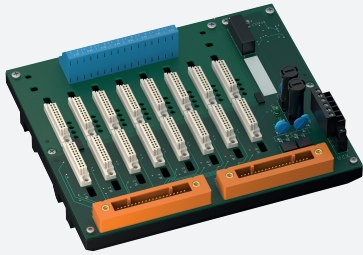


# Termination Board

## HiDTB08-YRS-RRB-KS-CC-AI16



- System board for Yokogawa ProSafe-RS
- For 16-channel AI card SAI143
- For 8 modules
- Recommended module: HiD2030 (AI)
- 24 V DC supply
- Hazardous area: spring terminals, blue
- Non-hazardous area: Yokogawa system connector, 40-pin



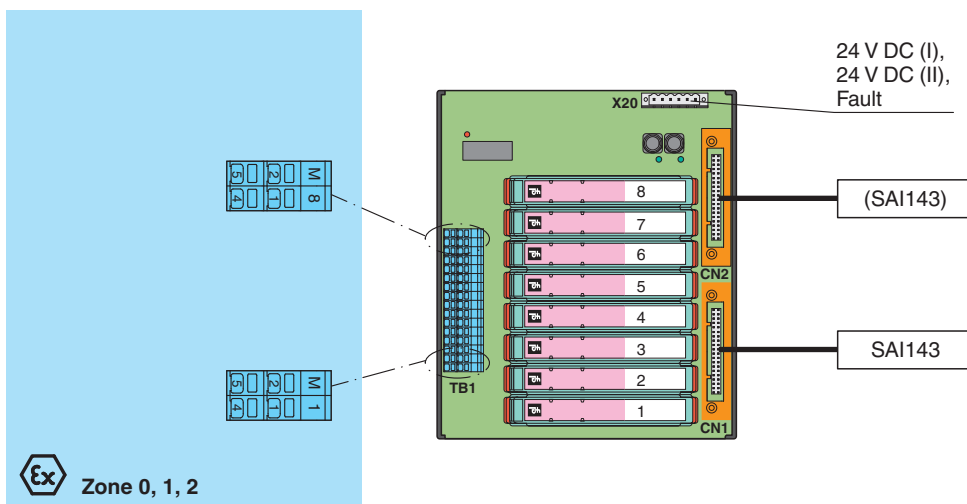
### Function

The function of the termination board and the connector pin assignment is exactly fitted to the requirements of the Yokogawa ProSafe-RS system. The signal is output to the safety instrumented system via the system connector. Information about a missing supply voltage of the isolators is available for the system as a volt-free contact. 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

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 %   |
| Fusing                      | 2 A , in each case for 8 modules   |
| Power dissipation           | ≤ 500 mW , without modules   |
| Reverse polarity protection | yes  |

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

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## Technical Data


|  |   |
|--|---|
| <b>Redundancy</b>  |   |
| Supply   | Redundancy available. The supply for the isolators is decoupled, monitored and fused.   |
| <b>Fault indication output</b>                                 |   |
| Connection   | X20: terminals 1, 2   |
| Output type  | volt-free contact   |
| Switch behaviour   | no fault: relay contact closed<br>power supply fault: relay contact open  |
| Contact loading  | 30 V DC , 1 A   |
| <b>Indicators/settings</b>                                     |   |
| Display elements   | LEDs PWR ON (Termination Board power supply)<br>- LED power supply I, green LED<br>- LED power supply II, green LED<br>LED FAULT (fault indication), red LED<br>- LED flashes: power supply fault |
| <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: spring terminals , blue   |
| Control side   | non-explosion hazardous area: Yokogawa system connector, 40-pin   |
| Supply   | pluggable screw terminals , black   |
| Fault output   | pluggable screw terminals , black   |
| Core cross section   | spring terminals:<br>rigid: 0.2 ... 2.5 mm <sup>2</sup><br>flexible: 0.25 ... 1.5 mm <sup>2</sup>   |
| Material   | housing: polycarbonate  |
| Mass   | approx. 480 g   |
| Dimensions   | 205 x 175 x 153 mm (8.1 x 6.9 x 6.02 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  |
| Non-hazardous area   |   |
| Maximum safe voltage   | 250 V (Attention! U <sub>m</sub> 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  |
| <b>International approvals</b>                                 |   |
| IECEx approval   |   |
| IECEx certificate  | IECEx CES 11.0022   |
| IECEx marking  | [Ex ia Ga] IIC<br>[Ex ia Da] IIIC<br>[Ex ia Ma] I   |
| <b>General information</b>                                     |   |

