

# 2598 8/16-Point AC Discrete Output Module

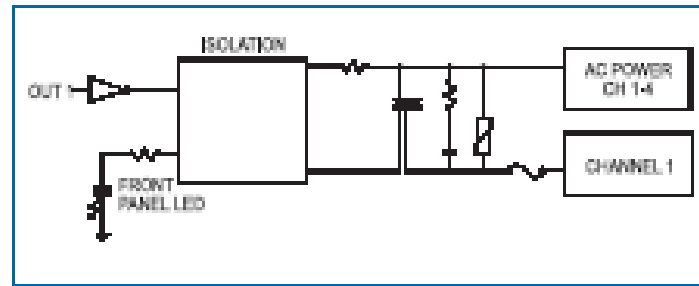
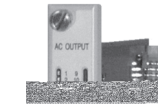


Figure 4. Typical Internal Circuit

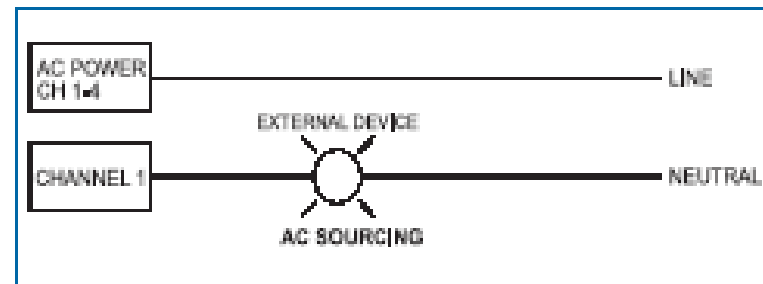


Figure 5. Typical External Wiring Diagram

## 8/16 Point Configuration Explanation

The 2598 was designed to be primarily a 16pt module. However, in order to provide maximum flexibility for the user, it may also be configured as an 8 point module. Some details are listed below to help the user better understand the jumper settings and PCB labeling discrepancies for the 8 point setting.

**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 Also, note that many of the printed channels (CH 1-CH 32) on the PC board are no longer valid, nor are the front panel connector labels.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](http://www.controltechnology.com/support.htm).

# 2500 Series PLC System Product Bulletin

## Description

The 2598 8/16-Point AC Discrete Output Module provides eight or sixteen outputs from CTI 2500 Series or Simatic® 505 I/O bases. The module utilizes solid-state output circuits to switch on or off external devices such as pilot lamps, motor starters, or solenoids. The 2598 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 or 16 AC output points
- Replaces Siemens® 505-4608, -4616, -4808, -4816
- 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 11-240 VAC output range
- 2.0 Amps per output
- Individually fused outputs
- Sourcing outputs
- Single-wide module

## Specifications

**Outputs per Module:** 8 or 16

**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 (16pt 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:** 16, 2.5 amp, 250V,  
Type Littlefuse #21602.5,  
Bussman GDA-2.5, (Field replaceable)

**Connector:** Removable

**Wire Gauge:** 14 - 22 AWG

**Backplane Power:** 1.25 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:

UL, UL-Canada, Class 1, Div 2, CE

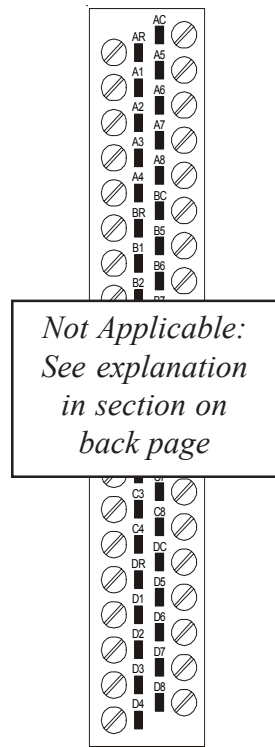
**Shipping Weight:** 1.5 lb. (0.68 Kg)



