Features

- System Board for Emerson DeltaV
- 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 polaritiy protected, optional daisychainable
- Hazardous area: screw terminals, blue
- Safe area: IDC connector, 16 pin and 24-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.

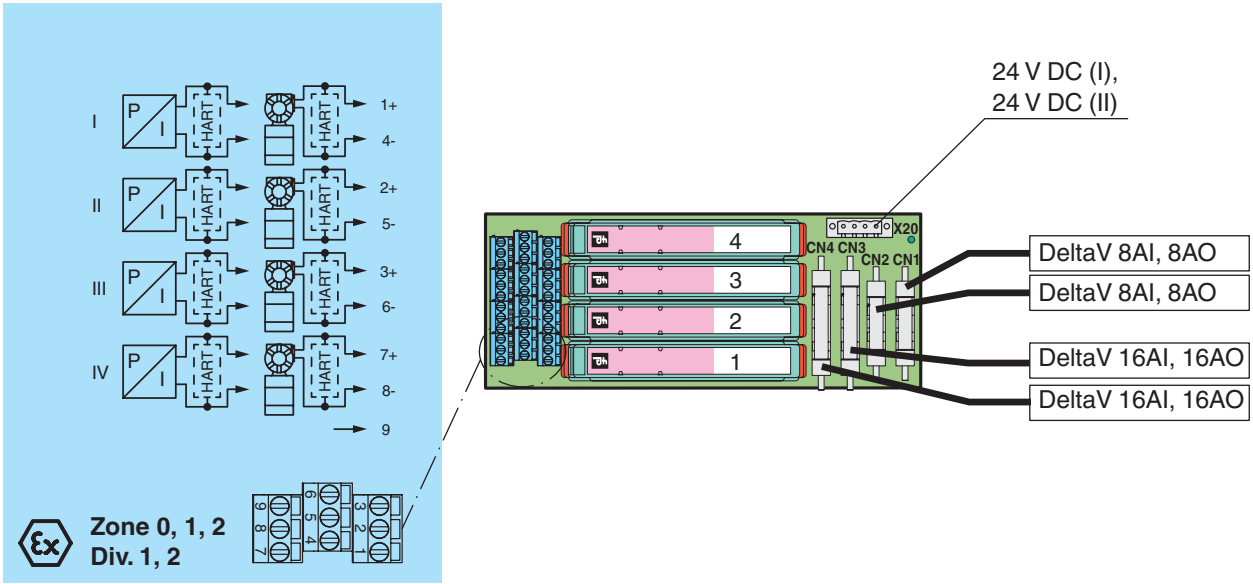
The Termination Boards are supplied with a robust plastic housing as standard. This design permits the fast and reliable installation on 35 mm DIN mounting rail acc. to EN 60715 in the cabinet.

Application

For detailed listing of connectable cards see application section.

Assembly

Connection



Release date 2015-05-05 16:14 Date of issue 2015-05-05 256976_eng.xml

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
Indicators/settings		
Display elements		LED PWR (power supply), one green 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 24-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.

Release date 2015-05-05 16:14 Date of issue 2015-05-05 256976_eng.xml

Application

DeltaV M-series 8-channel AI Series 2 simplex card (4 mA to 20 mA):
- HiD2024 configured to AI operation
- 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):
- HiD2024 configured to AO operation
- Card 1 and CN1: channel 1 ... 8
- Card 2 and CN2: channel 9 ... 16

DeltaV S-series 8-channel AI simplex card (4 mA to 20 mA):
- HiD2024 configured to AI operation
- Card 1 and CN1: channel 1 ... 8
- Card 2 and CN2: channel 9 ... 16

DeltaV S-series 8-channel AO simplex card (4 mA to 20 mA):
- HiD2024 configured to AO operation
- Card 1 and CN1: channel 1 ... 8
- Card 2 and CN2: channel 9 ... 16

