

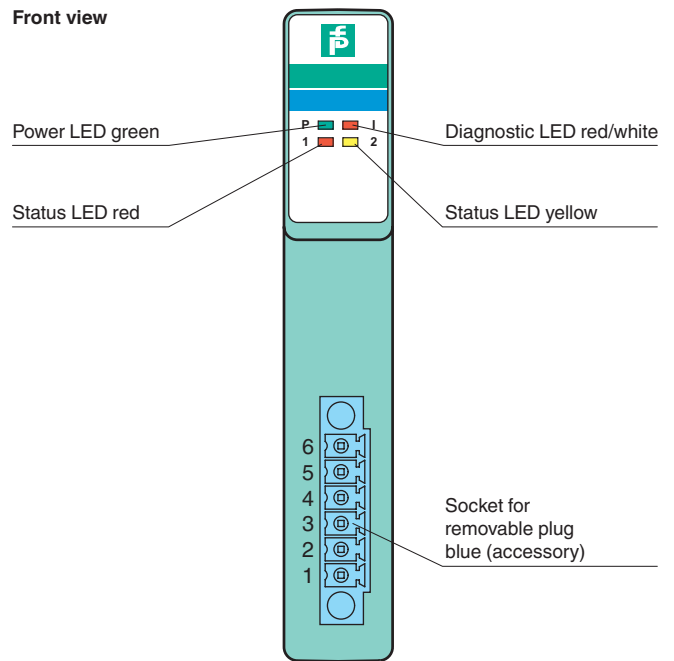
**Features**

- 1-channel
- Input Ex ia
- Mounting in Zone 2, Class I/Div.2 or in the safe area
- Power supply for 2- or 3-wire transmitters with 4 mA ... 20 mA
- Supply circuit 15 V (20 mA)
- Input from active signals of 4-wire transmitters
- HART communication via field bus or service bus
- HART communication also for separately powered devices
- Simulation mode for service operations (forcing)
- Line fault detection (LFD) and Live Zero monitoring
- Permanently self-monitoring
- Module can be exchanged under voltage

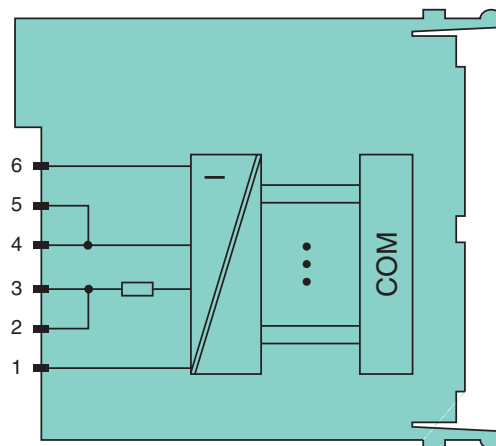
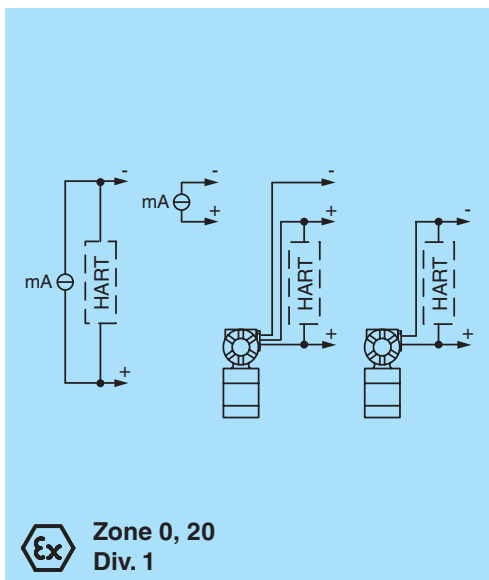
**Function**

The transmitter power supply feeds 2- and 3-wire transmitters. Active signals from separately powered field devices and 4-wire transmitters can be connected. Open circuit, short circuit, and Live Zero status are detected. The intrinsically safe input is galvanically isolated from the bus and the power supply.

