

Zelio Control - measurement and control relays

Liquid level control relays, model RM 84 870

- Regulation of two levels:
 - minimum,
 - maximum.
- Monitoring of filling (UP) or emptying (DOWN) selectable by means of switch on the front panel of the device.
- Probes with a.c. current flowing through them.
- Sensitivity adjustment potentiometer on front panel of the device.
- Sensitivity adjustable from 5 kΩ to 100 kΩ.

Operating principle

Control of maximum and/or minimum levels of conductive liquids (tap water, sea water, waste water, chemical solutions, coffee ...).

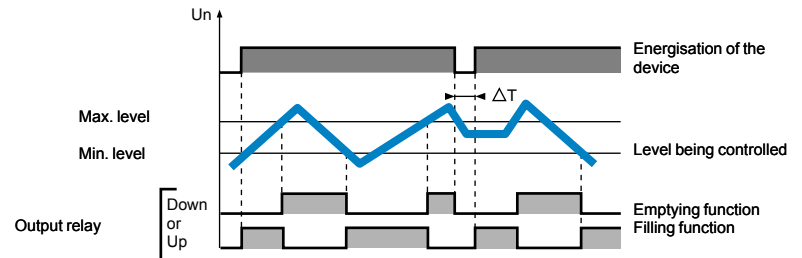
The operating principle is based on measurement of the apparent resistance of the liquid between two submerged probes. When this value is less than the threshold setting on the front panel of the device, the output relay changes state. To avoid electrolytic phenomena, an a.c. current runs across the probes.

Applications in the food-processing, chemical industries, etc.

Regulation of two levels, minimum/maximum

The output relay changes state when the level of the liquid reaches the maximum level probe, with the minimum level probe submerged. It returns to its initial state when the minimum level probe is no longer in contact with the liquid.

Filling or emptying control



Note : If the voltage break ΔT lasts 1 second or more, the relay is instantly re-energised if in "UP" mode and is de-energised if in "DOWN" mode.

References



RM 84 870 001

Filling (UP) and emptying (DOWN) control relays

Voltage	Reference	Weight kg
~ 24 V	RM 84 870 001	0.140
~ 120 V	RM 84 870 003	0.140
~ 230 V	RM 84 870 004	0.140

Note : The probe cable (maximum length 100 metres) need not be screened, but it is inadvisable to install it in parallel with the power supply cables.
A screened cable may be used, with the screening connected to the common.

Characteristics

Supply voltage Un	V	~ 24, 120, 230 (50/60 Hz)
Operating range		0.85...1.15 x Un
Maximum power consumption	VA	3
Sensitivity adjustment	kΩ	5...100
Measurement accuracy (at maximum sensitivity)		0...+ 30 %
Electrode voltage (maximum)	V	~ 24 (50/60 Hz)
Electrode current (maximum)	mA	1 (50/60 Hz)
Maximum cable capacity	nF	10
Response time	High level	ms 300
	Low level	ms 500
Output relay (to meet AC-1 requirements, resistive load)		1 C/O contact, AgCdO a 8 A max.
Galvanic isolation via transformer (4 kV, 8 mm creepage distance)		Class II VDE 0551
Isolation of contacts and electrodes from the supply	kV	~ 2.5
Temperature limits	Operation	°C - 20...+ 60
	Storage	°C - 30...+ 70
Product certifications		c UL us, CSA

Dimensions

