

**Features**

- 2-channel signal conditioner
- 24 V DC supply (Power Rail)
- Level sensing input
- Adjustable range 1 kΩ ... 150 kΩ
- Relay contact output
- Adjustable time delay up to 10 s
- Minimum/maximum control
- Line fault detection (LFD)

**Function**

This signal conditioner provides the AC measuring voltage for the level sensing electrodes.

Once the measured medium reaches the electrodes, the unit reacts by energizing a form C changeover relay contact.

The module is voltage and temperature stabilized and guarantees a defined switching characteristic.

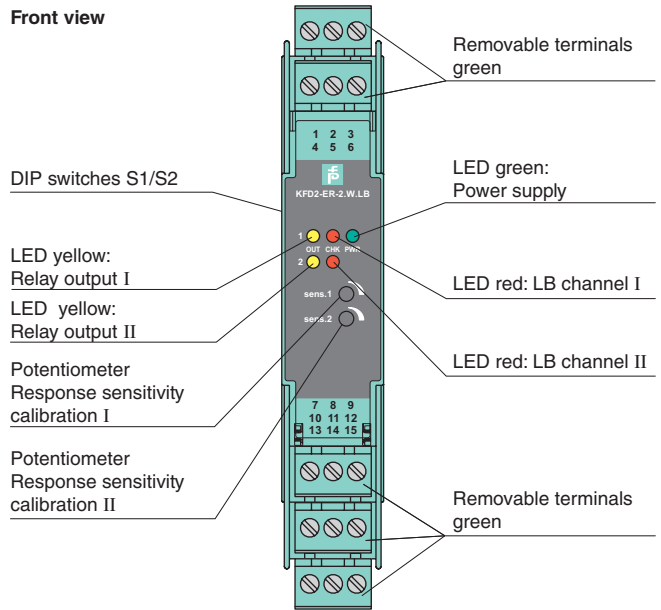
It can be used for on/off control or minimum/maximum control. A signal delay feature is available and is adjustable between 0.5 s and 10 s.

This module can also monitor the field circuit for lead breakage (LB). LB is indicated by a red LED. This function can be deactivated with DIP switches.

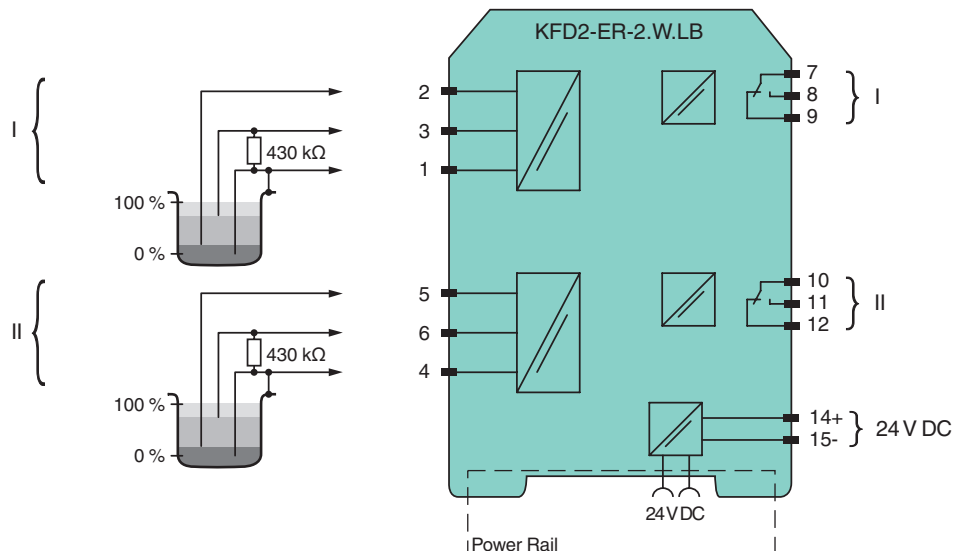
**Application**

The device is equipped with lead breakage detection (current free relay in event of failure). For this purpose, the enclosed 430 kΩ resistance must be switched between the maximum and reference electrode. This function can be deactivated by DIP switches.

