



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

**Function**

The KSD2-CO-S-Ex.H transfers a 0/4 mA ... 20 mA current signal into the hazardous area. Loads between 30 Ω ... 750 Ω can be connected. The output is galvanically isolated from the bus and power supply.

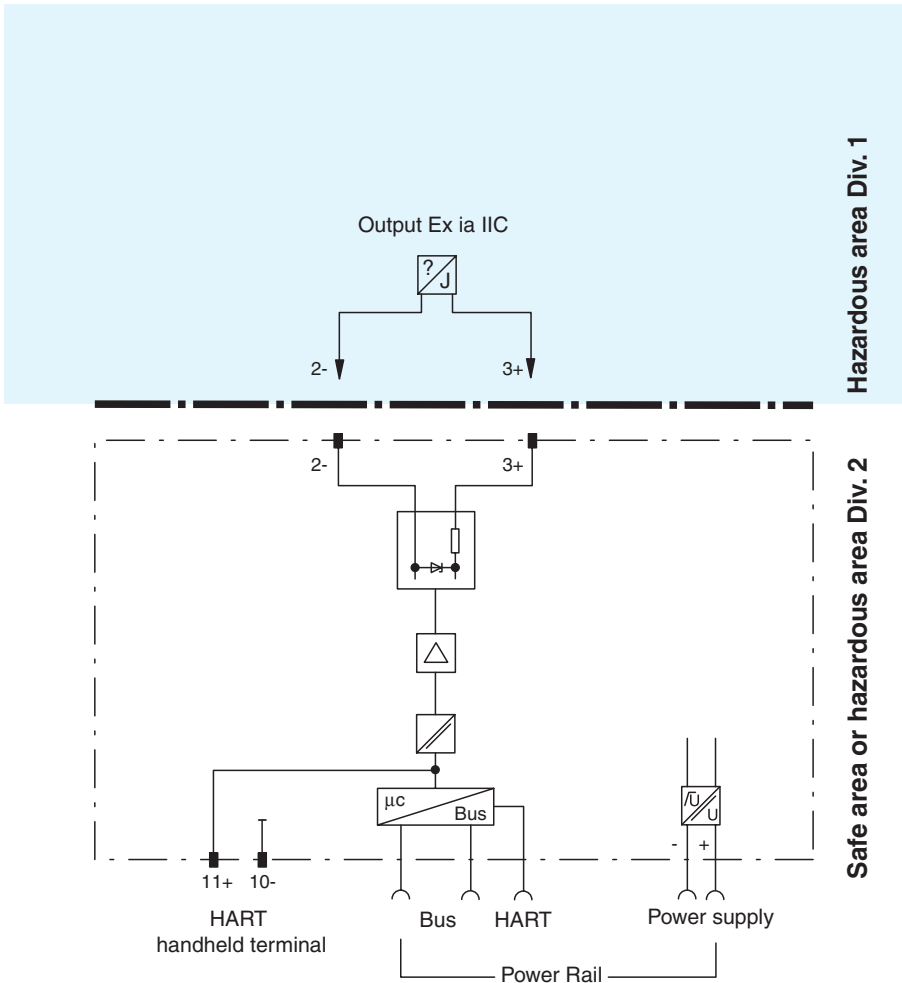
The output field circuit is monitored for lead breakage and short circuit conditions. The device allows for monitoring and programming of positioners, which support the HART protocol.

The KSD2-CO-S-Ex.H is delivered standard with the connectors KF-STP-\*\*. The 2.3 mm jacks are integrated in this connector for use with HART communicators. A handheld terminal can be connected to the terminals 11+ and 10-. The device supports also the HART communication via the Power Rail bus.

**Application**

The control of intrinsically safe solenoid valves and positioners. The interface allows a bidirectional communication between the position controller and the handheld terminal. The device can be connected in the safe area. The bus transfers the digital value of the control signal and the HART communication.

**Connection**



Hazardous area Div. 1

Safe area or hazardous area Div. 2

**Composition**

**Front View**

Housing type A4  
(see system description)

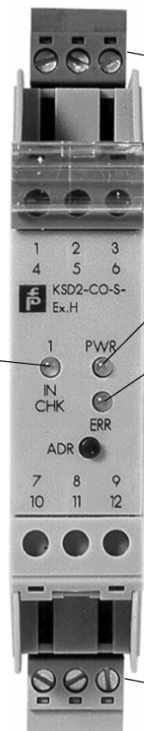
LED yellow/red:  
Output check

Removable terminal  
blue KF-STP-BU

LED green:  
Power supply

LED red:  
Fault signal

Removable terminal  
green KF-STP-GN



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<b>Supply</b>	
Connection	Power Rail
Rated voltage	20 ... 30 V DC
Ripple	< 10 %
Power loss	1.3 W
Power consumption	1.3 W
<b>Input</b>	
Connection	Power Rail
Interface	CAN protocol via Power Rail bus
<b>Output</b>	
Connection	terminals 2, 3
Current	0/4 ... 20 mA
Load	30 ... 750 Ω
Residual ripple	≤ 0.25 %
Line fault detection	possible for $I_{\text{nominal}} \geq 1 \text{ mA}$ breakage $I < 3.6 \text{ mA}$ , short-circuit, load $< 30 \text{ } \Omega$
<b>Transfer characteristics</b>	
Deviation	0.1 % of output signal range at 20 °C (293 K)
Influence of ambient temperature	0.01 % / K of output signal range
<b>Electrical isolation</b>	
Output/power supply, internal bus	safe electrical isolation acc. to EN 60079-11: 2007, voltage peak value 375 V
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
<b>Conformity</b>	
Insulation coordination	IEC 60664-1
Electrical isolation	IEC 60079-11
Protection degree	IEC 60529
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Damaging gas	acc. to ISA-S71.04-1985, severity level G3
<b>Mechanical specifications</b>	
Protection degree	IP20
Connection	terminal connection ≤ 2.5 mm <sup>2</sup>
Mass	approx. 100 g
Dimensions	20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in)
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Control drawing have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

Notes

Software functions

Adjustable by the **PACTware™** 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

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