

Features

- System board for Emerson DeltaV
- For two 8-channel AI/AO/DO cards via 16-pin Mass Termination Block
- For four 8-channel DI cards via 16-pin Mass Termination Block
- For 8 modules/16 or 32 channels
- Recommended modules: HiD2030SK (AI), HiD2038 (AO), HiD2824 (DI), HiD2844 (DI), HiD2872 (DO)
- Volt-free fault indication output
- 24 V DC supply
- Hazardous area: screw terminals, blue
- Safe area: IDC connector, 16-pin

Assembly

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 missing supply voltage of the interface modules is available for the system as potential-free contact. Wiring errors from field will be reported via the same relay contact if the interface module supports this function.

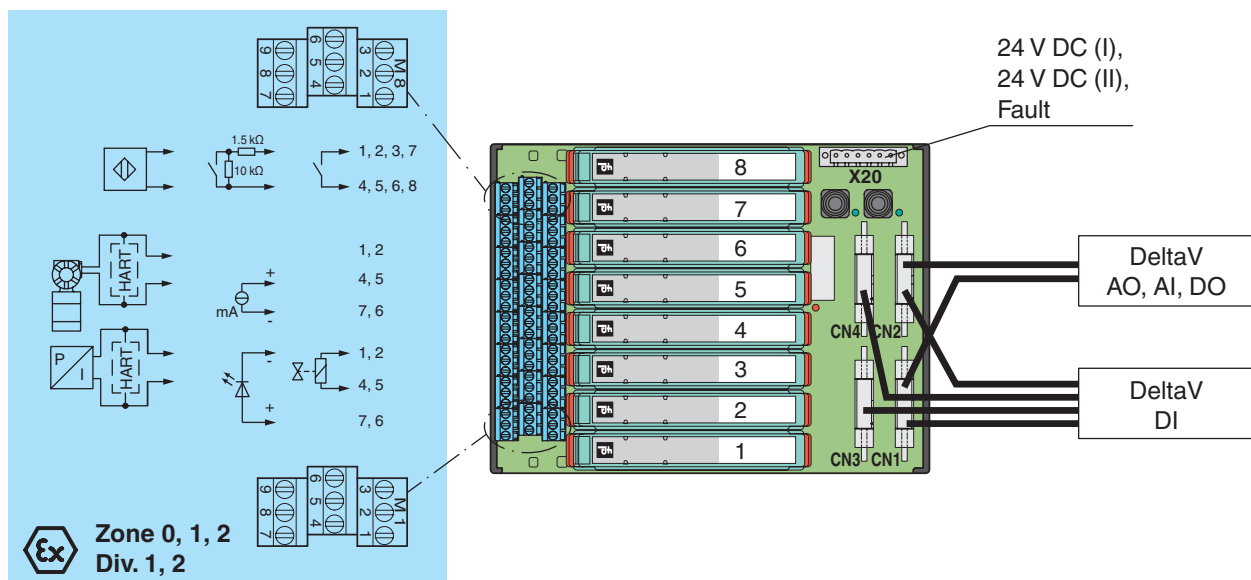
The Termination Boards are supplied with a robust glass fiber reinforced plastic housing as standard. This design permits the fast and reliable installation on 35 mm DIN mounting rail acc. to EN 60715 in the cabinet.

Application

For detailed listing of connectable cards see application section.



