Features

- 2-channel isolated barrier
- 24 V DC supply (loop powered)
- Current output up to 500 Ω load
- Low voltage drop
- Up to SIL 2 acc. to IEC 61508

Function

This isolated barrier is used for intrinsic safety applications. It repeats a 4 mA ... 20 mA input signal from a control system to drive I/P converters, valve actuators, and displays located in a hazardous area.

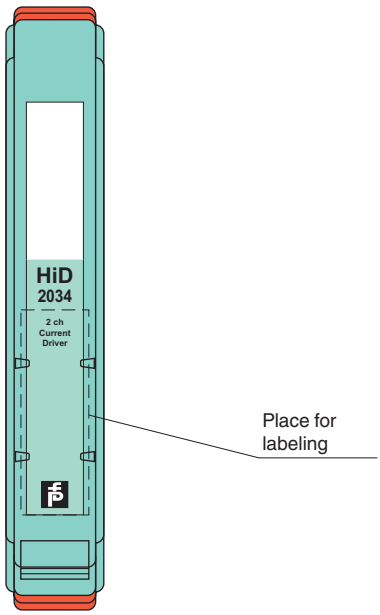
The barrier is loop powered with a low voltage drop and permits detection of line faults by the control system.

An open field circuit presents a high impedance to the control side to allow alarm conditions to be monitored by control systems.

This module mounts on a HiD Termination Board.

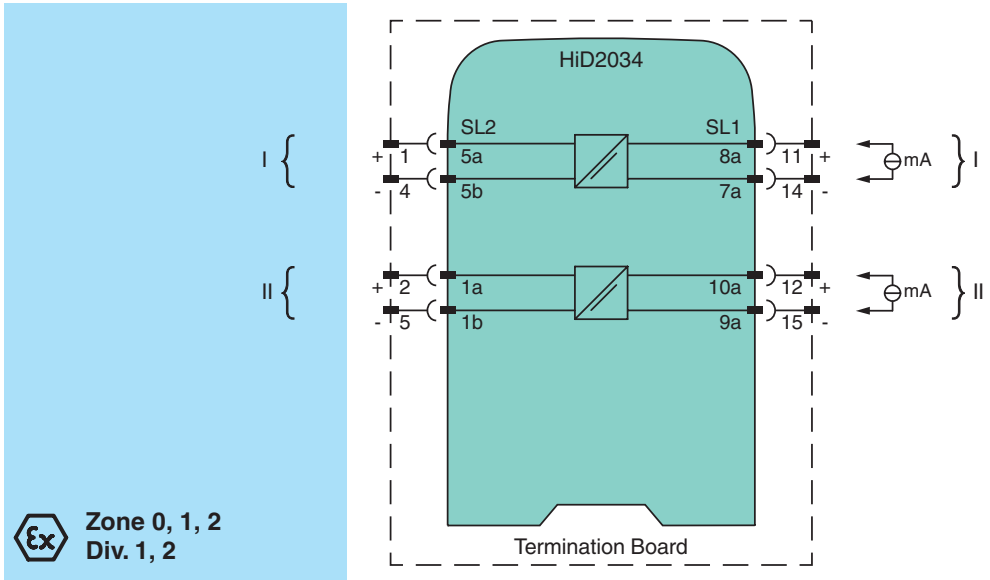
Assembly

Front view



SIL 2

Connection



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General specifications		
Signal type		Analog output
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
Supply		
Connection		via input terminals
Rated voltage	U_r	7 ... 30 V DC loop powered , reverse polarity protected
Power dissipation		0.14 W at 20 mA (per channel)
Input		
Connection side		control side
Connection		SL1: 8a(+), 7a(-); 10a(+), 9a(-)
Input current		4 ... 20 mA , loop powered open circuit consumption < 0.8 mA at 24 V
Signal level		voltage drop 7 V at 20 mA and 500 Ω load
Output		
Connection side		field side
Connection		SL2: 5a(+), 5b(-); 1a(+), 1b(-)
Rated current	I_n	4 ... 20 mA on a load of max. 500 Ω
Load		0 ... 500 Ω
Output signal		4 ... 20 mA
Ripple		≤ 40 µA peak to peak
Response time		50 ms , 10 ... 90 % step change
Transfer characteristics		
Accuracy		< ± 0.1 % of full-scale value
Influence of temperature		< ± 0.01 %/K
Influence of load		< ± 0.2 % of full-scale value from 0 ... 500 Ω
Linearity		< ± 0.1 % of full-scale value
Indicators/settings		
Labeling		space for labeling at the front
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (industrial locations)
Conformity		
Electromagnetic compatibility		NE 21:2006 For further information see system description.
Degree of protection		IEC 60529
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Relative humidity		5 ... 90 %, non-condensing up to 35 °C (95 °F)
Mechanical specifications		
Degree of protection		IP20
Mass		approx. 140 g
Dimensions		18 x 106 x 128 mm (0.7 x 4.2 x 5 inch)
Mounting		on Termination Board
Coding		pin 1 and 3 trimmed For further information see system description.
Data for application in connection with hazardous areas		
EU-Type Examination Certificate		CESI 02 ATEX 086
Marking		⟨Ex⟩ II (1)G [Ex ia Ga] IIC , ⟨Ex⟩ II (1)D [Ex ia Da] IIIC
Output		Ex ia, Ex iaD
Voltage	U_o	26 V
Current	I_o	93 mA
Power	P_o	605 mW
Supply		
Maximum safe voltage	U_m	250 V AC (Attention! U_m is no rated voltage.)
Certificate		PF 11 CERT 2109 X
Marking		⟨Ex⟩ II 3G Ex nA IIC T4 Gc [device in zone 2]
Galvanic isolation		
Input/Output		safe electrical isolation acc. to EN 60079-11: 2007, voltage peak value 375 V
Output/Output		safe electrical isolation acc. to EN 60079-11:2007, voltage peak value 60 V
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010
International approvals		
CSA approval		

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Control drawing	366-005CS-12B (cCSAus)
IECEx approval	IECEx TUN 04.0012
Approved for	[Ex ia] IIC
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.

Configuration

No user configuration available for this device.

The pins for this device are trimmed to polarize it according to its safety parameter. Do not change! For further information see system description.

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