

Digital Output with Shutdown Input

LB6008A

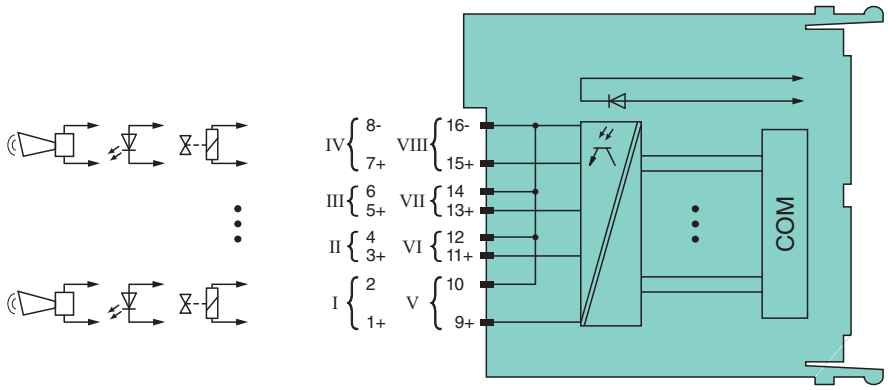
SIL2

- 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

Slots		
Occupied slots		2
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
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		

Release date: 2021-11-16 Date of issue: 2021-11-16 Filename: 541993_eng.pdf

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}	8 mA
Open loop voltage		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 60068-2-56
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
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

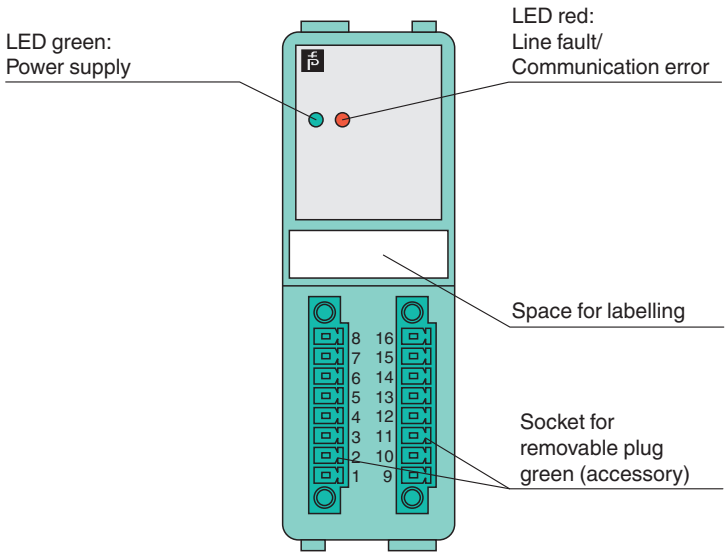
Release date: 2021-11-16 Date of issue: 2021-11-16 Filename: 541993_eng.pdf

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		BVS 09.0037X
Approved for		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



Release date: 2021-11-16 Date of issue: 2021-11-16 Filename: 541993_eng.pdf