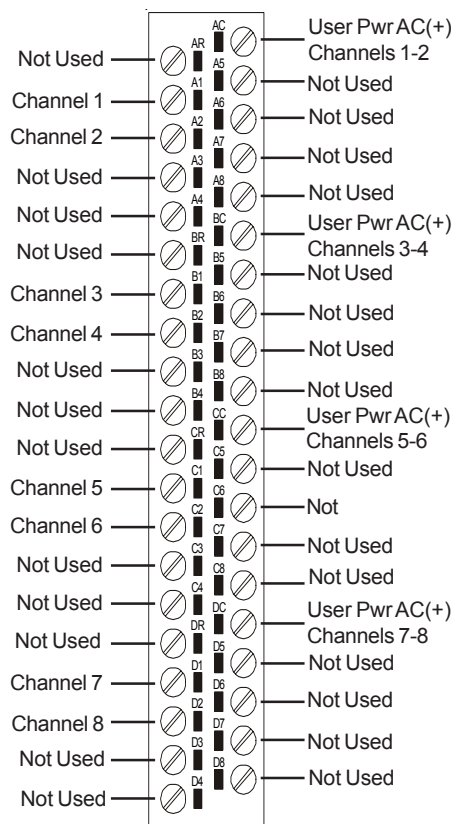
**8 Pt Login**  
Selection Jumper in  
4 Common Position



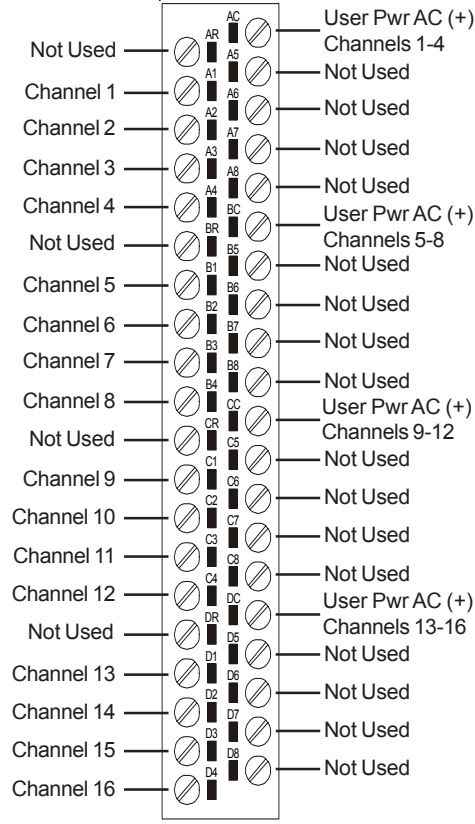
**16 Pt Login**  
Selection Jumper in  
4 Common Position



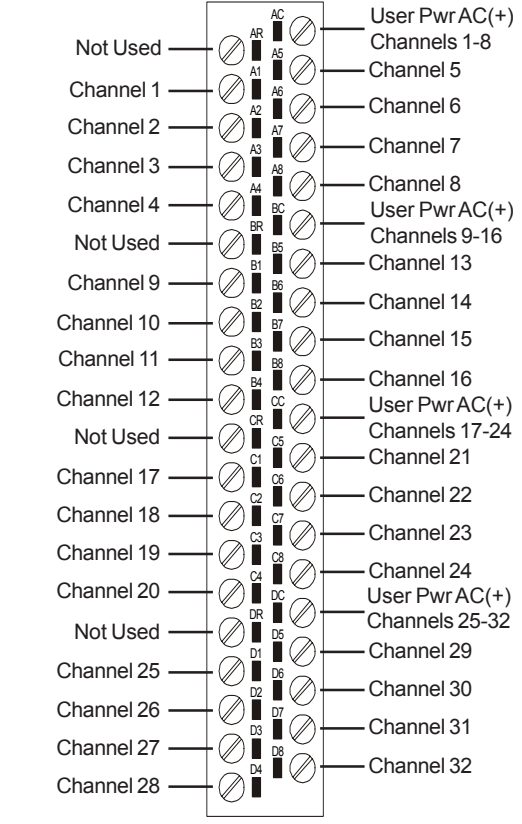
**32 Pt Login**  
Selection Jumper in  
4 Common Position



