Limited Product Warranty

CTI warrants that this CTI Industrial Product shall be free from defects in material and workmanship for a period of one (1) year after purchase from CTI or from an authorized CTI Industrial Distributor. This CTI Industrial Product will be newly manufactured from new and/or serviceable used parts which are equal to new in the Product.

Should this CTI Industrial Product fail to be free from defects in material and workmanship at any time during this (1) year warranty period, CTI will repair or replace (at its option) parts or Products found to be defective and shipped prepaid by the customer to a designated CTI service location along with proof of purchase date and associated serial number. Repair parts and replacement Product furnished under this warranty will be on an exchange basis and will be either reconditioned or new. All exchanged parts or Products become the property of CTI. Should any Product or part returned to CTI hereunder be found by CTI to be without defect, CTI will return such Product or part to the customer.

This warranty does not include repair of damage to a part or Product resulting from: failure to provide a suitable environment as specified in applicable Product specifications, or damage caused by an accident, disaster, acts of God, neglect, abuse, misuse, transportation, alterations, attachments, accessories, supplies, non-CTI parts, non-CTI repairs or activities, or to any damage whose proximate cause was utilities or utility like services, or faulty installation or maintenance done by someone other than CTI.

Control Technology Inc. reserves the right to make changes to the Product in order to improve reliability, function, or design in the pursuit of providing the best possible Product. CTI assumes no responsibility for indirect or consequential damages resulting from the use or application of this equipment.

THE WARRANTY SET FORTH ABOVE IN THIS ARTICLE IS THE ONLY WARRANTY CTI GRANTS AND IT IS IN LIEU OF ANY OTHER IMPLIED OR EXPRESSED GUARANTY OR WARRANTY ON CTI PRODUCTS, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE AND IS IN LIEU OF ALL OBLIGATIONS OR LIABILITY OF CTI FOR DAMAGES IN CONNECTION WITH LOSS, DELIVERY, USE OR PERFORMANCE OF CTI PRODUCTS OR INTERRUPTION OF BUSINESS, LOSS OF USE, REVENUE OR PROFIT. IN NO EVENT WILL CTI BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

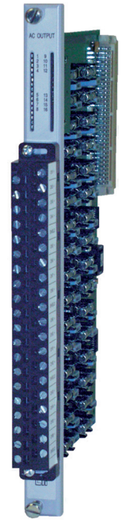
Repair Policy

In the event that the Product should fail during or after the warranty period, a Return Material Authorization (RMA) number can be requested orally or in writing from CTI main offices. Whether this equipment is in or out of warranty, a Purchase Order number provided to CTI when requesting the RMA number will aid in expediting the repair process. The RMA number that is issued and your Purchase Order number should be referenced on the returning equipment's shipping documentation. Additionally, if the product is under warranty, proof of purchase date and serial number must accompany the returned equipment. The current repair and/or exchange rates can be obtained by contacting CTI's main office at 1-800-537-8398.

When returning any module to CTI, follow proper static control precautions. Keep the module away from polyethylene products, polystyrene products and all other static producing materials. Packing the module in its original conductive bag is the preferred way to control static problems during shipment. Failure to observe static control precautions may void the warranty. For additional information on static control precautions, contact CTI's office at 1-800-537-8398.

2500 Series PLC System
Product Bulletin

2598-8 8-Point AC Discrete Output Module



Description

The 2598-8 8-Point AC Discrete Output Module provides eight outputs isolated in groups of two 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 2598-8 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 AC output points
- Replaces Siemens® 505-4608, -4808
- 3000 VDC group-to-group isolation
- 2100 VDC channel-to-backplane isolation
- Isolation in groups of two
- Wide 11-240 VAC output range
- 2.0 Amps per output
- 16 Amps total module output
- Individually fused outputs
- Sourcing outputs
- Single-wide module

Specifications

Outputs per Module: 8

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

Output Voltage: 11 VAC to 240 VAC

Maximum Output Current:
2A per point
16A per module

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: 8, 2.5 amp, 250V,
Type: Littelfuse #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:

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

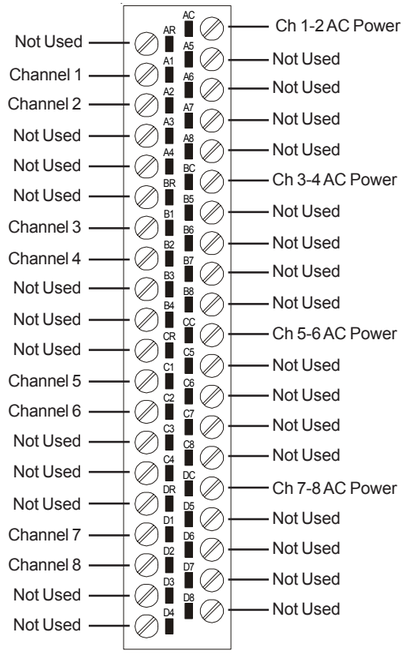


Figure 1. 2598-8 2 Outputs Per Common Wiring Connector

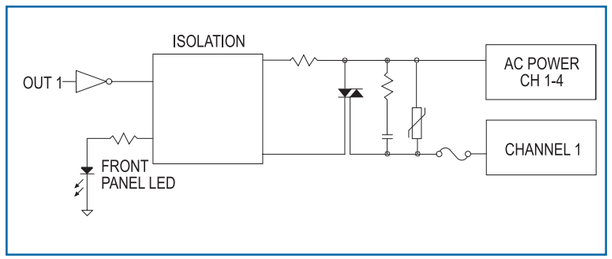


Figure 2. Typical Internal Circuit

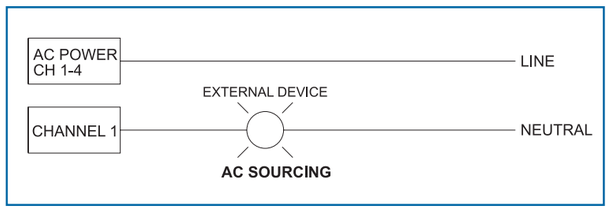


Figure 3. Typical External Wiring Diagram

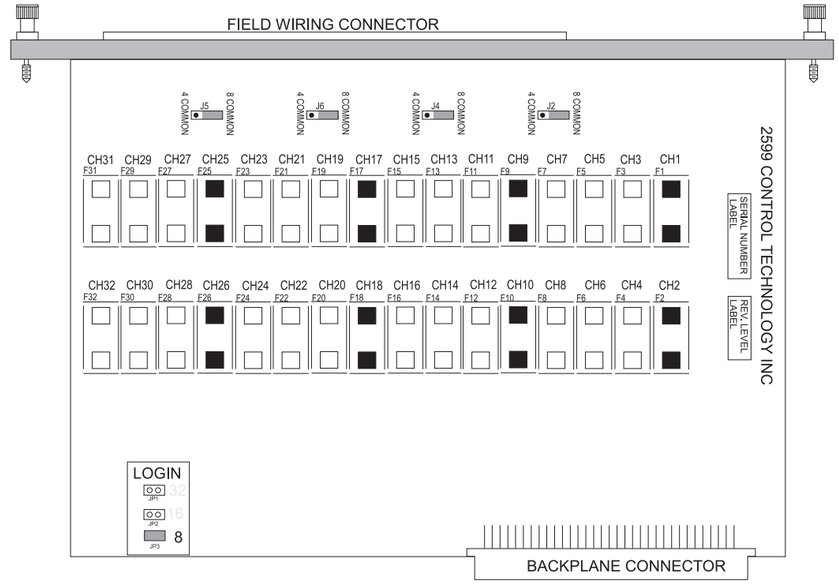


Figure 4. Jumper and Fuse Configuration

(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 2598-8 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 2598-8 channels. See 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 'CH 10' 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

The 2598-8 is shipped to allow two 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, J6, and J8 come set in the "8 common" selection from the factory and should not be altered for proper module operaton. This setting allows for 2 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 240VAC outputs and Channels 3-4 could be 120VAC outputs.