Release date: 2023-02-20 Date of issue: 2023-02-20 Filename: 236228\_eng.pdf

## Technical Data

|                           |   |
|---------------------------|---|
| 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 |
|---|----------------------------|--|

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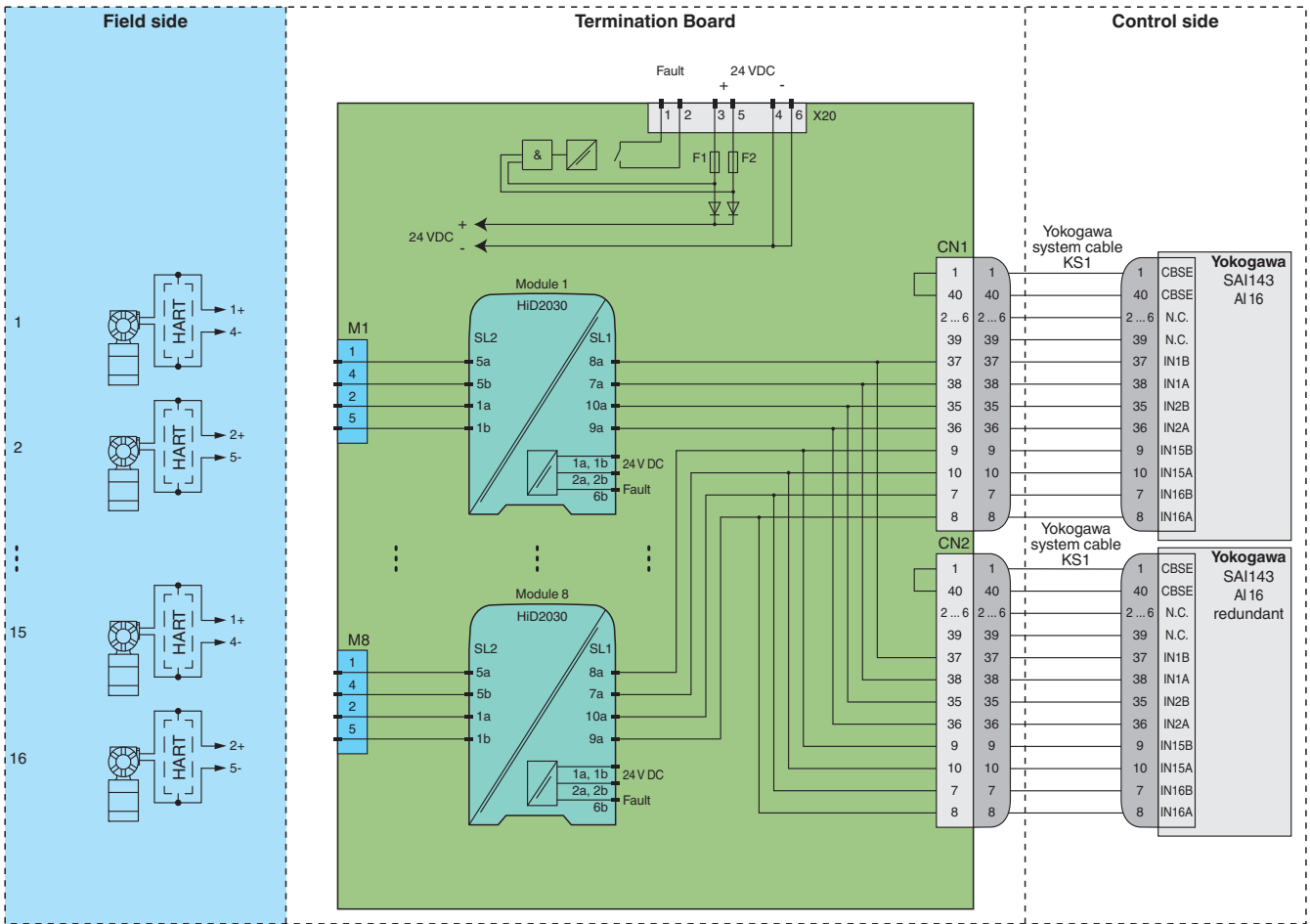
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**Application**

**Typical circuit**



**Module switch settings**

| Type (AI)                                  | Channel | DIP switch | Position |
|--|---------|------------|----------|
| HiD2030<br>(current source 4 mA ... 20 mA) | 2       | S1         | OFF      |
|  |         | S2         | OFF      |
|  | 1       | S3         | OFF      |
|  |         | S4         | OFF      |

**Card switch settings**

| Type (AI)     | Function |
|---------------|----------|
| SAI143 (sink) | 4-wire   |



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).

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