

Digital Output with Shutdown Input

LB6108C



- 8-channel
- Outputs Ex ib
- Mounting in Zone 2, Class I/Div.2 or in the safe area
- Module can be exchanged under voltage
- Galvanic group isolation
- Line fault detection (LFD)
- Positive or negative logic selectable
- Simulation mode for service operations (forcing)
- Permanently self-monitoring
- Output with watchdog
- Output with bus-independent safety shutdown

CE Ex SIL 2

Function

The device features 8 independent channels.

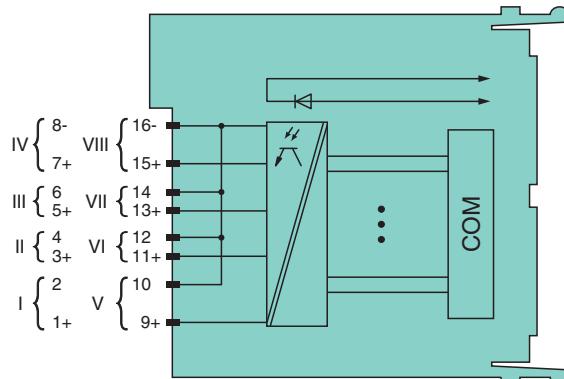
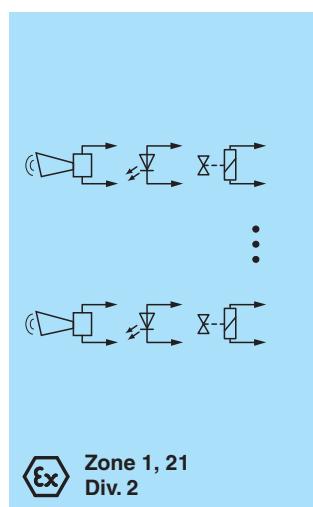
The device can be used to drive low power solenoids, sounders, or LEDs.

Open and short-circuit line faults are detected.

The outputs are galvanically isolated from the bus and the power supply.

The outputs can be switched off via a contact. This can be used for bus-independent safety applications.

Connection



Zone 2
Div. 2

Technical Data

Release date: 2023-11-28 Date of issue: 2023-11-28 Filename: 542156_eng.pdf

Slots

Occupied slots	2
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Functional safety related parameters

Safety Integrity Level (SIL)	SIL 2
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Supply

Connection	backplane bus
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Rated voltage	U_r	12 V DC, only in connection with the power supplies LB9***
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Power dissipation	2.35 W
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Power consumption	2.35 W
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Internal bus

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

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Technical Data

Connection	backplane bus	
Interface	manufacturer-specific bus to standard com unit	
Digital output		
Number of channels	8	
Suitable field devices		
Field device	Solenoid Valve	
Field device [2]	audible alarm	
Field device [3]	visual alarm	
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-	
Current limit	I_{max}	5.2 mA
Open loop voltage	U_s	21.6 V
Line fault detection	can be switched on/off for each channel via configuration tool	
Test current	0.33 mA	
Short-circuit	< 300 Ω	
Open-circuit	> 50 k Ω	
Response time	20 ms (depending on bus cycle time)	
Watchdog	within 0.5 s the device goes in safe state, e.g. after loss of communication	
Indicators/settings		
LED indication	LED green: supply LED red: line fault, communication error red flashing	
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	
Altitude	max. 2000 m	
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 when mounted on backplane	
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. 160 g	
Dimensions	32.5 x 100 x 102 mm (1.28 x 3.9 x 4 inch)	
Data for application in connection with hazardous areas		
EU-type examination certificate	PTB 03 ATEX 2042 X	
Marking	 II (2) G [Ex ib Gb] IIC  II (2) D [Ex ib Db] IIIC  I (M2) [Ex ib Mb] I	

Technical Data

Output		
Voltage	U_o	30 V
Current	I_o	13.5 mA
Power	P_o	404 mW (rectangular characteristic curve)
Certificate	PF 08 CERT 1234 X	
Marking	Ex II 3 G Ex nA IIC T4 Gc	
Galvanic isolation		
Output/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 60079-11:2012 EN 60079-15:2010	
International approvals		
ATEX approval	PF 08 CERT 1234 X PTB 03 ATEX 2042 X	
IECEx approval		
IECEx certificate	IECEx BVS 09.0037X	
IECEx marking	Ex nA [ib Gb] IIC T4 Gc [Ex ib Db] IIIC [Ex ib Mb] I	
General information		
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 www.pepperl-fuchs.com .	

Assembly

Front view

