



2500 Series Compact System



2500C-8-IDO-120V Discrete Output Module



DESCRIPTION

The 2500C-8-IDO-120V Module outputs a wide range of AC voltage signals. It is designed to provide 8 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
- 8 individually isolated channels
- Each channel is individually fused
- Sourcing or sinking Outputs
- Channel On/Off Status Indication
- Blown fuse indication and reporting for each channel
- Uses CTI's 2500C-32F Connector
- Module supports hot swapping

Additional Product Information:

On CTI's Website you will find links to the 2500 Series Std Environmental Specifications and the UL Agency Certificates of Compliance .

Output Specifications	
Outputs per module	8
Module Logon	8X /8Y
Output Voltage Range	79-132 VAC
Maximum Output current per channel	1 A @ 45°C .625A @ 60°C
Maximum Surge Current	3A for 15 sec
Total Module Current	8 A @ 45°C 5A @ 60°C
"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	8 fuses
Fuses: 8 Field Replaceable Fuses	2.0 amp, 250V Type Schurter 0034.0904

Module Size	Single wide module
Connector	2500C-32F
Backplane Power (MAX)	1.09 watts
Input ESD Protection	IEC 1000-4-2 Level 4
Isolation	1500 VDC Channel to Backplane 300 VAC Channel to Channel
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

2500C-8-IDO-120V Default Shipment Settings

Operation Mode	NA
Logon	8X /8Y
Output Range	79-132 VAC



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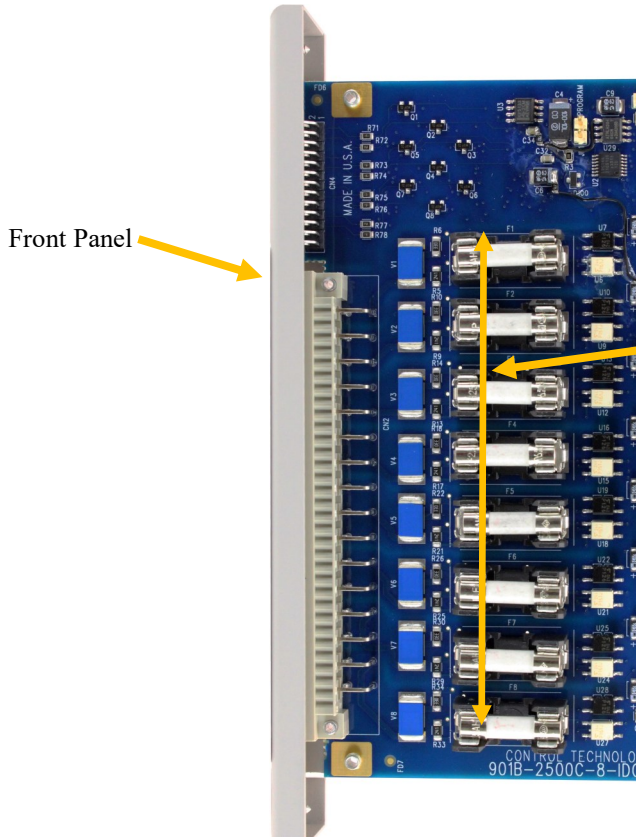




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Note: All 8 Channels are individually fused.

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 channel.

2500C-8-IDO-24V PLC Log on 8X/8Y

Blown Fuse Reporting 8X				Blown Fuse = 1			
CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8
X1	X2	X3	X4	X5	X6	X7	X8
Output Channel 8Y				OFF = 0 ON = 1			
Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16

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.



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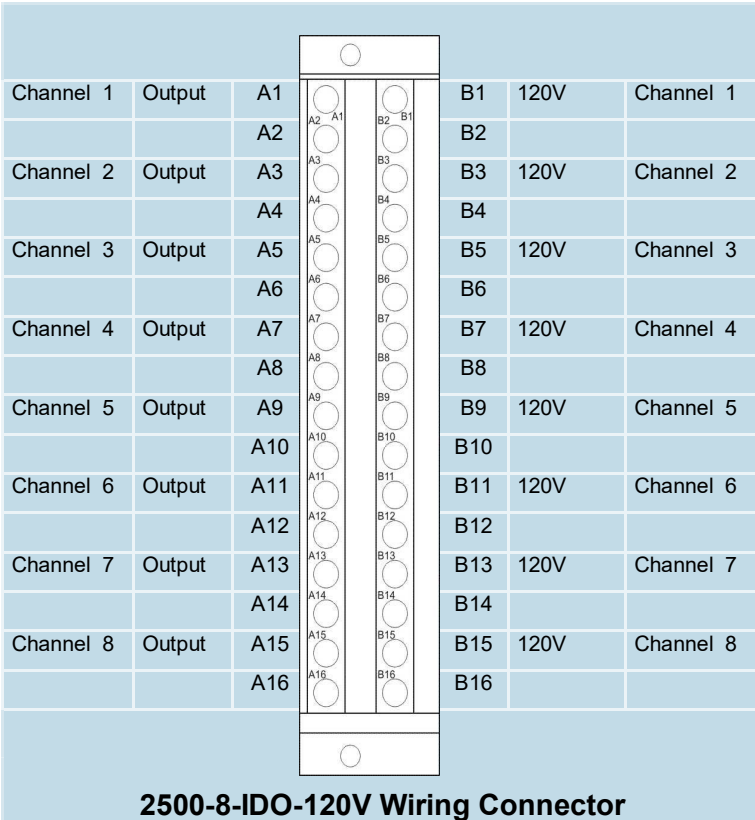




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2500C-8-IDO-120V Discrete Output Module



Note:
The 2500C-8-IDO-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.

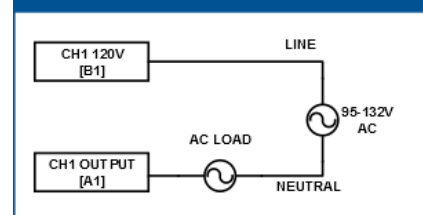
2500C-32F Specifications

Connector Style	Removable
Number of Wiring Connections	32 point
Wire Gauge	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

TYPICAL CIRCUIT – EXTERNAL DEVICE



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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Physical Installation



Physical Installation Picture

Remove AC power from the rack. Align the circuit board with the card guide and backplane connector. Slide the controller into the rack until the connector seats. Use the thumbscrews to secure the controller in the rack. Once the module is secured to the rack you may install the wiring connector.



CAUTION REGARDING HOT SWAPPING:

The 2500C-8-IDO--120V is designed to allow “hot-swapping” the module under power in the event that a replacement is needed. However, you must be aware that hot-swapping does not meet UL Safety requirements and is not recommended. If you must “hot-swap” the module, use the following procedure:

- Make sure all field devices connected to the module are placed into a “safe” state
- Remove the I/O connector from the front of the module
- Loosen the module retaining screws and remove it from the base
- Ensure the jumper configuration of the replacement module matches the one just removed
- Install the replacement module and tighten the retaining screws. The replacement module must be the same model number as the one removed.
- Reattach the I/O connector to the module
- Ensure the replacement module and all other components are operating properly
- Remove the field devices from “safe” state
- Return to NORMAL RUN mode

You are responsible for any results in your application control. DO NOT ATTEMPT TO HOT-SWAP A MODULE IN A HAZARDOUS LOCATION!



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