2500 Series™ Compact System

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

Input Specifications	
Inputs per module	8
Module Logon	8X /8Y
Output Voltage Range	11 to 30VDC
Maximum Output current	2 A @ 40ºC 1A @ 60ºC
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	0ºC to 60ºC (32ºF to 140ºF)
Storage Temperature Range	-40ºC to 85ºC (-40ºF to 185ºF)
Relative Humidity	5% to 95% (non-condensing)
Agency Approvals Pending	UL, ULC, UL Class 1, Div 2, CE

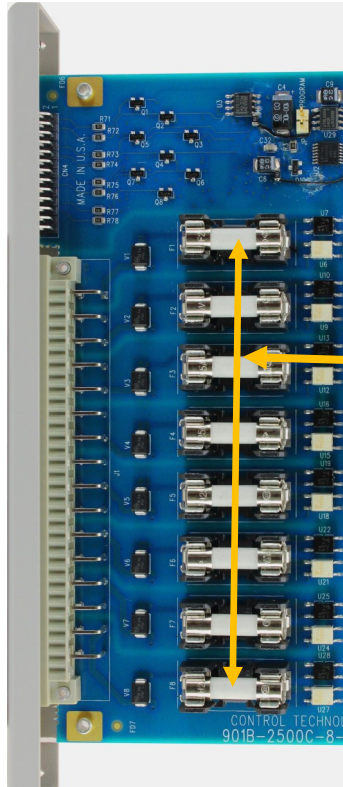| 2500C-8-IDO-24V Default Shipment Settings	
Operation Mode	NA
Logon	8X /8Y
Output Range	11-30VDC

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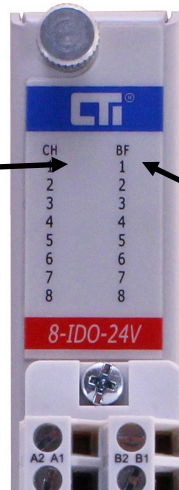www.controltechnology.com

CE

Note: All 8 Channels are individually fused.

Front Panel

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.

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

Channel 1	Return	A1		B1	24V	Channel 1
	Unused	A2		B2	Unused	
Channel 2	Return	A3		B3	24V	Channel 2
	Unused	A4		B4	Unused	
Channel 3	Return	A5		B5	24V	Channel 3
	Unused	A6		B6	Unused	
Channel 4	Return	A7		B7	24V	Channel 4
	Unused	A8		B8	Unused	
Channel 5	Return	A9		B9	24V	Channel 5
	Unused	A10		B10	Unused	
Channel 6	Return	A11		B11	24V	Channel 6
	Unused	A12		B12	Unused	
Channel 7	Return	A13		B13	24V	Channel 7
	Unused	A14		B14	Unused	
Channel 8	Return	A15		B15	24V	Channel 8
	Unused	A16		B16	Unused	

2500C-8-DO-24V Wiring Connector

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	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 – SOURCING OUTPUT
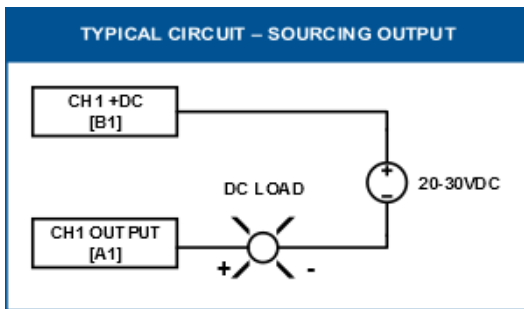
2500C-8-IDO-24V PLC Log on 8X/8Y							
Blown Fuse Reporting 8X				Blown Fuse = 1			
CH 1	CH 2	CH 3	CH 4	CH 5	CH 6	CH 7	CH 8
X1	X2	X3	X4	X5	X6	X7	X8
Output Channel 8Y			OFF = 0		ON = 1		
Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16

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