



PEPPERL FUCHS FB1208B Digital Input Owner’s Manual

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Owner’s Manual



Digital Input
FB1208B



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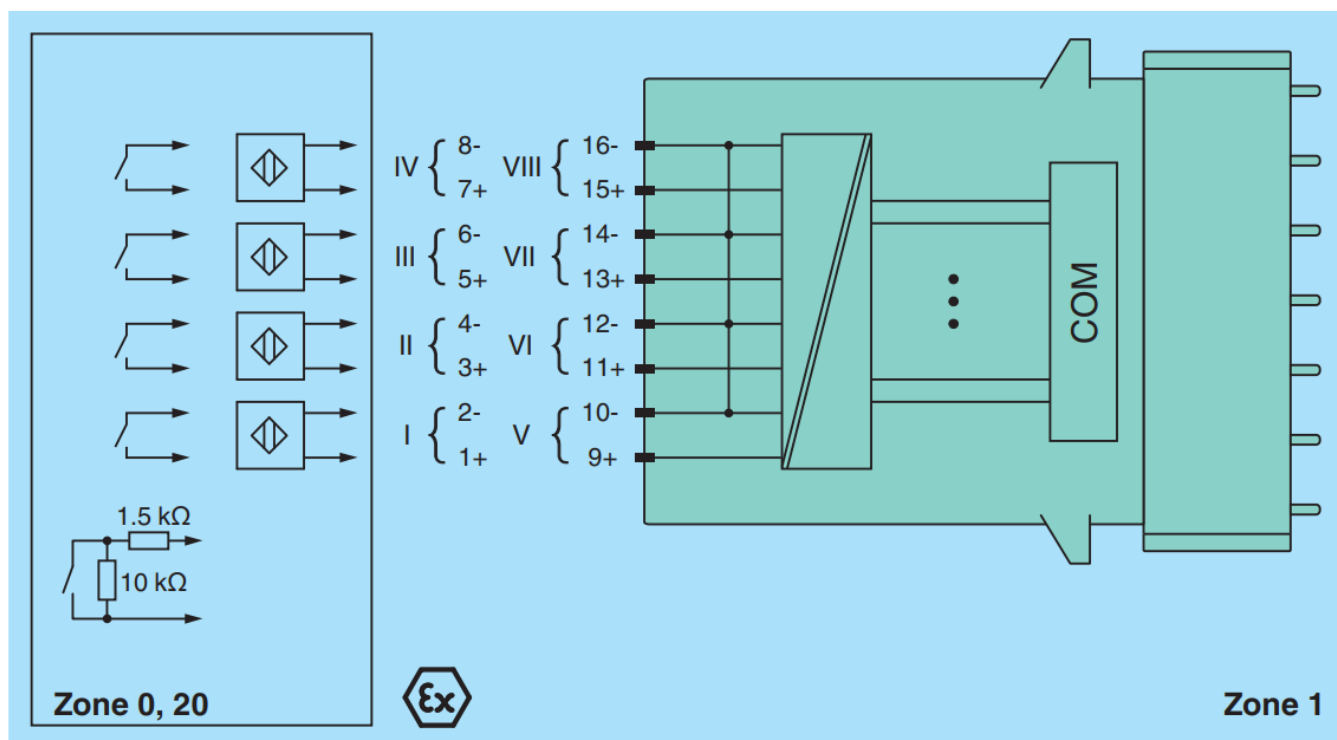
FB1208B Digital Input

- 8-channel
- Inputs Ex ia
- Installation in suitable enclosures in Zone 1
- Module can be exchanged under voltage (hot swap)
- Dry contact or NAMUR inputs
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Line fault detection (LFD)
- Permanently self-monitoring
- On/Off delay

Function

The device accepts digital input signals of NAMUR sensors or mechanical contacts from the hazardous area. Open or short circuit line fault alarms are detected. The inputs are galvanically isolated from the bus and the power supply (EN 60079-11).

Connection



Technical Data

Slots	
Occupied slots	2
Supply	
Connection	backplane bus
Rated voltage	Ur 12 V DC , only in connection with the power supplies FB92**
Power dissipation	0.95 W
Power consumption	0.95 W
Internal bus	
Connection	backplane bus
Interface	manufacturer-specific bus to standard com unit
Digital input	
Number of channels	8

