

Characteristics:

General description:

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5000 Series modules. The Intrinsically Safe protection and signal isolation between Safe and Hazardous Area, is provided by D5000 Series Associated Apparatus. 24 Vdc Supply to the TB can be provided by dedicated system screws or by two plug-in terminal blocks, for a redundant power supply.

The power supply for modules is given by TB power bus.

Termination Board general characteristics:

Termination Board Model	Number of positions	Features
TB-D5008-HON-002	8	1) Power Supply voltage redundancy; 2) Abnormal supply voltage signaling; 3) Cumulative module fault signaling.

Supported Honeywell Safety Manager I/O Cards:

I/O Card Model	I/O Card Type	Number of channels per I/O Card	Number of I/O Cards per board	Number of channels per board	Supported GM Modules
SDO-0824	Digital Out	8	1	8	D5048S D5049S D5090S D5091S
			2	16	D5040D

Features:

- Support for Honeywell Safety Manager SDO-0824 8 ch. DO Card
- 8 positions Terminal Board for up to 16 channels.
- Lower cables installation and maintenance costs.
- Power supplies fault monitoring.
- Spare fuse provided.
- Mounting hardware provided for:
 - Wall mounting, M4 thread screw;
 - Wall mounting, M4 self tapping screw;
 - Single Din Rail mounting kit.

Ordering Information:

Model: TB-D5008-HON-002

Technical Data:

Supply:

24 Vdc nom (20 to 30 Vdc) reverse polarity protected, double terminal blocks for redundant power supply, with OR diodes to mix supply voltages. Alternatively via dedicated Screws from Honeywell System.

Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm².

2 LEDs indication: green color, one for supply 1 and one for supply 2.

Protection fuse: 2 A time lag (spare fuse provided on Termination Board).

Fault detection:

1) Abnormal supply voltage: supply 1 or supply 2 is < 18 Vdc (Under Voltage, UV) or > 30 Vdc (Over Voltage, OV).

2) Cumulative module fault: at least one of the modules reports a field/internal fault
LED fault signaling (for both case 1 and 2): 1 red LED for abnormal supply 1; 1 red LED for abnormal supply 2; a cumulative module fault red LED.

Relay fault signaling (one for each case 1 or 2): a voltage free NE SPDT - 1 Form C relay contacts (de-energized in fault condition), with the following characteristics:

Contact material: AgCdO.

Contact rating: 2 A 36 Vac 72 VA, 2 A 48 Vdc 80 W (resistive load).

Mechanical / Electrical life: 30 * 10⁶ / 1 * 10⁵ operation, typical.

Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm².

I/O card interface:

Connection: two 20 poles male connectors (require female mating connectors).

Environmental conditions:

Operating: temperature limits - 40 to + 70 °C, relative humidity max 90 % non condensing, up to 35 °C.

Storage: temperature limits - 45 to + 80 °C.

Mounting:

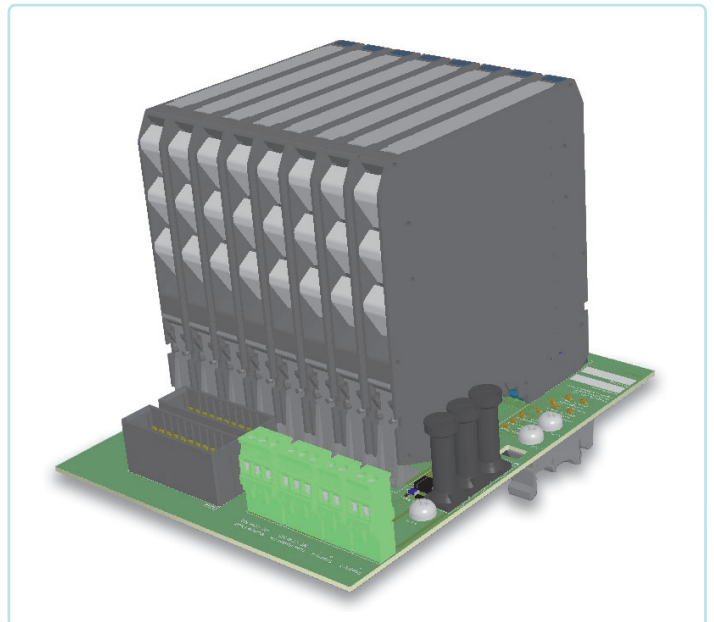
Hardware included for mounting on wall and single DIN rail.

Weight: about 220 g (excluding modules and mounting options).

Location: Safe Area / Ordinary locations.

Dimensions: Width 165 mm, Depth 175 mm, Height 125 mm.