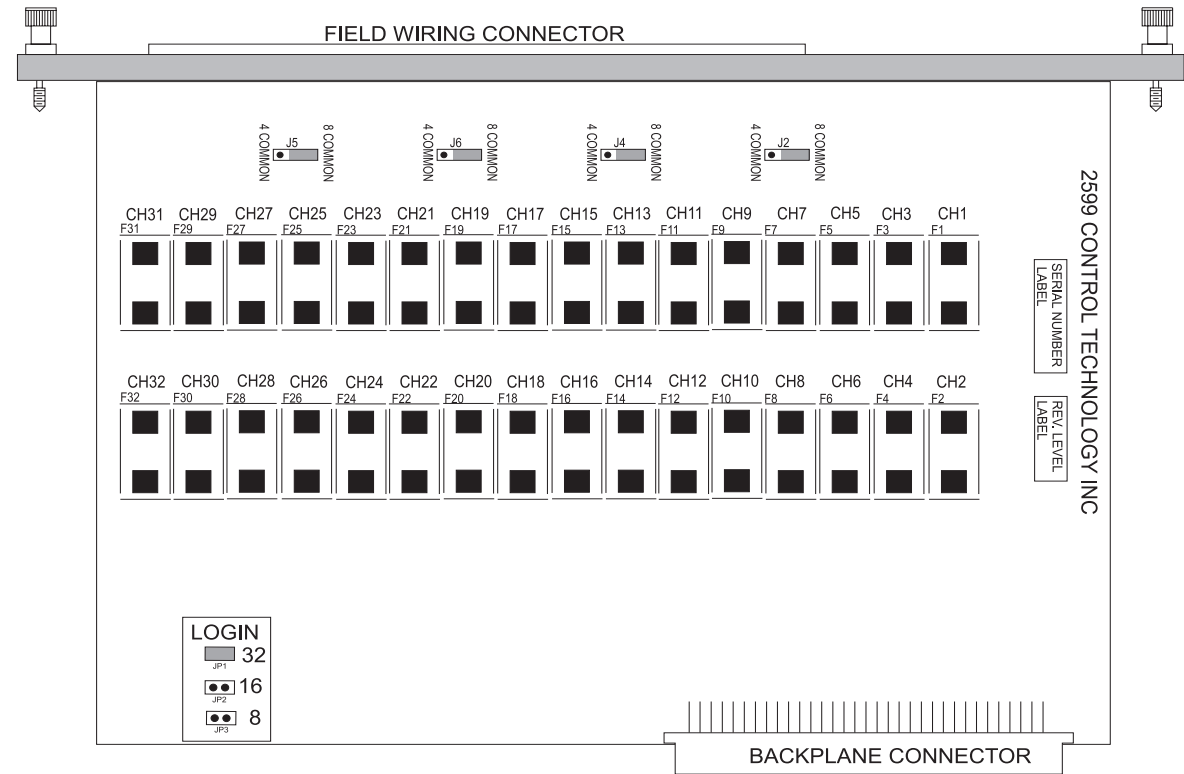
**8 Pt Login**  
Selection Jumper in  
8 Common Position



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



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



**Figure 3. Jumper and Fuse Configuration**

(see chart on back page for actual channel correlations)

**Standard Shipping Configuration**

Jumper Configuration	
Jumper	Selection
J2, J4, J5, J6	8 Common
JP1, 2, 3	JP1 - 32 pt. Login

**Table 1. Jumper Configuration Table**

**WARNING:**  
Remove field wiring connector before changing jumper settings.

**32-Point Mode: 4 Common Configuration**

The user may configure the module 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 are used to configure this selection.

For example, if the user places the J2 jumper in the 4 Common position, 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. Furthermore, the user may select a different configuration for J4, J5, or J6, allowing for further combinations of four or eight channels that share a common.