Technical Data

Sensor interface	
Connection	NAMUR sensor
Connection [2]	volt-free contact

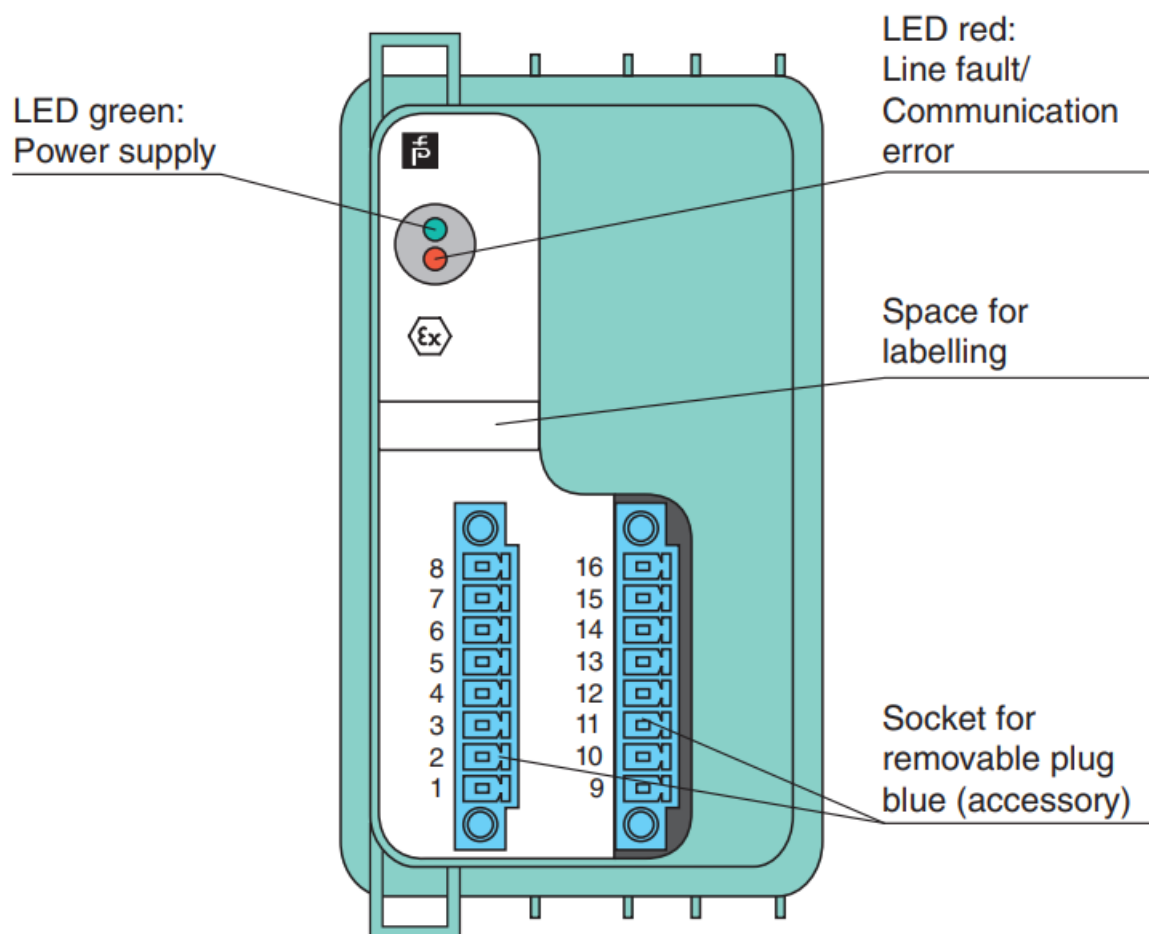
Connection	channel I: 1+, 2-; channel II: 3+, 4-; channel III: 5+, 6-; channel IV: 7+, 8-; channel V: 9+, 10-; channel VI: 11+, 12-; channel VII: 13+, 14-; channel VIII: 15+, 16-
Rated values	acc. to EN 60947-5-6 (NAMUR)
Switching point/switching	1.2 ... 2.1 mA / ± 0.2 mA
Internal resistor	Ri 1 k Ω
Line fault detection	can be switched on/off for each channel via configuration tool
Connection	mechanical switch with additional resistors (see connection diagram) proximity switches without additional wiring
Short-circuit	< 360 Ω
Open-circuit	< 0.35 mA
Minimum pulse duration	1 ms
Indicators/settings	
LED indication	LED green: supply LED red: line fault
Coding	optional mechanical coding via front socket
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013
Conformity	
Electromagnetic compatibility	NE 21
Degree of protection	IEC 60529
Environmental test	EN 60068-2-14
Shock resistance	EN 60068-2-27
Vibration resistance	EN 60068-2-6
Damaging gas	EN 60068-2-42
Relative humidity	EN 60068-2-78
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 at 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	removable front connector with screw flange (accessory) wiring connection via spring terminals (0.14 ... 1.5 mm ²) or screw terminals (0.08 ... 1.5 mm ²)
Mass	approx. 750 g
Dimensions	57 x 107 x 132 mm (2.2 x 4.2 x 5.2 inch)
Data for application in connection with hazardous areas	
EU-type examination certificate	PTB 97 ATEX 1074 U
Marking	 II 2(1) G Ex d [ia Ga] IIC Gb  II (1) D [Ex ia Da] IIIC
Input	
Voltage	U _o 15.3 V
Current	I _o 16.1 mA
Power	P _o 61.8 mW (linear characteristic)
Galvanic isolation	
Input/power supply, internal bus	safe electrical isolation acc. to EN 60079-11, voltage peak value 375 V
Directive conformity	

Directive 2014/34/EU	EN IEC 60079-0:2018+AC:2020 EN 60079-1:2014 EN 60079-11:2012
International approvals	
ATEX approval	PTB 97 ATEX 1075 ; PTB 97 ATEX 1074 U
General information	
System information	The module has to be mounted in appropriate backplanes and housings (FB92**) in Zone 1, 2, 21, 22 or outside hazardous areas (gas or dust). Here, 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-fuchs.com .

Assembly

Front view



Accessories

FB9224*	Field Unit
FB9225*	Redundancy Field Unit
FB9248*	Field Unit



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

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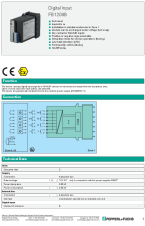
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Documents / Resources

	PEPPERL FUCHS FB1208B Digital Input [pdf] Owner's Manual FB1208B, FB1208B Digital Input, Digital Input
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References

- [Pepperl+Fuchs International. Industrial Sensors, Factory Automation, Process Automation, Intrinsic Safety, Explosion Protection](#)
- [Pepperl+Fuchs International. Industrial Sensors, Factory Automation, Process Automation, Intrinsic Safety, Explosion Protection](#)