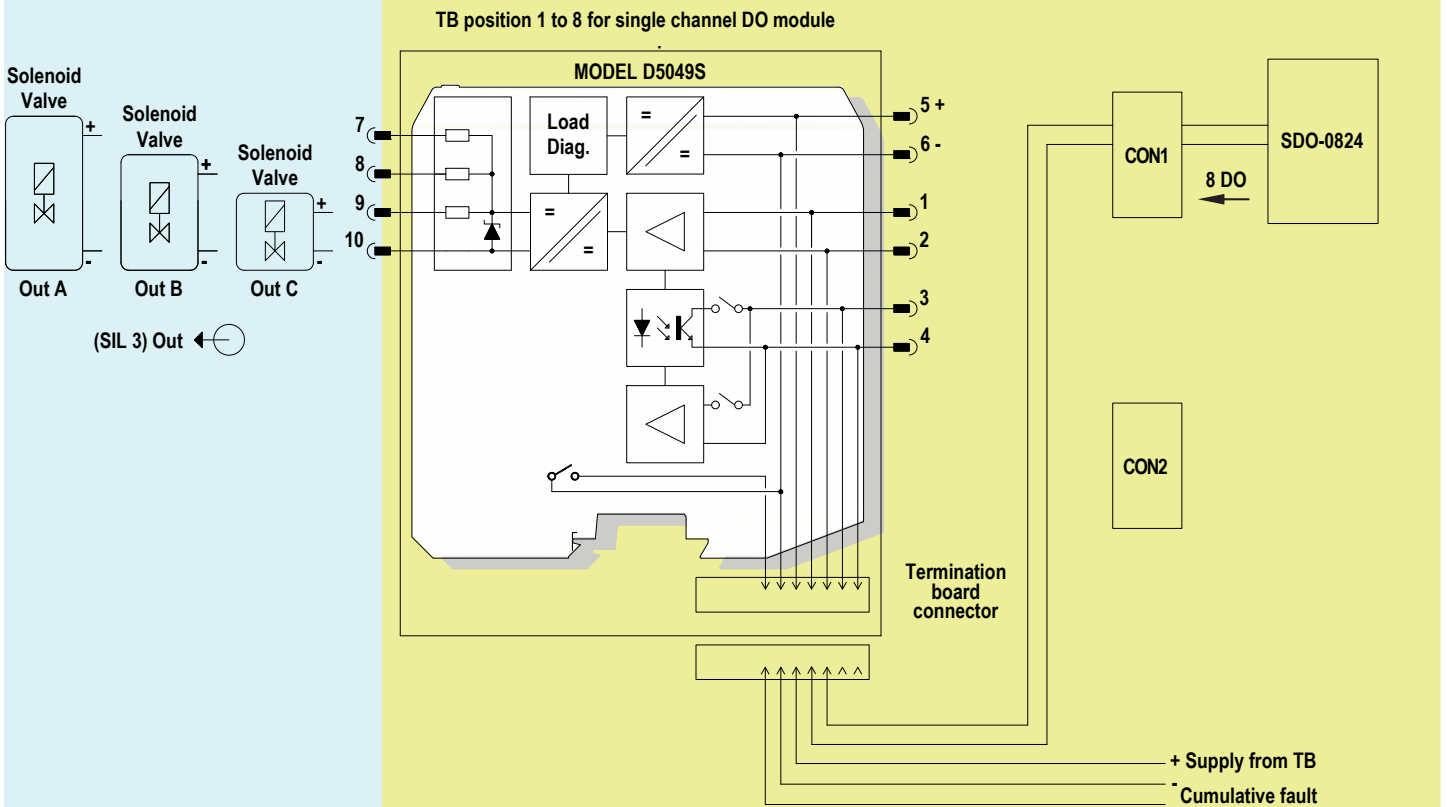
