

## Level controller 1-channel MK91-12-R/230VAC



The 1-channel level controller MK91-12-R/230VAC monitors and regulates conductive liquid levels.

As a dual level regulator, it can be used to control pumps or solenoid valves, as monitoring device it is designed for run-dry or over flow protection.

The level controller not only provides optimum reliability in differentiating liquids, it is also suited for the distinction between foam and liquid. The responsivity (liquid resistance) is adjustable between 0.2 ... 100 k $\Omega$ . First, select one of the four sensitivities with the "Range" switch. Then you can finetune the switchpoint via the potentiometer at the front.

The separately adjustable switch-on and switch-off delay is very important for turbulent liquid levels. You can set a delay time between  $0 \dots 20$  s via the potentiometers at the front.

Two relay outputs each with one changeover contact are available to output the switching commands. You can toggle between closed current (R) and working current (A) with the "Range" switch.

The switching status of the output is indicated by a yellow LED and operational readiness by a green LED.

For further information, please order out installation guidelines.

	$\otimes$		$\otimes$	$\otimes$
	13	14	15	16
	9	10	11	12
Switching status ——— Power ——— Switch OFF delay ———	Pwr	<b>ти</b> Ол		20 ta [s] 0
Range selector	Rai  /    	nge II/IV III/IV A	X	20 t <sub>e</sub> [s] 0
Switch ON delay				
Sensitivity adjustment -		MK91-12-R		
	_mul	ti odul	-X	Bm [%]
	5	6 ())	7	8
	1	2	3	4

- Responsivity: 0.2...100 kΩ
- Hysteresis: 10%
- Output: 2 relays with 1 changeover contact
- Electronic switching of electrodes
- Switch-on/off delay 0...20 s, separately adjustable
- Reliable distinction between foam and liquid
- Galvanic isolation of input circuits, output circuits and power supply



## MK91-12-R/230VAC Туре ID 7545070 Nominal voltage 230 VAC Operating voltage 184...264 VAC Frequency 48...62 Hz Power consumption $\leq$ 3 VA 2 electrodes or alternatively 3 electrodes Input circuits 0,2-100 kΩ Schaltpunkt Probe voltage 0,02...5 Vpp/150 Hz (triangle) 0,2...1 kΩ Schaltschwelle Schaltschwelle 0,8...4 kΩ Schaltschwelle 2,5...15 kΩ Schaltschwelle 10...100 kΩ Einschaltverzögerung 0...20 s Ausschaltverzögerung 0...20 s Hysterese 10 % Output circuits Output circuits (digital) 2 x relays (change-over) Output switching voltage relay $\leq$ 30 VDC / $\leq$ 250 VAC Switching current per output $\leq$ 3 A Switching capacity per output $\leq$ 500 VA/60 W Switching frequency $\leq$ 5 Hz Galvanic isolation Test voltage 2.5 kV RMS Displays/Operating elements Operational readiness Green Yellow Switching state Mechanical data IP20 Protection class Ambient temperature -25...+60 °C -40...+80 °C Storage temperature 89 x 36 x 110 mm Dimensions Weight 262 g Mounting instructions DIN rail (NS35) or panel Housing material Plastic, Polycarbonate/ABS Electrical connection 4 × 4-pin flat terminals with self-lifting pressure plates



Terminal cross-section

1 × 2.5 mm<sup>2</sup>/2 × 1.5 mm<sup>2</sup>