

Digital Output with Shutdown Input

LB6008A



- 8-channel
- Galvanic group isolation
- Installation in Zone 2 or safe area
- Module can be exchanged under voltage
- 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



Function

The device features 8 independent channels.

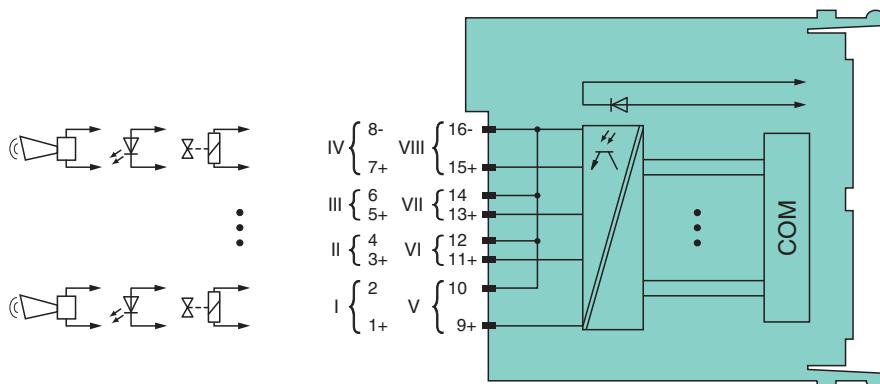
The device can be used to drive low power solenoids, sounders, or LEDs.

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

Technical Data

Release date: 2023-10-19 Date of issue: 2023-10-19 Filename: 541993_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
Rated voltage	U_r 12 V DC, only in connection with the power supplies LB9***
Power dissipation	2.35 W
Power consumption	2.35 W

Internal bus

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

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Technical Data

Interface			manufacturer-specific bus to standard com unit
Digital output			
Number of channels		I _{max}	8
Suitable field devices		U _s	Solenoid Valve
Field device			audible alarm
Field device [2]			visual alarm
Field device [3]			
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}	8 mA
Open loop voltage		U _s	20 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 kΩ
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, red flashing: communication error
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), 70 °C (non-Ex)
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			
Output			
Voltage	U _o		28 V
Current	I _o		13.5 mA
Power	P _o		376 mW

Technical Data

Internal capacitance	C_i	3.6 nF
Internal inductance	L_i	0 mH
Certificate	PF 08 CERT 1234 X	
Marking	Ex II 3 G Ex nA [ic] 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		
IECEx approval		
IECEx certificate	IECEx BVS 09.0037X	
IECEx marking	Ex nA [ic] IIC T4 Gc	
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 or Zone 22) 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

