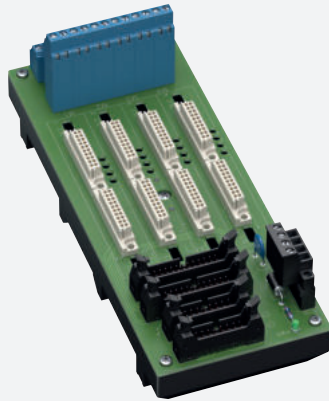




Termination Board

HiDTB04-DVM-IDC4-SC-NO-AM16

- System board for Emerson DeltaV, M-series and S-series
- For two 8-channel AI/AO cards via 16-pin Mass Termination Block
- For one 16-channel AI/AO card via 48-pin Mass Termination Block
- For 4 modules/16 channels
- Recommended module: HiD2024 (AI/AO)
- Line fault transparency (LFT)
- HART compatible
- 24 V DC supply, reverse polarity protected, optional daisychainable
- Hazardous area: screw terminals, blue
- Non-hazardous area: IDC connector, 16 pin and 24-pin



Function

The function of the termination board and the connector pin assignment is exactly fitted to the requirements of the Emerson DeltaV M-series and S-series.

The signal is output to the process control system via the system connector.

The termination board has a robust plastic housing.

The termination board is mounted in the switch cabinet on a 35 mm DIN mounting rail according to EN 60175.

Application

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

- HiD2024 configured to AI operation (with sink output 4 mA ... 20 mA)
- Card 1 and cable 1 connected to CN1: channel 1 ... 8
- Card 2 and cable 2 connected to CN2: channel 9 ... 16

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

- HiD2024 configured to AO operation
- Card 1 and cable 1 connected to CN1: channel 1 ... 8
- Card 2 and cable 2 connected to CN2: channel 9 ... 16

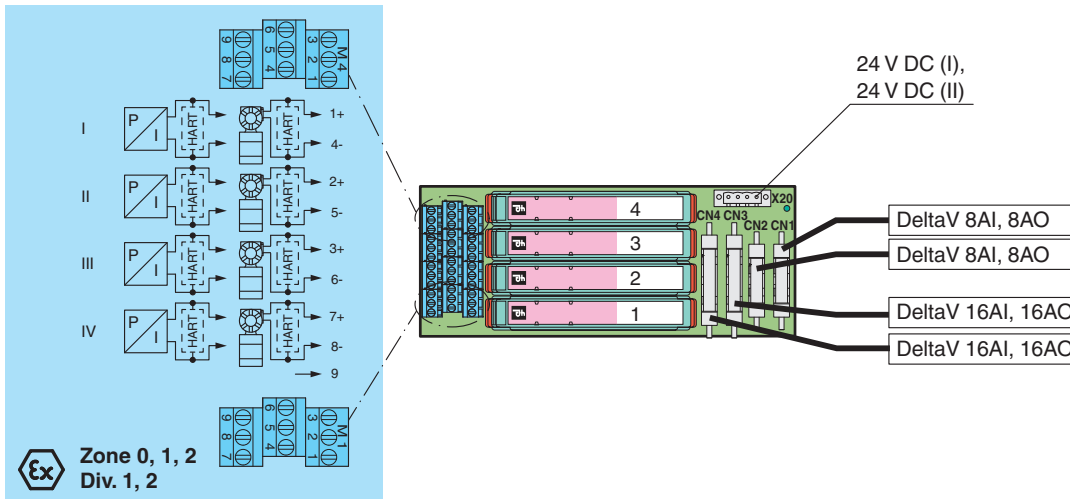
DeltaV S-series 16-channel AI Plus simplex or redundant card (4mA ... 20 mA):

- HiD2024 configured to AI operation (with sink output 4 mA ... 20 mA)
- Card 1 and cable 1 connected to CN3: channel 1 ... 8
- Card 2 and cable 2 connected to CN4: channel 9 ... 16

DeltaV S-series 16-channel AO Plus simplex or redundant card (4mA ... 20 mA):

- HiD2024 configured to AO operation
- Card 1 and cable 1 connected to CN3: channel 1 ... 8
- Card 2 and cable 2 connected to CN4: channel 9 ... 16