Connection



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
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Supply	
Connection	X20: terminals 3, 5 (+); 4, 6 (-)
Nominal voltage	24 V DC , in consideration of rated voltage of used isolators
Voltage drop	0.9 V , voltage drop across the series diode on the termination board must be considered
Ripple	≤ 10 %
Fusing	2 A , in each case for 8 modules
Power dissipation	≤ 500 mW , without modules
Reverse polarity protection	yes
Redundancy	
Supply	Redundancy available. The supply for the isolators is decoupled, monitored and fused.
Fault indication output	
Connection	X20: terminals 1, 2
Output type	volt-free contact
Contact loading	30 V DC , 1 A
Indicators/settings	
Display elements	LEDs PWR ON (Termination Board power supply) - LED power supply I, green LED - LED power supply II, green LED LED FAULT (fault indication), red LED - LED lits: module failure - LED flashes: power supply failure
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations)
Conformity	
Electromagnetic compatibility	NE 21:2012 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	
Field side	explosion hazardous area: screw terminals , blue
Control side	non-explosion hazardous area: IDC plug, 16-pin
Supply	pluggable screw terminals , black
Fault output	pluggable screw terminals , black
Core cross-section	screw terminals: 0.2 ... 2.5 mm ² (24 ... 12 AWG)
Material	housing: polycarbonate, 10 % glass fiber reinforced
Mass	approx. 600 g
Dimensions	150 x 200 x 163 mm (5.9 x 7.9 x 6.42 inch) , height including module assembly
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CESI 11 ATEX 062
Marking	⊕ II (1)G [Ex ia Ga] IIC ⊕ II (1)D [Ex ia Da] IIIC ⊕ I (M1) [Ex ia Ma] I
Safe area	
Maximum safe voltage	250 V (Attention! U _m is no rated voltage.)
Galvanic isolation	
Field circuit/control circuit	safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 50303:2000
International approvals	
CSA approval	
Control drawing	see control drawing of corresponding modules
IECEX approval	
Approved for	[Ex ia Ga] IIC [Ex ia Da] IIIC [Ex ia Ma] I
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.
Accessories	

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Designation	optional accessory: Label Carrier HIALC-Hi*TB-SET-1**
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Application

DeltaV M-series 8-channel AI Series 2 simplex card (4 mA to 20 mA) and
DeltaV S-series 8-channel AI simplex card (4 mA to 20 mA):

- HiD2030SK
- Card 1 and CN1: channel 1 ... 8
- Card 2 and CN2: channel 9 ... 16

DeltaV M-series 8-channel AO Series 2 simplex card (4 mA to 20 mA) and
DeltaV S-series 8-channel AO simplex card (4 mA to 20 mA):

- HiD2038
- Card 1 and CN1: channel 1 ... 8
- Card 2 and CN2: channel 9 ... 16

DeltaV M-series 8-channel DO Series 2 simplex card (24 V DC, high-side) and
DeltaV S-series 8-channel DO simplex card (24 V DC, high-side):

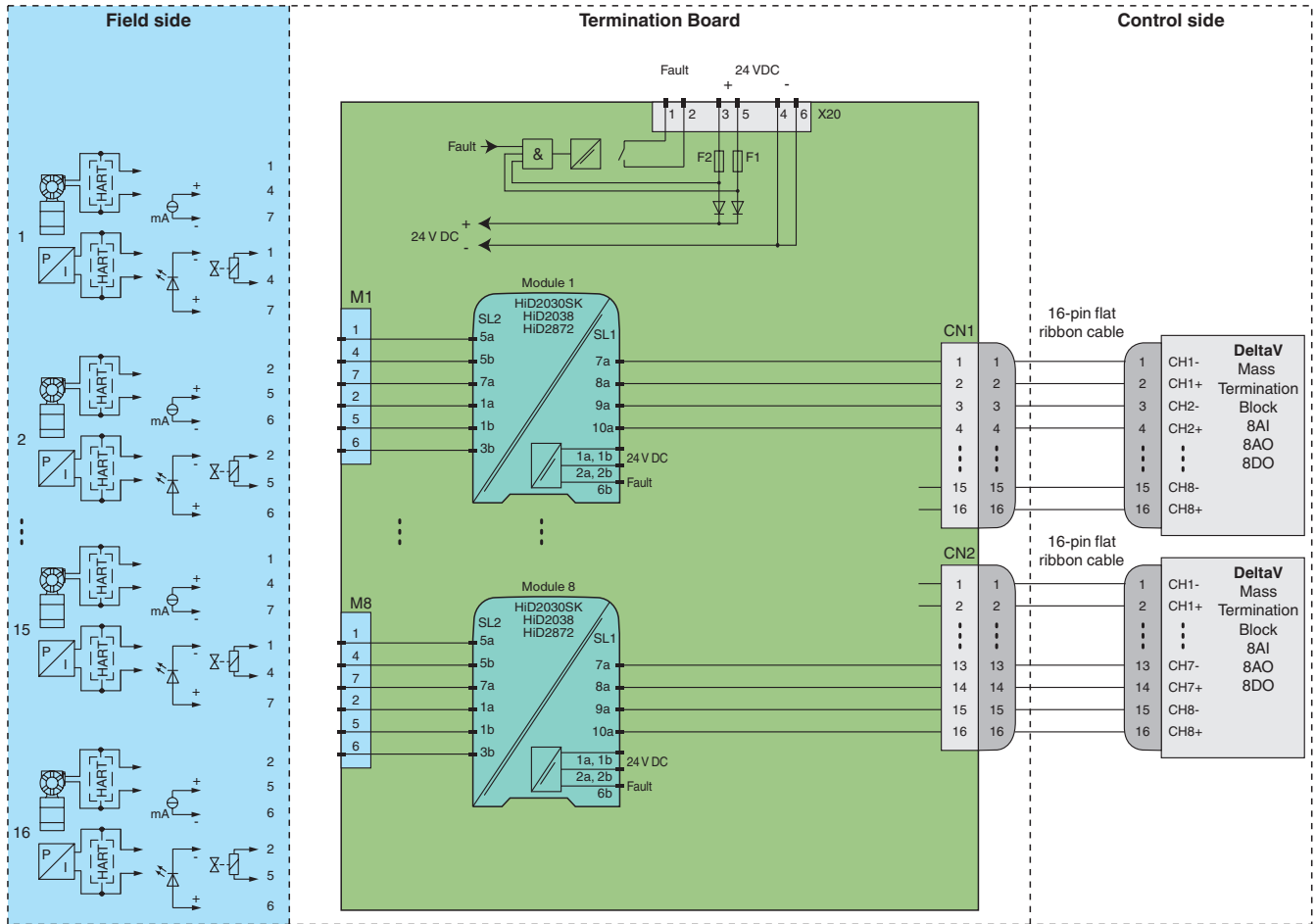
- HiD2872
- Card 1 and CN1: channel 1 ... 8
- Card 2 and CN2: channel 9 ... 16

