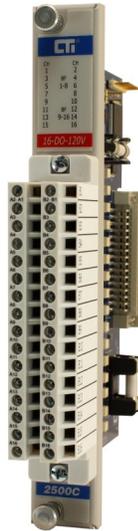




2500C-16-DO-120V Discrete Output Module



DESCRIPTION

The 2500C-16-DO-120V Module outputs a wide range of AC 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 using a 120VAC external source. Front panel LEDs provide visual indication for output and fuse status.

FEATURES

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

2500C-16-DO-120V Default Shipment Settings

Operation Mode	CP
Logon	8X /16Y
Signal Range	79-132VAC

Output Specifications

Outputs per module	16
Module Logon Classic Plus Mode selected with JP2.	8X /16Y
Module Logon Classic Mode selected with JP2.	16Y
Output Voltage Range	79-132 VAC
Maximum Output current	.5 A @ 25° .25A @ 60°C
Maximum Surge Current	6.5A for 15 sec
“ON” State Voltage Drop	NA
“OFF” State Leakage Current	750µA @ 120VAC
Turn ON Time	1/2 AC cycle
Turn OFF Time	1/2 AC cycle
Fusing	Groups of 8
Fuses: 2 Field Replaceable Fuses	4.0 AAC, 250V Type Littlefuse #0216004.HXP

Module Size	Single wide module
Connector	2500C-32F
Backplane Power (MAX)	1.25 watt (all Channels ON)
Input ESD Protection	IEC 1000-4-2 Level 4
Isolation (2 groups of 8 channels)	300VAC Group to Group 1500VDC channel to backplane
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



Control Technology Inc.

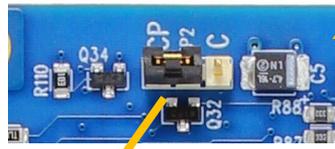
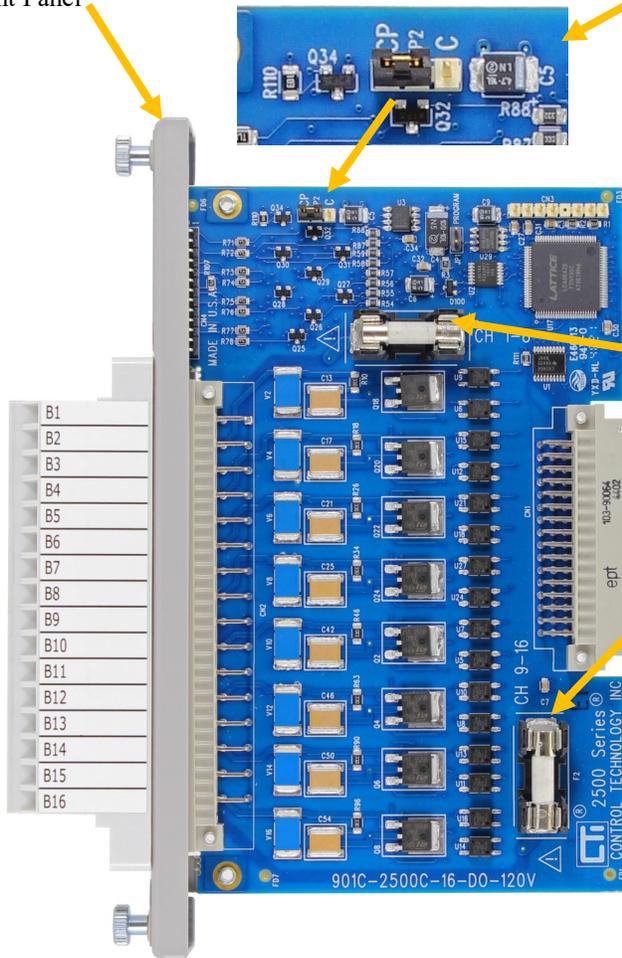
5734 Middlebrook Pike, Knoxville, TN 37921-5914
Phone: +1.865.584.0440 Fax: +1.865.584.5720
www.controltechnology.com





2500C-16-DO-120V Discrete Output Module

Front Panel



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.



Control Technology Inc.

5734 Middlebrook Pike, Knoxville, TN 37921-5914
Phone: +1.865.584.0440 Fax: +1.865.584.5720
www.controltechnology.com





2500C-16-DO-120V Discrete Output Module

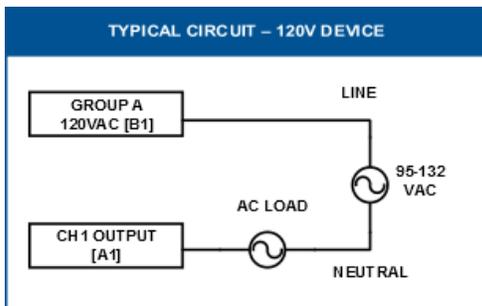
Channel	Output	Terminal	Terminal	Terminal	Terminal	Terminal
Channel 1	Output	A1	A1	B1	120VAC	Group A
Channel 2	Output	A2	A2	B2		
Channel 3	Output	A3	A3	B3		
Channel 4	Output	A4	A4	B4		
Channel 5	Output	A5	A5	B5		
Channel 6	Output	A6	A6	B6		
Channel 7	Output	A7	A7	B7		
Channel 8	Output	A8	A8	B8		
Channel 9	Output	A9	A9	B9	120 VAC	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-120V Wiring Connector

Note:
The 2500C-16-DO-120V Discrete Output Modules use 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 Use Copper Conductors Only	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



Application Note: If you are replacing a larger 2500 Classic System with a 2500 Compact System you must verify the configuration requirements for each module, due to the potential differences in log-in memory addresses and configuration requirements.

2500C-16-DO-120V 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 unused															
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	11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	Y21	Y22	Y23	Y24



Control Technology Inc.
5734 Middlebrook Pike, Knoxville, TN 37921-5914
Phone: +1.865.584.0440 Fax: +1.865.584.5720
www.controltechnology.com





2500C-16-DO-120V Discrete Output Module



CAUTION – Non-Hazardous Areas/Hazardous Areas

<p>WARNING – EXPLOSION HAZARD. DO NOT REMOVE OR REPLACE WHILE CIRCUIT IS LIVE UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS.</p>	<p>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.</p>
<p>WARNING – EXPLOSION HAZARD. DO NOT REMOVE OR REPLACE FUSE WHEN ENERGIZED.</p>	<p>AVERTISSEMENT – RISQUE D'EXPLOSION. NE PAS RETIRER NI REMPLACER UN FUSIBLE SI L'APPAREILLAGE EST SOUS TENSION.</p>

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.



Control Technology Inc.

5734 Middlebrook Pike, Knoxville, TN 37921-5914
Phone: +1.865.584.0440 Fax: +1.865.584.5720
www.controltechnology.com

