Features

- System Board for Emerson DeltaV
- For one 8-channel DO card via 16-pin Mass Termination Block
- For one 32-channel DO card via 40-pin Mass Termination Block
- For 4 modules/8 channels
- Recommended module: HiD2872 (DO)
- Volt-free fault indication output
- 24 V DC supply, reverse polaritiy protected, optional daisychainable
- Hazardous area: screw terminals, blue
- Safe area: IDC connector, 16 pin and 20-pin

Function

The function of the Termination Board as well as the connector pin assignment exactly fit the requirement of DeltaV Traditional I/O systems.

Information about line fault detection of the interface modules is available for the system as volt-free contact.

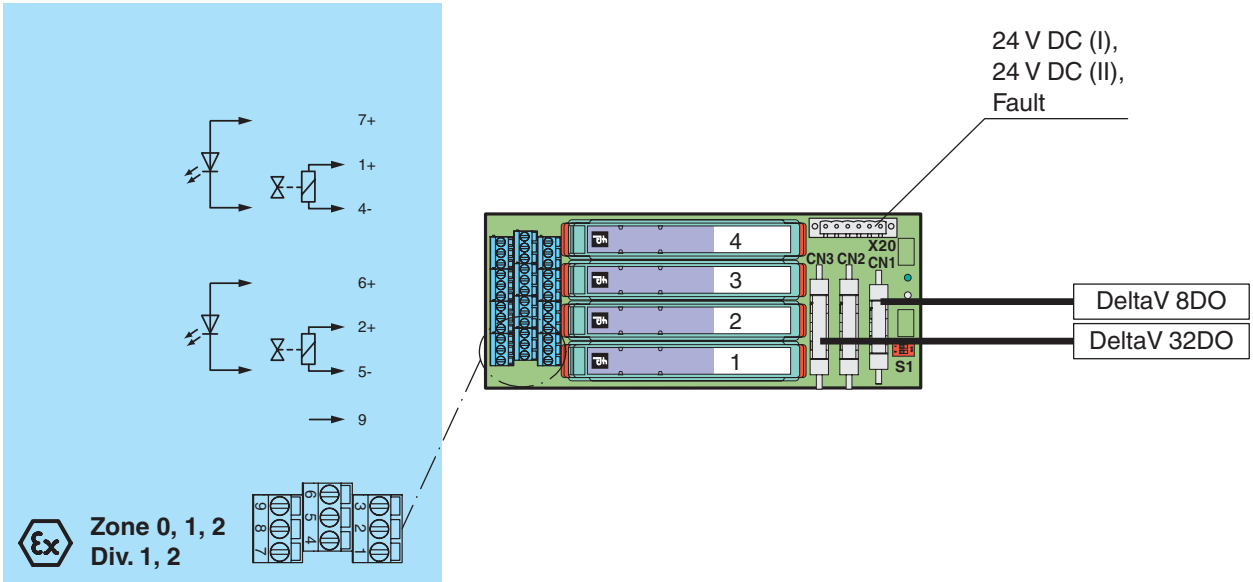
The Termination Boards are supplied with a robust plastic housing as standard. This design permits the fast and reliable installation on 35 mm DIN mounting rail acc. to EN 60715 in the cabinet.

Application

For detailed listing of connectable cards see application section.

