

Conductive Switch Amplifier KFA5-ER-1.W.LB

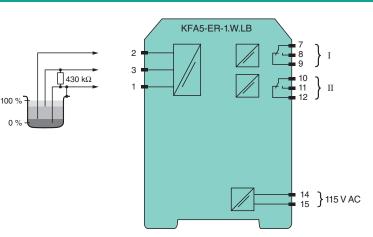
- 1-channel signal conditioner
- 115 V AC supply
- Level sensing input
- Adjustable range 1 kΩ ... 150 kΩ
- Relay contact output
- Fault relay contact output
- Adjustable time delay up to 10 s
- Minimum/maximum control
- Line fault detection (LFD)



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.

Connection



Technical Data

General specifications		
Signal type		Digital Input
Supply		
Connection		terminals 14, 15
Rated voltage	Ur	103.5 126 V AC , 45 65 Hz
Rated current	l _r	12 mA
Power consumption		< 1.2 W
Input		
Connection side		field side
Connection		terminals 1 (mass), 2 (min), 3 (max)

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

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Technical

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Output Connection side control side Connection side control side Connection Switching power max. 192 W, 2000 VA Output Felay 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 Galvanic isolation Feinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff} Input/Doutput Feinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff} Output/power supply reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 V _{eff} Indicators/settings IEC/EN 61010-1, rated insulation voltage 300 V _{eff} Control elements LEDs Control elements IED Powitch potentiometer Via potentiometer Labeling space for labeling at the front Directive 2014/30/EU EN 61326-1:2013 (industrial locations) Low voltage Via yother Directive 2014/30/EU EN 61326-1:2013 (industrial locations) Low voltage Via yother Degree of protection IEC 60529:2001 Ambient temperature	Control input	min./max. control system: terminals 1, 2, 3 on/off control system: terminals 1, 3	
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General information Supplementary information Observe the certificates, declarations of conformity, instruction manuals, and manuals	Dimensions	20 x 119 x 115 mm (0.8 x 4.7 x 4.5 inch) (W x H x D) , housing type B2	
Supplementary information Observe the certificates, declarations of conformity, instruction manuals, and manuals	Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001	
	General information		
	Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.	

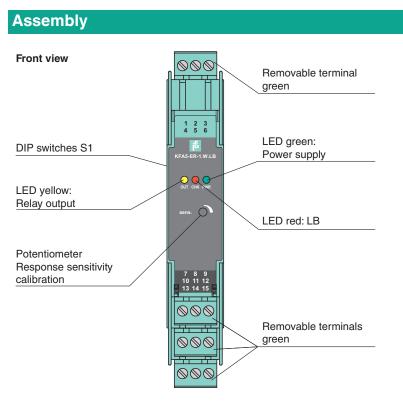
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Matching System Components

K-DUCT-GY

and the second	
and the second s	

Profile rail, wiring comb field side, gray

Accessories

	KF-ST-5GN	Terminal block for KF modules, 3-pin screw terminal, green
*	KF-CP	Red coding pins, packaging unit: 20 x 6

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

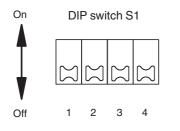
3

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.

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.

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