

Characteristics:

General description:

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5000 / D6000 Series modules.

The Intrinsically Safe protection and signal isolation between Safe and Hazardous Area, is provided by D5000 Series Associated Apparatus. The 24 Vdc Power Supply of the TB is connected to 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:

Number of positions	Features
16	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 Type	I/O Card Model	Channels per I/O Card	Number of I/O cards per board	Channels per board	Supported GM Modules(*)
Digital In	SDI-1624	16	1	16	D5031S, D5032S, D5093S, D6031S, D6032S, D6037S
			2	32	D5031D, D5032D, D5093D, D6031D, D6032D, D6037D
	SDIL-1608	16	1	16	D5034S, D6034S
			2	32	D5034D, D6034D

(*) Do not mix D5000 Intrinsically Safe barriers with D5000 Relay modules or D6000 isolators on same termination board.

Features:

- Support for Honeywell Safety Manager SDI-1624/SDIL-1608 16 ch. DI Card
- 16 positions Terminal Board for up to 32 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.

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: 4 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:

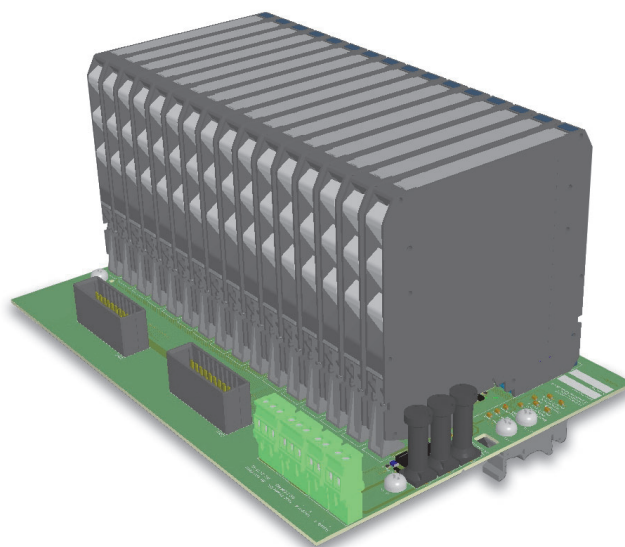
Hardware included for mounting on wall and single DIN rail.

Weight: about 400 g (excluding modules and mounting options).

Location: Safe Area / Ordinary locations.

Dimensions: Width 267 mm, Depth 176 mm, Height 125 mm.

Image:



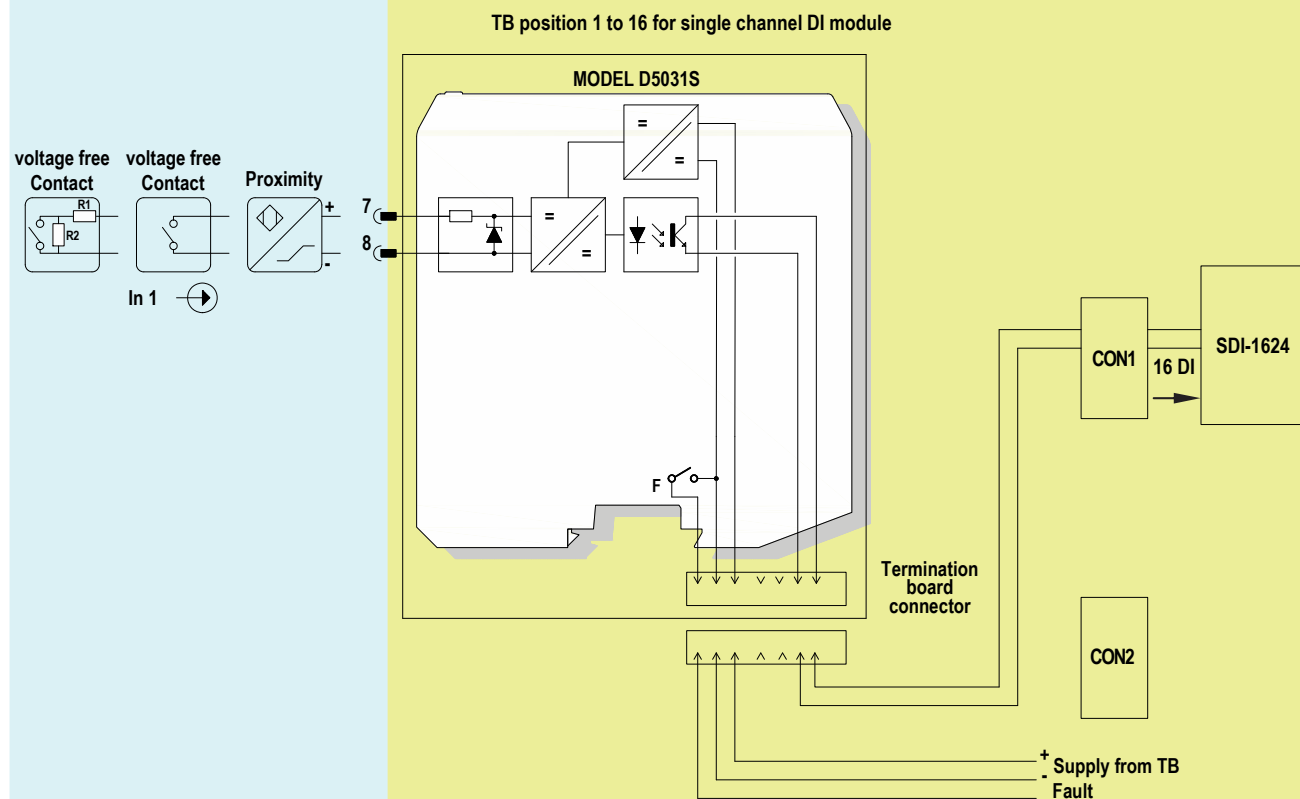
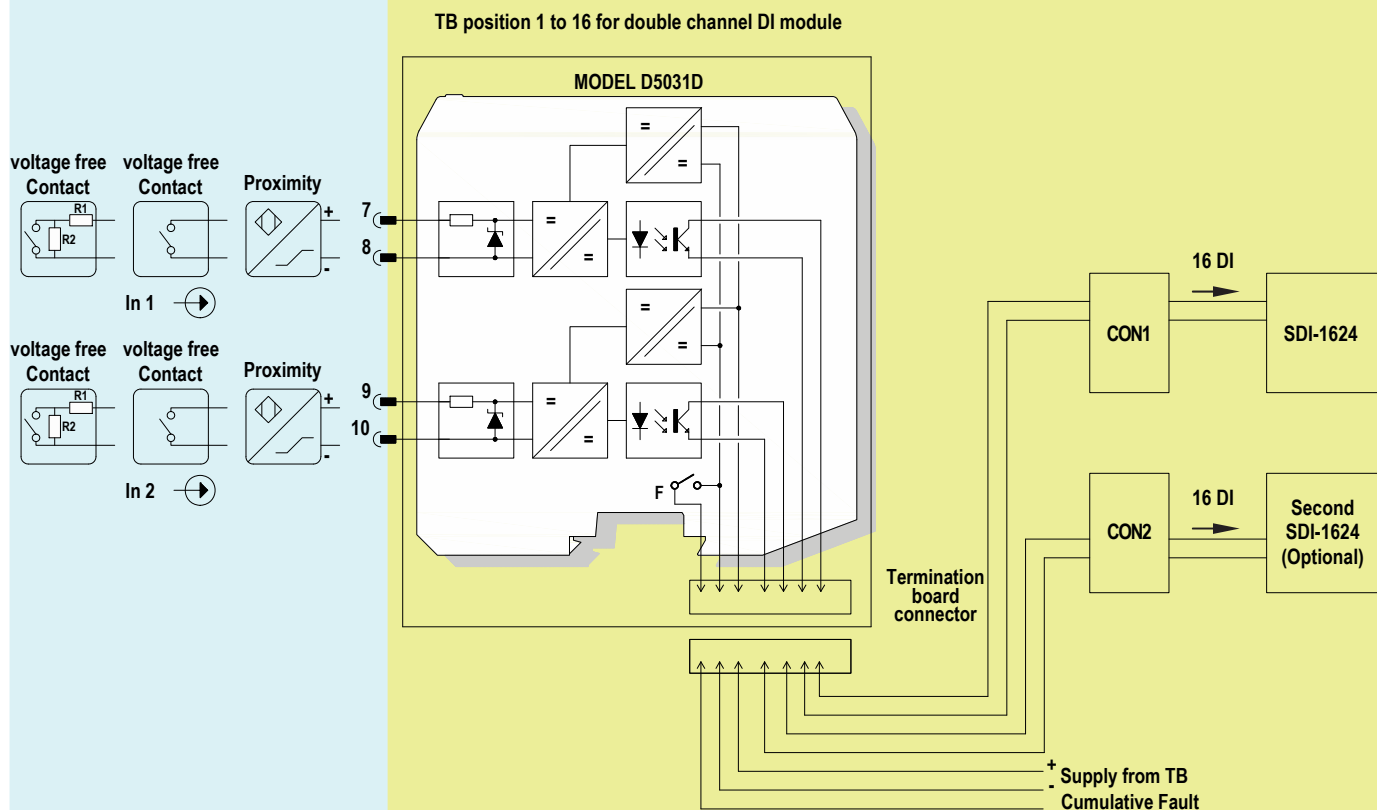
Ordering Information:

Model: TB-D5016-HON-005

Loop Diagrams for SDI-1624 (16 DI) Interface Card:

HAZARDOUS AREA

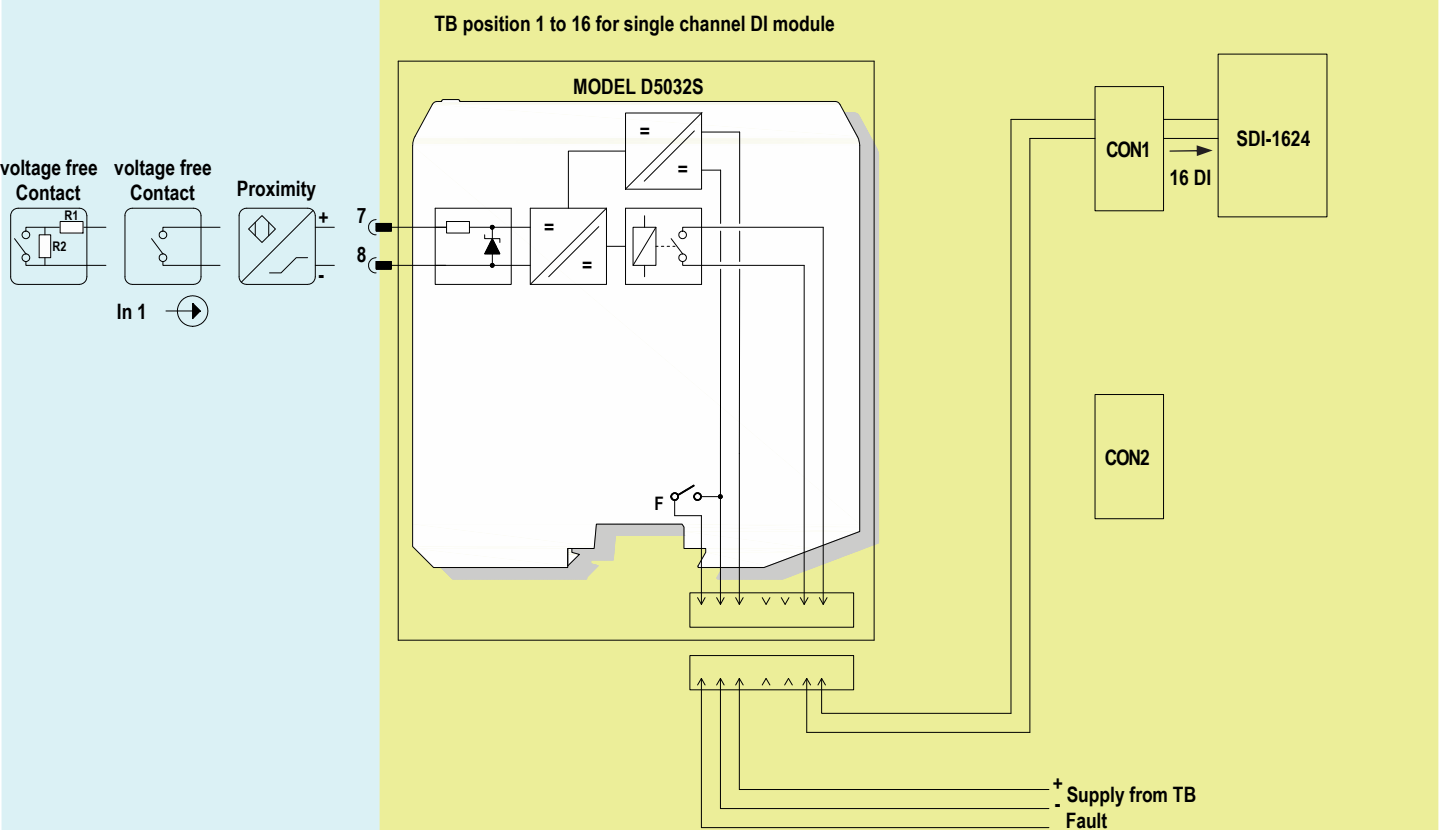
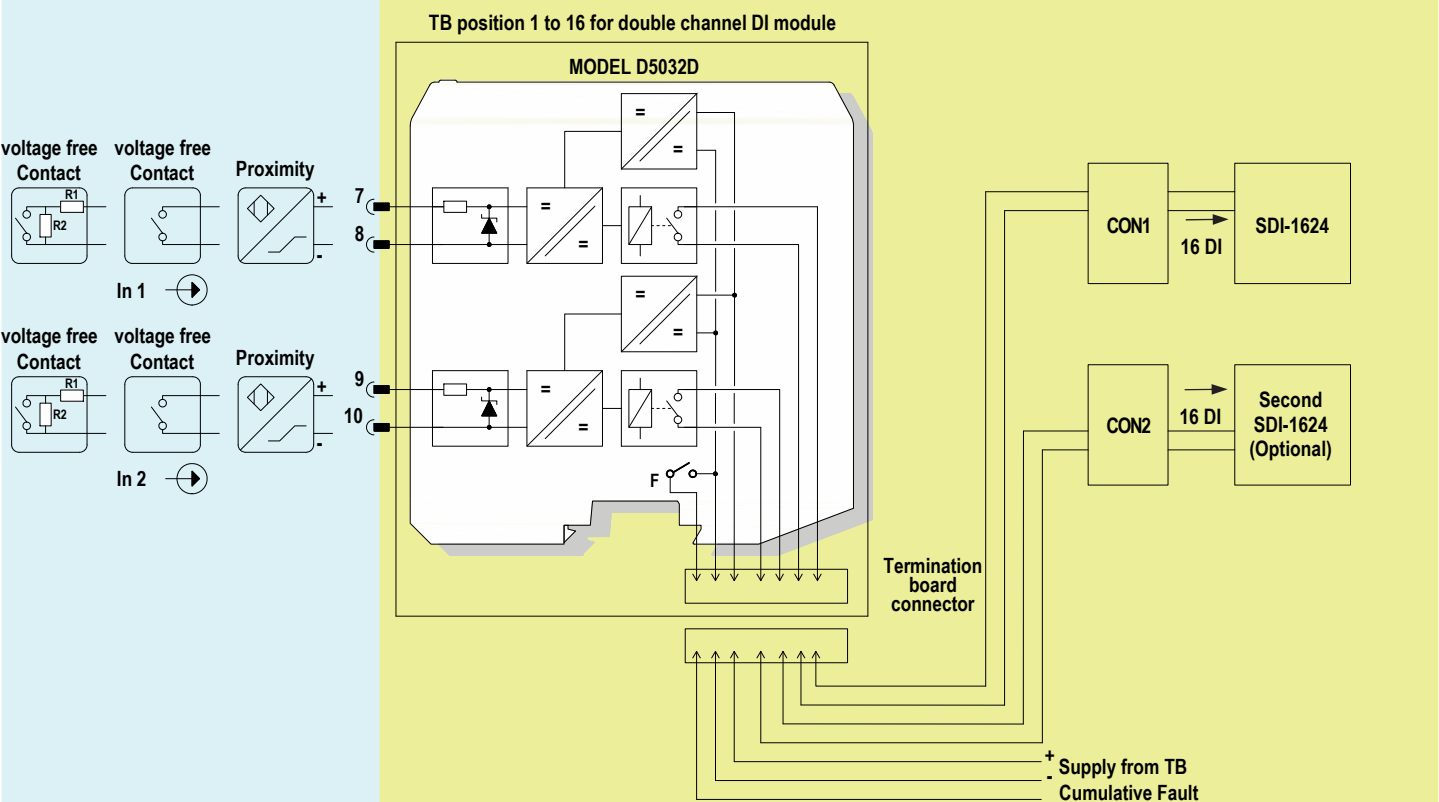
SAFE AREA