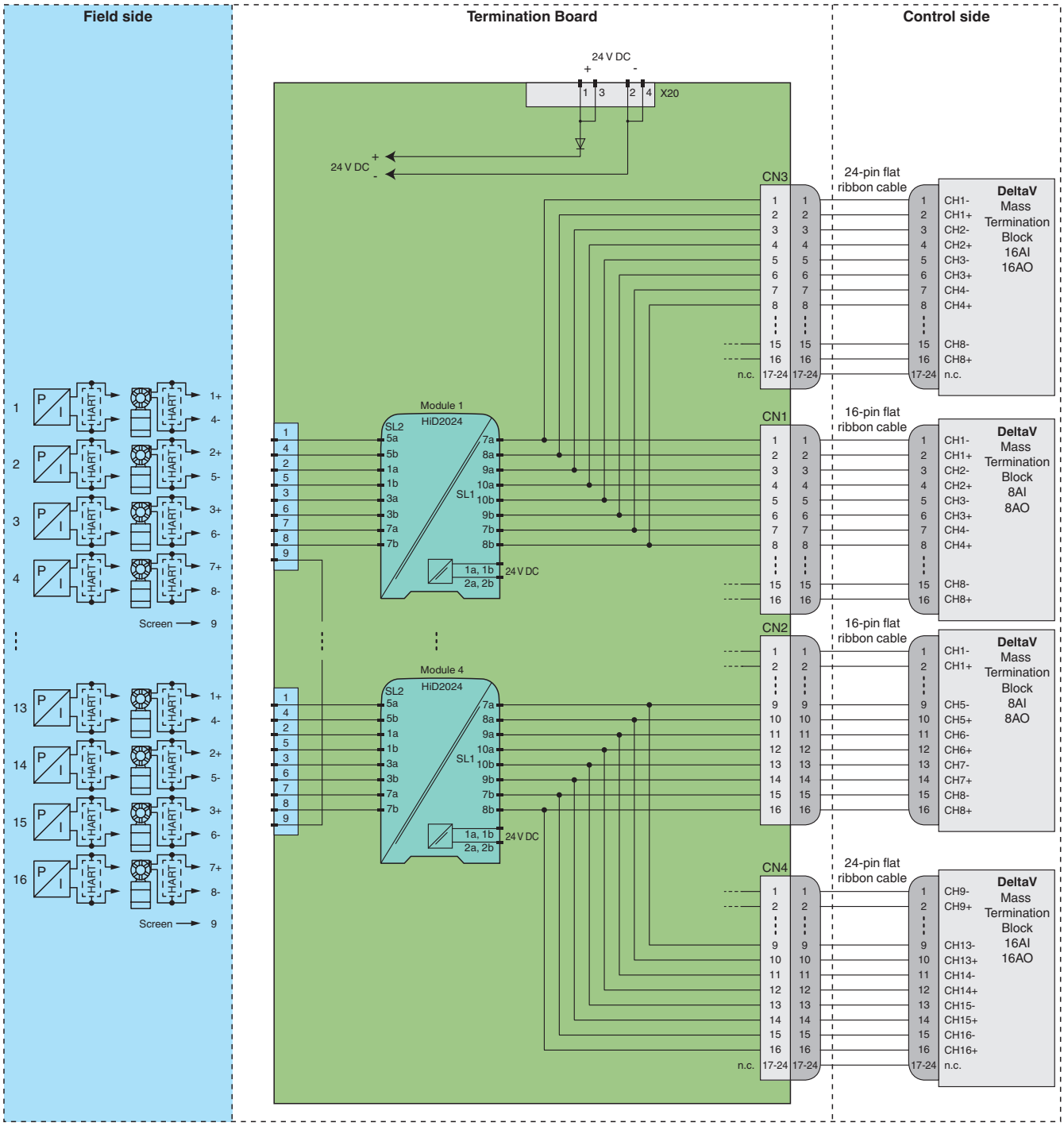
DeltaV S-series 16-channel AI Plus simplex or redundant card (4mA to 20 mA):
- HiD2024 configured to AI operation
- Card 1 and CN3: channel 1 ... 8
- Card 1 and CN4: channel 9 ... 16

DeltaV S-series 16-channel AO Plus simplex or redundant card (4mA to 20 mA):
- HiD2024 configured to AO operation
- Card 1 and CN3: channel 1 ... 8
- Card 1 and CN4: channel 9 ... 16

Release date 2015-05-05 16:14 Date of issue 2015-05-05 256976_eng.xml

Application

Typical loop



Module switch settings

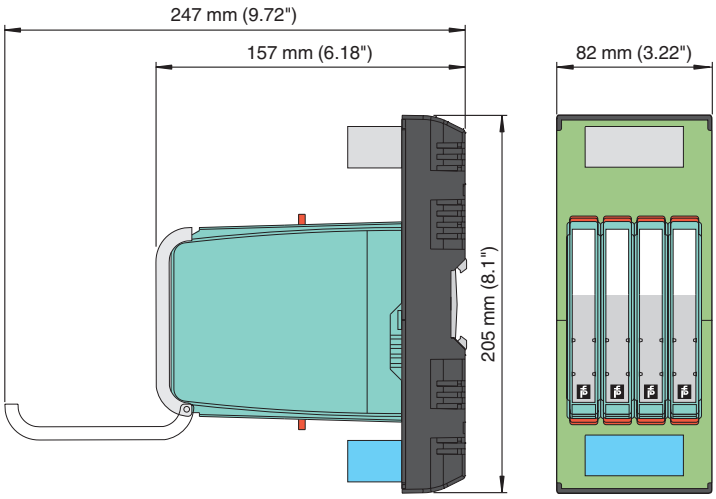
Type	DIP switch	Position
HiD2024 (AI) Analog input with sink output 4 mA ... 20 mA	S1	OFF
	S2	OFF
	S3	ON
	S4	OFF

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

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

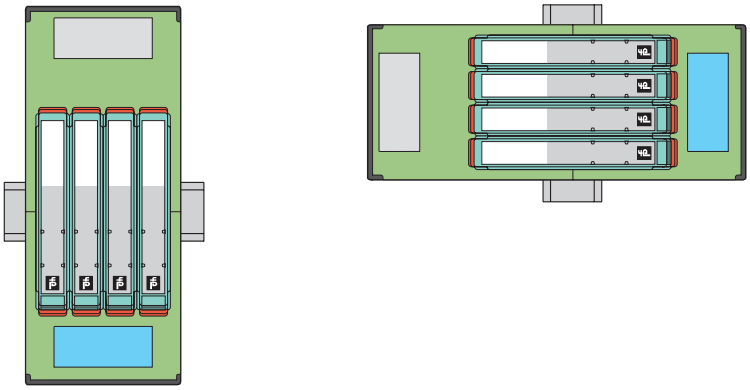
Release date 2015-05-05 16:14 Date of issue 2015-05-05 256976_eng.xml

Dimensions



Mounting

Possible mounting positions



Release date 2015-05-05 16:14 Date of issue 2015-05-05 256976_eng.xml