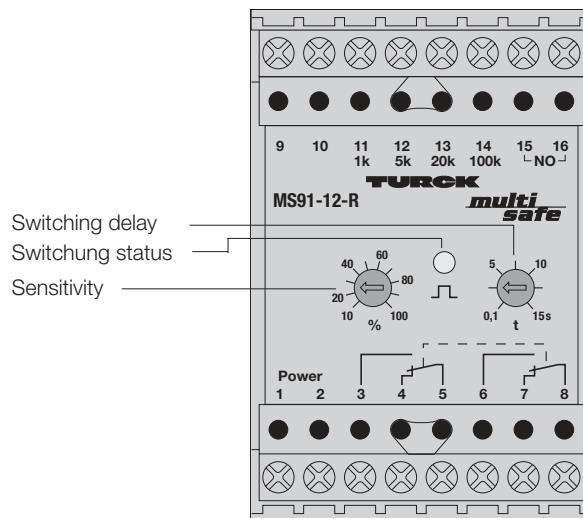


Level Control MS91-12-R 1-channel



- **1-channel level control**
- **Galvanic isolation between input circuit, output circuit and supply voltage**
- **Adjustable sensitivity range 0.1...100 kΩ**
- **Secure distinction between liquid and foam**
- **Adjustable switch-on and switch-off delay from 0.1...15 s**
- **2 relay outputs, each with 1 SPDT contact**
- **Probe selection via an integrated relay**
- **Universal supply voltage (20...250 VUC)**

The single channel level control MS91-12-R... is used to monitor and regulate the levels of conductive liquids (II). As a dual level regulator, it can be used to control pumps and solenoid valves (I). As a monitoring devices it is designed for run-dry or overflow protection.

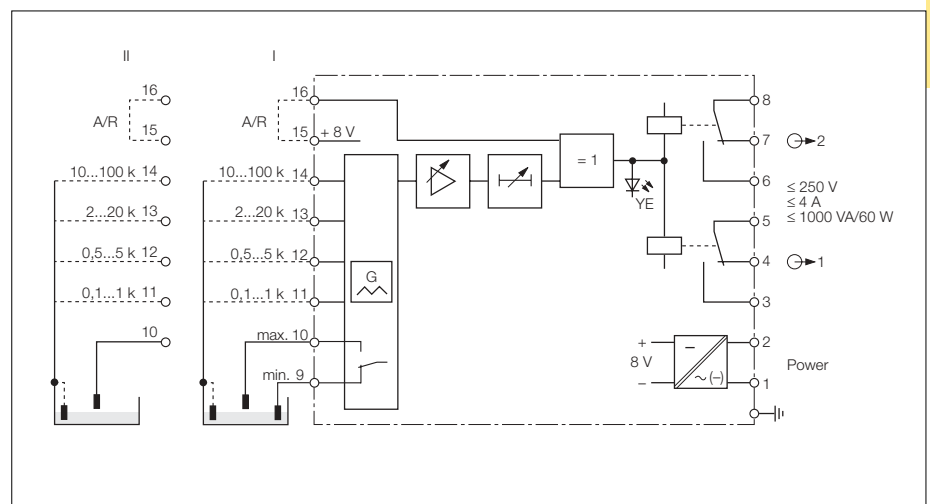
The sensitivity (resistance of liquid) is adjustable from 0.1...100 kΩ. One of the four sensitivity ranges is selected by the terminal configuration. Fine adjustment of the the switch point within the selected range is achieved with a front cover potentiometer. Thus the level controller provides optimum reliability in differentiating a wide variety of liquids and also in applications requiring distinction between liquid and foam.

The adjustable switch-on and switch-off delay is especially important for turbulent liquid levels. A delay time from 0...15 s can be adjusted via the front cover potentiometer.

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 (with jumper between terminals 15/16) to NC (without jumper between terminals 15/16).

A yellow LED indicates the switching status.



Level Control MS91-12-R

Type	MS91-12-R
Ident-no.	5220110
Supply voltage U_B	20...250 VUC
Line frequency (AC)	40...70 Hz
Power consumption	≤ 3 W
Galvanic isolation	between input circuit,output circuit and supply voltage for 250 V _{rms} test voltage 2,5 V _{rms}
Input circuits	
Probe voltage	typ. 5 V _{pp} /100 Hz (triangle)
Sensitivity range (switching threshold)	0,1...100 kΩ (adjustable in 4 ranges)
– Range 1	0.1...1 kΩ
– Range 2	0.5...5 kΩ
– Range 3	2...20 kΩ
– Range 4	10...100 kΩ
Hysteresis	10 %
Switch-on and switch-off delay	0.1...15 s (adjustable)
Output circuits	2 relay outputs
Number of contacts	1 SPDT contact, silver-alloy
Switching voltage	≤ 250 V
Switching current	≤ 4 A
Switching capacity	≤ 1 000 VA/60 W
LED indication	
– Switching status	yellow
Housing	50 mm wide, Polycarbonate/ABS
Mounting	snap-on clamps for top-hat rail (DIN 50022) or screw terminals for panel mounting
Connection	2 x 16 screw terminals
Connection profile	≤ 2 x 2.5 mm ² or 2 x 1.5 mm ² with wire sleeves
Degree of protection (IEC 60529/EN 60529)	IP20
Operating temperature	-25...+60 °C

