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Клеммные платы серии

ТВ-D5016-SCH, ТВ-D50208-SCH.

Технические характеристики

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. 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:

Supported Schneider I/O Cards:

Termination Board Model	Number of positions	Features
TB-D5016-SCH-001	16	1) Power Supply voltage redundancy; 2) Abnormal supply voltage signaling; 3) Cumulative module fault signaling (when supported)

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
140SDO95300S	Digital Output	16	1	16	D5048S D5049S D5090S D5091S

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.

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

2) **Critical - abnormal supply voltages or cumulative fault:** both supplies are in under (< 18 Vdc) or over (> 30 Vdc) voltage condition **OR** cumulative fault indication.

LED fault signaling (for both case 1 and 2): 2 red LEDs (UV and OV of supply 1); 2 red LEDs (UV and OV of 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 * 10⁶ operation, typical.

Coil status LED indication: yellow color, turn on when coil is energized.

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

I/O card interface:

Connection: two flat 20 poles male connectors (requires female mating connector).

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.

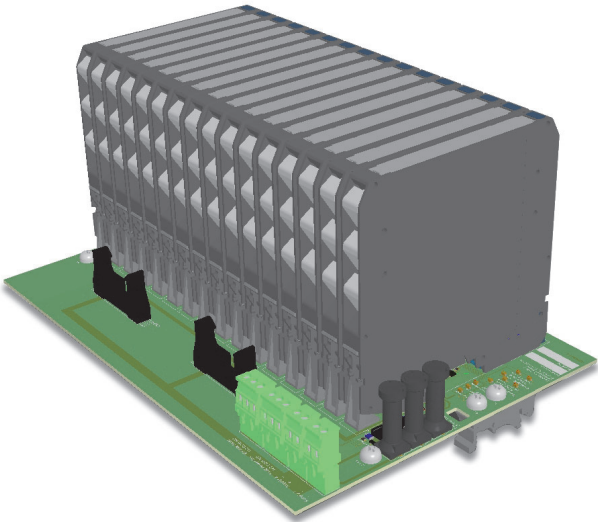
Mounting:

Hardware included for mounting on wall and single DIN rail.

Weight: about 200 g (excluding modules).

Location: Safe Area / Ordinary locations.

Dimensions: Width 267 mm, Depth 165 mm, Height 125 mm.



Features:

- DI 140SDO95300S Schneider card, 16 channels Digital Output board interface.
- 16 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.

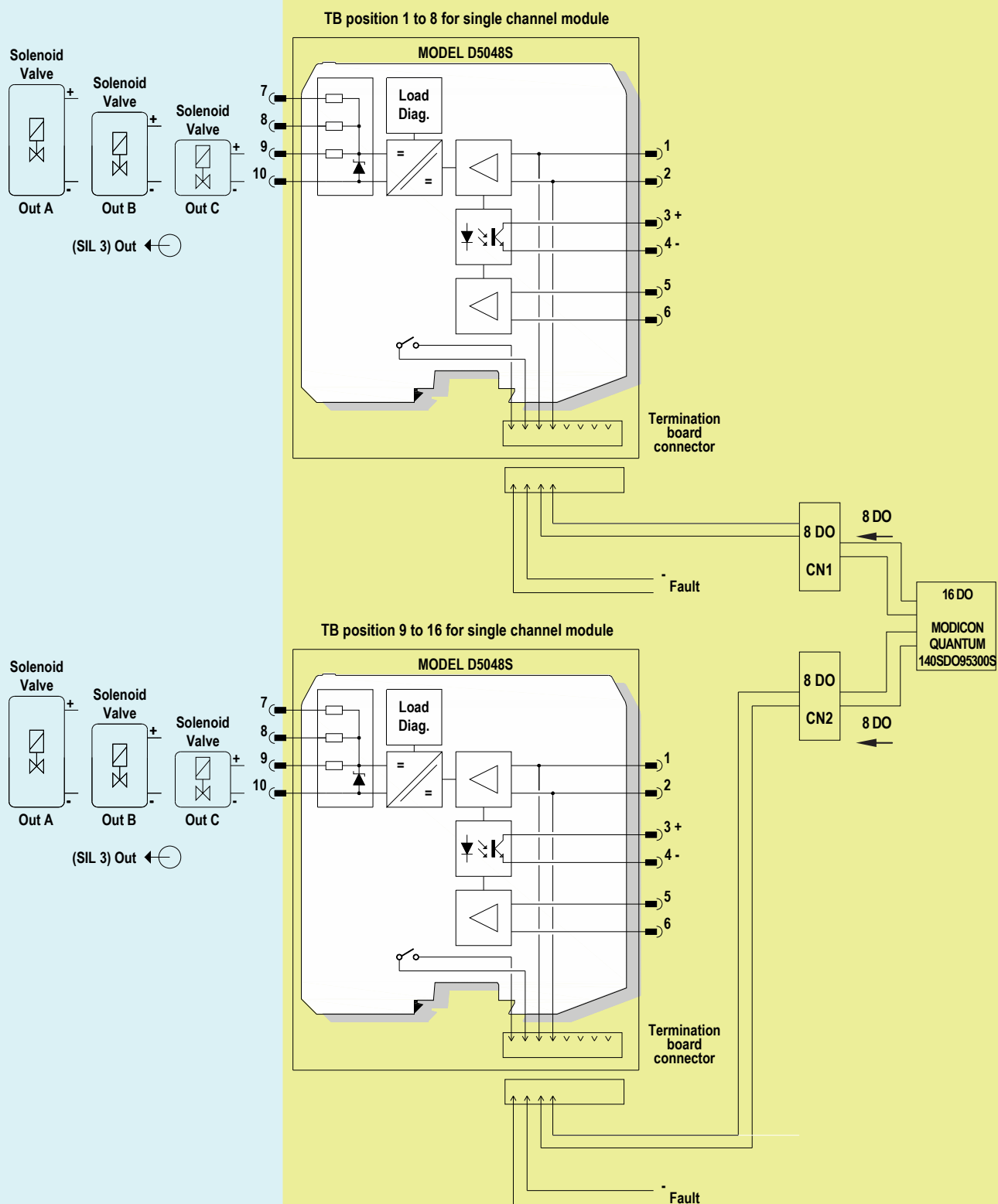
Ordering Information:

Model: TB-D5016-SCH-001

Loop Diagrams for 140 SDO 953 00S (16 DO) Interface Card:

HAZARDOUS AREA

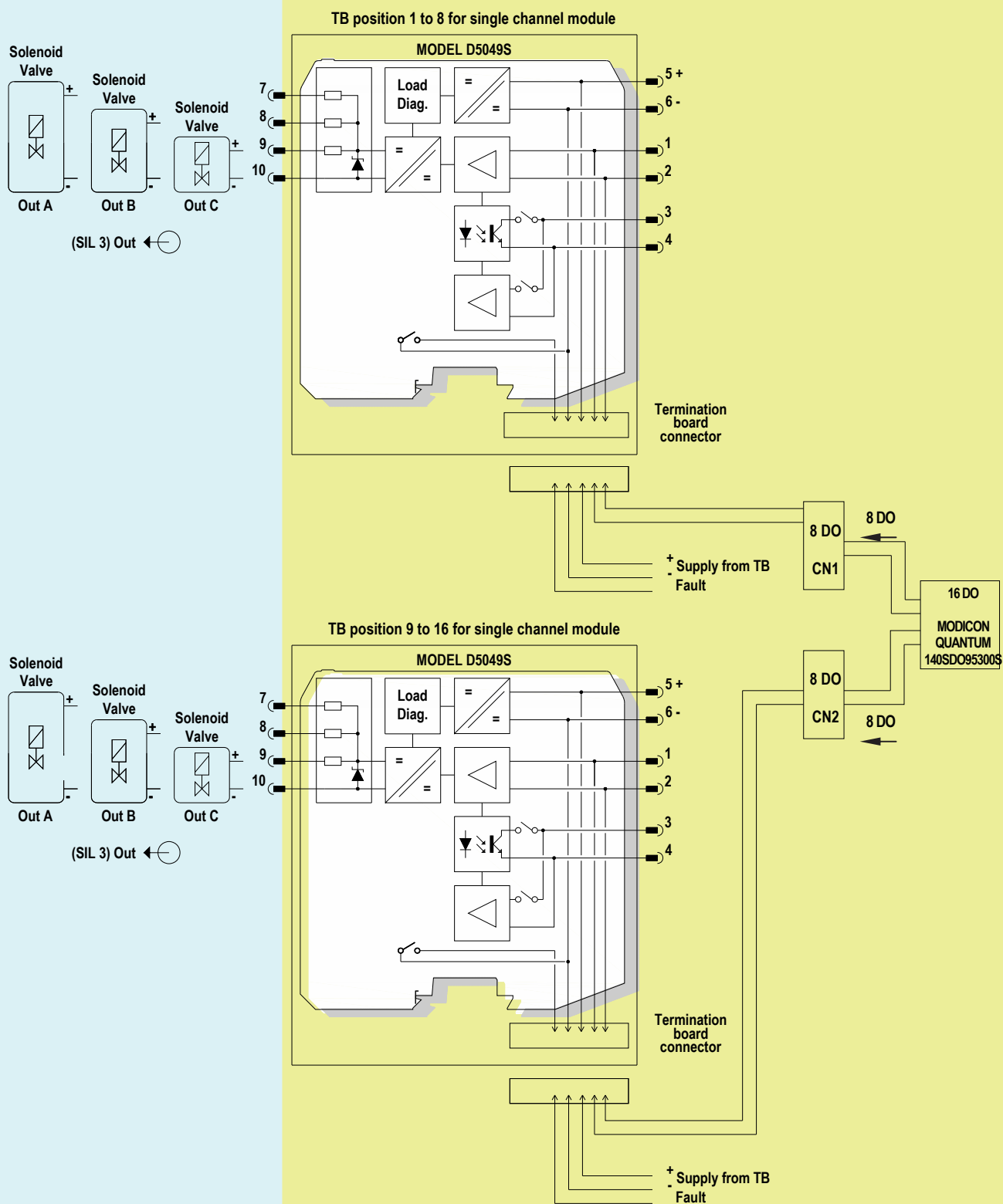
SAFE AREA



Loop Diagrams for 140 SDO 953 00S (16 DO) Interface Card:

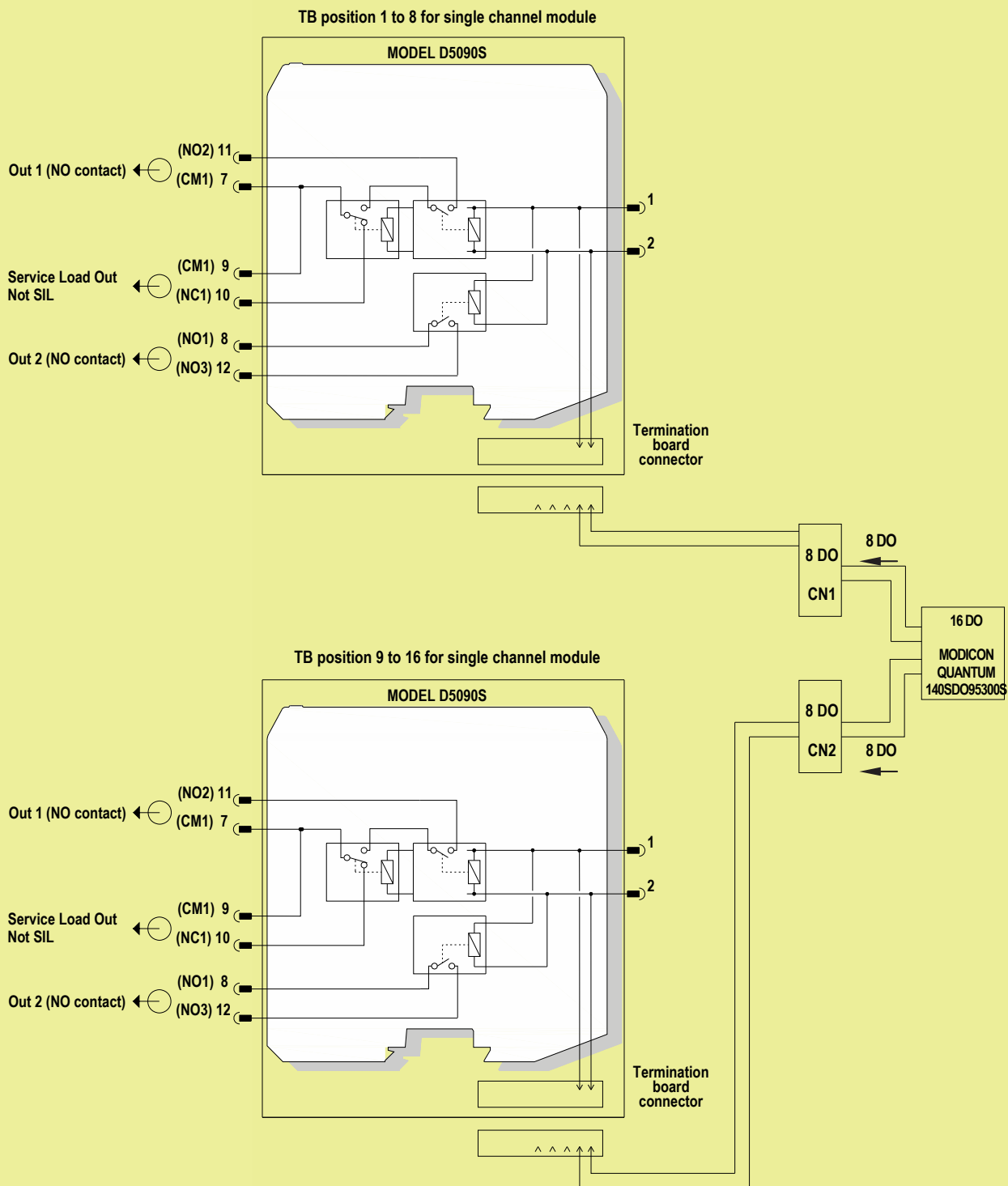
HAZARDOUS AREA

SAFE AREA



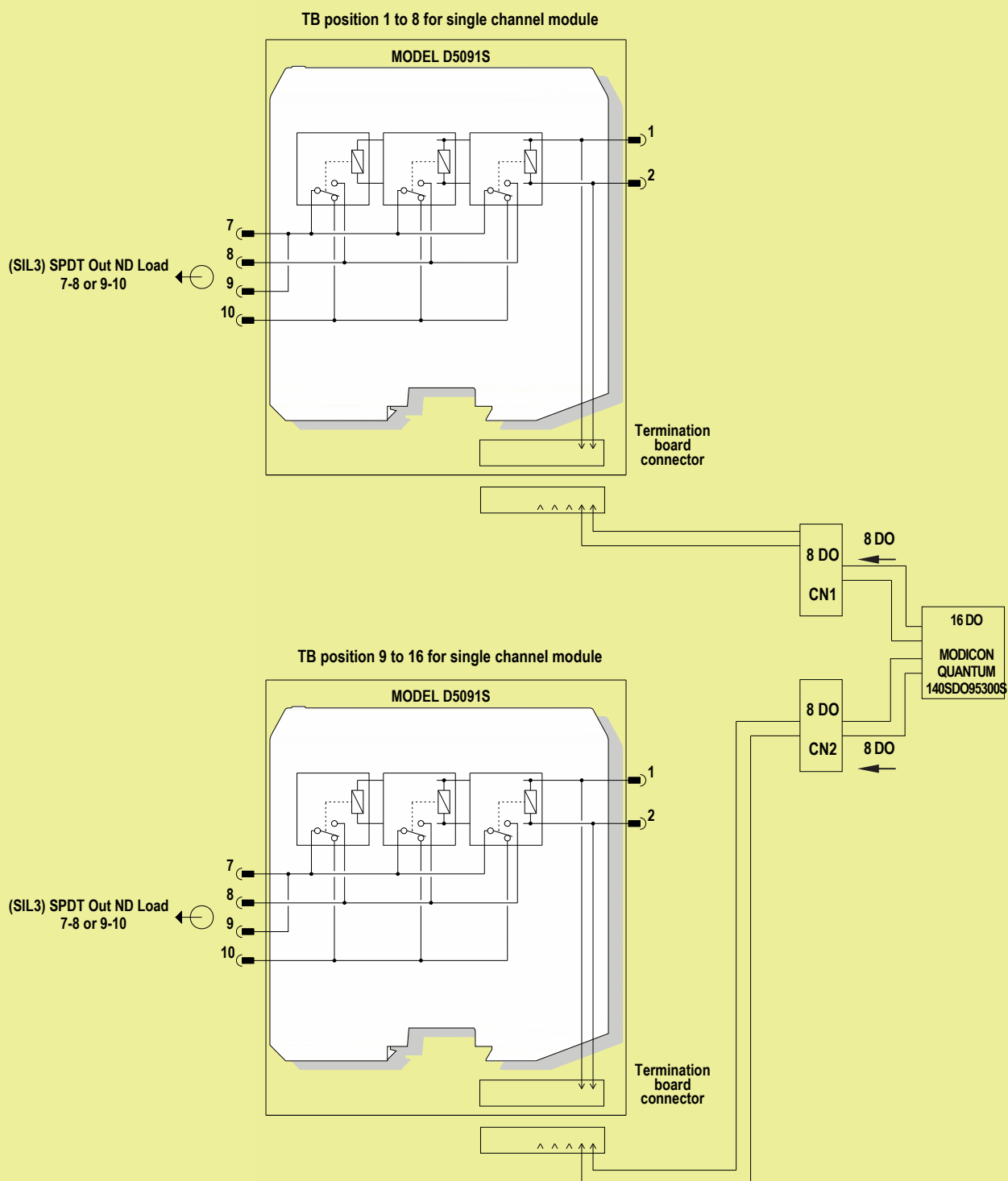
Note:

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.

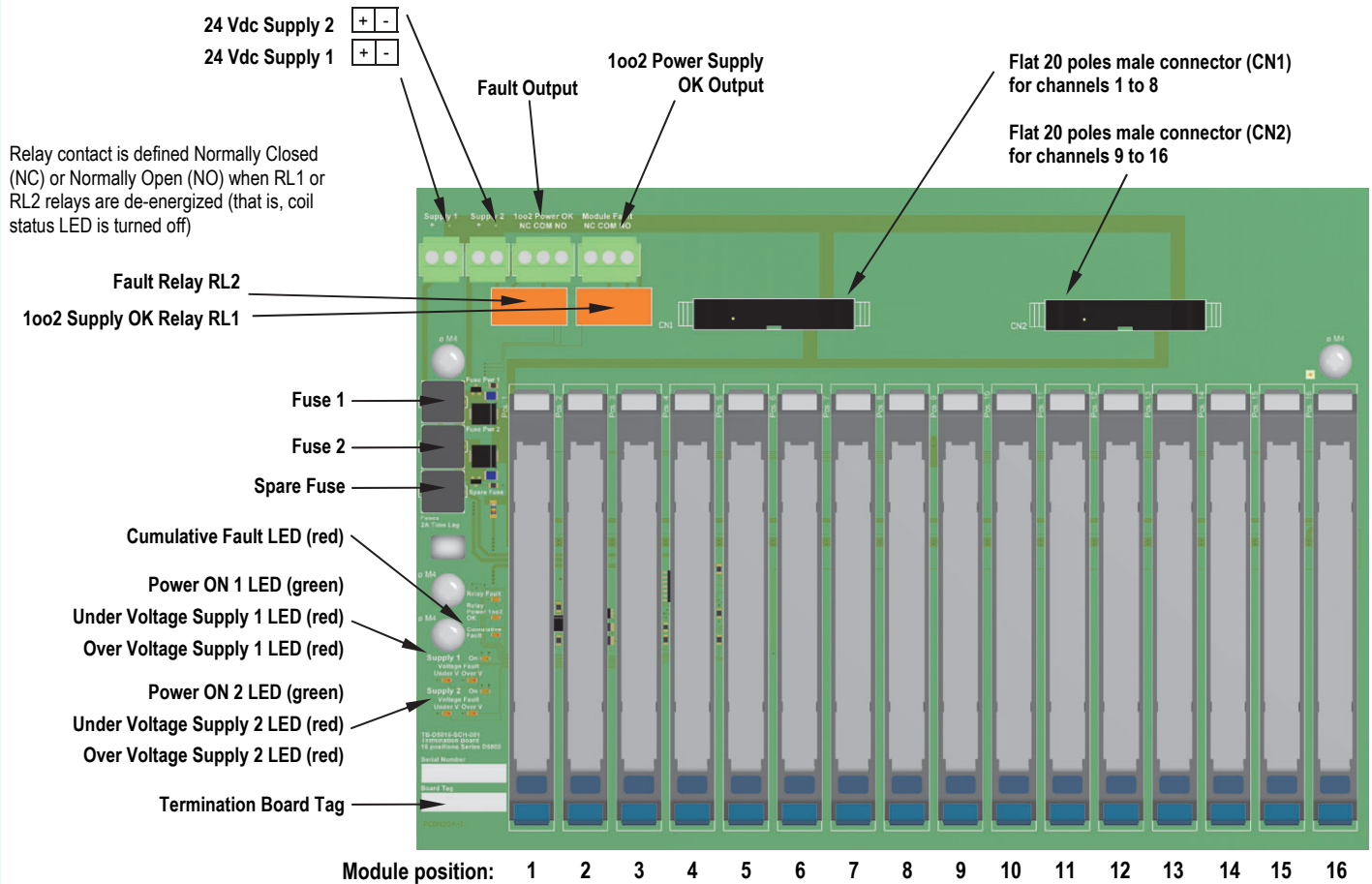


Note:

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.

