

**Features**

- 1-channel isolated barrier
- 24 V DC supply (bus powered)
- Current output up to 650 Ω load
- Low power dissipation
- Up to SIL2 acc. to IEC 61508

**Function**

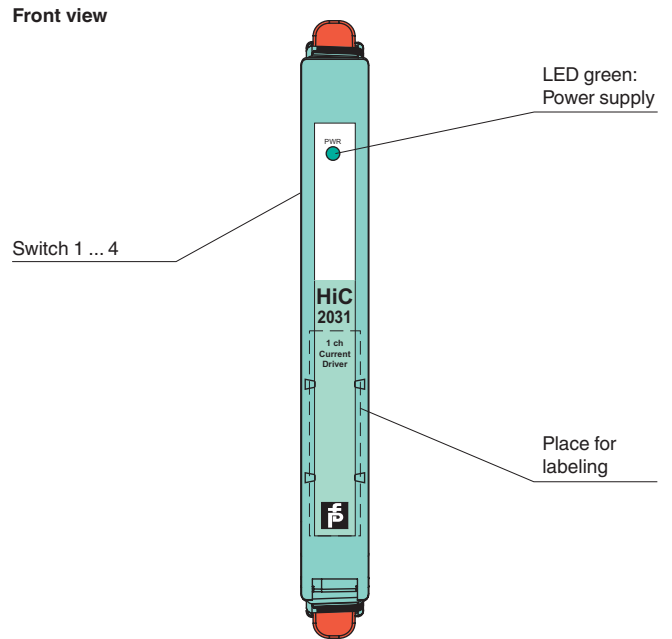
This isolated barrier is used for intrinsic safety applications. It repeats a 4 mA ... 20 mA input signal from a control system to drive HART I/P converters, valve actuators, and displays located in a hazardous area.

Digital signals may be superimposed on the analog values in the hazardous or safe area, which are transferred bi-directionally.

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 HiC Termination Board.

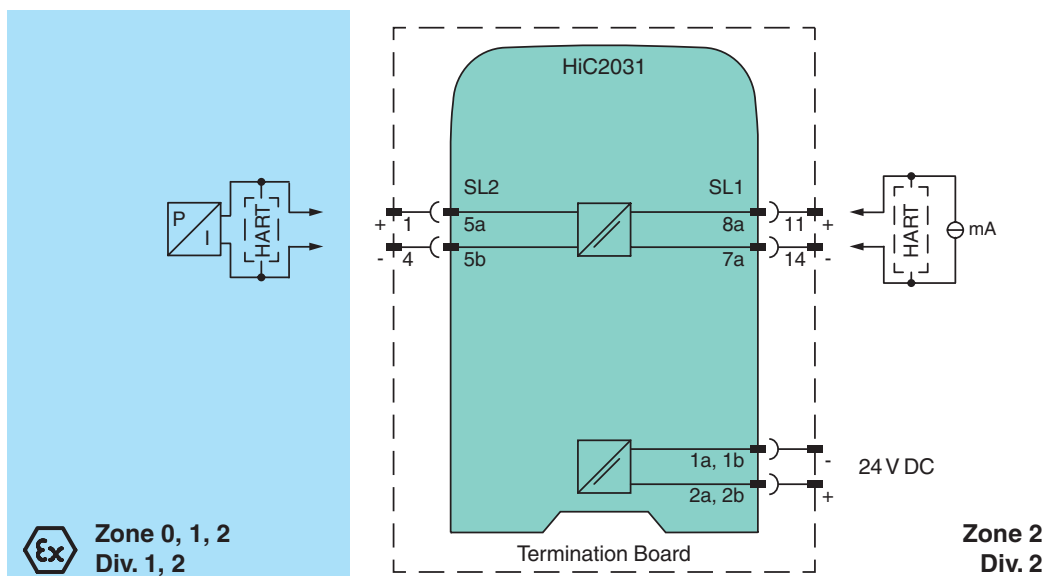
**Assembly**



**SIL2**



**Connection**



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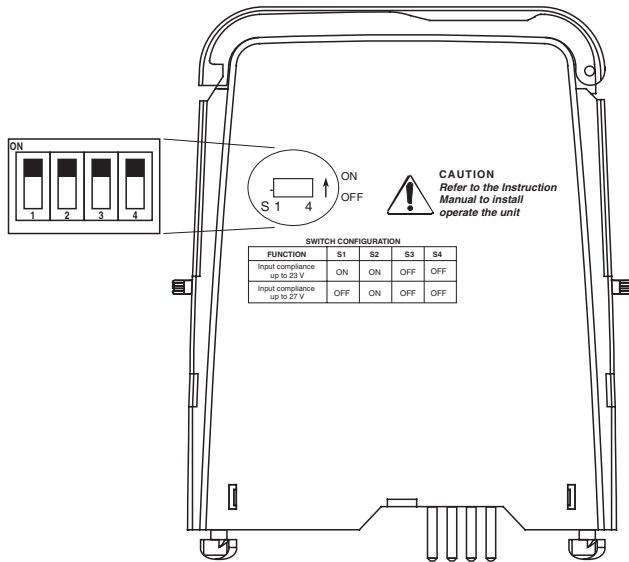
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

