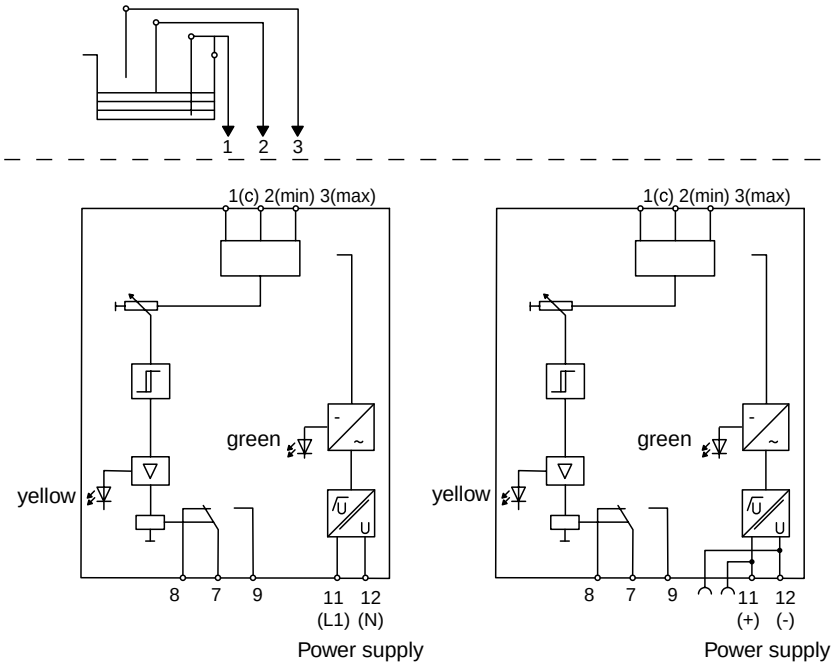
- Relay for conductive limit value detection
- Different sensitivity
- Measuring circuit in acc. with VDE 0100 part 410 "Funktionskleinspannung"
- Minimum-maximum control
- Open/closed circuit current principle
- Successor for the devices KHA□-ER-1.□ and HR-122620

230 V AC
KFA6-ER-□.□
115 V AC
KFA5-ER-□.□
24 V DC
KFD2-ER-□.□

Function

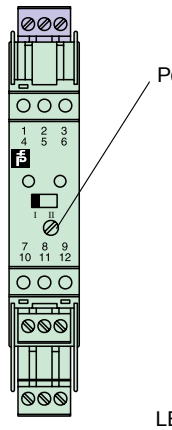
The relays provide the AC measuring voltage for the electrodes and react with a small alternating current after the electrodes get in contact with the medium.

The switching amplifiers are voltage and temperature stabilised and guarantee a defined switching characteristics. An electronic holding contact allows a minimum maximum control. Since the conductance of the media may vary, the relay response sensitivity is adjustable.



KFA□-ER-□.□ **KFD2-ER-□.□**

Construction



LED green: power supply
LED yellow: relay output

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	KF□□-ER-□□
Power supply	
Connection type	AC: terminals 11 (L1), 12 (N) DC: Power Rail or terminals 11+, 12-
Rated operational voltage	KFA5: 115 V, 48 ... 62 Hz KFA6: 230 V, 48 ... 62 Hz KFD2: 24 V DC
Power consumption	approx. 0.8 W
Input	
Connection type	Terminals 1 (mass), 2 (min), 3 (max)
Voltage	max. 10 V AC (approx. 1 Hz)
Current	max. 5 mA
Control system	Min./max. control system: terminals 1, 2, 3 On/off control system: terminals 1, 3
Response sensitivity	KF□□-ER-1.5: 1 ... 30 kΩ adjustable via potentiometer (20 turns) KF□□-ER-1.6: 5 ... 150 kΩ adjustable via potentiometer (20 turns)
Output	
Connection type	Terminals 7, 8, 9
Output	1 change-over
Contact loading	AC 250 V/2 A/cos $\varphi \geq 0.7$ DC 40 V/2 A (ohmic load)
Energised/de-energised delay	approx. 1 s/approx. 1 s
Galvanic isolation	
Input/output	safe galvanic isolation acc. to DIN VDE 0106, design isolation voltage 253 V_{eff}
Input/power supply	safe galvanic isolation acc. to DIN VDE 0106, design isolation voltage 253 V_{eff}
Output/power supply	safe galvanic isolation acc. to DIN VDE 0106, design isolation voltage 253 V_{eff}
Ambient conditions	
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Protection class	IP20
Conformity to standards	
Coordination of insulation	acc. to DIN EN 50178
Galvanic isolation	acc. to DIN EN 50178
Climatic conditions	acc. to DIN IEC 721
Electromagnetic compatibility	acc. to EN 50081-2/EN 50082-2, NAMUR NE 21
Mechanical construction	
Versions	24 V DC: KFD2-ER-1.5, KFD2-ER-1.6 115 V AC: KFA5-ER-1.5, KFA5-ER-1.6 230 V AC: KFA6-ER-1.5, KFA6-ER-1.6
Dimension	20 x 107 x 115 mm (0.78 x 4.2 x 4.5 inch)
Weight	approx. 110 g
Connection	Screw connection, max. 2.5 mm²
Mounting	snapped on to standard DIN EN 50022 rail (35 mm (1.38 inch)) screw mounted using pull-out latches
Indication and operation	
Operating elements	Switch S1 I open circuit current: In the open circuit current principle, the relay becomes active when the limit is reached. II closed circuit current: In closed circuit current principle, the relay is activated when power is applied. The relay is deactivated when the limit is reached.

Accessories

Power Rail PR 02

Power Rail UPR 02

Power feed module KFD2-EB2

The power feed module supplies via the Power Rail PR 02 or UPR 02 the devices with a voltage of 24 V DC and evaluates simultaneously combined fault indication.

Each power feed module is made for fusing and monitoring of groups with up to 100 single devices. The Power Rail PR 02 is an insert for the DIN rail. The Power Rail UPR 02 is a complete unit consisting of the electrical inset and an aluminium DIN Rail 35 x 15 x 2000 mm (1.38 x 0.6 x 78.7 inch). For electrical connection, the devices will be simply snapped on.

Without use of the Power Rail, the supply of the device occurs directly via the terminals.

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