Connection



Technical Data

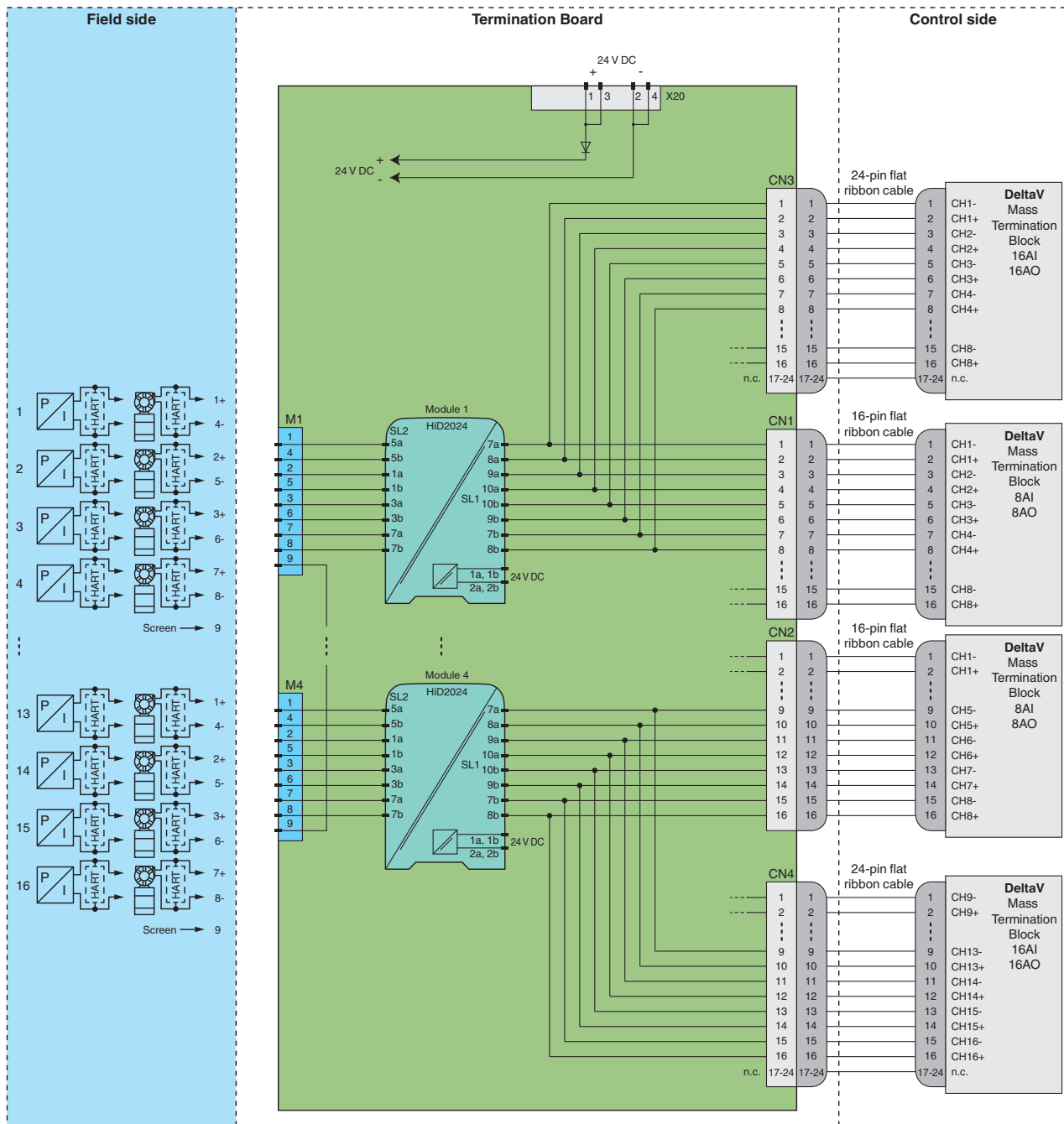
Supply	
Connection	X20: terminals 1, 3(+); 2, 4(-)
Nominal voltage	24 V DC , in consideration of rated voltage of used isolators
Voltage drop	0.9 V , voltage drop across the reverse polarity protection diode on the termination board must be considered
Ripple	≤ 10 %
Fusing	3.15 A with back-up fuse
Power dissipation	≤ 500 mW , without modules
Reverse polarity protection	yes
Redundancy	
Supply	The supply for the isolators is reverse polarity protected and monitored.
Indicators/settings	
Display elements	LED PWR (power supply), green LED
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 or IDC plug, 24-pin
Supply	pluggable screw terminals , black
Core cross section	screw terminals: 0.2 ... 2.5 mm ² (24 ... 12 AWG)
Material	housing: polycarbonate
Mass	approx. 295 g
Dimensions	82 x 205 x 157 mm (3.23 x 8.1 x 6.2 inch) (W x H x D) , depth 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	SIRA 13 ATEX 2388X

Technical Data

Marking		see certificate
Non-hazardous 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 IEC 60079-0:2018+AC:2020 , EN 60079-11:2012
International approvals		
CSA approval		
Control drawing		116-0381
IECEx approval		
IECEx certificate		IECEx CSA 13.0040X
IECEx marking		see certificate
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Application

Typical circuit



Module switch settings for AI cards

Type (AI)	DIP switch	Position
HiD2024 (Analog input with sink output 4 mA ... 20 mA)	S1	OFF
	S2	OFF
	S3	ON
	S4	OFF

Module switch settings for AO cards

Type (AO)	DIP switch	Position
HiD2024 (Analog output)	S1	ON
	S2	OFF
	S3	ON
	S4	OFF



For exact pin assignment for connection to field side and control side, see the documentation of the isolated barrier.



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