Features

- 1-channel
- · Inputs with plug-in Ex e terminals
- Installation in suitable enclosures in Zone 1
- Module can be exchanged under voltage (hot swap)
- 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

Function

The transmitter power supply feeds 2- and 3-wire transmitters.

Active signals from separately powered field devices and 4wire transmitters can be connected.

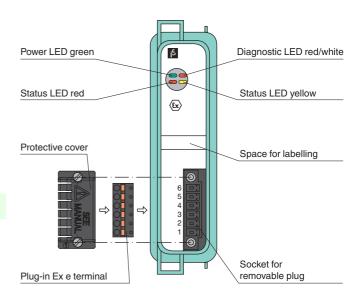
Open circuit, short circuit, and Live Zero status are detected.

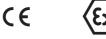
The device is supplied with plug-in Ex e terminals and protective cover.

The input is galvanically isolated from the bus and the power supply.

Assembly

Front view

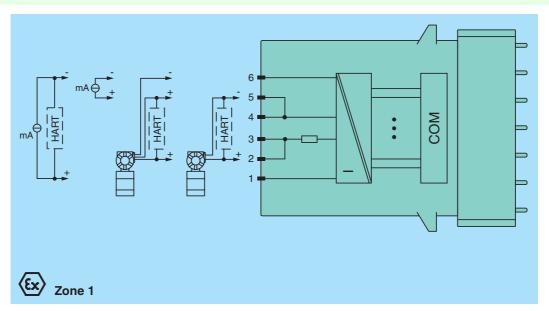




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Connection



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Slots	
Occupied slots	1
Supply	
Connection	backplane bus
Rated voltage U _r	12 V DC , only in connection with the power supplies FB92**
Power dissipation	0.75 W
Power consumption	1.1 W
Internal bus	
Connection	backplane bus
Interface	manufacturer-specific bus to standard com unit
Analog input	
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):
Commodati	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	can be switched on/off for each channel via configuration tool , configurable via configuration tool
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
Transfer characteristics	700
Deviation	
After calibration	0.1 % of the signal range at 20 °C (68 °F)
Influence of ambient temperature	0.1 % of the signal range
Resolution	12 Bit (0 26 mA)
Refresh time	100 ms
	100 IIIS
Indicators/settings LED indication	Power LED (P) green: supply
LED Indication	Diagnostic LED (I) 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
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2006
Conformity	
Electromagnetic compatibility	NE 21:2007
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
Ambient conditions	
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



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 a each resonance
Damaging gas	designed for operation in environmental conditions acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications	
Degree of protection	IP20 (module), a separate housing is required acc. to the system description
Connection	Ex e spring terminal with protective cover
Mass	approx. 350 g
Dimensions	28 x 107 x 132 mm (1.1 x 4.2 x 5.2 inch)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	BVS 11 ATEX E 093 X
Marking	(Ex) II 2 G Ex db eb IIC T4
Galvanic isolation	
Input/power supply, internal bus	safe electrical isolation acc. to EN 60079-11:2007 , voltage peak value 375 V
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2009 EN 60079-1:2007 EN 60079-7:2007
International approvals	
ATEX approval	BVS 11 ATEX E 093X
INMETRO	Brazil: TÜV 14.1599X
EAC approval	Russia: RU C-IT.MIII06.B.00129
Marine approval	
Lloyd Register	15/20021
American Bureau of Shipping	T1450280/UN
Bureau Veritas Marine	22449/B0 BV
General information	
System information	The module has to be mounted in appropriate backplanes (FB92**) in Zone 1, 2, or outside hazardous areas. Observe the corresponding EC-type examination certificate.
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-

