



2500C-16-DO-24V Discrete Output Module



DESCRIPTION

The 2500C-16-DO-24V Module outputs a wide range of DC voltage signals. It is designed to provide 16 solid state output circuits to switch on or off external devices such as pilot lamps, motor starters or solenoids. The 2500C-16-DO-24V is designed to switch an externally supplied 24VDC. LEDs provide visual indication for output and fuse status.

FEATURES

- Single wide module
- 16 channels isolated in groups of 8 channels
- Each group is individually fused
- Sourcing Outputs
- Channel On/Off Status Indication
- Blown fuse indication and reporting for each group
- Module supports Classic Plus and Classic Mode Logon. Ships in default Classic Plus Mode.
- Uses CTI's 2500C-32F Connector
- Module supports hot swapping

2500C-16-DO-24V Default Shipment Settings

Operation Mode	CP
Logon	8X /16Y
Output Range	11-30VDC

Output Specifications

Outputs per module	16
Module Logon	8X /16Y
Output Voltage Range	11 to 30 VDC
Module Logon Classic Plus Mode selected with JP2.	8X /16Y
Module Logon Classic Mode selected with JP2.	16Y
Maximum Output current per Channel - Preliminary	.5 A @ 25°C .25 @ 60°C
Maximum Output current per Group	4A at 25°C
Maximum Surge Current	3A for 15 sec
“ON” State Voltage Drop	83 mV
“OFF” State Leakage Current	0.05 µA
Turn ON Time	.5 mS
Turn OFF Time	10 mS
Fusing 	Groups of 8
Fuses: 2 Field Replaceable Fuses	6.3 amp, 250V Type Littlefuse #23016300021 Schurter 0034.0909

Module Size	Single wide module
Connector	2500C-32F
Backplane Power (MAX)	1.25 watts
Input ESD Protection	IEC 1000-4-2 Level 4
Isolation	1500 VDC Channel to Backplane 1000 VDC Group to Group
Shipping Dimensions and Weight	223.84mm x 109.86mm x 34.93mm, 0.234kg
Operating Temperature Range	0°C to 60°C (32°F to 140°F)
Storage Temperature Range	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	5% to 95% (non-condensing)
Agency Approvals Pending	UL, ULC, UL Class 1, Div 2, CE



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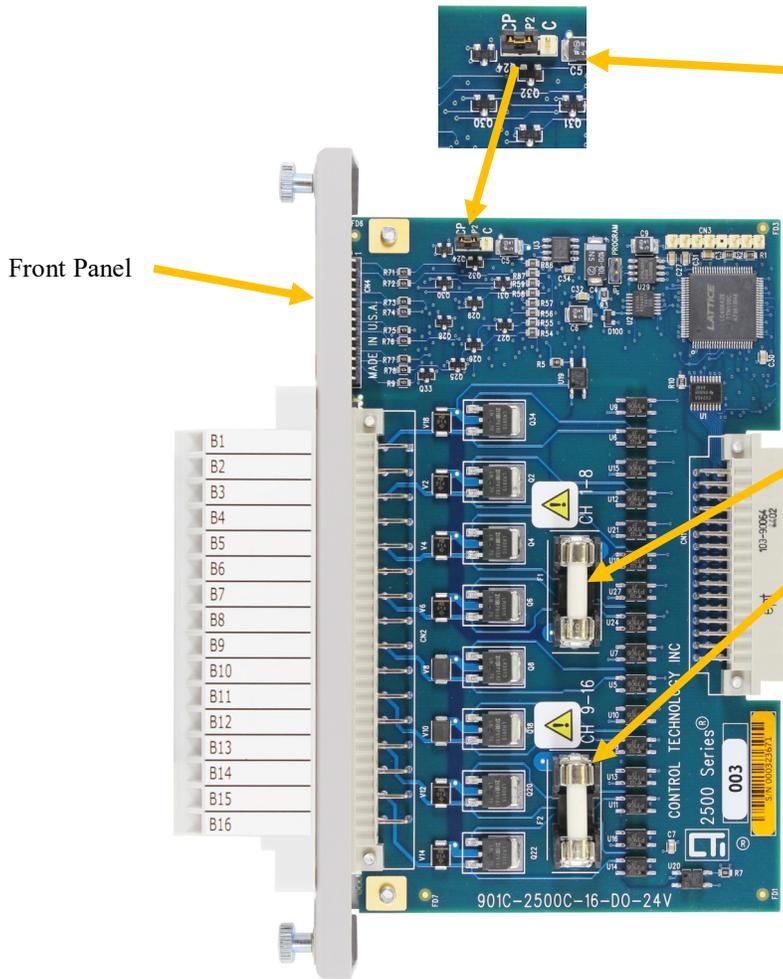




2500 Series™ Compact System



2500C-16-DO-24V Discrete Output Module



Module Logon Selection Jumpers. CP or Classic Plus mode is the default shipping configuration. In CP mode the module logs in as a 8X/16Y for blown fuse reporting. In C or Classic Mode the module logs in as a 16Y and does not provide blown fuse reporting. This allows customers to modify the module logon based on their application requirements. JP2 is available only on 901C Rev boards or higher. This replaces SPQ-16Y.

Channel 1 thru 8 Group A Fuse

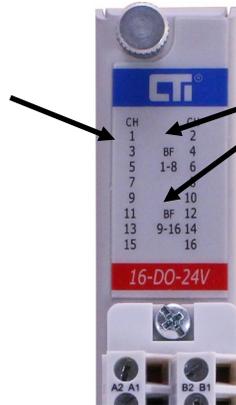
Channel 9 thru 16 Group B Fuse



Blown Fuse Operation Overview..

Blown Fuse detection works when the Output Channel is wired and the output is turned on. If the fuse is blown the LED will turn ON and the associated X address will equal 1. If the Output Channel is turned off the LED indicator will turn OFF and the associated Blown Fuse Bit will equal 0. The module does not Latch the Blown Fuse Input so the user application should trap for the reported Blown Fuse Bit while the Output is turned ON. This will allow logging and notification of the blown fuse event to your HMI stations and other reporting devices. Blown Fuse reporting on this module is for each Group of 8 channels.

Channel ON/OFF Status LED
LED is illuminated BLUE when the output is turned ON.



Blown Fuse LED
The Blown Fuse LED is illuminated when the Module detects a Blown Fuse. There is one LED per Group.



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Channel	Output	Terminal	Terminal	Terminal	Terminal
Channel 1	Output	A1	A1	B1	+24 VDC Group A
Channel 2	Output	A2	A2	B2	
Channel 3	Output	A3	A3	B3	
Channel 4	Output	A4	A4	B4	
Channel 5	Output	A5	A5	B5	
Channel 6	Output	A6	A6	B6	
Channel 7	Output	A7	A7	B7	
Channel 8	Output	A8	A8	B8	
Channel 9	Output	A9	A9	B9	+24 VDC Group B
Channel 10	Output	A10	A10	B10	
Channel 11	Output	A11	A11	B11	
Channel 12	Output	A12	A12	B12	
Channel 13	Output	A13	A13	B13	
Channel 14	Output	A14	A14	B14	
Channel 15	Output	A15	A15	B15	
Channel 16	Output	A16	A16	B16	

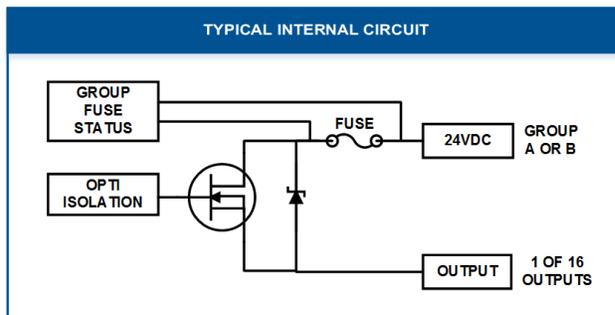
2500C-16-DO-24V Wiring Connector

Note:

The 2500C-16-DO-24V Discrete Output Module uses CTI Wiring Connector 2500C-32F. Please see the wiring connector specification table below. This connector is ordered separately from the module.

2500C-32F Specifications	
Connector Style	Removable
Number of Wiring Connections	32 point
Wire Gauge	14 to 22AWG
Screw Torque Value	5.22 lb-in
Current Rating	6A @ 300VAC
Insulation Stripping Length	0.24" 6mm

Connector Material	
Body:	Polycarbonate UL 94V0
Screw :	M3 Zinc plated Steel
Cage Clamp	Nickel Plated Brass
Socket Contact Spring:	Tin Plated Bronze
Retaining Screw:	M3 Zinc Plated Steel



2500C-16-DO-24V PLC Log on 8X/16Y															
Blown Fuse Reporting 8X Blown Fuse = 1															
X1 Blown Fuse Group A Channels 1 through 8								X2 Blown Fuse Group B Channels 9 through 16							
X3 through X8 are not used															
Output Channel 16Y OFF = 0 ON = 1															
CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8	CH 9	CH 10	CH 11	CH 12	CH 13	CH 14	CH 15	CH 16
Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	Y21	Y22	Y23	Y24



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2500C-16-DO-24V Discrete Output Module



CAUTION – Non-Hazardous Areas/Hazardous Areas

WARNING – EXPLOSION HAZARD. DO NOT REMOVE OR REPLACE WHILE CIRCUIT IS LIVE UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS.	AVERTISSEMENT – RISQUE D'EXPLOSION. NE PAS RETIRER NI REMPLACER PENDANT QUE LE CIRCUIT EST SOUS TENSION À MOINS QUE L'EMPLACEMENT NE SOIT EXEMPT DE CONCENTRATIONS INFLAMMABLES.
WARNING – EXPLOSION HAZARD. DO NOT REMOVE OR REPLACE FUSE WHEN ENERGIZED.	AVERTISSEMENT – RISQUE D'EXPLOSION. NE PAS RETIRER NI REMPLACER UN FUSIBLE SI L'APPAREILLAGE EST SOUS TENSION.

Turn off power to the system before replacing fuses either in power supplies or IO modules. Refer to Product Bulletin or Installation and Operation Guide for specific information on the correct fuse for replacement. If there are any questions please contact CTI support. Fuses should only be replaced by qualified technicians.



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