Features

- · 1-channel signal conditioner
- 230 V AC supply
- · Level sensing input
- Adjustable range 1 kΩ ... 150 kΩ
- · Relay contact output
- · Fault 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.

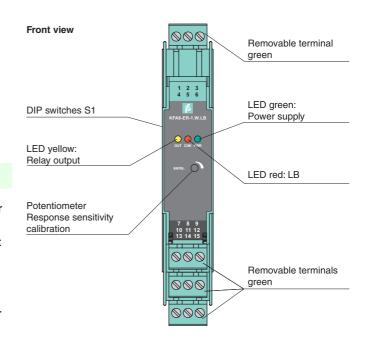
It can be used for on/off control or minimum/maximum control. A signal delay feature is available and is adjustable between 0.5 s and 10 s.

This module can also monitor the field circuit for lead breakage (LB). LB is indicated by a red LED. If LB monitoring is selected, output II serves as the fault signal output; otherwise, it will follow the function of output I.

Application

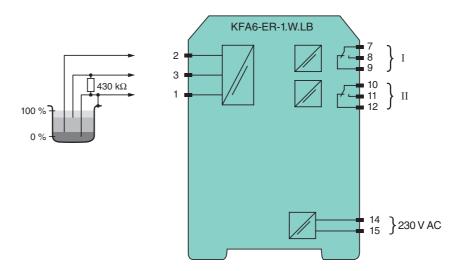
The device is equipped with lead breakage detection (current free relay in event of failure). For this purpose, the enclosed 430 k Ω resistance must be switched between the maximum and reference electrode. This function can be deactivated by DIP switches.

Assembly





Connection

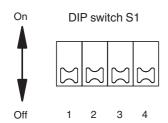


General specifications				
Signal type		Digital Input		
Supply				
Connection		terminals 14, 15		
Rated voltage	U _n	207 253 V AC, 45 65 Hz		
Rated current	I _n	≤7 mA		
Power consumption		< 1.2 W		
Input				
Connection		terminals 1 (mass), 2 (min), 3 (max)		
Control input		min./max. control system: terminals 1, 2, 3 on/off control system: terminals 1, 3		
Response sensitivity		1 150 k Ω , adjustable via potentiometer		
Output				
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 φ > 0.7; 40 V DC/2 A resistive load		
Time constant for signal damping		0.5 s, 2 s, 5 s, 10 s		
Electrical isolation				
Input/Output		basic insulation according to EN 50178, rated insulation voltage 253 V _{eff}		
Input/power supply		basic insulation according to EN 50178, rated insulation voltage 253 V _{eff}		
Output/power supply		basic insulation according to EN 50178, rated insulation voltage 253 V _{eff}		
Directive conformity				
Electromagnetic compatibility				
Directive 2004/108/EC		EN 61326-1:2006		
Low voltage				
Directive 2006/95/EC		EN 50178:1997		
Conformity				
Insulation coordination		EN 50178:1997		
Electrical isolation		EN 50178:1997		
Electromagnetic compatibility		NE 21:2006		
Degree of protection		IEC 60529:2001		
Ambient conditions				
Ambient temperature		-20 60 °C (-4 140 °F)		
Mechanical specifications				
Degree of protection		IP20		
Connection		screw connection, max. 2.5 mm ²		
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		
General information				
Supplementary information		Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.		



Configuration

DIP switch function on side of device



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