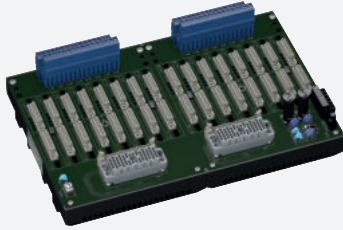


# Termination Board

## HiDTB16-TRI-AIISD-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 module: HiD2030 (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.

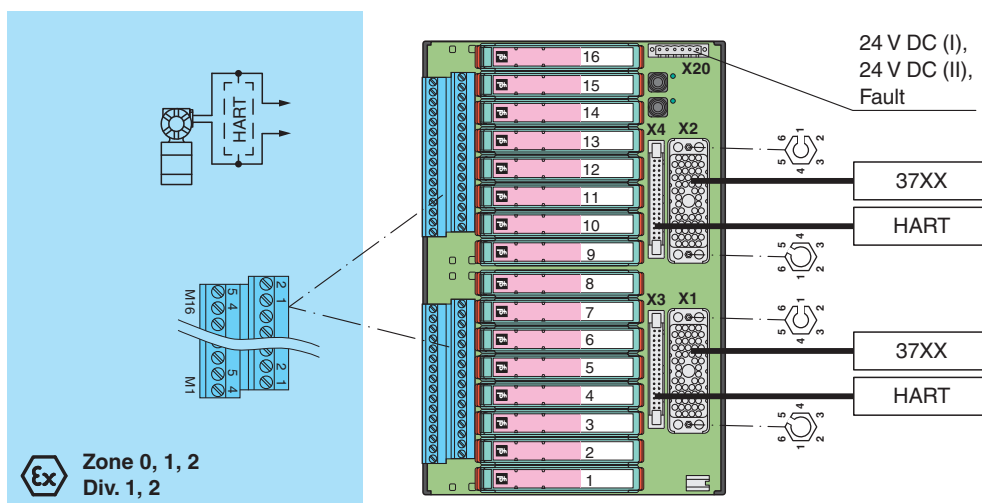
### Application

Triconex card Tricon:

- Cable 1: channel 1 to 16
- Cable 2: channel 17 to 32

Only 2-wire transmitters are supported with the HiD2030 transmitter power supply.

### 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 %                                                                                   |

