

Voltage Converter FB5206B



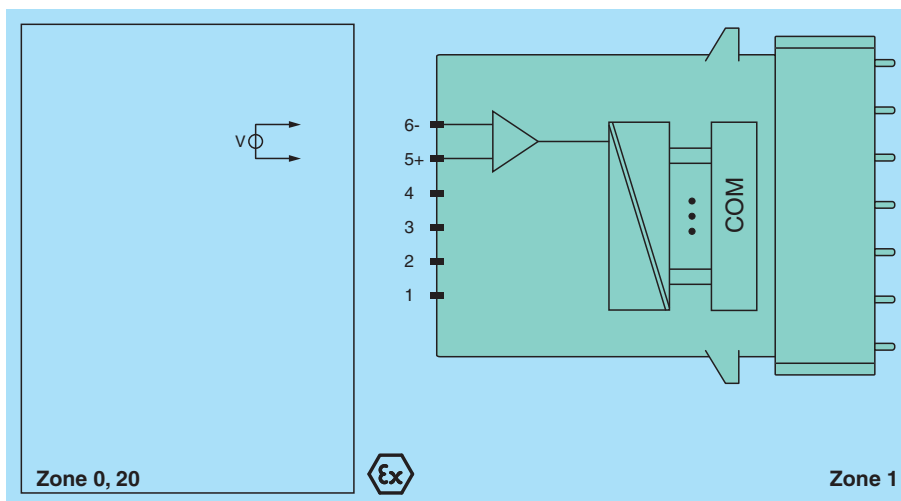
- 1-channel
- Input Ex ia
- Installation in suitable enclosures in Zone 1
- Module can be exchanged under voltage (hot swap)
- Input 0 V ... 10 V
- Simulation mode for service operations (forcing)
- Permanently self-monitoring



Function

The voltage converter accepts signals from the hazardous area.
The input is galvanically isolated from the bus and the power supply (EN 60079-11).

Connection



Technical Data

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			0.4 W
Power consumption			0.4 W
Internal bus			
Connection			backplane bus
Interface			manufacturer-specific bus to standard com unit
Analog input			
Number of channels			1
Suitable field devices			

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

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Technical Data

Field device	voltage input	
Connection	voltage input: 5+, 6-	
Measurement range	0 ... 10 V	
Smallest span	500 mV	
Linearity error	0.1 %	
Input resistance	100 k Ω	
Conversion time	max. 100 ms	
Transfer characteristics		
Deviation		
Influence of ambient temperature	max. 0,1 %/10 K	
Indicators/settings		
LED indication	LED green: supply	
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. 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	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	0.9 V
Current	I _o	0.2 mA
Power	P _o	0.2 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	

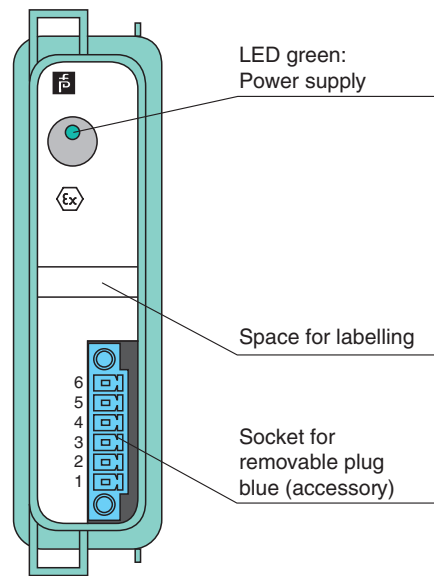
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Technical Data

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

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