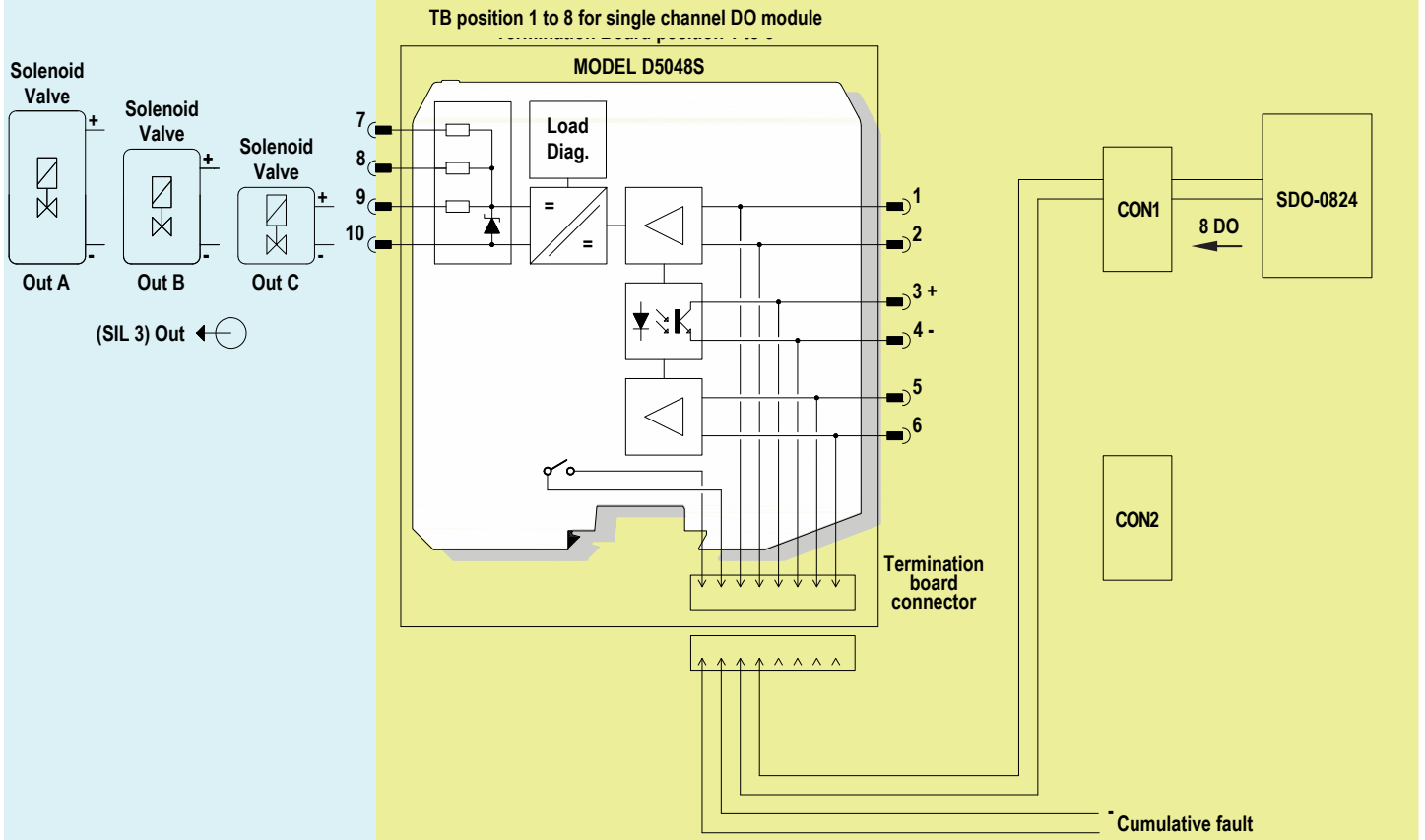
Image:



Loop Diagrams for SDO-0824 (8 DO) Interface Card:

HAZARDOUS AREA

SAFE AREA

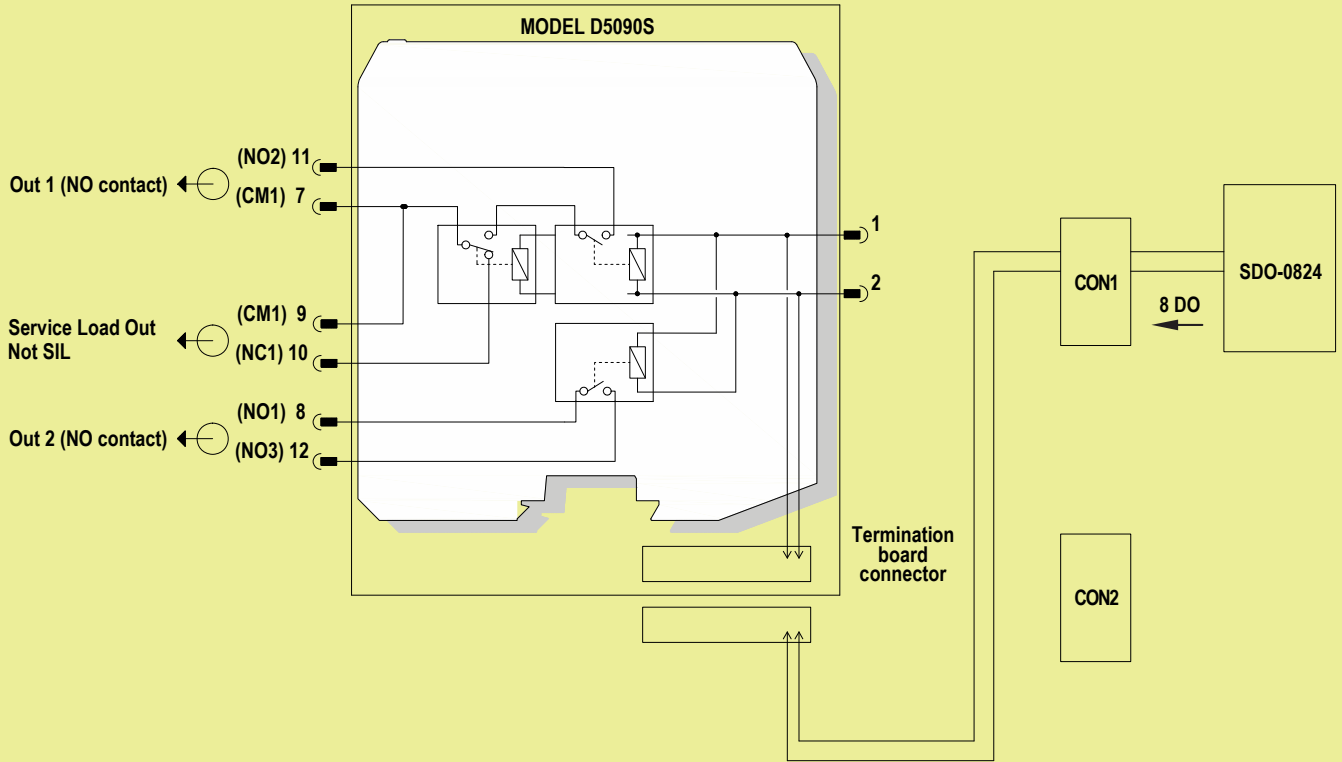


Loop Diagrams for SDO-0824 (8 DO) Interface Card:

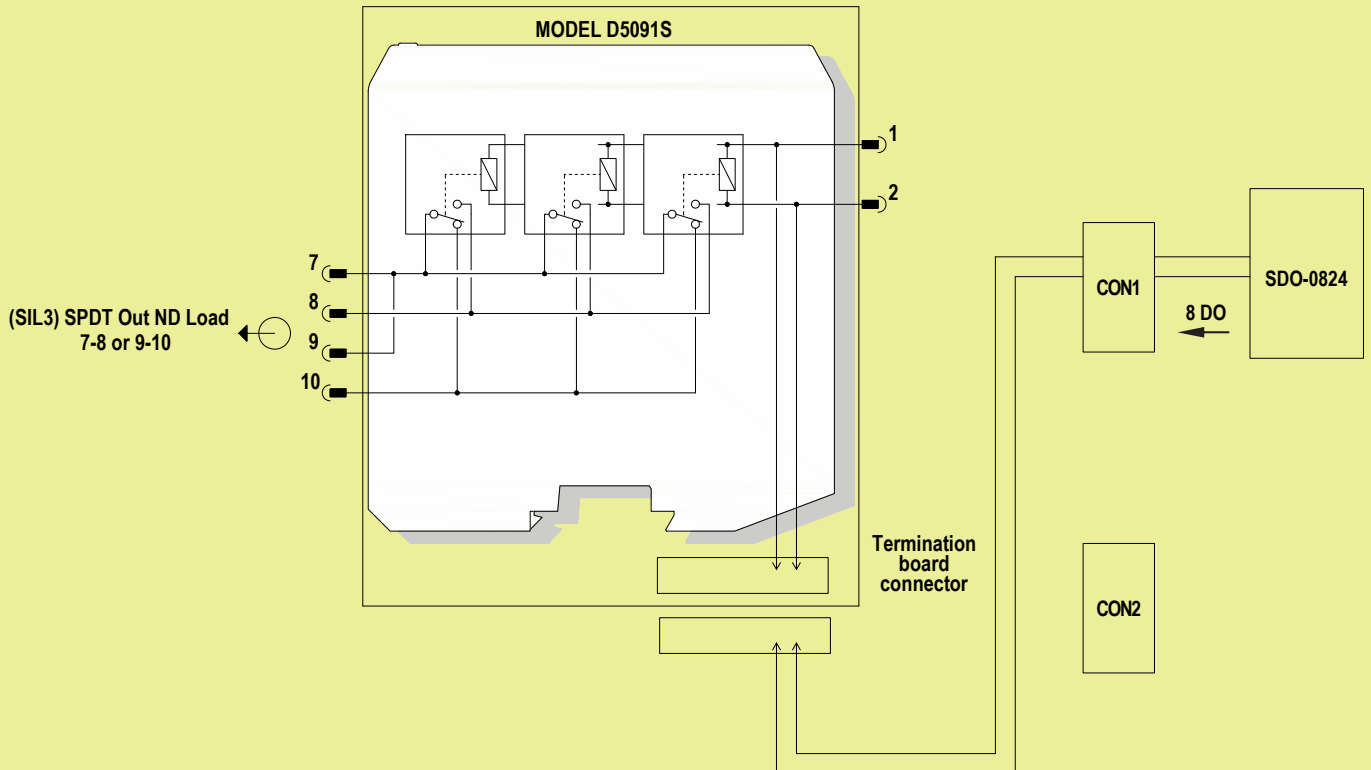
SAFE AREA

Note:
 Model D5090S and D5091S SIL3 Relays do not have
 Intrinsically safe outputs and therefore must not be
 placed on same board with D5048S and D5049S.