**Assembly**



**Connection**



Zone 2  
Div. 2

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<b>Slots</b>		
Occupied slots		1
<b>Supply</b>		
Connection		backplane bus
Rated voltage	$U_r$	12 V DC , only in connection with the power supplies LB9***
Power dissipation		0.75 W
Power consumption		1.1 W
<b>Internal bus</b>		
Connection		backplane bus
Interface		manufacturer-specific bus to standard com unit
<b>Analog input</b>		
Number of channels		1
Suitable field devices		
Field device		pressure converter
Field device [2]		flow converter
Field device [3]		level converter
Field device [4]		Temperature Converter
Field device interface		
Connection		2-wire transmitter
Connection [2]		3-wire transmitter
Connection [3]		4-wire transmitter
Connection		2-wire transmitter (HART): supply circuit: 2/3+, 4/5- 3-wire transmitter (HART): supply circuit: 2/3+, 6- measuring circuit: 4/5+, 6- 4-wire transmitter (separately powered): measuring circuit: 4/5+, 6- HART measuring circuit: 1+, 6-
Transmitter supply voltage		≥ 15 V at 20 mA ; 21.5 V at 4 mA
Input resistance		15 Ω (terminals 5, 6) <P></P> 236 Ω (terminals 1, 6) HART
Line fault detection		
Short-circuit		factory setting: > 22 mA configurable between 0 ... 26 mA
Open-circuit		factory setting: < 1 mA configurable between 0 ... 26 mA
HART communication		yes
HART secondary variable		yes
<b>Transfer characteristics</b>		
Deviation		
After calibration		0.1 % of the signal range at 20 °C (68 °F)
Influence of ambient temperature		0.1 %/10 K of the signal range
Resolution		12 Bit (0 ... 26 mA)
Refresh time		100 ms
<b>Indicators/settings</b>		
LED indication		Power LED (P) green: supply Diagnostic LED (I) red: module fault , red flashing: communication error , white: fixed parameter set (parameters from com unit are ignored) , white flashing: requests parameters from com unit Status LED (1) red: line fault (lead breakage or short circuit) Status LED (2) yellow: Live Zero monitoring
Coding		optional mechanical coding via front socket
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2006
<b>Conformity</b>		
Electromagnetic compatibility		
Degree of protection		IEC 60529:2000
Environmental test		EN 60068-2-14:2009
Shock resistance		EN 60068-2-27:2009
Vibration resistance		EN 60068-2-6:2008
Damaging gas		EN 60068-2-42:2003
Relative humidity		EN 60068-2-78:2001
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Relative humidity		95 % non-condensing
Shock resistance		shock type I, shock duration 11 ms, shock amplitude 15 g, number of shocks 18

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Vibration resistance	frequency range 10 ... 150 Hz; transition frequency: 57.56 Hz, amplitude/acceleration ± 0.075 mm/1 g; 10 cycles frequency range 5 ... 100 Hz; transition frequency: 13.2 Hz amplitude/acceleration ± 1 mm/0.7 g; 90 minutes at each resonance	
Damaging gas	designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level G3	
<b>Mechanical specifications</b>		
Degree of protection	IP20 when mounted on backplane	
Connection	removable front connector with screw flange (accessory) wiring connection via spring terminals (0.14 ... 1.5 mm <sup>2</sup> ) or screw terminals (0.08 ... 1.5 mm <sup>2</sup> )	
Mass	approx. 90 g	
Dimensions	16 x 100 x 102 mm (0.63 x 3.9 x 4 inch)	
<b>Data for application in connection with hazardous areas</b>		
EU-Type Examination Certificate	BVS 12 ATEX E 100 X	
Marking	ⓧ II 3(1) G Ex nA [ja Ga] IIC T4 Gc ⓧ I (M1) [Ex ia Ma] I ⓧ II (1) D [Ex ia Da] IIIC	
<b>Supply</b>		
Voltage	U <sub>o</sub>	27 V
Current	I <sub>o</sub>	92 mA
Power	P <sub>o</sub>	619 mW (linear characteristic)
<b>Connection 1-6</b>		
Voltage	8.9 V	
Current	4 mA	
Power	24 mW (trapezoid characteristic curve)	
<b>Input</b>		
Voltage	U <sub>o</sub>	0.7 V
Current	I <sub>o</sub>	7 mA
Power	P <sub>o</sub>	5 mW (trapezoid characteristic curve)
Internal capacitance	C <sub>i</sub>	242 nF
Internal inductance	L <sub>i</sub>	0 mH
<b>Galvanic isolation</b>		
Input/power supply, internal bus	safe electrical isolation acc. to EN 60079-11, voltage peak value 375 V	
<b>Directive conformity</b>		
Directive 2014/34/EU	EN 60079-0:2012 EN 60079-11:2012 EN 60079-15:2010 EN 60079-26:2007 EN 50303:2000	
<b>International approvals</b>		
ATEX approval	BVS 12 ATEX E 100X	
UL approval	E106378	
IECEx approval	BVS 13.0043X	
Approved for	Ex nA [ja Ga] IIC T4 Gc [Ex ia Da] IIIC [Ex ia Ma] I	
<b>Marine approval</b>		
Lloyd Register	15/20021	
Bureau Veritas Marine	22449/B0 BV	
<b>General information</b>		
System information	The module has to be mounted in appropriate backplanes (LB9***) in Zone 2 or outside hazardous areas. Here, observe the corresponding declaration of conformity. For use in hazardous areas (e. g. Zone 2, Zone 22 or Div. 2) the module must be installed in an appropriate enclosure.	
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> .	

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