DeltaV M-series 8-channel DI Series 2 simplex card (24 V DC, dry contact) and
DeltaV S-series 8-channel DI simplex card (24 V DC, dry contact):

- HiD2824, HiD2844
- Card 1 and CN1: channel 1 ... 8, field side: M1 ... M4 terminals 1, 2, 4, 5
- Card 2 and CN2: channel 9 ... 16, field side: M5 ... M8 terminals 1, 2, 4, 5
- Card 3 and CN3: channel 17 ... 24, field side: M1 ... M4 terminals 3, 6, 7, 8
- Card 4 and CN4: channel 25 ... 32, field side: M5 ... M8 terminals 3, 6, 7, 8

Application

Typical loop for analog inputs, analog outputs and digital outputs



Module switch settings

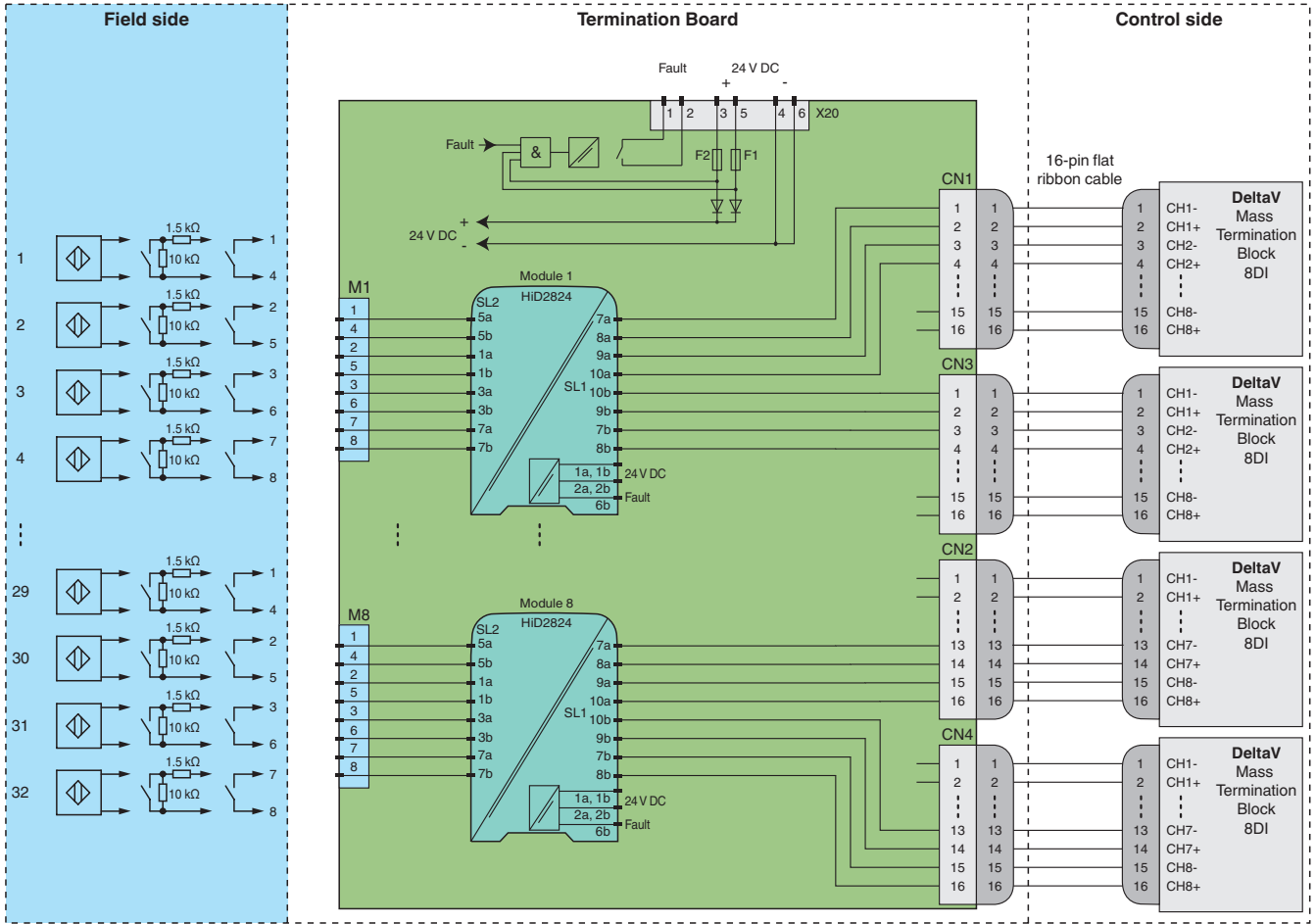
Type	DIP switch	Position
HiD2872 (DO)	S1	ON
	S2	OFF
	S3	ON
	S4	OFF
	S5	ON
	S6	OFF
	S7	ON
	S8	ON
HiD2030SK (AI)	No user configuration available.	
HiD2038 (AO)	No user configuration available.	