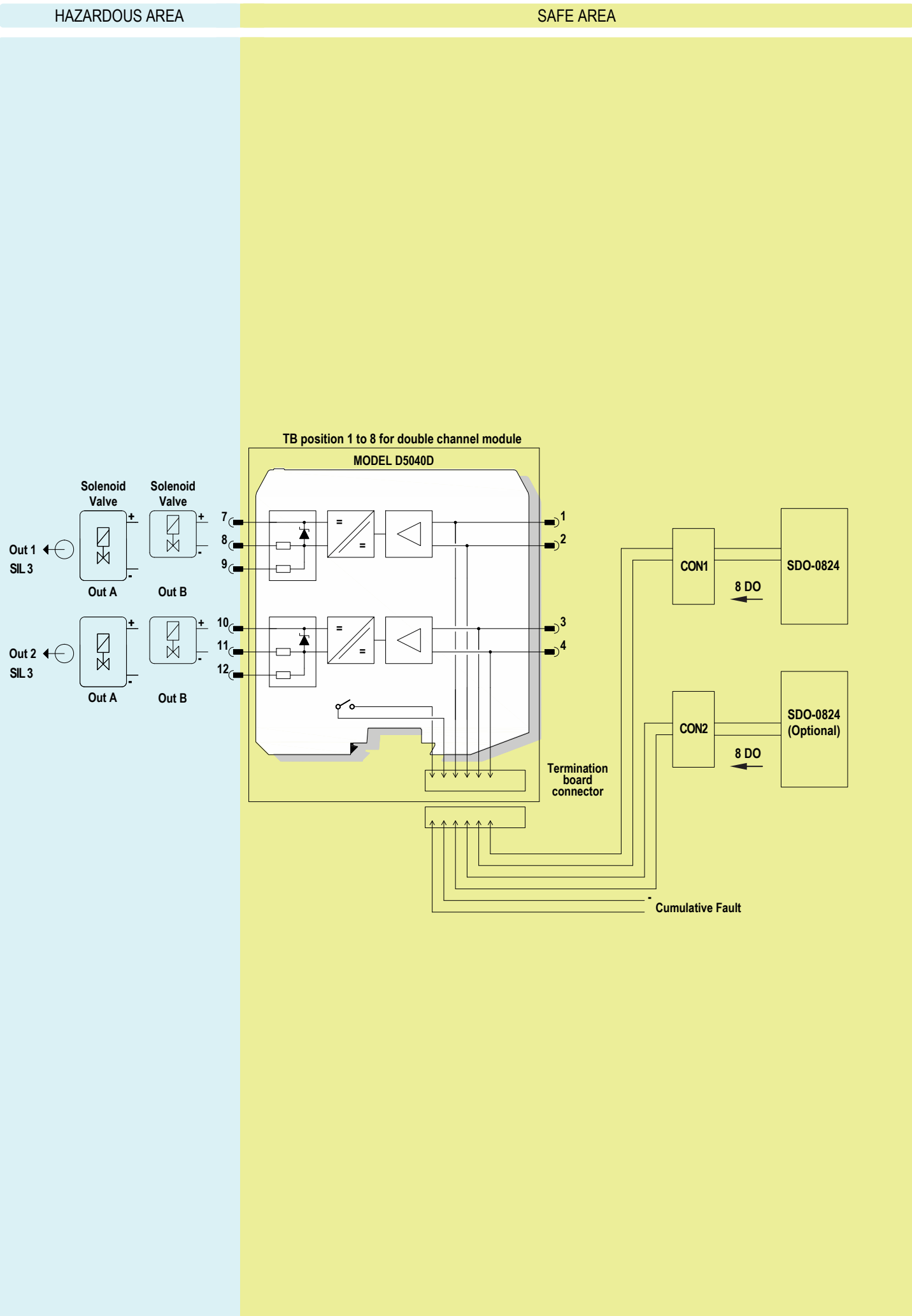
TB position 1 to 8 for single channel DO module



