



- 1-channel
- Output Ex ia IIC
- FM approval
- Device installation permissible in Div. 2
- 24 V DC supply voltage
- Lead breakage (LB) monitoring and short-circuit (SC) monitoring
- Power Rail bus

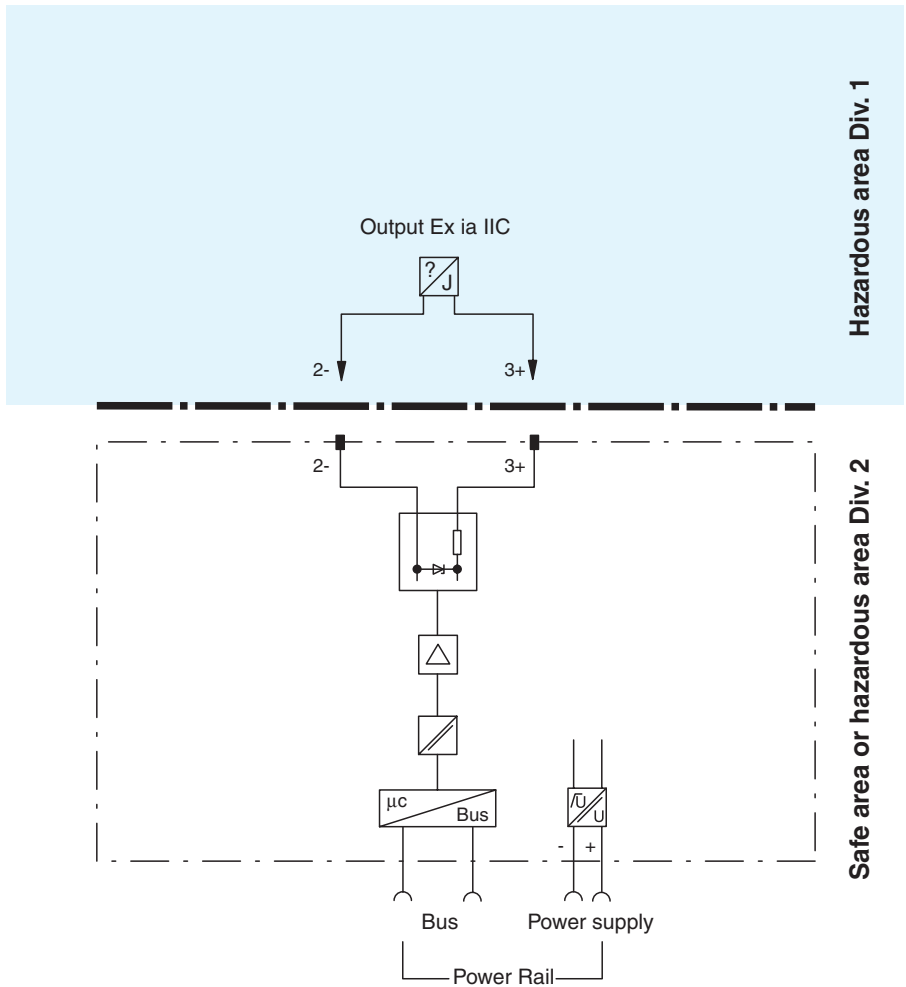
Function

The KSD2-CO-Ex transmits a 0/4 mA ... 20 mA current signal to the hazardous area. Loads between 30 Ω ... 750 Ω can be connected. The output is galvanically isolated from the bus and power supply. The output field circuit is monitored for lead breakage and short circuit conditions.

Application

The control of pneumatic positioners (I/P converter) and intrinsically safe solenoid valves.

Connection



Hazardous area Div. 1

Safe area or hazardous area Div. 2

Composition

Front View

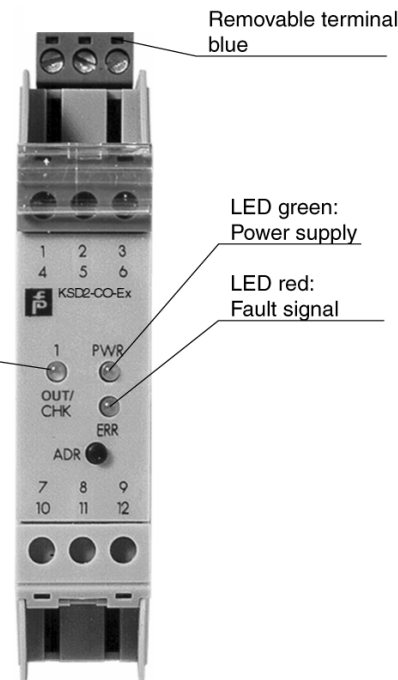
Housing type A3 (see system description)

LED yellow/red: Output check

Removable terminal blue

LED green: Power supply

LED red: Fault signal



Supply	
Connection	Power Rail
Rated voltage	20 ... 30 V DC
Ripple	< 10 %
Power loss	1.3 W
Power consumption	1.3 W
Input	
Connection	Power Rail
Interface	CAN protocol via Power Rail bus
Output	
Connection	terminals 2, 3
Current	0/4 ... 20 mA
Load	30 ... 750 Ω
Residual ripple	≤ 0.25 %
Lead monitoring	possible for $I_{nominal} \geq 1$ mA breakage $I < 3.6$ mA, short-circuit, load < 30 Ω
Transfer characteristics	
Deviation	0.1 % of output signal range at 20 °C (293 K)
Influence of ambient temperature	0.01 % / K of output signal range
Electrical isolation	
Output/power supply, internal bus	safe electrical isolation acc. to IEC 60079-11, voltage peak value 375 V
Conformity	
Insulation coordination	IEC 60664-1
Electrical isolation	IEC 60079-11
Protection degree	IEC 60529
Ambient conditions	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Damaging gas	acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications	
Protection degree	IP20
Connection	terminal connection ≤ 2.5 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
Entity parameter	
FM control drawing	No. 116-0150
Suitable for installation in division 2	yes
Output I	terminals 2, 3
Voltage V_{OC}	24.8 V
Current I_{SC}	92 mA
Explosion group	A&B C&E D, F&G
Max. external capacitance C_a	0.19 μF 0.57 μF 1.54 μF
Max. external inductance L_a	4.3 mH 17.2 mH 35.2 mH
Safety parameter	
CSA control drawing	No. 116-0149
Output I	terminals 2, 3
Safety parameter	24.2 V / 270 Ohm
Voltage V_{OC}	24.2 V
Current I_{SC}	91 mA
Explosion group	A&B C&E D, F&G
Max. external capacitance C_a	0.2 μF 0.6 μF 1.6 μF
Max. external inductance L_a	4 mH 16.2 mH 32 mH
General information	
Supplementary information	Control drawing have to be observed. For information see www.pepperl-fuchs.com .

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Notes

Software functions

Adjustable by the **PACT_{ware}**[™] human machine interface:

- TAG numbers, 28 alphanumeric characters, can be programmed into device
- Commentary, may be saved in PC memory
- Information on devices may be saved in PC memory
- Physical units are adjustable
 - list see system description RPI
- Lead monitoring selectable
- Separate detection and indication of lead breakage and lead short circuit
- Lower scale value and upper scale value of the measurement range
 - for the determination of the overflow and underflow range
 - for the configuration of the analogue monitor of the human machine interface
- Overrange and underrange alarm
- Malfunction output status
 - user defined
 - min.
 - max.
 - hold last value
- Simulation
 - of the input value
 - of the device diagnosis
 - of the process channel diagnosis