

Features

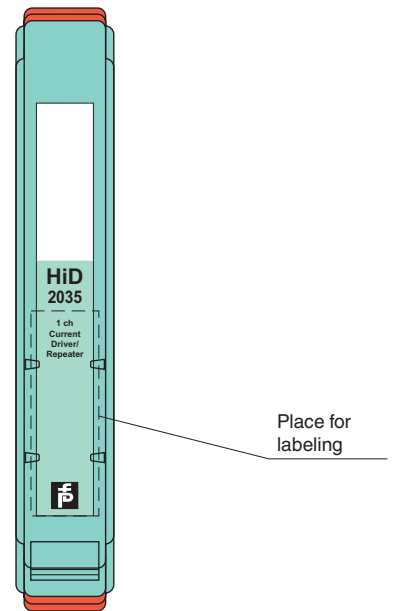
- 1-channel isolated barrier
- 24 V DC supply (loop powered)
- Current input/output 1.5 mA ... 50 mA
- Fire detector or I/P supply
- Accuracy 0.1 %

Function

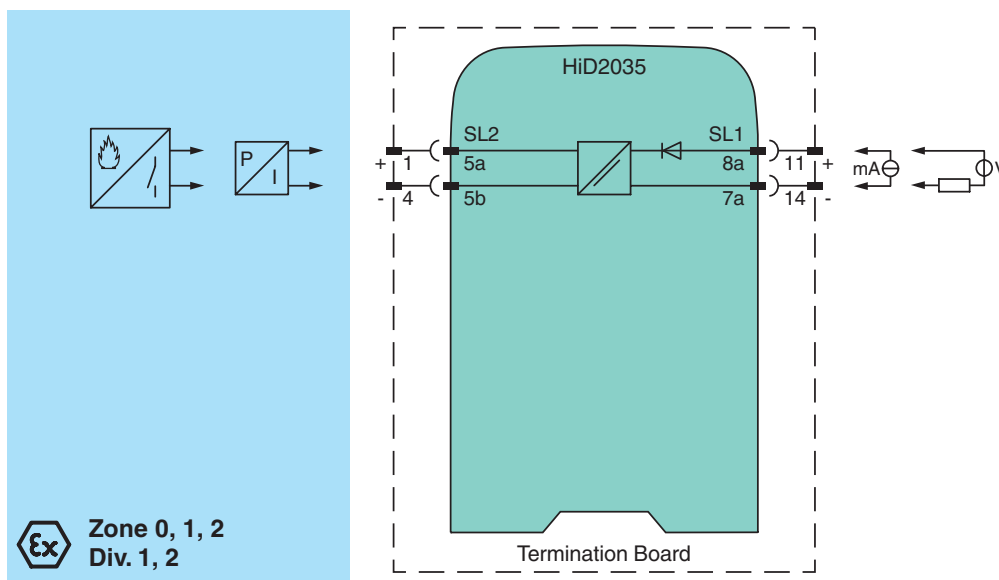
This isolated barrier is used for intrinsic safety applications. It is loop-powered and is primarily intended to interface with fire and smoke detectors or with similar switched resistor systems requiring a wide output current range (1.5 mA ... 50 mA) to operate correctly. It is also used to drive a current to I/P converter. Reverse polarity protection prevents damage to the isolator caused by faulty wiring. This module mounts on a HiD Termination Board.

Assembly

Front view



Connection



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

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General specifications		
Signal type		Analog output
Supply		
Connection		via input terminals
Rated voltage		6 ... 30 V , loop powered , reverse polarity protected
Power loss		0.7 W at 40 mA , 24 V
Control circuit		
Connection		SL1: 8a(+), 7a(-)
Current consumption		< 0.6 mA at 24 V and open circuit
Current		1.5 ... 50 mA , loop powered
Signal level		voltage drop 9.6 V at 20 mA and 500 Ω load (4 V at 4 mA)
Field circuit		
Connection		SL2: 5a(+), 5b(-)
Characteristics		for fire and smoke detectors $U_{out} = (U_{in} - 1.6) - (0.4 \times I_{out})$ 6 V < U_{in} < 25 V $U_{out} = (25 - 1.6) - (0.4 \times I_{out})$ 25 V < U_{in} < 30 V
Load		0 ... 750 Ω for I/P applications
Signal		1.5 ... 50 mA for fire and smoke detectors 4 ... 20 mA on a load of max. 750 Ω for I/P applications
Ripple		≤ 150 μA peak to peak for I/P applications
Response time		50 ms , 10 ... 90 % step change for I/P applications
Transfer characteristics		
Calibrated accuracy		< ± 0.1 % of full-scale value (range 4 ... 20 mA)
Influence of temperature		< ± 0.01 %/K
Repeat accuracy		< ± 300 μA, 6 V < U_{in} < 25 V/1.5 mA < I_{out} < 50 mA
Influence of load		< ± 0.3 % of full-scale value from 0 ... 750 Ω
Linearity		< ± 0.1 % of full-scale value (range 4 ... 20 mA)
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
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 in)
Mounting		on Termination Board
Coding		pin 1 and 3 trimmed For further information see system description.
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		CESI 02 ATEX 086 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection		⊕ II (1)G [Ex ia Ga] IIC , ⊕ 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.)
Statement of conformity		PF 11 CERT 2109 X , observe statement of conformity
Group, category, type of protection, temperature class		⊕ II 3G Ex nA IIC T4 Gc [device in zone 2]
Electrical isolation		
Input/Output		safe electrical isolation acc. to EN 60079-11: 2007, voltage peak value 375 V
Directive conformity		
Directive 94/9/EC		EN 60079-0:2009, EN 60079-11:2007, EN60079-15:2005 , EN 60079-26:2007 , EN 61241-11:2006
International approvals		
CSA approval		
Control drawing		366-005CS-12B (cCSAus)
General information		

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Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .
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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.*

Output characteristic

