

Termination Board

HiDTB08-YRS-RRB-KS-CC-AI16-Y2

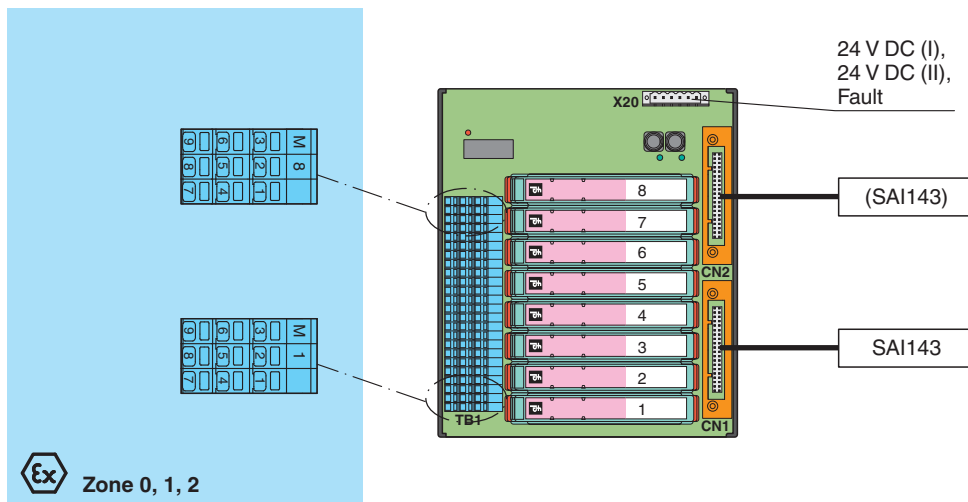
- System board for Yokogawa ProSafe-RS
- For 16-channel AI card SAI143
- For 8 modules
- Recommended module: HiD2030 (AI)
- 24 V DC supply
- Hazardous area: spring terminals, blue
- Non-hazardous area: Yokogawa system connector, 40-pin



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.

Connection



Zone 0, 1, 2

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

Redundancy

Supply	Redundancy available. The supply for the isolators is decoupled, monitored and fused.
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Fault indication output

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

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Technical Data

Connection	X20: terminals 1, 2
Output type	volt-free contact
Switch behaviour	no fault: relay contact closed power supply fault: relay contact open
Contact loading	30 V DC , 1 A
Indicators/settings	
Display elements	LEDs PWR ON (Termination Board power supply) - LED power supply I, green LED - LED power supply II, green LED LED FAULT (fault indication), red LED - LED flashes: power supply fault
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: 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: rigid: 0.2 ... 2.5 mm ² flexible: 0.25 ... 1.5 mm ²
Material	housing: polycarbonate
Mass	approx. 545 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
Data for application in connection with hazardous areas	
EU-type examination certificate	CESI 11 ATEX 062
Marking	⊕ II (1)G [Ex ia Ga] IIC ⊕ II (1)D [Ex ia Da] IIIC ⊕ 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	
IECEx approval	
IECEx certificate	IECEx CES 11.0022
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 .

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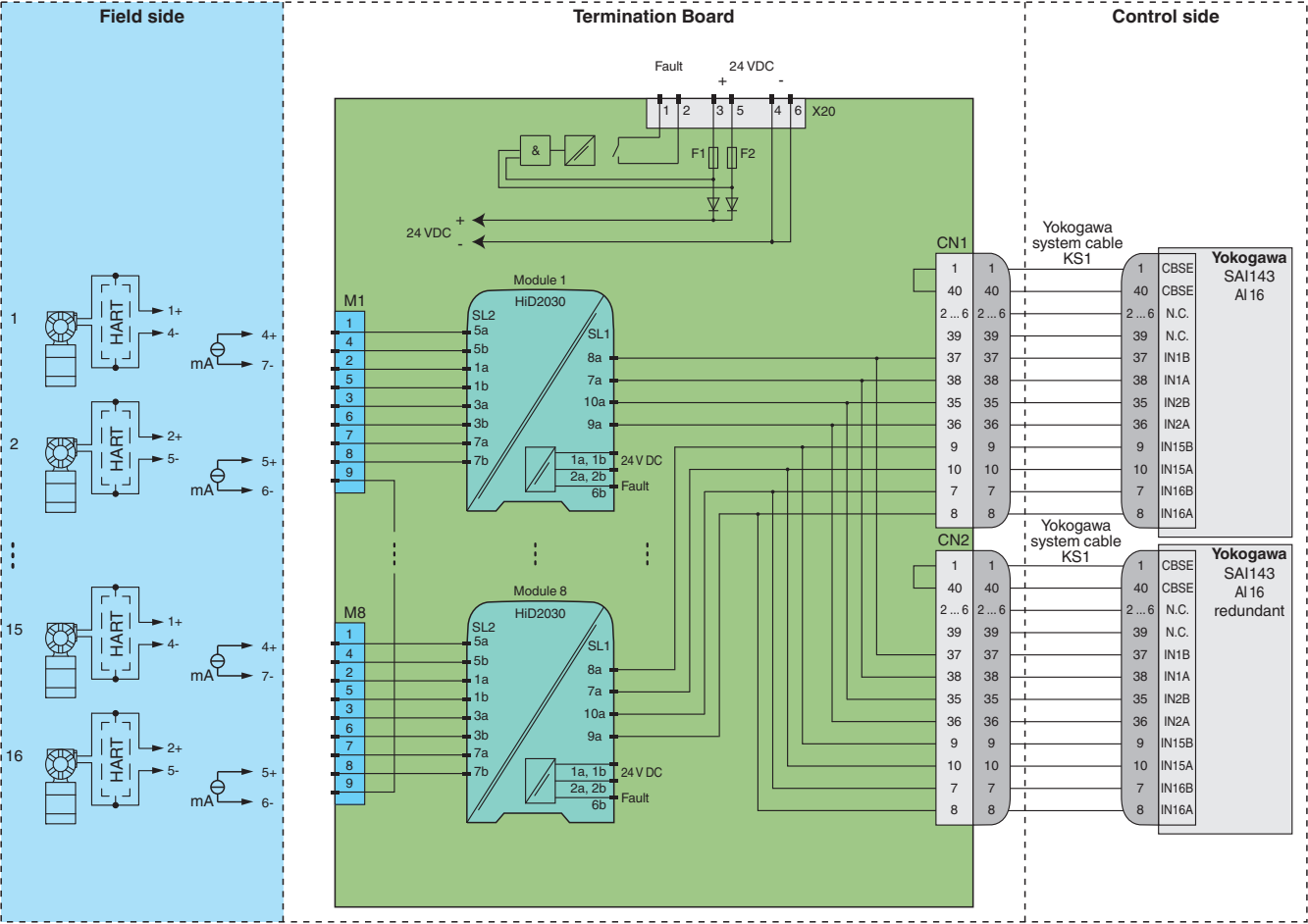
Accessories

	HiALC-HIDTB-SET-150	Label carrier for HiD termination boards
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Application

Typical circuit



Module switch settings

Type (AI)	Channel	DIP switch	Position
HiD2030 (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.