Assembly

Connection



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Supply		
Rated voltage	U_n	24 V DC , in consideration of rated voltage of used isolated barriers
Voltage drop		0.9 V , voltage drop across the series diode on the Termination Board must be considered
Ripple		≤ 10 %
Fusing		3.15 A with back-up fuse
Power loss		≤ 500 mW , without modules
Reverse polarity protection		yes
Electrical specifications		
volt-free fault indication output		max. 30 V AC/30 V DC, 1 A DeltaV specific output: max. 24 V DC, 25 mA
Indicators/settings		
Display elements		LED PWR (power supply), one green LED LED FAULT (fault indication), one red LED
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2013
Conformity		
Electromagnetic compatibility		NE 21:2011 For further information see system description.
Degree of protection		IEC 60529:2001
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Degree of protection		IP20
Connection		hazardous area connection (field side): screw terminals, blue safe area connection (control side): IDC plug, 16-pin and 20-pin
Core cross-section		0.2 ... 2.5 mm^2 (22 ... 12 AWG)
Material		housing: polycarbonate
Mass		approx. 350 g
Dimensions		82 x 205 x 157 mm (3.23 x 8.1 x 6.2 in) , height including module assembly
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		SIRA 13 ATEX 2388X , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection		see certificate
Safe area		
Maximum safe voltage		250 V (Attention! U_m is no rated voltage.)
Electrical isolation		
Field circuit/control circuit		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity		
Directive 94/9/EC		EN 60079-0:2012+A11:2013 , EN 60079-11:2012
International approvals		
CSA approval		
Control drawing		116-0381
IECEx approval		IECEx CSA 13.0040X
Approved for		see certificate
General information		
Supplementary information		EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

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Application

DeltaV M-series 8-channel DO Series 2 simplex card (24 V DC, high-side):
- Termination Board 1: channel 1 ... 8

DeltaV M-series 32-channel DO Series 2 simplex card (24 V DC, high-side) and
DeltaV M-series 32-channel DO Series 2 Plus redundant card (24 V DC, high-side):
- Termination Boards 1 and 2: channel 1 ... 16
- Termination Boards 3 and 4: channel 17 ... 32

DeltaV S-series 8-channel DO simplex card (24 V DC, high-side):
- Termination Board 1: channel 1 ... 8

DeltaV S-series 32-channel DO simplex card (24 V DC, high-side) and
DeltaV S-series 32-channel DO Plus redundant card (24 V DC, high-side):
- Termination Boards 1 and 2: channel 1 ... 16
- Termination Boards 3 and 4: channel 17 ... 32

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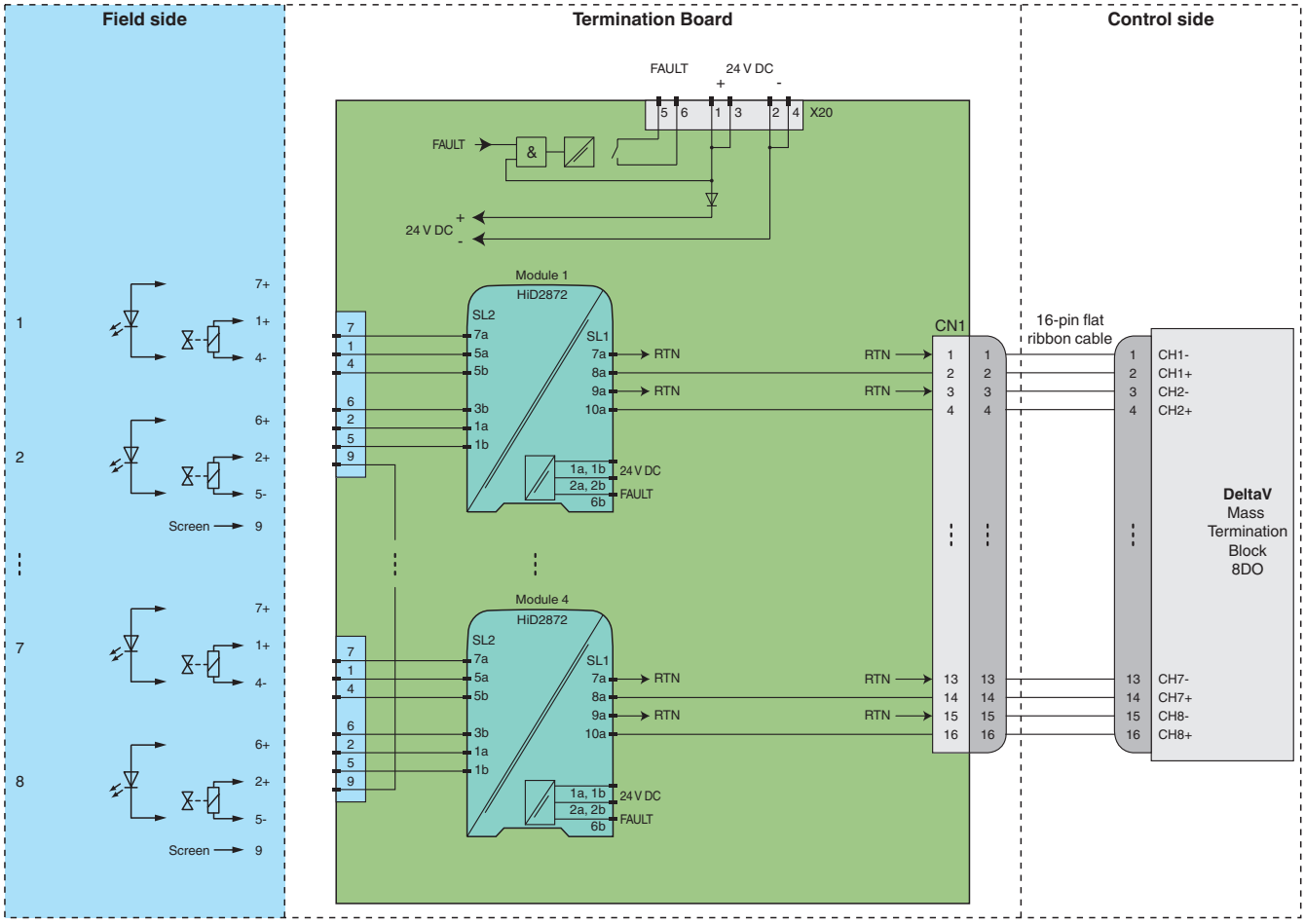
Application

Typical loop for connection of 8-channel DO cards



Module switch settings

Type	DIP switch	Position
HiD2872 (DO) • Bus powered • Control input: logic signal • Line fault detection enable	S1	ON
	S2	OFF
	S3	ON
	S4	OFF
	S5	ON
	S6	OFF
	S7	ON
	S8	ON

Card software settings

Type	Parameter	Setting
• DeltaV M-series 8-channel DO Series 2 card • DeltaV S-series 8-channel DO card	LINEFAULT_DETECT	False

Termination Board switch settings

DIP switch	Description
S1.1	n.a.
	n.a.
S1.2	n.a.
	n.a.

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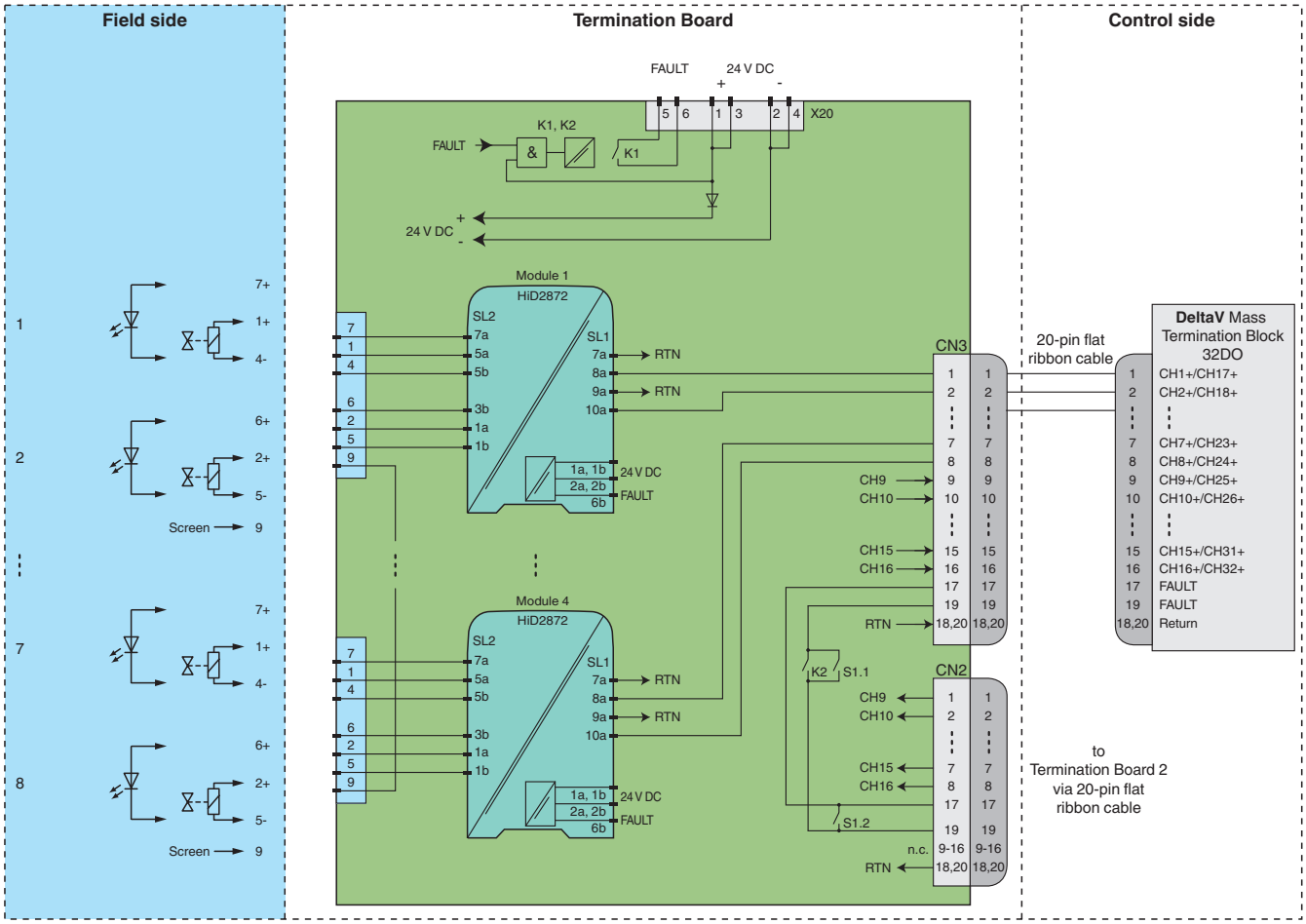
Typical loop for connection of 32-channel DO cards



Module switch settings

Type	DIP switch	Position
HiD2872 (DO) • Bus powered • Control input: logic signal • Line fault detection enable	S1	ON
	S2	OFF
	S3	ON
	S4	OFF
	S5	ON
	S6	OFF
	S7	ON
	S8	ON

Card software settings

Type	Parameter	Setting
• DeltaV M-series 32-channel DO Series 2 card • DeltaV S-series 32-channel DO card	n.a.	n.a.

Termination Board switch settings

DIP switch	Description
S1.1	n.a.
	n.a.
S1.2	n.a.
	n.a.