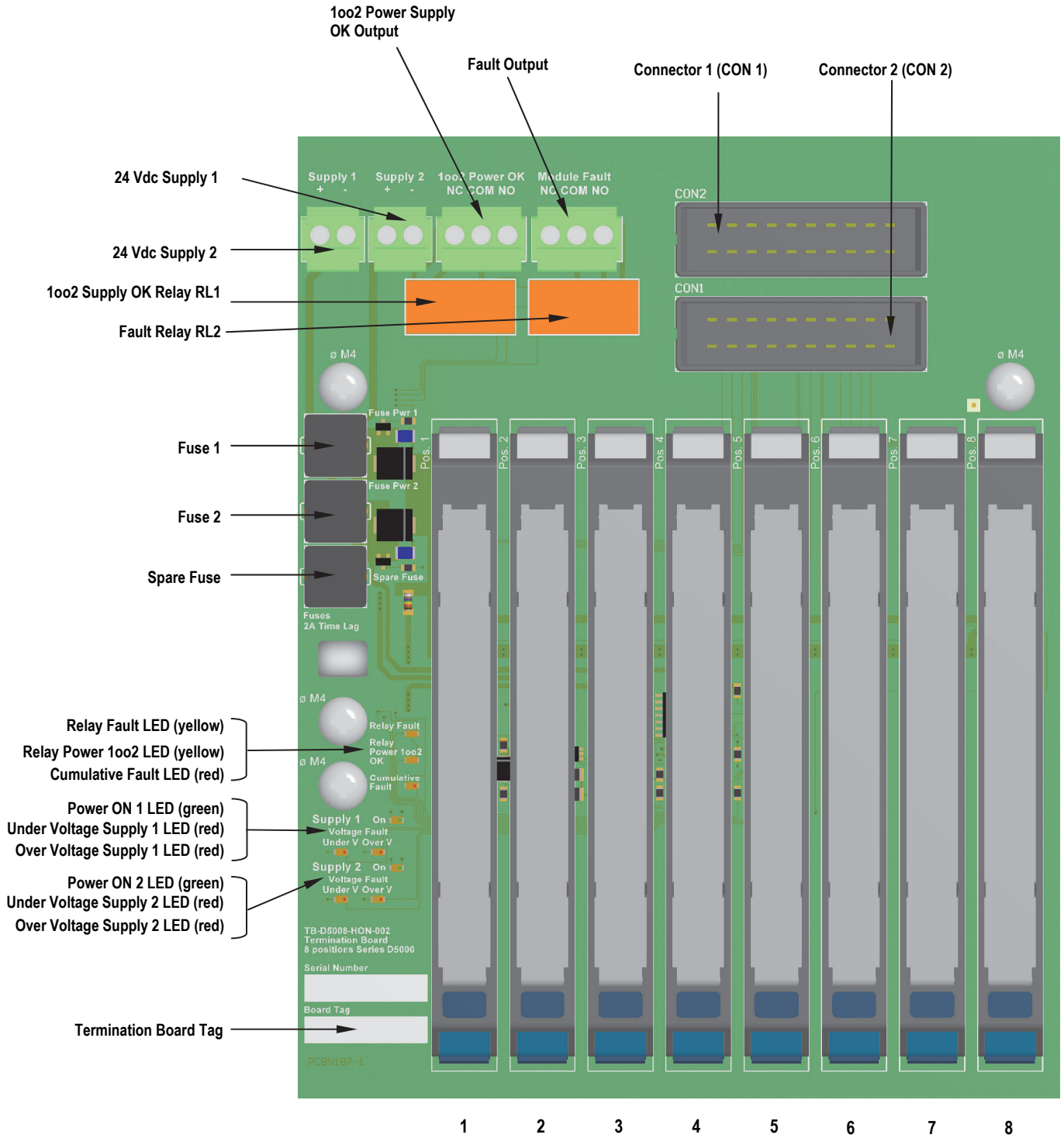
TB position 1 to 8 for single channel DO module



Loop Diagrams for SDO-0824 (8 DO) Interface Card:

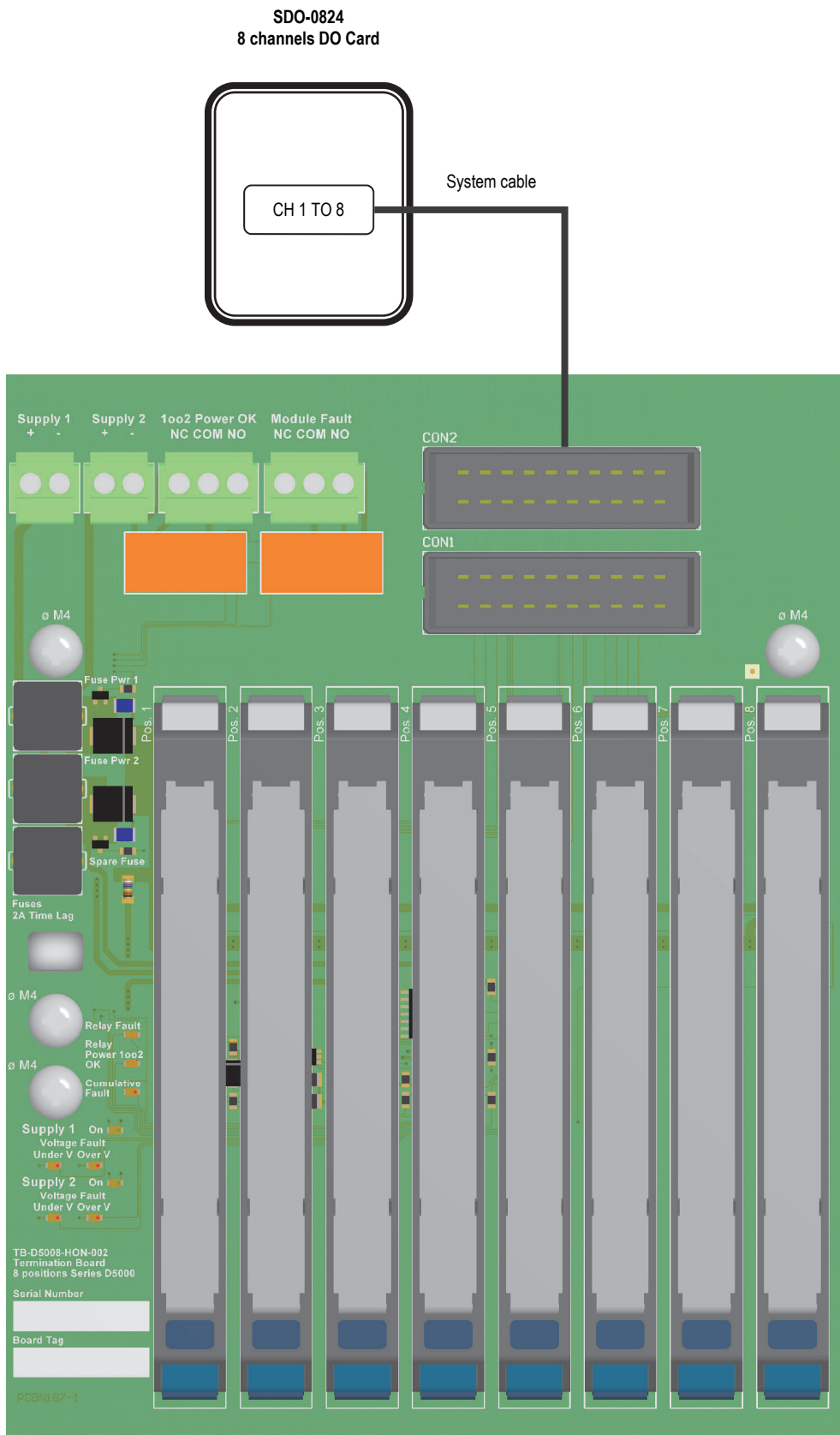


SAFE AREA / ORDINARY LOCATION



HAZARDOUS AREA / HAZARDOUS LOCATION

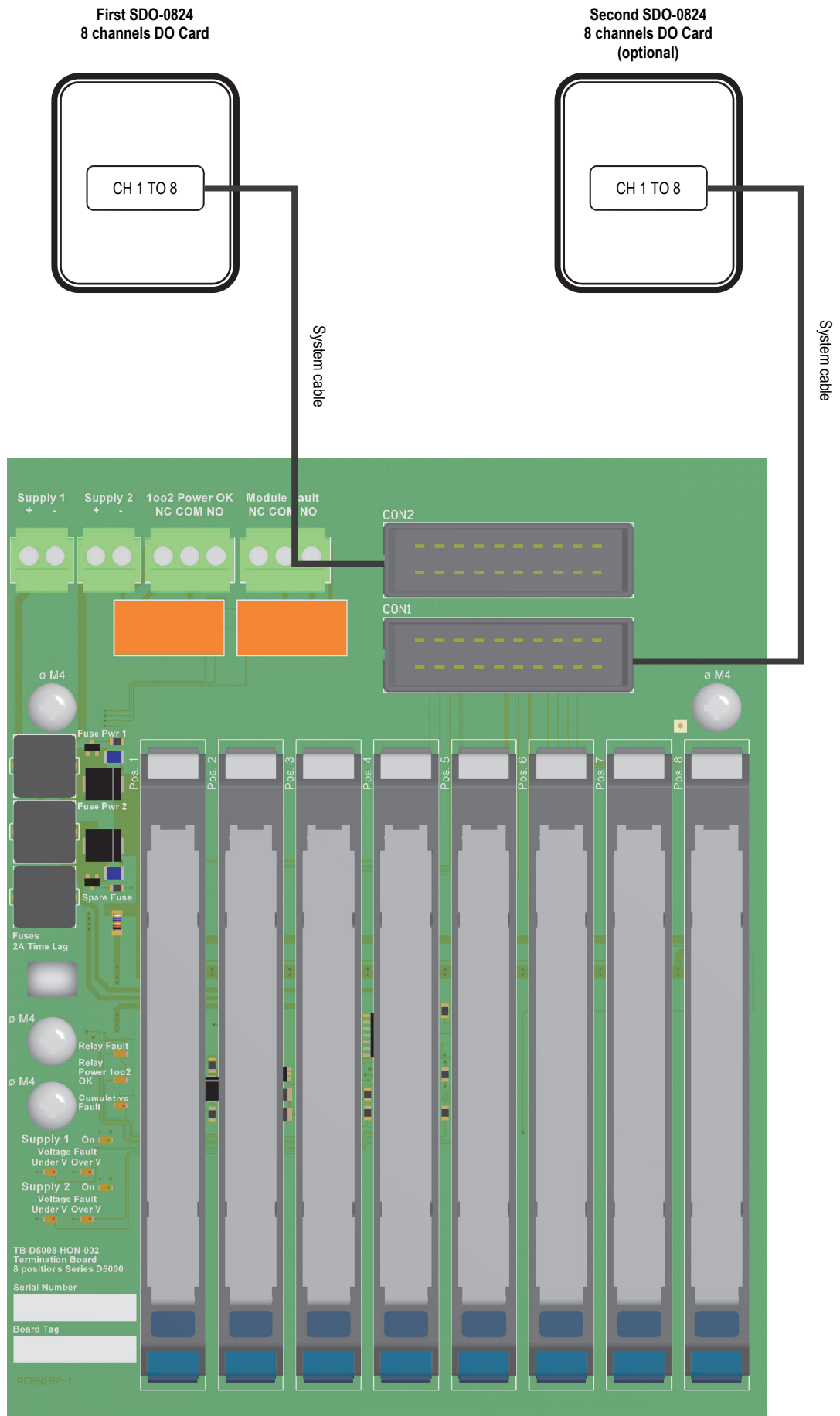
SAFE AREA / ORDINARY LOCATION



TB positions 1 to 8 for single channel modules



HAZARDOUS AREA / HAZARDOUS LOCATION

Termination Board Connections (Double channel modules):



TB positions 1 to 8 for double channel modules

Connections table to SDO-0824 (16 DO) Interface Card:

FIELD DEVICE	MODULE TYPE	MODULE FUNCTION	MODULE POSITION	MODULE CHANNEL NUMBER ("B" is only for Double channel)	INTERFACE CARD CHANNEL NUMBER	INTERFACE CARD CONNECTOR CONN.(20 poles) PIN NUMBER	NOTE
 	D5048S D5049S D5040D	Digital OUT	1	1A	1 of card 1	(+) A9 (CON1) (-) B9 (CON1)	<p style="text-align: center;"><u>Interface Card Connectors</u> <u>D-3100D, 20 poles CON1, CON2 :</u> Poles A1, A10, B1 and B10 are not connected.</p>