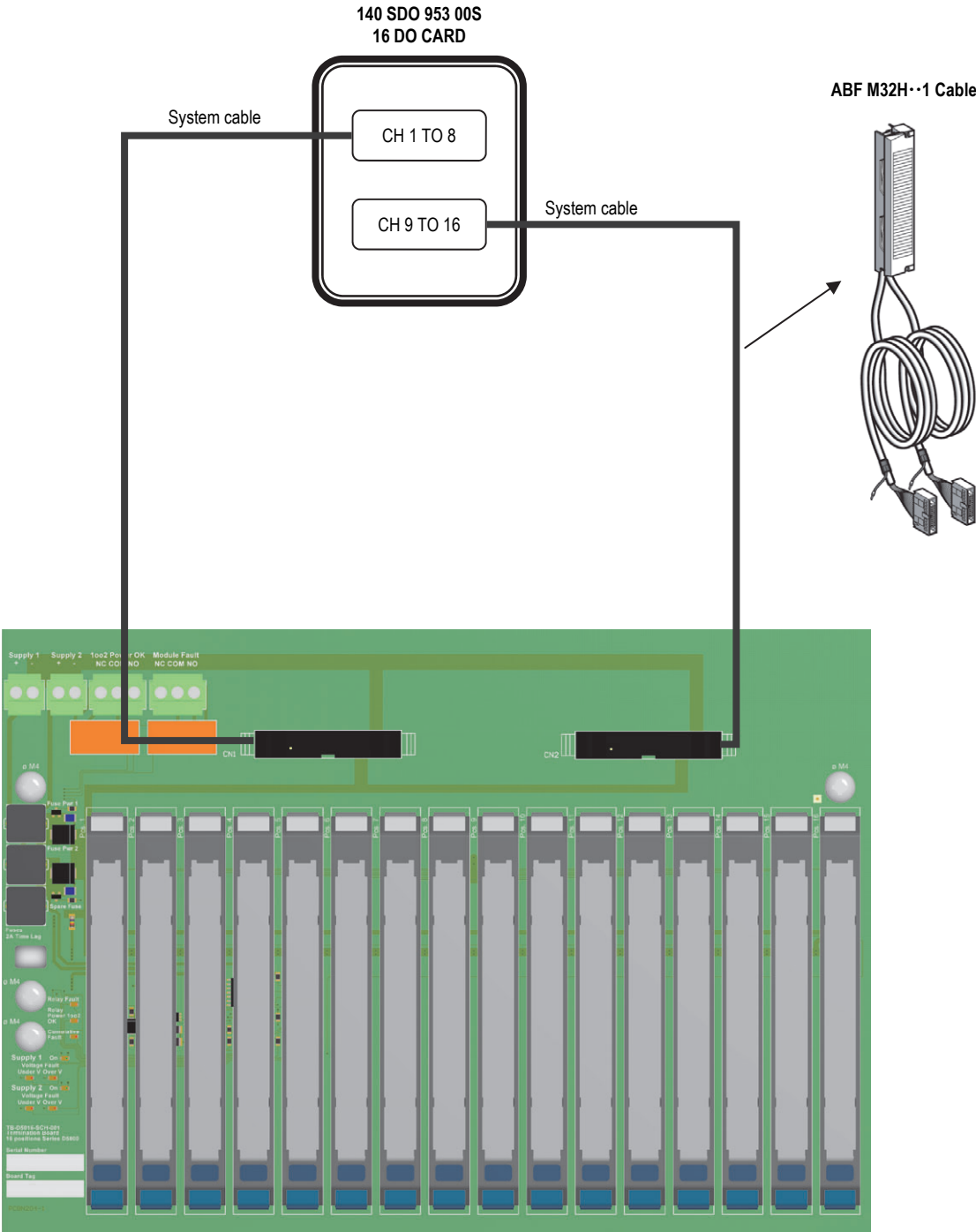


SAFE AREA / ORDINARY LOCATION



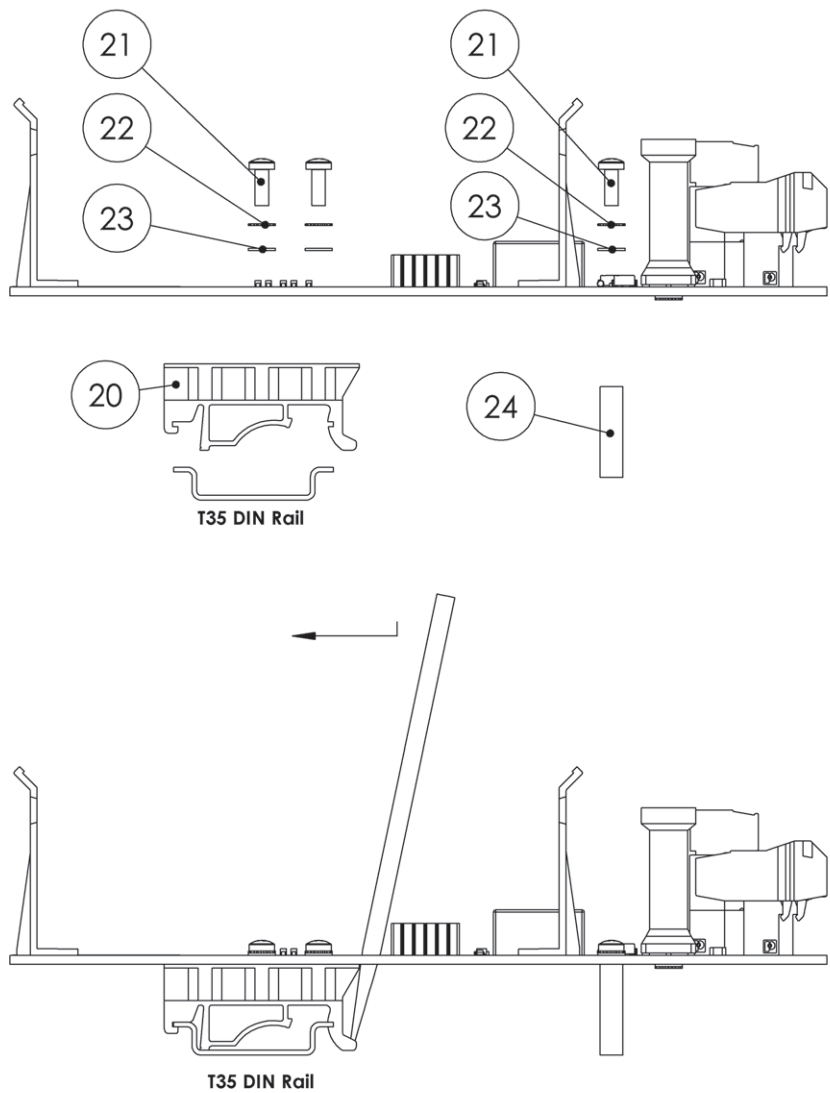
HAZARDOUS AREA (D5031S, D5032S)
SAFE AREA (D5093S)

SAFE AREA / ORDINARY LOCATION



HAZARDOUS AREA (D5031S, D5032S)
SAFE AREA (D5093S)

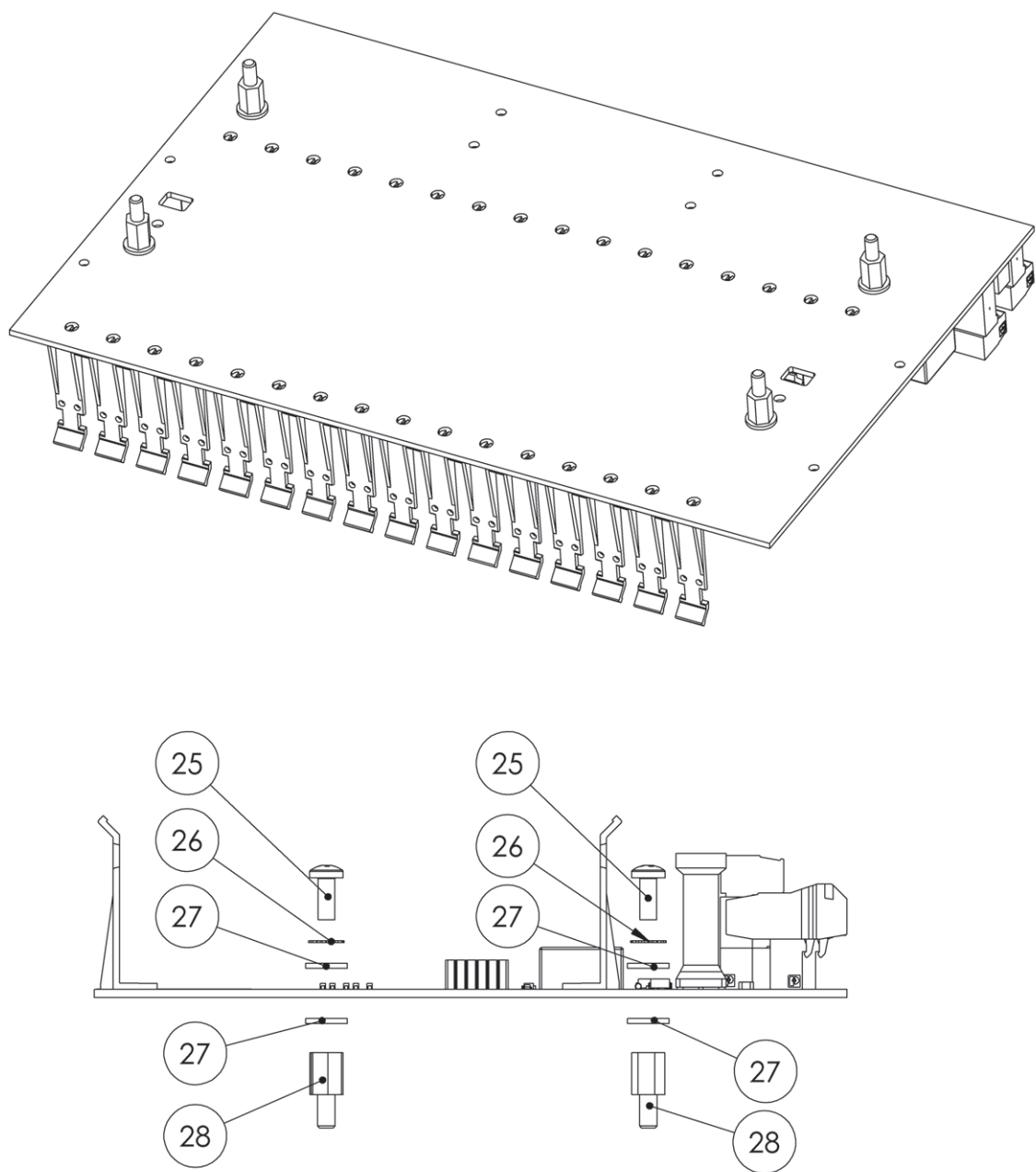
16 POSITION TERMINAL BOARD D5000 SERIES MOUNTING FEATURES KIT TB-OPT-001



1. T35 DIN RAIL MOUNTING

Item	Ref.Nr.	Q.ty	Description	Material
1	20	2	T35 Din Rail Adapter	PA
2	21	6	3.5x9.5 Self Tapping Screw	Stainless Steel
3	22	6	M3 External Tooth lock Washer	Stainless Steel
4	23	6	M3 Washer	Stainless Steel
5	24	2	6x20 Spacer	PA

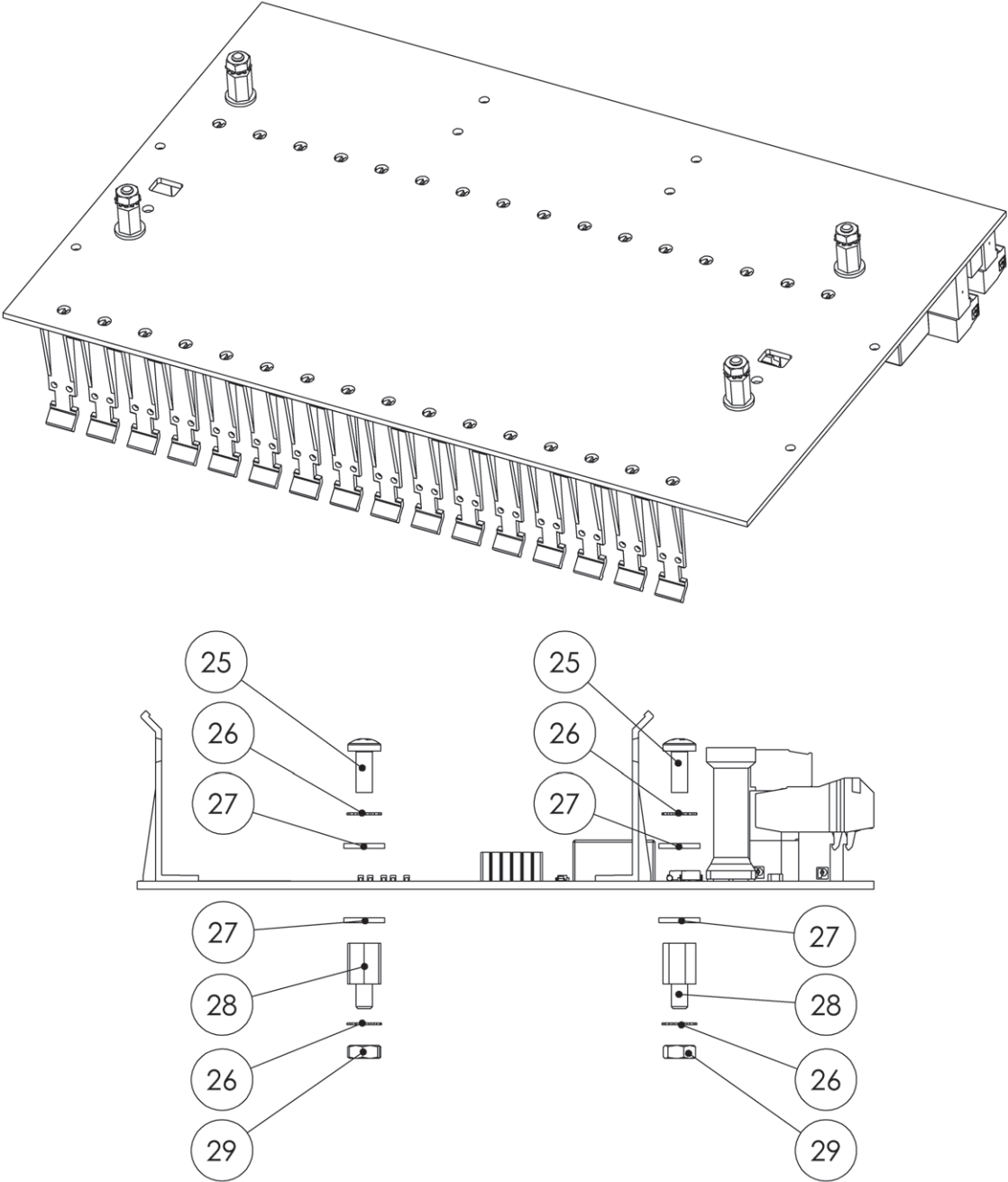
16 POSITION TERMINAL BOARD D5000 SERIES MOUNTING FEATURES KIT TB-OPT-001



2. WALL MOUNTING WITH SELF TAPPING SCREW

Item	Ref.Nr.	Q.ty	Description	Material
6	25	4	M4x8 Screw	Stainless Steel
7	26	4	M4 External Tooth lock Washer	Stainless Steel
8	27	8	M4 Washer	Stainless Steel
9	28	4	Self Tapping Spacer	Ni-Plated Brass

16 POSITION TERMINAL BOARD D5000 SERIES MOUNTING FEATURES KIT TB-OPT-001



3. WALL MOUNTING WITH M4 SCREWS

Item	Ref.Nr.	Q.ty	Description	Material
10	25	4	M4x8 Screw	Stainless Steel
11	26	8	M4 External Tooth lock Washer	Stainless Steel
12	27	8	M4 Washer	Stainless Steel
13	28	4	Threaded Spacer	Ni-Plated Brass
14	29	4	M4 Nut	Stainless Steel

Characteristics:**General description:**

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5200 Series modules. The Intrinsically Safe protection and signal isolation between Safe and Hazardous Area, is provided by D5200 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:**Supported Schneider I/O Cards:**

Termination Board Model	Number of positions	Features
TB-D5208-SCH-001	8	1) Power Supply voltage redundancy; 2) Abnormal supply voltage signaling; 3) Cumulative module fault signaling (when supported) 4) RS-485 Modbus connection

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
140SDO95300S	Digital Out	8	1 (*)	8	D5290S D5291S D5293S D5294S

(*) Only 8 channels of the I/O card are used. The remaining 8 can be taken from a secondary TB-D5208-SCH-001 board, via the unused second connector of cable ABF M32H--1.

Features:

- Digital Output 140SDO95300S Schneider card.
- 8 positions Terminal Board for up to 8 channels.
- RS-485 Modbus connection
- 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.

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

2) Critical - abnormal supply voltages or cumulative fault: both supplies are in under (< 18 Vdc) or over (> 30 Vdc) voltage condition OR cumulative fault indication.

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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.

Coil status LED indication: yellow color, turn on when coil is energized.

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

I/O card interface:

Connection: one flat 20 poles male connector (requires female mating connector).

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.

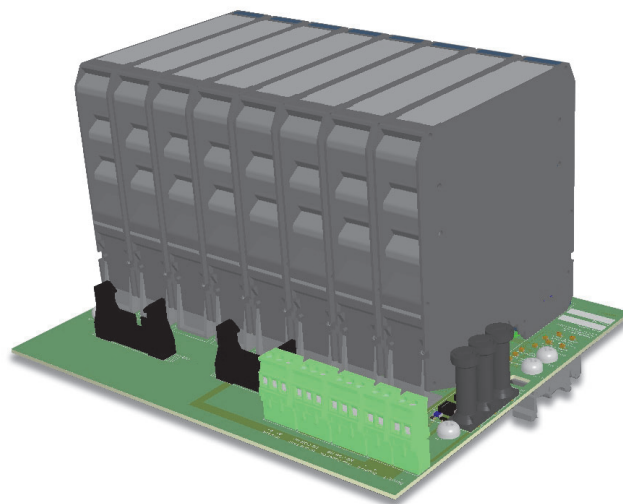
Mounting:

Hardware included for mounting on wall and single DIN rail.

Weight: about 200 g (excluding modules).

Location: Safe Area / Ordinary locations.

Dimensions: Width 225 mm, Depth 165 mm, Height 125 mm.

Image:**Ordering Information:**

Model: TB-D5208-SCH-001

Connections table to 140 SDO 953 00S (16 DO) Interface Card:

FIELD DEVICE	MODULE TYPE	MODULE POSITION	MODULE TERMINAL BLOCK	INTERFACE CARD CHANNEL NUMBER	INTERFACE CARD CONNECTOR PIN NUMBER	NOTE
 	SINGLE CHANNEL	1	1-2	1	(+) 1,2 (CN1)	
		2	1-2	2	(+) 3,4 (CN1)	
		3	1-2	3	(+) 5,6 (CN1)	
		4	1-2	4	(+) 7,8 (CN1)	
		5	1-2	5	(+) 9,10 (CN1)	
		6	1-2	6	(+) 11,12 (CN1)	
		7	1-2	7	(+) 13,14 (CN1)	
		8	1-2	8	(+) 15,16 (CN1)	
		9	1-2	9	(+) 1,2 (CN2)	
		10	1-2	10	(+) 3,4 (CN2)	
		11	1-2	11	(+) 5,6 (CN2)	
		12	1-2	12	(+) 7,8 (CN2)	

Алматы (7273)495-231
 Ангарск (3955)42-70-56
 Архангельск (8182)63-90-72
 Астрахань (8512)99-46-04
 Барнаул (3852)73-04-42
 Белгород (4735)40-23-142
 Благовещенск (4162)35-142-07
 Брянск (4232)59-03-52
 Владивосток (423)249-42-31
 Владикавказ (8672)42-90-42
 Владимир (4935) 49-43-18
 Волгоград (844)278-03-42
 Вологда (8172)26-41-59
 Воронеж (473)204-51-73
 Екатеринбург (343)384-55-142

Ижевск (3412)26-03-58
 Иваново (4932)77-34-06
 Иркутск (395)279-98-46
 Казань (843)206-01-42
 Калининград (4012)72-03-81
 Калуга (4242)92-23-67
 Кемерово (3842)65-04-62
 Киров (8332)68-02-04
 Коломна (4966)23-41-49
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Магнитогорск (4219)55-03-13
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 Мурманск (8152)59-142-93
 Набережные Челны (8552)20-53-41
 Нижний Новгород (831)429-08-12
 Новокузнецк (3843)20-46-81
 Ноябрьск (3496)41-32-12
 Новосибирск (383)357-86-73
 Ноябрьск (3496)41-32-12
 Омск (3812)21-46-40
 Орел (4262)44-53-42
 Оренбург (4232)37-68-04
 Пенза (8412)35-31-16
 Петрозаводск (8142)55-98-37
 Псков (8112)59-10-37

Россия (495)268-04-70

Пермь (342)205-81-47
 Ростов-на-Дону (863)308-18-15
 Рязань (4912)46-61-142
 Самара (846)206-03-16
 Саранск (8342)35-96-24
 Санкт-Петербург (812)309-46-40
 Саратов (845)249-38-78
 Севастополь (8692)35-31-93
 Симферополь (3652)67-13-56
 Смоленск (4212)29-41-42
 Сочи (862)242-72-31
 Ставрополь (8652)20-65-13
 Сыктывкар (8212)42-95-17
 Сургут (3462)77-98-42
 Тамбов (4752)50-40-97

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 Тольятти (8435)63-91-07
 Томск (3835)98-41-53
 Тула (4272)33-79-87
 Тюмень (3452)66-21-18
 Улан-Удэ (3012)59-97-51
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 Уфа (347)359-42-12
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