<b>General specifications</b>		
Signal type		Analog output
<b>Supply</b>		
Connection		SL1: 1a(-), 1b(-); 2a(+), 2b(+)
Rated voltage	$U_n$	19 ... 30 V DC via Termination Board
Ripple		≤ 10 %
Rated current	$I_n$	≤ 30 mA
Power dissipation		≤ 600 mW
Power consumption		≤ 700 mW
<b>Input</b>		
Connection		SL1: 8a(+), 7a(-)
Input signal		4 ... 20 mA limited to approx. 30 mA
Input voltage		depending on switch configuration open loop voltage of the control system < 23 V open loop voltage of the control system < 27 V
Voltage drop		depending on switch configuration open loop voltage of the control system < 23 V: approx. 6 V at 20 mA open loop voltage of the control system < 27 V: approx. 10 V at 20 mA
Input resistance		> 100 kΩ, with field wiring open
<b>Output</b>		
Connection		SL2: 5a(+), 5b(-)
Current		4 ... 20 mA
Load		0 ... 650 Ω
Voltage		≥ 13 V at 20 mA
Ripple		20 mV rms
<b>Transfer characteristics</b>		
Deviation		at 20 °C (68 °F), 0/4 ... 20 mA ≤ ± 0.1 % incl. non-linearity and hysteresis
Influence of ambient temperature		< 2 μA/K (0 ... 60 °C (32 ... 140 °F)); < 4 μA/K (-20 ... 0 °C (-4 ... 32 °F))
Frequency range		field side into the control side: bandwidth with 0.5 V <sub>pp</sub> signal 0 ... 3 kHz (-3 dB) control side into the field side: bandwidth with 1 mA <sub>pp</sub> signal 0 ... 3 kHz (-3 dB)
Rise time		10 to 90 % ≤ 100 ms
<b>Electrical isolation</b>		
Input/Output		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Input/power supply		functional insulation acc. to IEC 62103, rated insulation voltage 50 V <sub>eff</sub>
Output/power supply		safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2013 (industrial locations)
<b>Conformity</b>		
Electromagnetic compatibility		NE 21:2006 For further information see system description.
Degree of protection		IEC 60529:2001
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
<b>Mechanical specifications</b>		
Degree of protection		IP20
Mass		approx. 100 g
Dimensions		12.5 x 128 x 106 mm (0.5 x 5.1 x 4.2 in)
Mounting		on Termination Board
Coding		pin 1 and 3 trimmed For further information see system description.
<b>Data for application in connection with Ex-areas</b>		
EC-Type Examination Certificate		CESI 06 ATEX 017 , for additional certificates see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a>
Group, category, type of protection		⊕ II (1)GD [Ex ia] IIC, [Ex iaD] [circuit(s) in zone 0/1/2/20/21/22] ⊕ I (M1) [Ex ia] I
Output		Ex ia IIC, Ex iaD
<b>Supply</b>		
Maximum safe voltage	$U_m$	253 V AC (Attention! $U_m$ is no rated voltage.)
<b>Equipment</b>		
Voltage	$U_o$	25.2 V
Current	$I_o$	100 mA
Power	$P_o$	630 mW
<b>Statement of conformity</b>		
Group, category, type of protection, temperature class		PF 07 CERT 1050 X , observe statement of conformity ⊕ II 3G Ex nA IIC T4 Gc

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<b>Directive conformity</b>	
Directive 94/9/EC	EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010 , EN 60079-26:2007 , EN 50303:2000
<b>International approvals</b>	
FM approval	
Control drawing	16-534FM-12 (cFMus)
IECEX approval	IECEX CES 06.0002
<b>General information</b>	
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

## Configuration



### Switch position

Function	S1	S2	S3	S4
Open loop voltage of the control system < 23 V	ON	ON	OFF	OFF
Open loop voltage of the control system < 27 V	OFF	ON	OFF	OFF

Factory settings: open loop voltage of the control system < 23 V

Configure the device in the following way:

- Push the red Quick Lok Bars on each side of the device in the upper position.
- Remove the device from Termination Board.
- Set the DIP switches according to the figure.



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