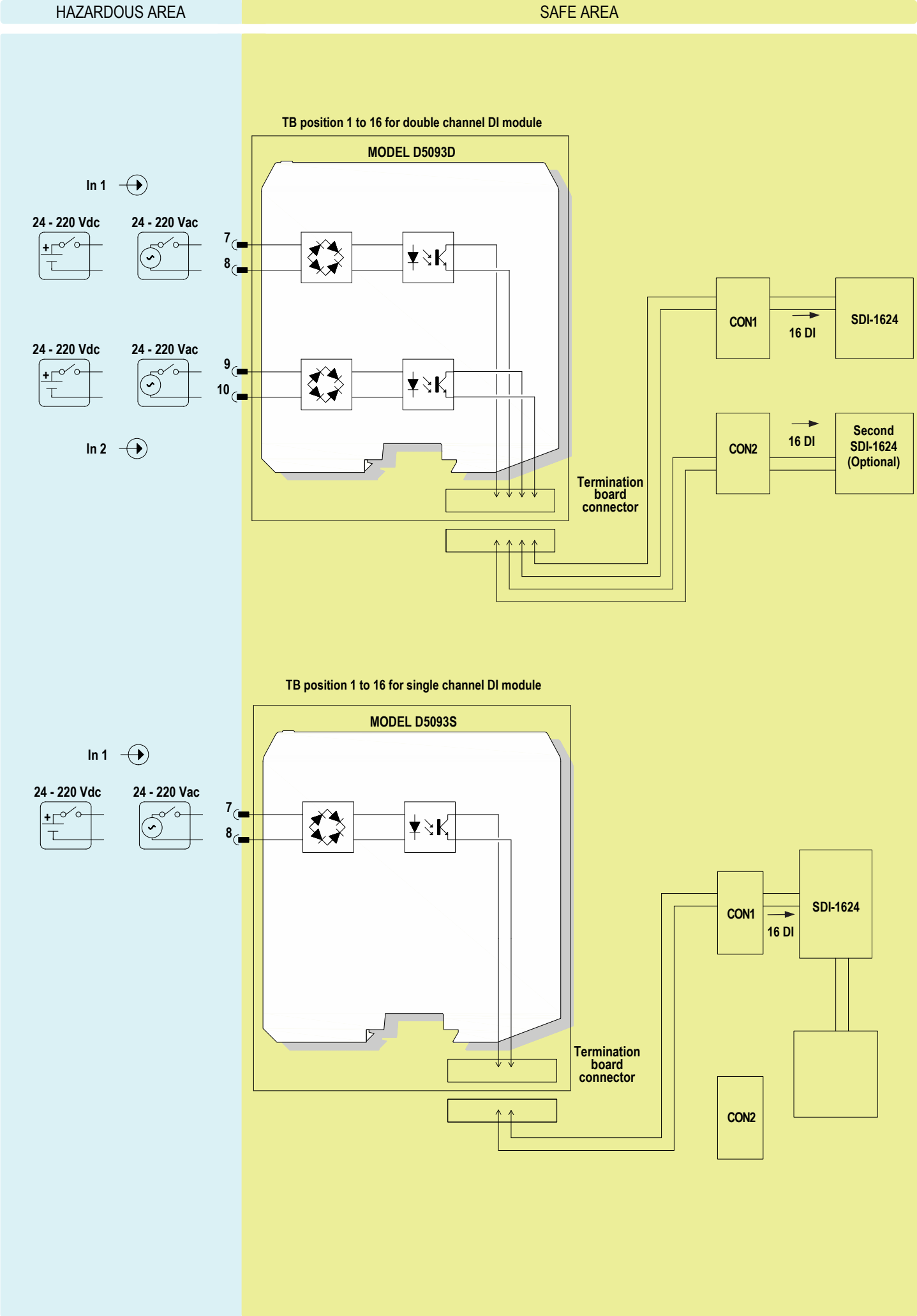
Loop Diagrams for SDI-1624 (16 DI) Interface Card:

HAZARDOUS AREA

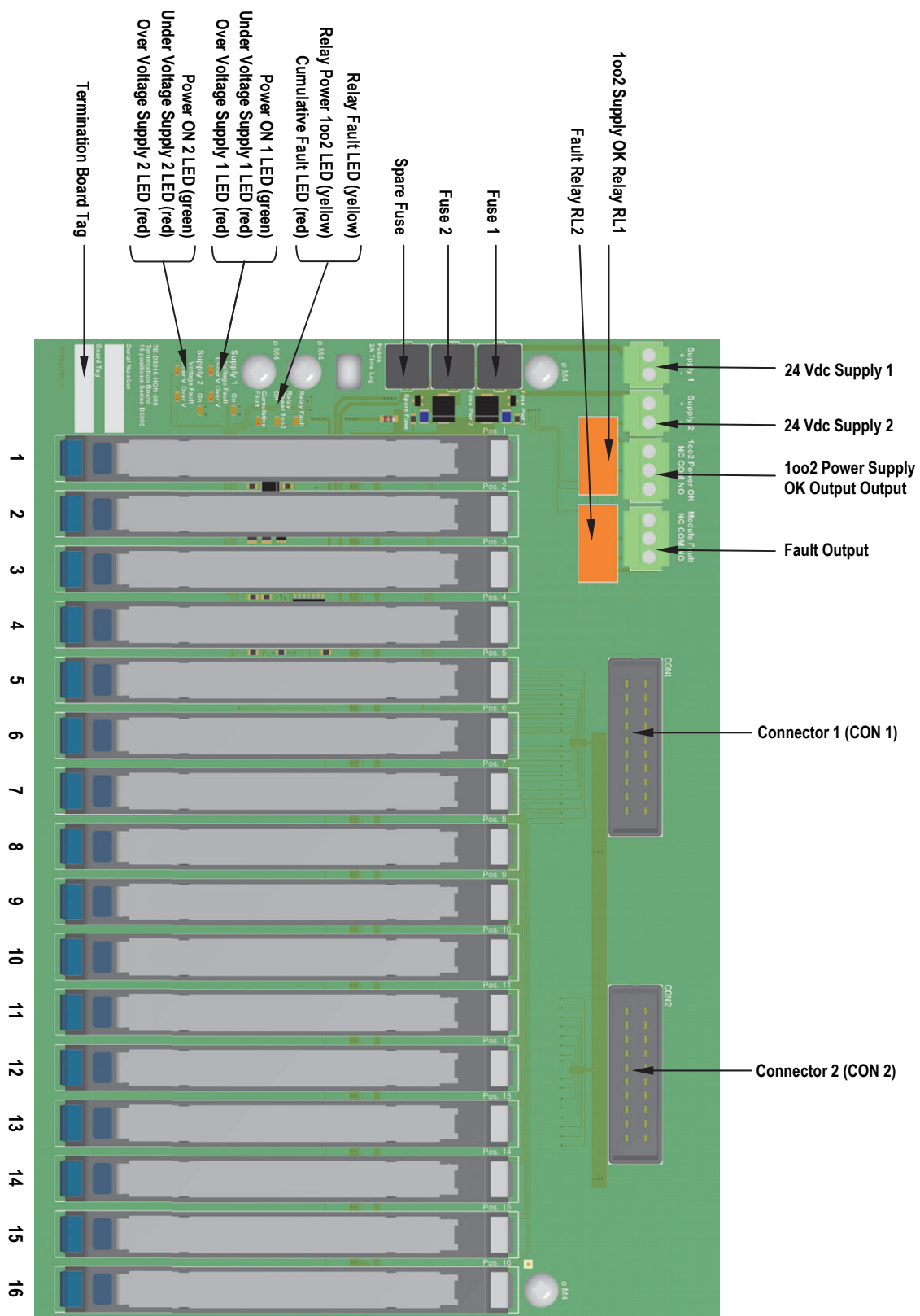
SAFE AREA



Loop Diagrams for SDI-1624 (16 DI) Interface Card:

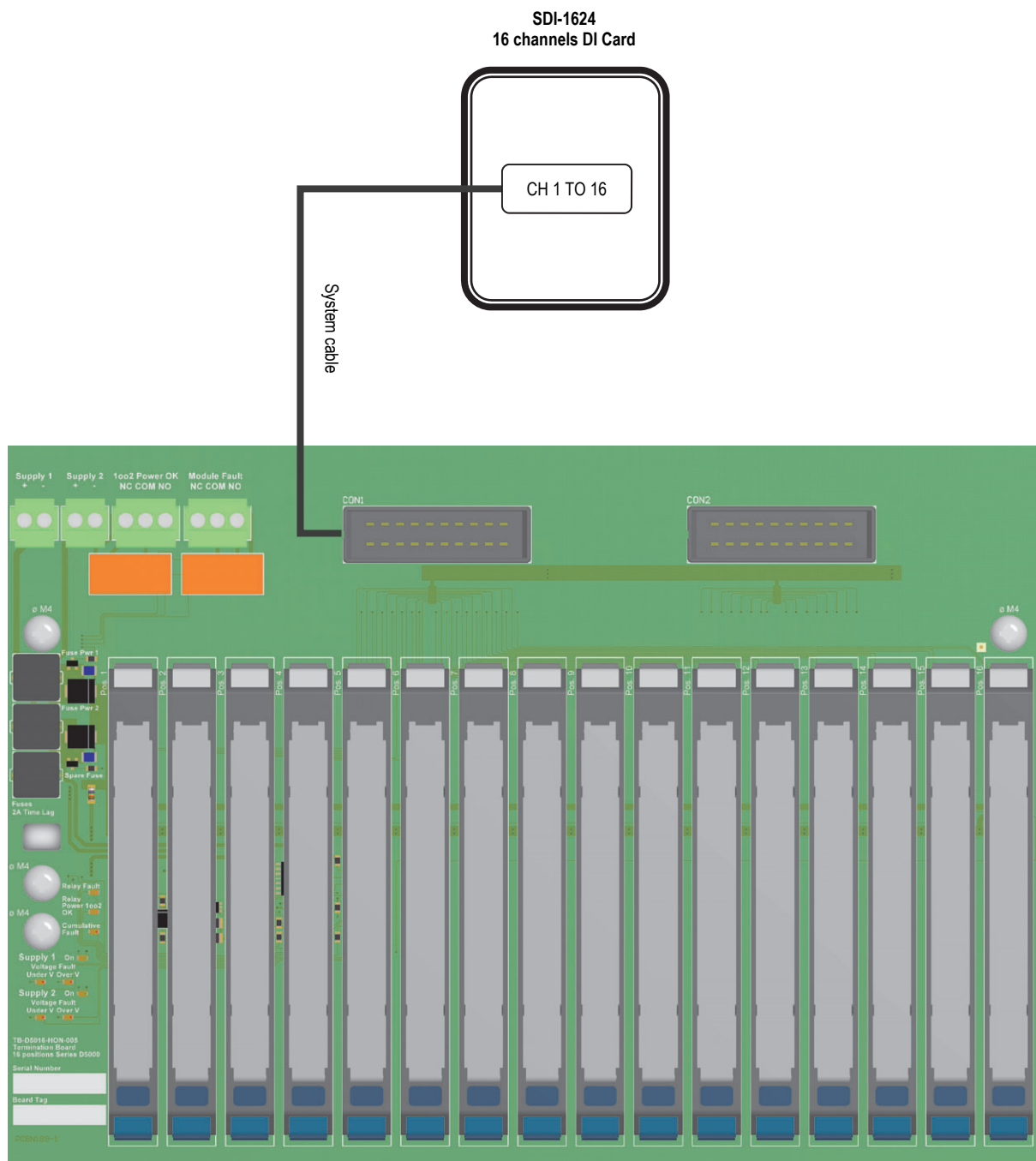


SAFE AREA / ORDINARY LOCATION



HAZARDOUS AREA / HAZARDOUS LOCATION

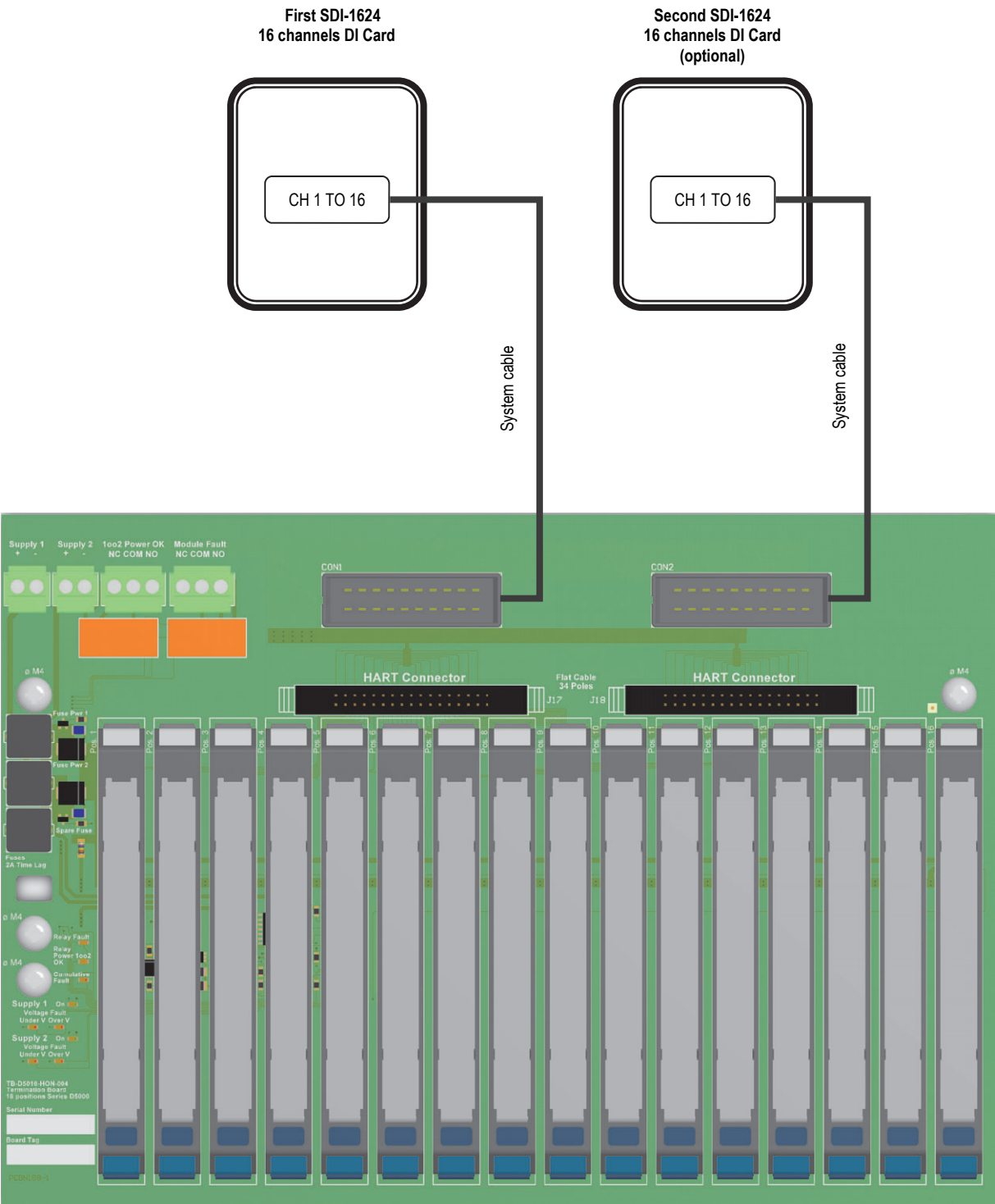
SAFE AREA / ORDINARY LOCATION



TB positions 1 to 16 for double channel modules


HAZARDOUS AREA / HAZARDOUS LOCATION

Termination Board Connections (Double channel modules):



TB positions 1 to 16 for single channel modules

Connections table to SDI-1624 (16 DI) 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
	D5031S D5031D D5032S D5032D D5093S D5093D	Digital IN	1	1A	1 of card 1	(-) A9 (CON1)	<u>Interface Card Connectors</u> D-3100D, 20 poles CON1, CON2 : Pole A10, B10 are not connected; V+ available on A1, B1.
				1B	1 of card 2	(-) A9 (CON2)	
			2	2A	2 of card 1	(-) B9 (CON1)	
				2B	2 of card 2	(-) B9 (CON2)	
			3	3A	3 of card 1	(-) A8 (CON1)	
				3B	3 of card 2	(-) A8 (CON2)	
			4	4A	4 of card 1	(-) B8 (CON1)	
				4B	4 of card 2	(-) B8 (CON2)	
			5	5A	5 of card 1	(-) A7 (CON1)	
				5B	5 of card 2	(-) A7 (CON2)	
			6	6A	6 of card 1	(-) B7 (CON1)	
				6B	6 of card 2	(-) B7 (CON2)	
			7	7A	7 of card 1	(-) A6 (CON1)	
				7B	7 of card 2	(-) A6 (CON2)	
			8	8A	8 of card 1	(-) B6 (CON1)	
				8B	8 of card 2	(-) B6 (CON2)	
			9	9A	9 of card 1	(-) A5 (CON1)	
				9B	9 of card 2	(-) A5 (CON2)	
			10	10A	10 of card 1	(-) B5 (CON1)	
				10B	10 of card 2	(-) B5 (CON2)	
			11	11A	11 of card 1	(-) A4 (CON1)	
				11B	11 of card 2	(-) A4 (CON2)	
			12	12A	12 of card 1	(-) B4 (CON1)	
				12B	12 of card 2	(-) B4 (CON2)	
			13	13A	13 of card 1	(-) A3 (CON1)	
				13B	13 of card 2	(-) A3 (CON2)	
			14	14A	14 of card 1	(-) B3 (CON1)	
				14B	14 of card 2	(-) B3 (CON2)	
			15	15A	15 of card 1	(-) A2 (CON1)	
				15B	15 of card 2	(-) A2 (CON2)	
			16	16A	16 of card 1	(-) B2 (CON1)	
				16B	16 of card 2	(-) B2 (CON2)	

