SMART Transmitter Power Supply

Features

- 1-channel isolated barrier
- 24 V DC supply (bus powered)
- · 2-wire SMART transmitters or current sources
- Output for 4 mA ... 20 mA or 1 V ... 5 V
- Line fault detection (LFD)
- Up to SIL 2 acc. to IEC 61508

Function

This isolated barrier is used for intrinsic safety applications. It provides a fully floating supply to power 2-wire SMART transmitters in the hazardous area, and repeats the current to drive a safe area load. It is also used with 2-wire current sources.

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

A separate fault output on the bus is signaled if the input signal is outside the range 0.2 mA ... 24 mA. The fault conditions can be monitored via a Fault Indication Board.

This module mounts on a HiD Termination Board.

Application

The device supports the following SMART protocols:

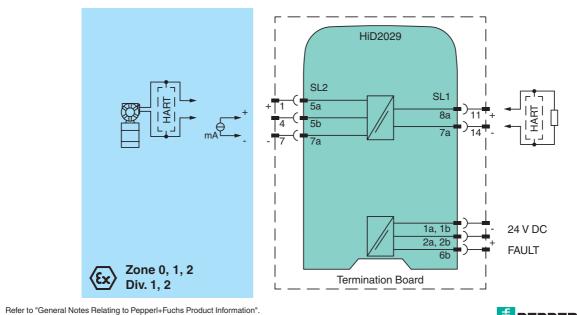
- HART
- BRAIN
- Bailey (only STT02 communication, e.g. BCN series)
- Foxboro



Front view LED green: Power supply PWR FAULT LED red: Fault HiD 2029 1 cł Place for labeling Switch 1 ... 4 ħ CE

SIL 2

Connection



Pepperl+Fuchs Group www.pepperl-fuchs.com

USA: +1 330 486 0002 pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222 pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 pa-info@sg.pepperl-fuchs.com



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information". Pepperl+Fuchs Group www.pepperl-fuchs.com

USA: +1 330 486 0002 pa-info@us.pepperl-fuchs.com

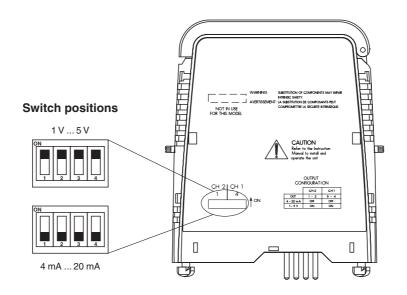
Germany: +49 621 776 2222 pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 pa-info@sg.pepperl-fuchs.com



Input		Ex ia, Ex iaD	
Voltage	Uo	26 V	
Current	I _o	93 mA	
Power	Po	605 mW	
Supply			
Maximum safe voltage	Um	250 V AC (Attention! U _m is no rated voltage.)	
Certificate		PF 11 CERT 2109 X	
Marking		⟨𝟧⟩ 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	
Input/power supply		safe electrical isolation acc. to EN 60079-11: 2007, voltage peak value 375 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			
Control drawing		366-005CS-12B (cCSAus)	
IECEx approval		IECEx TUN 04.0012	
Approved for		[Ex ia] IIC	
General information			
		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.	

Configuration



The outputs can be configured as:

- Current output 4 mA ... 20 mA ٠
- Voltage output 1 V ... 5 V

Output	CH 1			H 2 HiD2030)
	SW4	SW3	SW2	SW1
4 mA 20 mA	OFF	OFF	OFF	OFF
1 V 5 V	ON	ON	ON	ON

Channel 2 only for HiD2030.

Configure the device in the following way:

- Push the red Quick Lok Bars on each side of the device in the upper position. ٠
- Remove the device from Termination Board.
- Set the DIP switches according to the figure. ٠



0 ∏

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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Germany: +49 621 776 2222 pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 pa-info@sg.pepperl-fuchs.com



3