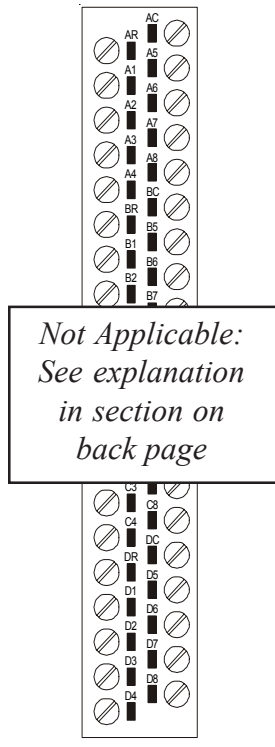
**Control Technology Inc.**

5734 Middlebrook Pike, Knoxville, TN 37921-5962

Phone: 865/584-0440 Fax: 865/584-5720 [www.controltechnology.com](http://www.controltechnology.com)



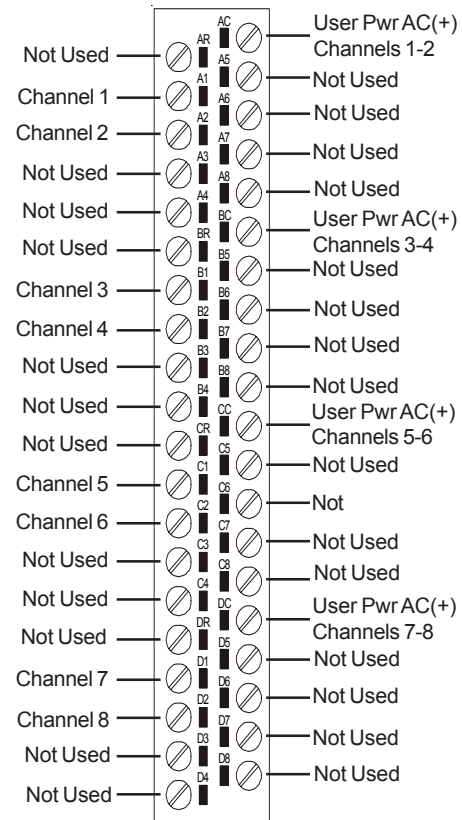
**8 Pt Login  
Selection Jumper in  
4 Common Position**



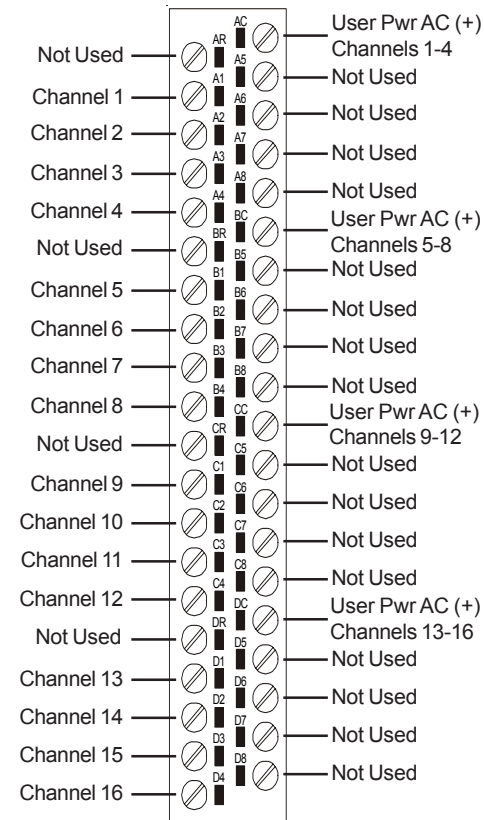
**16 Pt Login  
Selection Jumper in  
4 Common Position**



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



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



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

\*Note: Due to a new rev 'C' 2598/99 PCB, the 16pt login above differs from the former 'B' rev PCB. The one above is 100% Siemens® compatible

**Standard Shipping Configuration**

Jumper Configuration	
Jumper	Selection
J2, J4, J5, J6	8 Common
JP 2, 3	JP2 - 16 pt. Login

**Table 1. Jumper Configuration Table**

**WARNING:**  
Do not alter '8 COMMON' jumper J2, 4, 5, and 6 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 3 settings.

**Grouping Configuration**

The 2598 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.