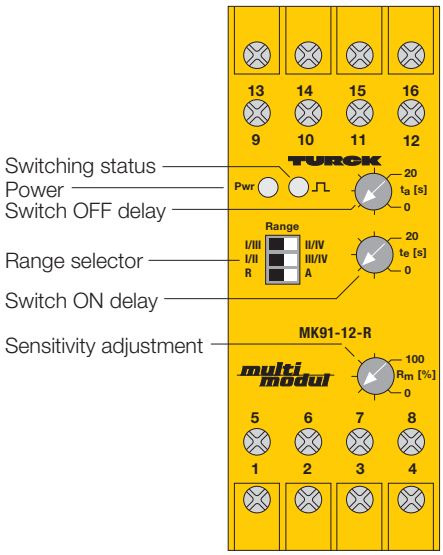
Level Control
MK91-12-R/24VDC
MK91-12-R/230VAC
1-channel



- **1-channel level control**
- **Galvanic isolation between input circuit, output circuit and supply voltage**
- **Adjustable sensitivity range from 0.2...100 kΩ**
- **Distinction between liquid and foam**
- **Separately adjustable switch-on and switch-off delay from 0...20 s**
- **2 relay outputs, each with 1 SPDT contact**
- **Electronic probe selection**

The single channel MK91-12-R level control is used to monitor and regulate the levels of conductive liquids. As a dual level regulator, it can be used to control pumps and solenoid valves. As a monitoring device it is designed for run-dry or overflow protection.

The level controller provides optimum reliability in differentiating a wide variety of liquids. The device is also suited for applications requiring distinction between foam and liquid.

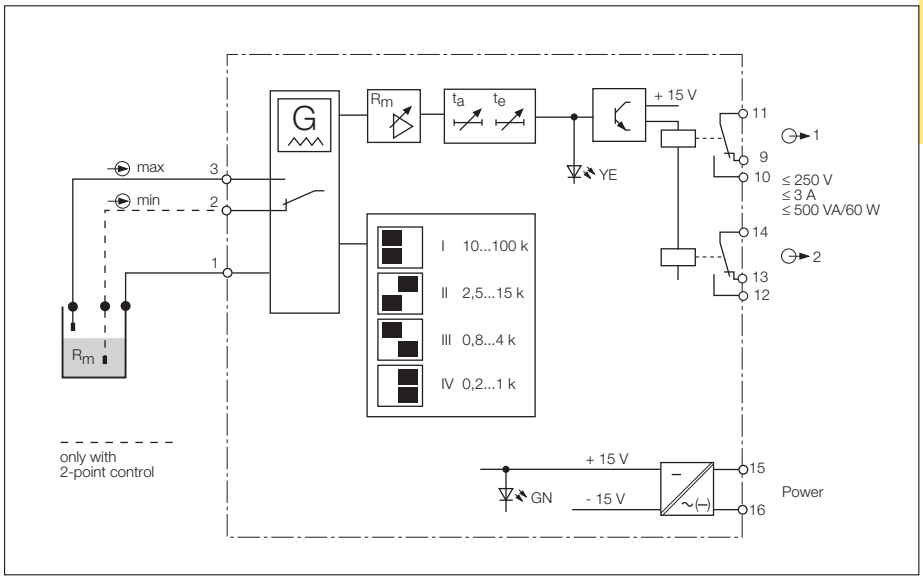
The sensitivity (resistance of liquid) is adjustable from 0.2...100 kΩ. One of four sensitivity options can be selected by means of the "Range" selector switch. Fine sensitivity adjustment within the selected range is accomplished with a potentiometer on the front cover.

The adjustable switch-on and switch-off delay is especially important for turbulent liquid levels. A delay time from 0...20 s can be adjusted via two front cover potentiometers.

The device features two relay outputs with one SPDT contact each. They operate in parallel and provide the switching function. The output configuration of both outputs can be programmed from NO to NC for all measuring ranges using the "Range" switch.

A green LED indicates that power is applied to the device. A yellow LED indicates the switching status.

For further information, please order our installation guidelines.



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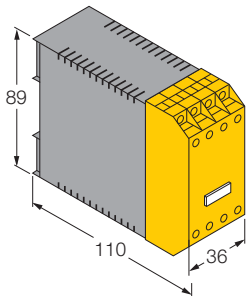
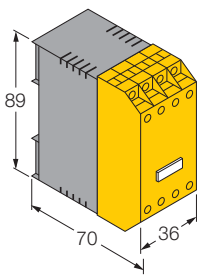
Level Control MK91-12-R

Type	MK91-12-R/230VAC	MK91-12-R/24VDC
Ident-no.	7545070	7545077
Supply voltage U_B	184...264 VAC	20...28 VDC
Line frequency/ripple W_{PP}	48…62 Hz	≤ 10 %
Power/current consumption	3 VA/ < 15 mA $_{rms}$	1.5 W
Galvanic isolation	between input circuit, output circuit and supply voltage for 250 V_{rms}, test voltage 2.5 kV_{rms}	between input circuit, output circuit and supply voltage for 250 V_{rms}, test voltage 2.5 kV_{rms}
Input circuits		
Probe voltage	0.02...5 V_{PP}/150 Hz (triangle)	0.02...5 V_{PP}/150 Hz (triangle)
Sensitivity range (switching threshold)	0.2…100 kΩ (adjustable in 4 ranges)	0.2…100 kΩ (adjustable in 4 ranges)
– Range 1	0.2…1 kΩ	0.2…1 kΩ
– Range 2	0.8…4 kΩ	0.8…4 kΩ
– Range 3	2.5…15 kΩ	2.5…15 kΩ
– Range 4	10…100 kΩ	10…100 kΩ
Hysteresis	approx. 10 %	approx. 10 %
Switch-on delay	0…20 s (adjustable)	0…20 s (adjustable)
Switch-off delay	0…20 s (adjustable)	0…20 s (adjustable)
Output circuits	2 relay outputs	2 relay outputs
Number of contacts	1 SPDT contact, silver-alloy + 3 µm Au	1 SPDT contact, silver-alloy + 3 µm Au
Switching voltage	250 V	250 V
Switching current	≤ 3 A	≤ 3 A
Switching capacity	≤ 500 VA/60 W	≤ 500 VA/60 W
LED indications		
– Power	green	green
– Switching status	yellow	yellow
Housing	16-pole, 36 mm wide, Polycarbonate/ABS flammability class V-0 per UL 94	16-pole, 36 mm wide, Polycarbonate/ABS flammability class V-0 per UL 94
Mounting	snap-on clamps for top-hat rail (DIN 50022) or screw terminals for panel mounting	snap-on clamps for top-hat rail (DIN 50022) or screw terminals for panel mounting
Connection	2 x 16 flat terminals with self-lifting pressure plates	2 x 16 flat terminals with self-lifting pressure plates
Connection profile	≤ 2 x 2.5 mm^2 or 2 x 1.5 mm^2 with wire sleeves	≤ 2 x 2.5 mm^2 or 2 x 1.5 mm^2 with wire sleeves
Degree of protection (IEC 60529/EN 60529)	IP20	IP20
Operating temperature	-25…+60 °C	-25…+60 °C





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