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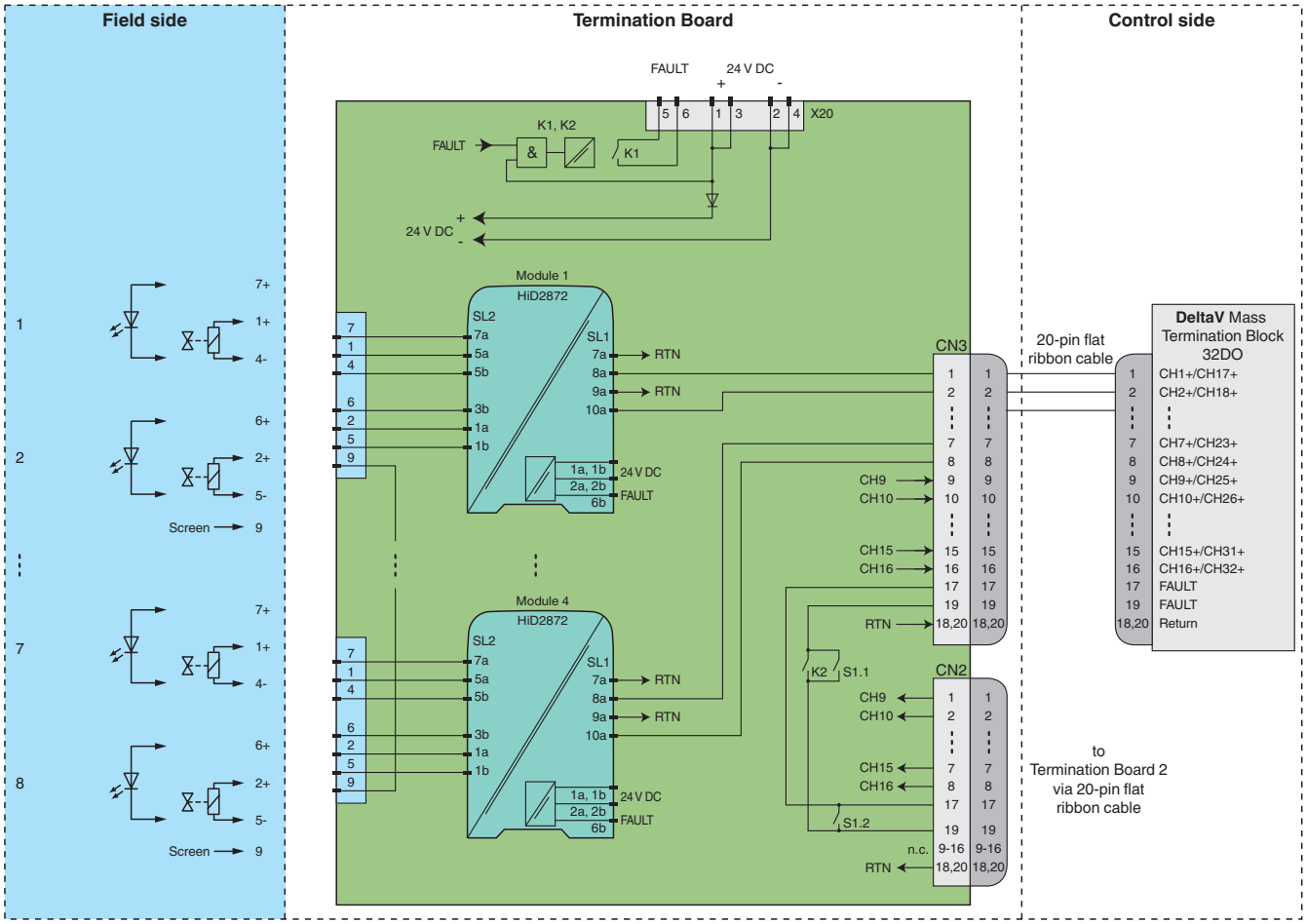
Typical loop for connection of 32-channel DO Plus cards



Module switch settings

Type	DIP switch	Position
HiD2872 (DO) • Bus powered • Control input: logic signal • Line fault detection enable	S1	ON
	S2	OFF
	S3	ON
	S4	OFF
	S5	ON
	S6	OFF
	S7	ON
	S8	ON

Card software settings

Type	Parameter	Setting
• DeltaV M-series 32-channel DO Series 2 Plus card • DeltaV S-series 32-channel DO Plus card	T1_FAULT_DETECT	True
• DeltaV M-series 32-channel DO Series 2 Plus card • DeltaV S-series 32-channel DO Plus card	T2_FAULT_DETECT	True

Termination Board switch settings

DIP switch	Position	Description
S1.1	ON	Fault monitoring at CN3 inactive
	OFF	Fault monitoring at CN3 active
S1.2	ON	Termination active
	OFF	Termination inactive