**Assembly**



**Connection**



Release date 2012-09-26 14:52 Date of issue 2015-02-16 217734\_eng.xml

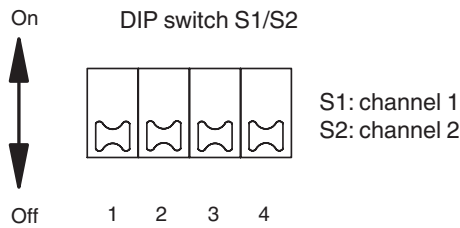
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

<b>General specifications</b>		
Signal type		Digital Input
<b>Supply</b>		
Connection		Power Rail or terminals 14+, 15-
Rated voltage	$U_n$	20 ... 30 V DC
Rated current	$I_n$	30 ... 40 mA
<b>Input</b>		
Connection		terminals 1, 4 (mass), 2, 5 (min), 3, 6 (max)
Control input		min./max. control system: terminals 1, 2, 3; 4, 5, 6 on/off control system: terminals 1, 3; 4, 6
Response sensitivity		1 ... 150 k $\Omega$ , adjustable via potentiometer
<b>Output</b>		
Connection		terminals 7, 8, 9; 10, 11, 12
Switching power		max. 192 W , 2000 VA
Output		relay
Contact loading		253 V AC/2 A/cos $\phi$ > 0.7; 40 V DC/2 A resistive load
Time constant for signal damping		0.5 s, 2 s, 5 s, 10 s
<b>Electrical isolation</b>		
Input/Output		basic insulation according to EN 50178, rated insulation voltage 253 V <sub>eff</sub>
Input/power supply		basic insulation according to EN 50178, rated insulation voltage 253 V <sub>eff</sub>
Output/power supply		basic insulation according to EN 50178, rated insulation voltage 253 V <sub>eff</sub>
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Low voltage		
Directive 2006/95/EC		EN 50178:1997
<b>Conformity</b>		
Insulation coordination		EN 50178:1997
Electrical isolation		EN 50178:1997
Electromagnetic compatibility		NE 21:2006
Degree of protection		IEC 60529:2001
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
<b>Mechanical specifications</b>		
Degree of protection		IP20
Connection		screw connection, max. 2.5 mm <sup>2</sup>
Mass		approx. 150 g
Dimensions		20 x 119 x 115 mm (0.8 x 4.7 x 4.5 in) , housing type B2
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
<b>General information</b>		
Supplementary information		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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## Configuration

DIP switches function on side of device



Switches	Position	Function
1	Off	open circuit current
	On	closed circuit current
2	Off	LB deactivated
	On	LB activated

Switch 3	Switch 4	Time constant for signal damping
Off	Off	0.5 s
Off	On	2 s
On	Off	5 s
On	On	10 s

- Open circuit current principle: In open circuit current principle the relay becomes active when the limit is reached.
- Closed circuit current principle: In closed circuit current principle, the relay is activated when power is applied. The relay is deactivated when the limit is reached.

## Accessories

### Power feed module KFD2-EB2

The power feed module is used to supply the devices with 24 V DC via the Power Rail. The fuse-protected power feed module can supply up to 150 individual devices depending on the power consumption of the devices. Collective error messages received from the Power Rail activate a galvanically-isolated mechanical contact.

### Power Rail UPR-03

The Power Rail UPR-03 is a complete unit consisting of the electrical insert and an aluminium profile rail 35 mm x 15 mm. To make electrical contact, the devices are simply engaged.

### Profile Rail K-DUCT with Power Rail

The profile rail K-DUCT is an aluminum profile rail with Power Rail insert and two integral cable ducts for system and field cables. Due to this assembly no additional cable guides are necessary.



*Power Rail and Profile Rail must not be fed via the device terminals of the individual devices!*