Card software settings

Type	Parameter	Setting
<ul style="list-style-type: none"> DeltaV M-series 8-channel DO Series 2 card DeltaV S-series 8-channel DO card 	LINEFAULT_DETECT	False

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Typical loop for digital inputs



Module switch settings

Type	DIP switch	Position
HiD2824 (DI), HiD2844 (DI) • open – energized/close – de-energized • Line fault detection enable	S1	ON
	S2	ON
	S3	ON
	S4	ON
	S5	ON
	S6	ON
	S7	ON
	S8	ON

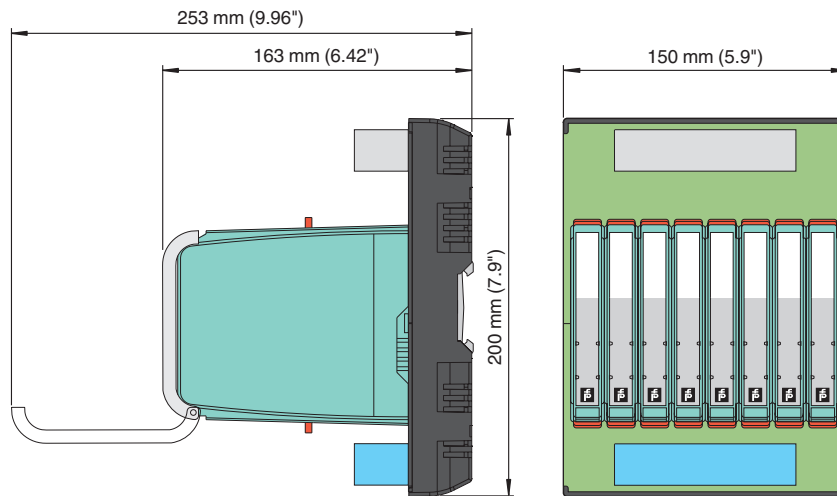
Card software settings

Type	Parameter	Setting
<ul style="list-style-type: none"> DeltaV M-series 8-channel DI Series 2 card DeltaV S-series 8-channel DI card 	LINEFAULT_DETECT	False



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

Dimensions



Mounting

Possible mounting positions

