# UH1- 230

Conductive level control relay

**Emptying or filling**

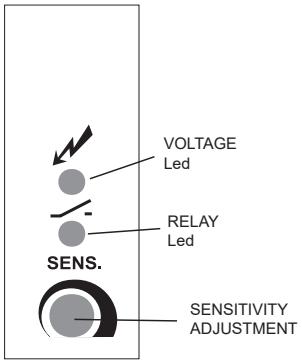



Installation guide

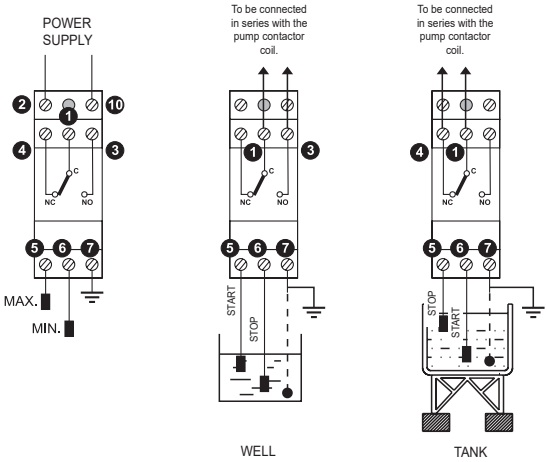
## Main features

- Probe level relay based on a conductive system
- Well or tank control.
- DIN rail 35 mm.
- Adjustable sensitivity.
- Supply 230 VAC (400 VAC on demand).
- Maximum and minimum level probes

## Frontal description




## Connection




## How to install the probes:

**Tanks :** The high level probe (Max.) will be placed just below the overflow and the low level sensor (Min.) at a height which may vary according to the liquid reserve required.

**Wells :** The low level probe (Min.) will be placed just above the pump suction strainer and the high level probe (Max.) at a height which may vary according to the volume of the well and the season, to obtain optimum flow.

**IMPORTANT:** Check that the sensor cables are well insulated, as a false contact or a simple earth lead will cause the device to malfunction.

## Ground connection

To ensure correct operation of the level control relay and ONLY when using conductive probes (and not floats), it is essential that the ground connection is carried out correctly. To this end, it is highly recommended that any point on the pipework or pump (screw, flange, valve, etc) is connected to an earth rod. However, in the case of an insulating container (fibre cement, fibreglass, plastic matting in general, etc.), it is essential to connect a third probe, known as the earth probe, immersed in the bottom of the container.

## Adjusting sensor sensitivity

Sensitivity is set using the potentiometer on the front of the module (3-60 kΩ). Preset at the factory at the maximum threshold of 60 kΩ, or the device should operate normally. In special circumstances directly related to the installation (high humidity, long distance between the sensors and the device, earth capacity of the sensor cable), reduce the sensitivity until normal operation is obtained.

## Operation

The following points will help you check that the appliance is working properly:

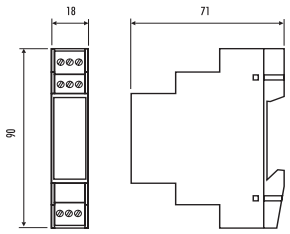
1. Check voltage (230 VAC at terminals 2-10).
2. Disconnect the sensor cables.
3. Power up the appliance (green LED on). Shunt terminals 6 and 7 (nothing should happen) and connect the same shunt to terminal 5 (the relay is activated and the red LED lights up); then remove the shunt from terminal 5 (the relay remains activated).
4. Remove the shunt between terminals 6 and 7 (the relay deactivates and the red LED goes out).

If during these tests the device works correctly, connect the electrodes again and check that the container is in contact with earth; if the the container is insulating, connect a third electrode third electrode, called the earth electrode, immersed in the the bottom of the container (terminal 7).

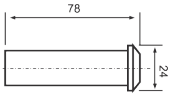
## Technical features

| | |
|---|---|
| Led status indication | VOLTAGE and RELAY |
| Power supply voltage | 230 VAC (ask for other voltages) |
| Frequency | 50-60 Hz |
| Power consumption | 2 VA |
| Permissible voltage fluctuations | +10% -20% |
| Response sensitivity | Adjustable 3 to 60 Kohm |
| Voltage in probes | 12 VAC 50 Hz |
| Current in probes | 1,2 mA maxi en court-circuit |
| Max. terminal block section | 2 x 2,5 $mm^2$ |
| Contact use | 2 A - 250 VAC |
| Temperature operating range | -10º +60º C |
| Approx. average weight | 85 g |

**Module**




**Probes**

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