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

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## Technical Data

|                                                                |                                                                                                                                                                                                                                   |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fusing                                                         | 4 A , in each case for 16 modules                                                                                                                                                                                                 |
| Power dissipation                                              | ≤ 500 mW , without modules                                                                                                                                                                                                        |
| Reverse polarity protection                                    | yes                                                                                                                                                                                                                               |
| <b>Redundancy</b>                                              |                                                                                                                                                                                                                                   |
| Supply                                                         | Redundancy available. The supply for the isolators is decoupled, monitored and fused.                                                                                                                                             |
| <b>Fault indication output</b>                                 |                                                                                                                                                                                                                                   |
| Connection                                                     | fault bus (Fault) : X20: terminals 1, 2                                                                                                                                                                                           |
| Output type                                                    | volt-free contact                                                                                                                                                                                                                 |
| Switch behaviour                                               | fault bus (Fault)<br>- no fault: relay contact of the fault indication board closed<br>- power supply fault: relay contact of the fault indication board open<br>- module fault: relay contact of the fault indication board open |
| Contact loading                                                | fault bus (Fault) : 30 V DC , 1 A , see fault indication board                                                                                                                                                                    |
| <b>Indicators/settings</b>                                     |                                                                                                                                                                                                                                   |
| Display elements                                               | LED PWR1 (termination board power supply), green LED<br>LED PWR2 (termination board power supply), green LED                                                                                                                      |
| <b>Directive conformity</b>                                    |                                                                                                                                                                                                                                   |
| Electromagnetic compatibility                                  |                                                                                                                                                                                                                                   |
| Directive 2014/30/EU                                           | EN 61326-1:2013 (industrial locations)                                                                                                                                                                                            |
| <b>Conformity</b>                                              |                                                                                                                                                                                                                                   |
| Electromagnetic compatibility                                  | NE 21:2017<br>For further information see system description.                                                                                                                                                                     |
| Degree of protection                                           | IEC 60529:2001                                                                                                                                                                                                                    |
| <b>Ambient conditions</b>                                      |                                                                                                                                                                                                                                   |
| Ambient temperature                                            | -20 ... 60 °C (-4 ... 140 °F)                                                                                                                                                                                                     |
| Storage temperature                                            | -40 ... 70 °C (-40 ... 158 °F)                                                                                                                                                                                                    |
| <b>Mechanical specifications</b>                               |                                                                                                                                                                                                                                   |
| 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 <sup>2</sup> (24 ... 12 AWG)                                                                                                                                                                      |
| Material                                                       | housing: polycarbonate, 10 % glass fiber reinforced                                                                                                                                                                               |
| Mass                                                           | approx. 950 g                                                                                                                                                                                                                     |
| Dimensions                                                     | 300 x 200 x 163 mm (11.8 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                                                                                                                                                                                  |
| <b>Data for application in connection with hazardous areas</b> |                                                                                                                                                                                                                                   |
| EU-type examination certificate                                | CESI 11 ATEX 062                                                                                                                                                                                                                  |
| Marking                                                        | ⊕ II (1)G [Ex ia Ga] IIC<br>⊕ II (1)D [Ex ia Da] IIIC<br>⊕ I (M1) [Ex ia Ma] I                                                                                                                                                    |
| <b>Non-hazardous area</b>                                      |                                                                                                                                                                                                                                   |
| Maximum safe voltage                                           | 250 V (Attention! U <sub>m</sub> is no rated voltage.)                                                                                                                                                                            |
| <b>Galvanic isolation</b>                                      |                                                                                                                                                                                                                                   |
| Field circuit/control circuit                                  | safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V                                                                                                                                                       |
| <b>Directive conformity</b>                                    |                                                                                                                                                                                                                                   |
| Directive 2014/34/EU                                           | EN IEC 60079-0:2018+AC:2020 , EN 60079-11:2012 , EN 50303:2000                                                                                                                                                                    |
| <b>International approvals</b>                                 |                                                                                                                                                                                                                                   |
| CSA approval                                                   |                                                                                                                                                                                                                                   |
| Control drawing                                                | see control drawing of corresponding modules                                                                                                                                                                                      |
| IECEx approval                                                 |                                                                                                                                                                                                                                   |
| IECEx certificate                                              | IECEx CES 11.0022                                                                                                                                                                                                                 |

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## Technical Data

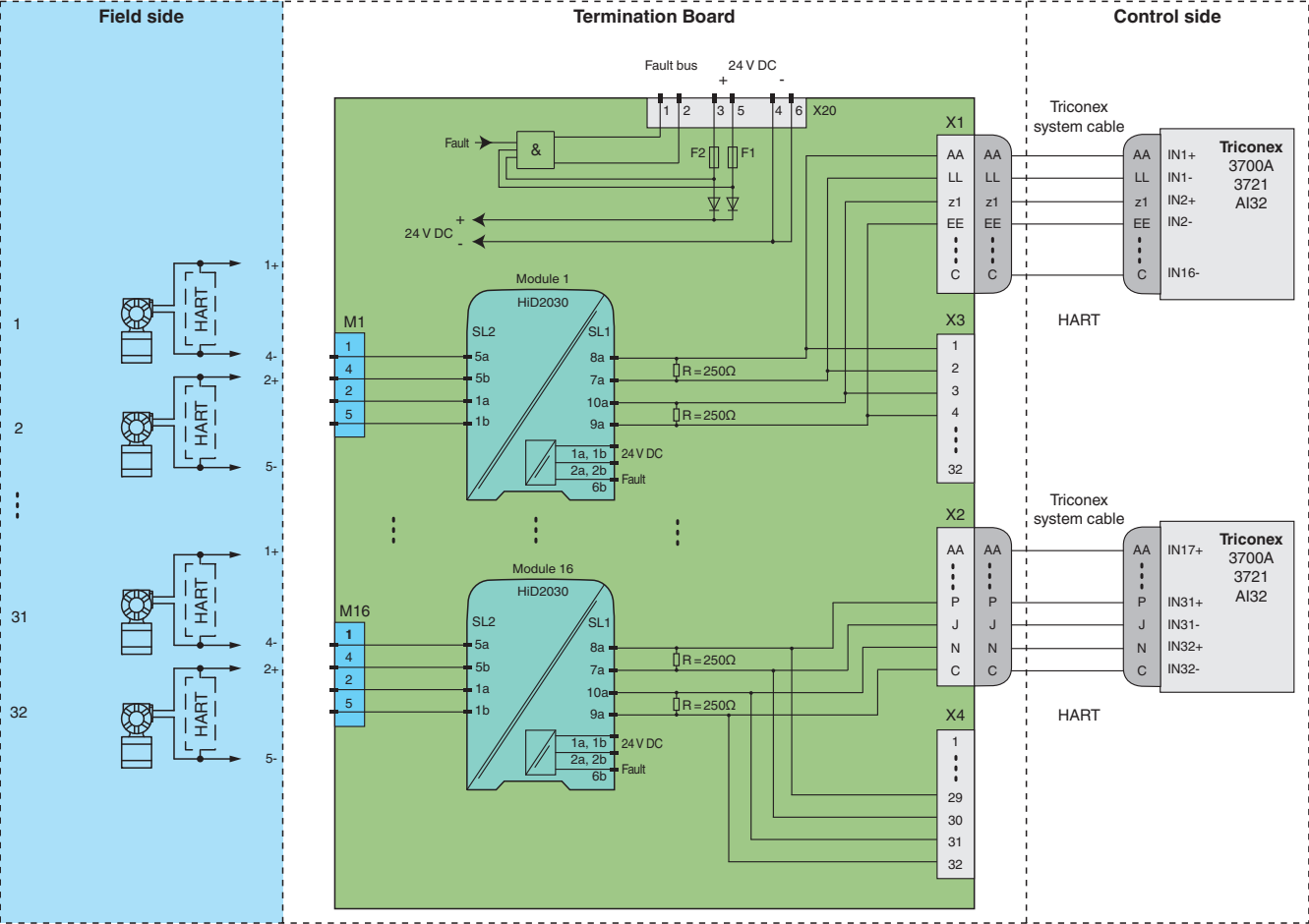
|                            |                                                                                                                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IECEEx marking             | [Ex ia Ga] IIC<br>[Ex ia Da] IIIC<br>[Ex ia Ma] I                                                                                                                                               |
| <b>General information</b> |                                                                                                                                                                                                 |
| Supplementary information  | Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> . |

## Accessories

|                                                                                     |                                  |                                          |
|-------------------------------------------------------------------------------------|----------------------------------|------------------------------------------|
|    | <b>HiALC-HiDTB-SET-150</b>       | Label carrier for HiD termination boards |
|    | <b>HiATB01-FAULT-01</b>          | Fault Indication Board                   |
|    | <b>HiATB01-HART-2X16</b>         | HART Communication Board                 |
|    | <b>HiDMux2700</b>                | HART Multiplexer Master                  |
|    | <b>HiACA-UNI-FLK34-FLK34-0M5</b> | HART Connection Cable, length: 0,5 m     |
|    | <b>HiACA-UNI-FLK34-FLK34-1M0</b> | HART Connection Cable, length: 1 m       |
|  | <b>HiACA-UNI-FLK34-FLK34-2M0</b> | HART Connection Cable, length: 2 m       |
|  | <b>HiACA-UNI-FLK34-FLK34-3M0</b> | HART Connection Cable, length: 3 m       |
|  | <b>HiACA-UNI-FLK34-FLK34-6M0</b> | HART Connection Cable, length: 6 m       |

Application

Typical circuit



Module switch settings

| Type (AI)                | DIP switch | Position |
|--------------------------|------------|----------|
| HiD2030 (4 mA ... 20 mA) | S1         | OFF      |
|                          | S2         | OFF      |
|                          | S3         | OFF      |
|                          | 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](http://www.pepperl-fuchs.com).