				1B	1 of card 2	(+) A9 (CON2) (-) B9 (CON2)	
			2	2A	2 of card 1	(+) A8 (CON1) (-) B8 (CON1)	
				2B	2 of card 2	(+) A8 (CON2) (-) B8 (CON2)	
			3	3A	3 of card 1	(+) A7 (CON1) (-) B7 (CON1)	
				3B	3 of card 2	(+) A7 (CON2) (-) B7 (CON2)	
			4	4A	4 of card 1	(+) A6 (CON1) (-) B6 (CON1)	
				4B	4 of card 2	(+) A6 (CON2) (-) B6 (CON2)	
			5	5A	5 of card 1	(+) A5 (CON1) (-) B5 (CON1)	
				5B	5 of card 2	(+) A5 (CON2) (-) B5 (CON2)	
			6	6A	6 of card 1	(+) A4 (CON1) (-) B4 (CON1)	
				6B	6 of card 2	(+) A4 (CON2) (-) B4 (CON2)	
	7		7A	7 of card 1	(+) A3 (CON1) (-) B3 (CON1)		
			7B	7 of card 2	(+) A3 (CON2) (-) B3 (CON2)		
	8		8A	8 of card 1	(+) A2 (CON1) (-) B2 (CON1)		
			8B	8 of card 2	(+) A2 (CON2) (-) B2 (CON2)		

Termination Board Supply:

