



- 2-channel
- 24 V DC supply voltage
- 4 limit values per channel
- Lead breakage (LB) monitoring and short-circuit (SC) monitoring
- Power Rail bus
- EMC acc. to NAMUR NE 21

Function

The KSD2-CI-2 is suited for the connection of 2- or 3-wire transmitters. It may also be used as a repeater for 0/4 mA ... 20 mA signals (current source). With a rated operational voltage of > 20 V DC it is guaranteed that for a transmitter with a current conduction of 20 mA at least 15 V is available. The circuits (terminals, 3+, 1- or 6+, 4-) are monitored for lead faults.

The two inputs are galvanically connected and have a common negative potential.

2-wire transmitters are connected to terminals 2- and 3+ or 5- and 6+. The input for the signal current is terminal 2 or 5.

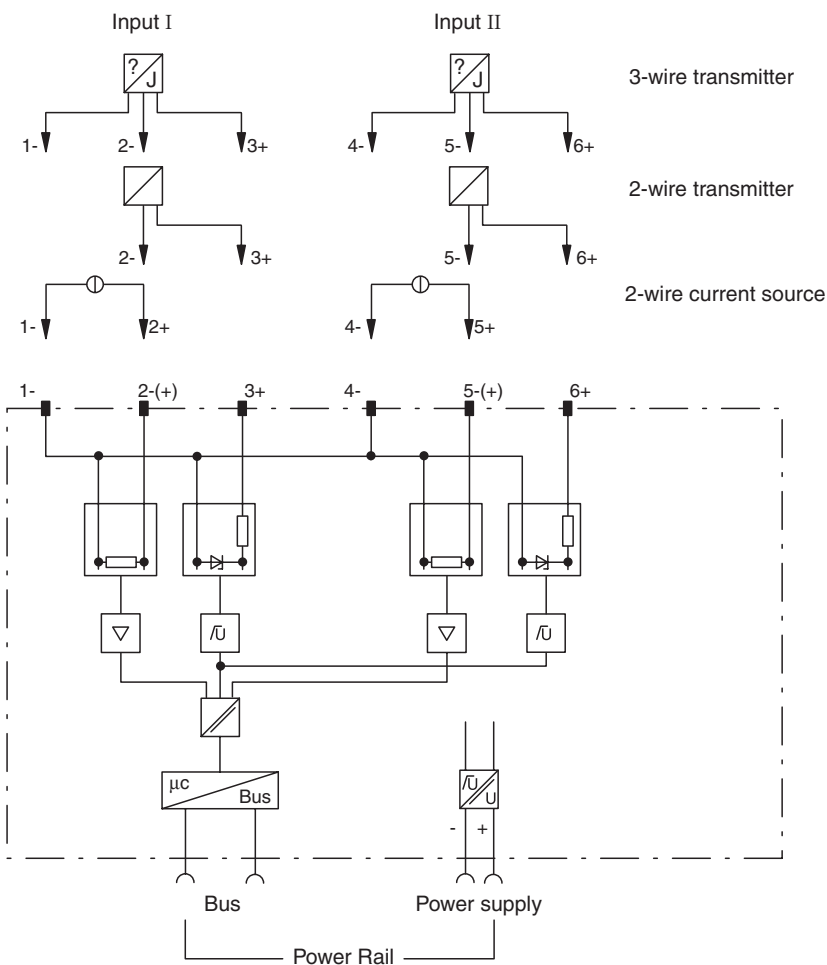
3-wire transmitters are connected to terminals 3+, 2- and 1- or 6+, 5- and 4-. The transmitter power is supplied through the terminals 3+ and 1- or 6+, and 4-. The signal input is terminal 2 or terminal 5.

Current sources which generate a signal in the range of 0/4 mA ... 20 mA, are connected to terminals 2+ and 1- or 5+ and 1-. Thus the current flows into the signal input and is transmitted to the output.

Application

- The supply of power to 2- or 3-wire transmitters and the transfer of the measurement current
- Current signal repeater

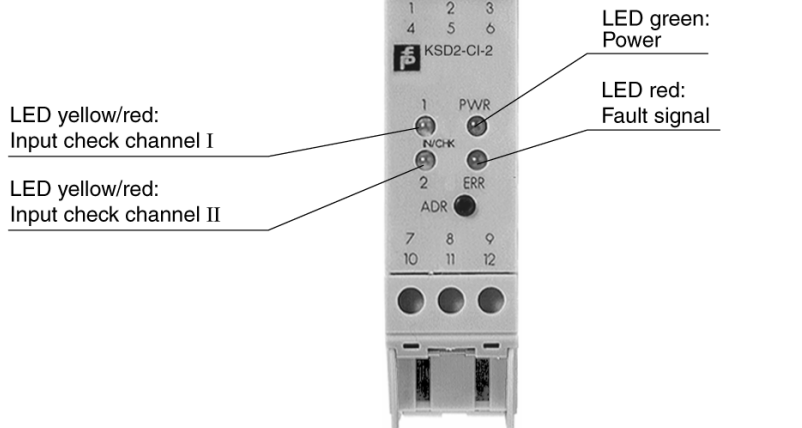
Connection



Composition

Front View

Housing type A3 (see system description)



Supply	
Connection	Power Rail
Rated voltage	20 ... 30 V DC
Ripple	< 10 %
Power loss	1.4 W , increase up to 2.35 W in the case of short-circuit between terminals 1 and 3 or 2 and 3
Power consumption	1.9 W , increase up to 2.35 W in the case of short-circuit between terminals 1 and 3 or 2 and 3
Input	
Connection	terminals 1, 2, 3; 4, 5, 6
Input signal	0/4 ... 20 mA
Input resistance	approx. 105 Ω , terminals 1, 2
Transmitter supply voltage	> 15 V at 20 mA
Lead monitoring	breakage $I \leq 2 \text{ mA}$, short-circuit $U < 4 \text{ V}$
Output	
Connection	Power Rail
Interface	CAN protocol via Power Rail bus
Transfer characteristics	
Deviation	0.1 % of the input signal range at 20 °C (293 K)
Influence of ambient temperature	0.01 %/K of the input signal range
Electrical isolation	
Input/power supply, internal bus	basic insulation acc. to EN 50178, rated insulation voltage 300 V _{eff}
Directive conformity	
Electromagnetic compatibility	
Directive 89/336/EC	EN 61326
Explosion protection	
Directive 94/9 EC	EN 50021
Standard conformity	
Insulation coordination	EN 50178
Electrical isolation	EN 50178
Electromagnetic compatibility	NE 21
Protection degree	IEC 60529
Climatic conditions	IEC 60721
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 $\leq 2.5 \text{ mm}^2$
Mass	approx. 100 g
Dimensions	20 x 100 x 115 mm (0.8 x 3.9 x 4.5 in)
Mounting	DIN rail mounting
Data for application in conjunction with hazardous areas	
Statement of conformity	TÜV 00 ATEX 1617 X , observe statement of conformity
Group, category, type of protection, temperature classification	 II 3G EEx nA II T4

Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed. For information see www.pepperl-fuchs.com.

Notes

Software functions

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

- Information on devices may be saved in PC memory

The following are separately adjustable for each channel:

- TAG numbers, 28 alphanumeric characters, can be programmed into device
- Commentary, 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
- 4 limit values
 - upper alarm level limit
 - upper warn level limit
 - lower warn level limit
 - lower alarm level limit
- Hysteresis adjustable
- 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.
 - maintenance of the last accepted measurement value
- Simulation
 - of the input value
 - of the device diagnosis
 - of the process channel diagnosis