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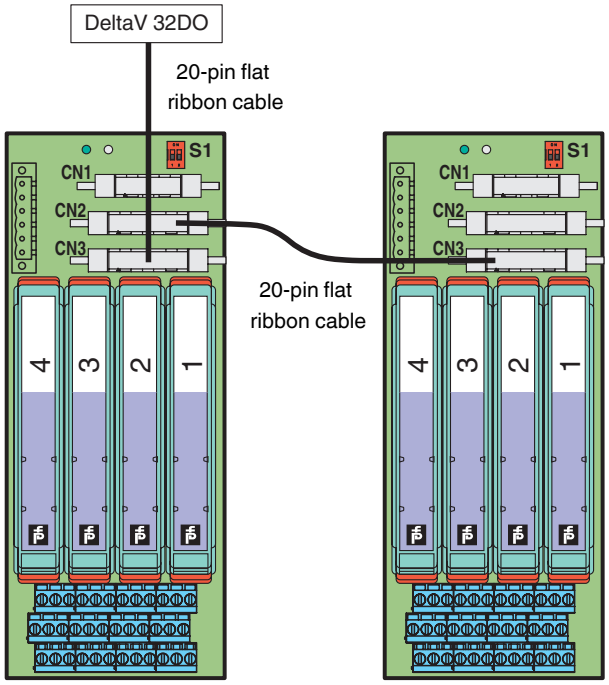
Schematic diagram

- Connection between Termination Board 2 and Termination Board 1 (channel 1 ... 16)
- Connection between Termination Board 4 and Termination Board 3 (channel 17 ... 32)



Settings for use with 32-channel DO cards

Switch settings Termination Board 1/3

DIP switch	Position
S1.1	n.a.
S1.2	n.a.

Switch settings Termination Board 2/4

DIP switch	Position
S1.1	n.a.
S1.2	n.a.

Settings for use with 32-channel DO Plus cards

Switch settings Termination Board 1/3

DIP switch	Position
S1.1	ON or OFF
S1.2	OFF

Switch settings Termination Board 2/4

DIP switch	Position
S1.1	ON or OFF
S1.2	ON

The pin-out configuration has to be observed. For information see corresponding pin-out table on www.pepperl-fuchs.com.

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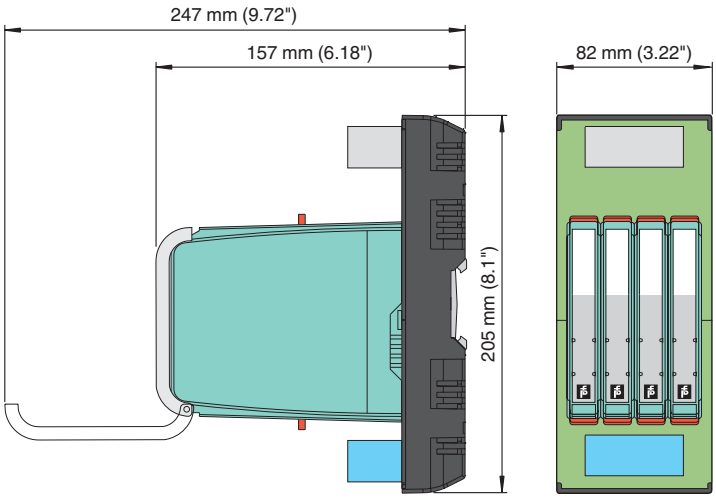
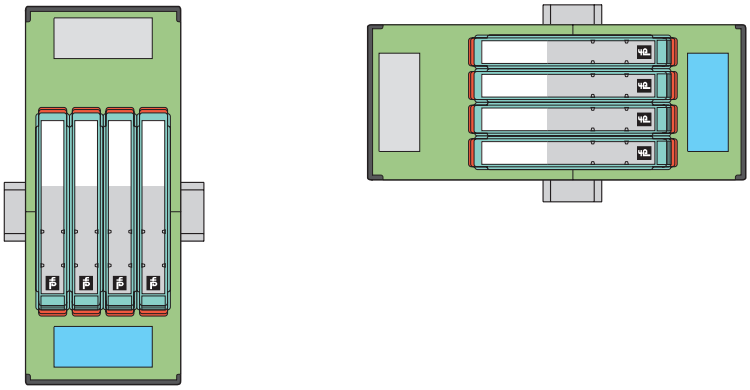
Dimensions



Mounting

Possible mounting positions



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