



## 2500C-8-IDO-24V Discrete Output Module



### DESCRIPTION

The 2500C-8-IDO-24V Module outputs a wide range of DC 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 an externally supplied 24VDC. Front panel LEDs provide visual indication for output and fuse status.


### FEATURES

- Single wide module
- 8 channels isolated channel to channel
- 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 swap

### 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 .

### Input Specifications

Inputs per module	8
Module Logon	8X /8Y
Output Voltage Range	11 to 30VDC
Maximum Output current	2 A @ 40°C 1A @ 60°C
Maximum Surge Current	5A for 15 sec
"ON" State Voltage Drop	83mV @ 1.0 Amp
"OFF" State Leakage Current	.05 µA
Turn ON Time	0.5 mS (nominal)
Turn OFF Time	10 mS (nominal)
Fusing	Each Channel is individually fused
Fuses:  2 Field Replaceable Fuses	2.5 amp, 250V Type Littlefuse #021602.5HXP Bussman GDA-2.5A

Module Size	Single wide module
Connector	2500C-32F
Backplane Power (MAX)	1.175 watt Max
Input ESD Protection	IEC-1000-4-2 Level 4
Isolation	1500 VDC Channel to Backplane 1000 VDC 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-24V Default Shipment Settings

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



### Control Technology Inc.

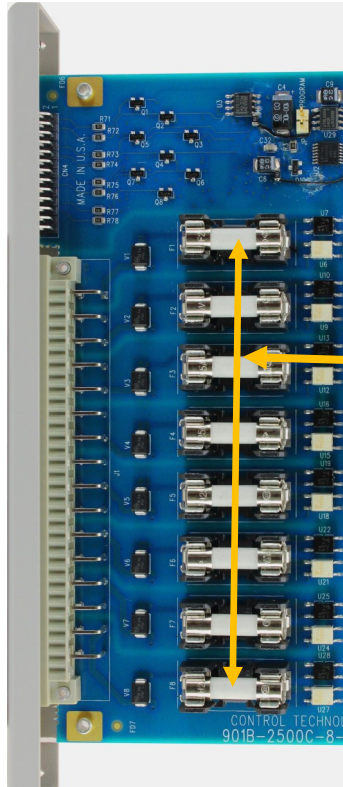
5734 Middlebrook Pike, Knoxville, TN 37921-5914  
Phone: +1.865.584.0440 Fax: +1.865.584.5720  
www.controltechnology.com





## 2500C-8-IDO-24V Discrete Output Module

Front Panel



**Note:** All 8 Channels are individually fused.

Channel 1 thru 8 Fuses



### Blown Fuse Operation Overview..

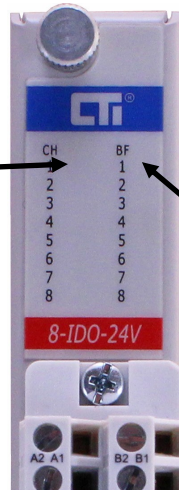
Blown Fuse detection works when the Output Channel is wired and the output is turned on. If the fuse is blown the LED will turn ON and the associated X address will equal 1. If the Output Channel is turned off the LED indicator will turn OFF and the associated Blown Fuse Bit will equal 0. The module 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.



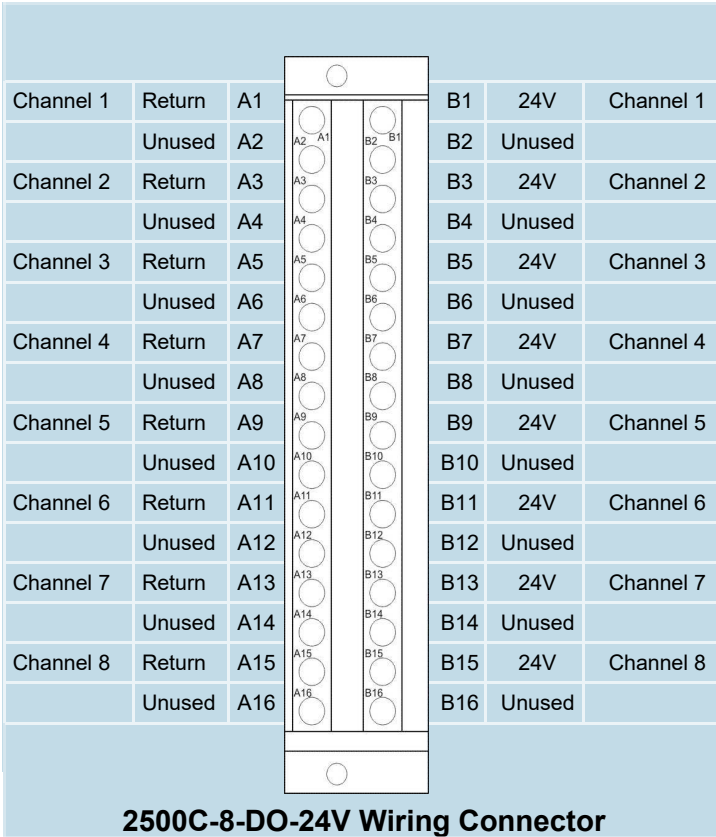
**Control Technology Inc.**

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



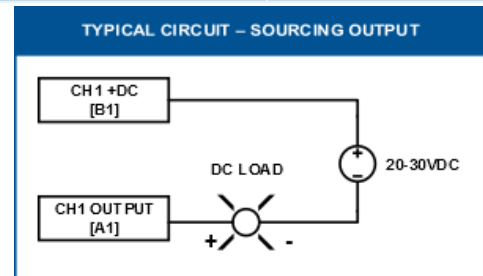


## 2500C-8-IDO-24V Discrete Output Module



Note:  
The 2500C-8-DO-24V 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



**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

