

**Features**

- 1-channel
- Output Ex ia IIC
- Device installation in Zone 2
- 24 V DC rated operating voltage
- Lead breakage (LB) and short-circuit (SC) monitoring
- Power Rail bus
- EMC acc. to NAMUR NE 21

**Function**

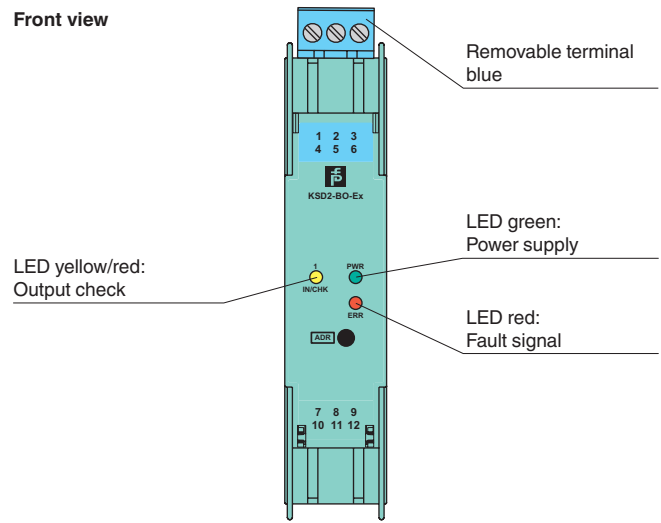
The KSD2-BO-Ex supplies and switches the intrinsically safe solenoid valve in the hazardous area. Lead breakage or short circuiting of field circuits is indicated by a flashing red LED.

The output is galvanically isolated from the input and the power supply.

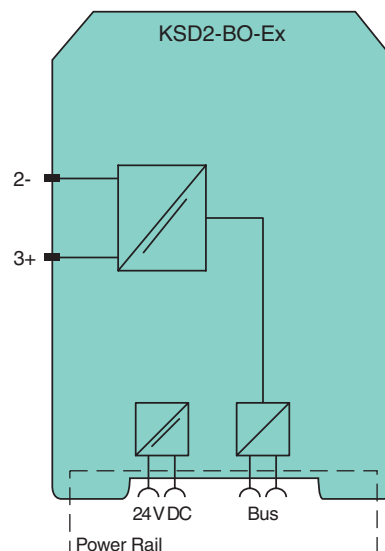
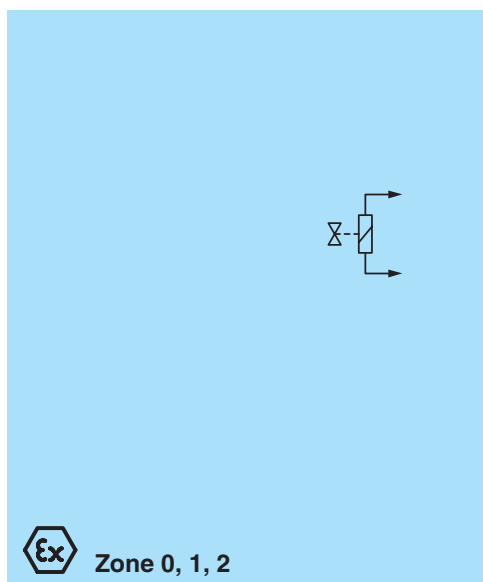
**Application**

Supply and control of a solenoid valve, an audible and optical alarm etc.

**Assembly**



**Connection**



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<b>Supply</b>	
Connection	Power Rail
Rated voltage	20 ... 30 V DC
Ripple	< 10 %
Power loss	1.5 W
Power consumption	2.2 W
<b>Input</b>	
Connection	Power Rail
Interface	CAN protocol via Power Rail bus
<b>Output</b>	
Limit	current $I_E$ : $\geq 45$ mA voltage $U_E$ : 23.6 V at mA ; 12.5 V at 45 mA
Connection	terminals 2-, 3+
Switching frequency f	10 Hz
Line fault detection	signal at short-circuit $R_B < 30 \Omega$ , lead breakage $R_B > 15 \text{ k}\Omega$
<b>Electrical isolation</b>	
Output/power supply, internal bus	safe galvanic isolation acc. to EN 60079-11:2007
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
<b>Conformity</b>	
Insulation coordination	EN 50178
Electromagnetic compatibility	NE 21:2006
Protection degree	IEC 60529
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Damaging gas	acc. to ISA-S71.04-1985, severity level G3
<b>Mechanical specifications</b>	
Protection degree	IP20
Connection	terminal connection $\leq 2.5 \text{ mm}^2$
Mass	approx. 100 g
Dimensions	20 x 100 x 115 mm (0.8 x 3.9 x 4.5 in)
Mounting	DIN rail mounting
<b>Data for application in connection with Ex-areas</b>	
EC-Type Examination Certificate	BVS 09 ATEX E 093 , for additional certificates see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a>
Group, category, type of protection	$\text{Ex}$ II (1) G [Ex ia] IIC $\text{Ex}$ II (1) D [Ex iaD]
Voltage $U_o$	26 V
Current $I_o$	110 mA
Power $P_o$	715 mW
<b>Supply</b>	
Maximum safe voltage $U_m$	40 V (Attention! $U_m$ is no rated voltage.)
<b>Signal</b>	
Maximum safe voltage $U_m$	40 V (Attention! $U_m$ is no rated voltage.)
<b>Declaration of conformity</b>	
Group, category, type of protection, temperature classification	$\text{Ex}$ II 3G Ex nA II T4 X
<b>Electrical isolation</b>	
Output/power supply, internal bus	safe galvanic isolation acc. to EN 60079-11:2007
<b>Directive conformity</b>	
Directive 94/9/EC	EN 60079-0:2006, EN 60079-11:2007, EN 60079-15:2005, EN 60079-26:2007, EN 61241-0:2006, EN 61241-11:2006
<b>General information</b>	
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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

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**Notes**

**Software functions**

Adjustable by the **PACTware™** human machine interface:

- TAG numbers, 28 alphanumeric signs, can be programmed into device
- Commentary, may be saved in PC memory
- Information on devices may be saved in PC memory
- Output inversion
- Lead monitoring selectable
- Separate detection and indication of lead breakage and lead short circuit
- Malfunction output status
  - logic zero
  - logic one
  - hold last value
- Simulation
  - of the output value
  - of the device diagnosis
  - of the process channel diagnosis

**Output characteristic**

