Termination Board

HiCTB16-TRI-AIISS-EL-PL

- System board for Schneider Electric, Tricon series by Triconex
- TAN48 approval
- For 32-channel (16+16) AI cards 3700A, and 3721
- For 16 modules
- Recommended modules: HiC2025(A) (AI)
- 24 V DC supply
- Hazardous area: pluggable screw terminals, blue
- Non-hazardous area: ELCO socket, 56-pin

Function

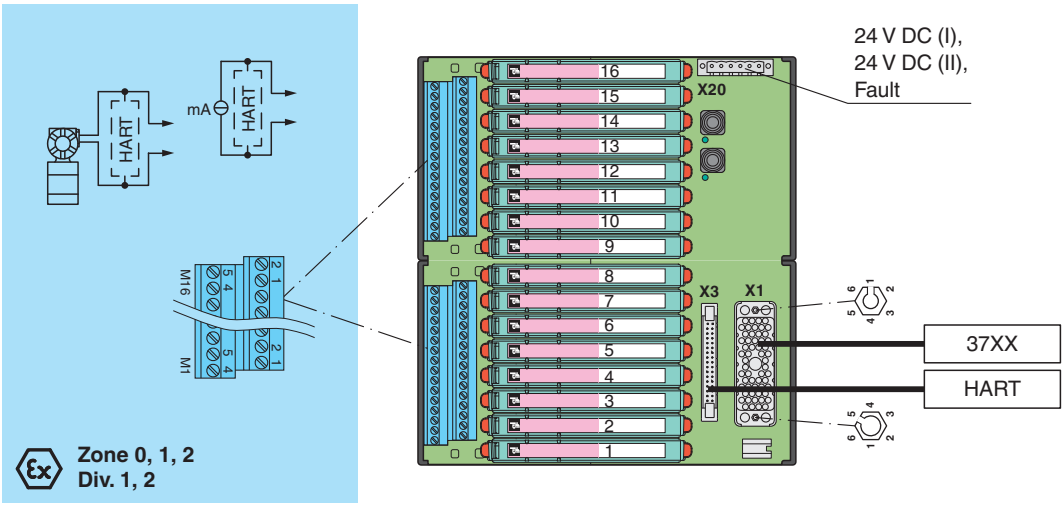
The function of the termination board and the connector pinout is exactly fitted to the requirements of Triconex system.
The termination board has a fault bus (Fault) that is available at the redundant terminals. Power supply faults and module faults are indicated via this fault bus. The fault signals of several termination boards can be connected together and can be monitored by an optional fault indication board. The fault signals are then available to the control system as a volt-free contact.
The termination board is supplied with a robust plastic housing. This design permits the fast and reliable installation on 35 mm DIN mounting rail according to EN 60715 in the switch cabinet.

Application

Triconex card Tricon:

- Termination board 1 and cable 1: channel 1 to 16
- Termination board 2 and cable 2: channel 17 to 32

Connection



Technical Data

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	4 A , in each case for 16 modules

Release date: 2023-02-20 Date of issue: 2023-02-20 Filename: 215712_eng.pdf

Technical Data

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		fault bus (Fault) : X20: terminals 1, 2
Output type		volt-free contact
Switch behaviour		fault bus (Fault) - no fault: relay contact of the fault indication board closed - power supply fault: relay contact of the fault indication board open - module fault: relay contact of the fault indication board open
Contact loading		fault bus (Fault) : 30 V DC , 1 A , see fault indication board
Indicators/settings		
Display elements		LED PWR1 (termination board power supply), green LED LED PWR2 (termination board power supply), green LED
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (industrial locations)
Conformity		
Electromagnetic compatibility		NE 21:2017 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: pluggable screw terminals , blue
Control side		non-explosion hazardous area: ELCO socket, 56-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. 780 g
Dimensions		216 x 200 x 163 mm (8.5 x 7.9 x 6.42 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		CESI 06 ATEX 022
Marking		⟨Ex⟩ II (1)G [Ex ia Ga] IIC ⟨Ex⟩ II (1)D [Ex ia Da] IIIC ⟨Ex⟩ I (M1) [Ex ia Ma] I
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 , EN 50303:2000
International approvals		
UL approval		E106378
Control drawing		116-0327
IECEx approval		
IECEx certificate		IECEx CES 06.0003

Release date: 2023-02-20 Date of issue: 2023-02-20 Filename: 215712_eng.pdf

Technical Data

IECEx marking		[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.

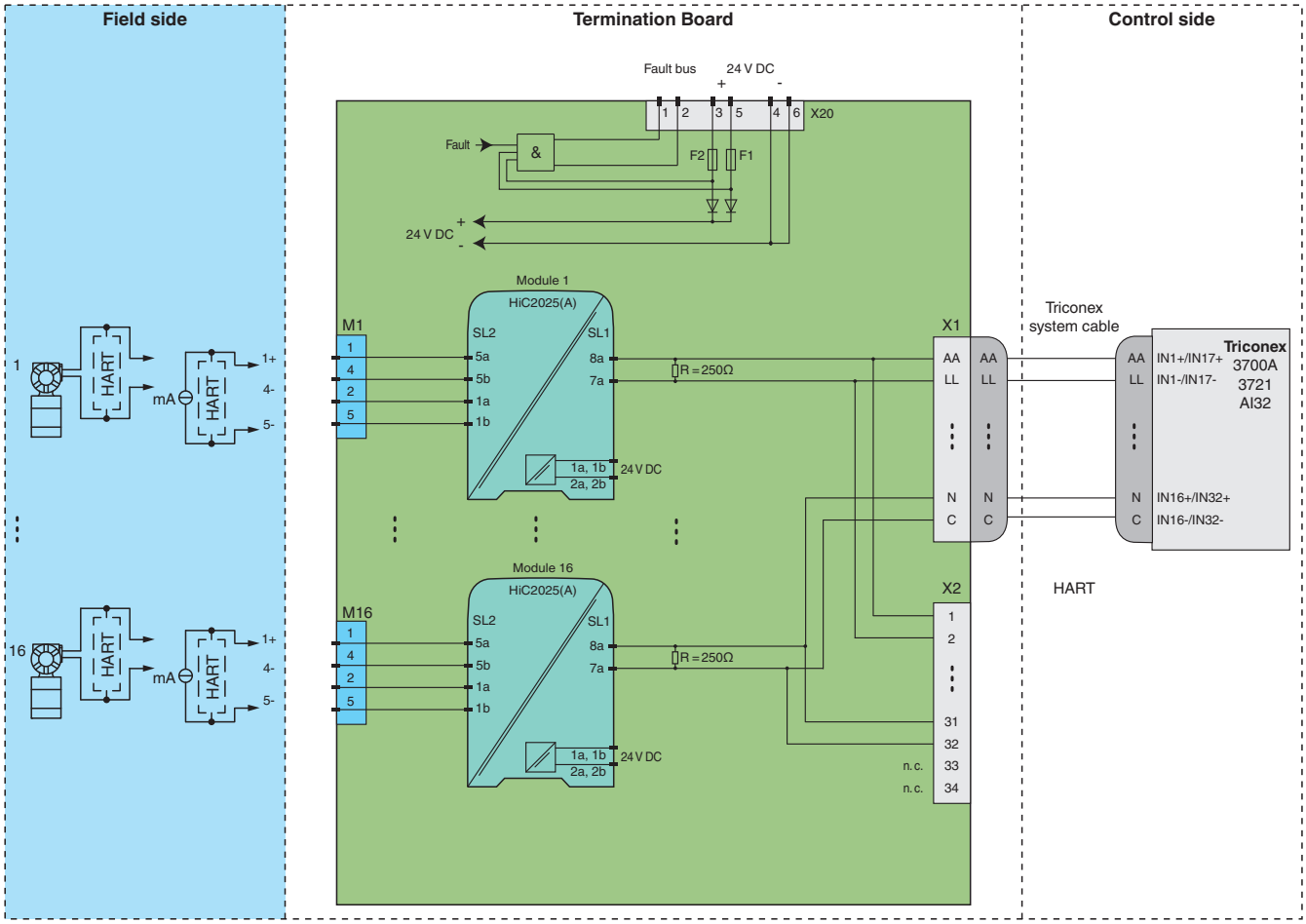
Accessories

	**HiATB01-HART-2X16**	HART Communication Board
	**HiDMux2700**	HART Multiplexer Master
	**HiACA-UNI-FLK34-FLK34-0M5**	HART Connection Cable, length: 0,5 m
	**HIACA-UNI-FLK34-FLK34-1M0**	HART Connection Cable, length: 1 m
	**HiACA-UNI-FLK34-FLK34-2M0**	HART Connection Cable, length: 2 m
	**HiACA-UNI-FLK34-FLK34-3M0**	HART Connection Cable, length: 3 m
	**HiACA-UNI-FLK34-FLK34-6M0**	HART Connection Cable, length: 6 m
	**HiALC-HiCTB-SET-108**	Label carrier for HiC termination boards

Release date: 2023-02-20 Date of issue: 2023-02-20 Filename: 215712_eng.pdf

Application

Typical circuit



Module switch settings

Type (AI)	DIP switch	Position
HiC2025, HiC2025A (source 4 mA ... 20 mA)	S1	OFF
	S2	OFF
	S3	ON
	S4	OFF

Triconex card setting

0 V DC ... 5 V DC

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.

Release date: 2023-02-20 Date of issue: 2023-02-20 Filename: 215712_eng.pdf