

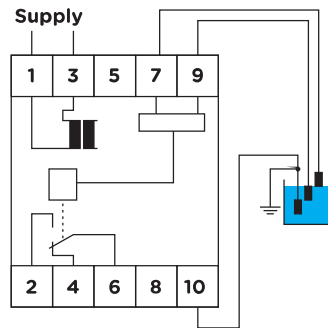
Liquid Level Controller



Description

Level control relay for conductive liquids selectable for filling and emptying applications with adjustable sensitivity. The unit can be wired for three wire application to control levels between High and Low probe or two wire applications for alarm indication. Filling or emptying can be selected via front slide switch.

Wiring Diagram



FEATURES

- Microprocessor controlled
- Front face selection Filling / Emptying
- Front face adjustable sensitivity: 0-80 kohm
- Low voltage AC probe signal
- Modular 35.5mm DIN rail mountable
- 10A SPDT output relay
- LED indication for relay and power supply ON

Level Sensing Input Specifications

Probe Voltage	4 VAC
Probe Current	2.5mA
Probe Frequency	100Hz
Sensitivity	0 - 80kohm
Response Time	1 sec
Max. Probe Cable Length	400m (2.5 twin and earth screened)

Output Specifications

Output Specifications	SPDT
Rated Isolation	4000 VAC
Voltage	(contact / electric) 1000 VAC (contact / contact)
Nominal Rate in AC1	2500 VA (Ag-Ni)
Rated Current	10A
Rated Voltage	250V
Mechanical Life	10x10 ⁶ cycles
Electrical Life	110x10 ³ cycles (at max load)
Operation Frequency	≤ 1800 cycles/h

Supply Specifications

Power Supply AC Type	110, 230, 400V (Galvanic) 525V ± 10%
	50 / 60 Hz ± 5Hz
Isolation	4kV
Consumption	± 3VA ± 6VA 525 V
Power Supply DC Types	12,24,48 V ± 10% (Non-galvanic)
Isolation	None
Consumption	± 100 mA

General Specifications

Power ON Delay	≤ 300 ms
Power OFF Delay	≤ 200 ms
Indication for	
Power Supply ON	LED green
Output ON	LED red
Environment	
Degree Of Protection	IP 20
Operating Temperature	-10 to + 50°C
Storage Temperature	-50 to + 85°C
Weight	200g

Liquid Level Timer Mode of Operations

Emptying

The relay operates when the liquid reaches the MAX electrode (contact 7), provided that the MIN electrode (contact 9) is in contact with the liquid. The relay releases when the MIN electrode is no longer in contact with the liquid. Contact 10 must be connected to the container. If the container consists of a non-conductive material, an additional electrode must be used.

Filling

The relay releases when the liquid reaches the MAX electrode (contact 7), provided that the MIN electrode (contact 9) is in contact with the liquid. The relay operates when the MIN electrode is no longer in contact with the liquid. Contact 10 must be connected to the container. If the container consists of a non-conductive material, an additional electrode must be used.

Single Level

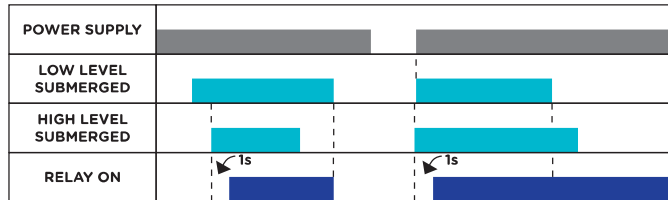
The relay operates (Emptying) / releases (Filling) when the electrode (contact 9) is in contact with the liquid. An additional electrode must be used if the container consists of a non-conductive material. Interconnect contact 7 and 10 directly on the unit.

Example

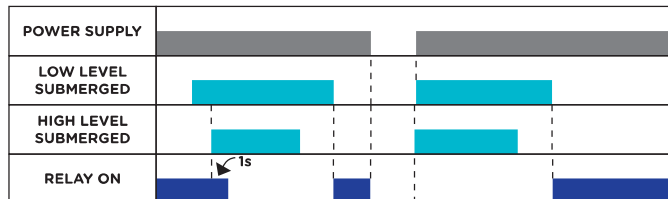
- Level control of conductive liquids.
- Borehole pump control.
- Filling and draining of pump reservoirs.
- Control of sewerage pumps.
- Dosing of liquids, chemicals or fertilisers.
- 2-wire remote stop-start control over extended distances.
- Monitoring and controlling of processes in conjunction with Light Dependent Resistors (LDR).

Operations Diagram

EMPTYING MODE



FILLING MODE



Alternate Wiring Diagram

