

HIDRONIVEL TH6

Water Level Controller (with Auxiliary input)

Main features

Level sensing relay based on a conductive probes system. Well or tank control. Adjustable sensitivity. 230 or 400 V dual voltage supply. Plugs into 11-pin base. High and low level probes.

Auxiliary input isolated (4 kV) in low voltage for float or pressure switches given full safety for users and maintenance people

Probe installation

Tank: install the high level probe (max.) immediately below the overflow level and the low level probe (min.) at the required water reserve height.

Well: install the low level probe (min.) above the suction valve and the high level probe (max.) at the required height to take optimal advantage of water flow in the well, which may vary according to the time of year.

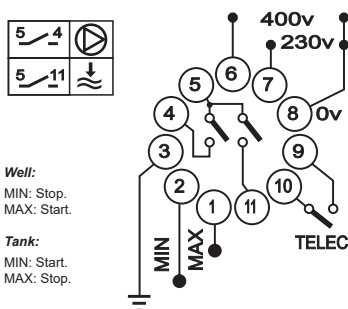
IMPORTANT: the probe leads, connections and wires must be well insulated, since a faulty ground contact would cause malfunction.



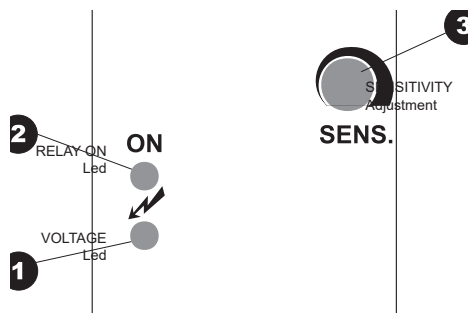
Ground connection (terminal block 7)

To ensure that the level controller works as required is essential a correct ground connection. Make the connection to any part of the piping or pump (screw, clamp, valve, etc.) to a ground screw or by means of a submerged probe installed at the bottom of the container if the well or tank are made of an insulating material (fiberglass or plastics in general).

Connection



Frontal Description



Remote control (Terminal blocks 9 and 10)

Remote control input by voltage free contact (float switch, pressure, etc.). Control elements to 12 Vdc, for safety.

In case of not using this input, the terminals 9 and 10 must be linked.

Sensitivity adjustment

The unit is adjusted to the highest sensitivity setting when it leaves the factory. The level controller should work perfectly at this setting, except in specific installations where certain factors, such as high

humidity, long distance between probes and level controller or probe lead-to-ground capacitance, require sensitivity to be lowered to prevent the level controller from being activated by these circumstances.

Troubleshooting

To verify the proper functioning of equipment:
Check voltage (230V for 7-8 terminals / 400V in terminals 6-8).

1. Disconnect the wires from the probes of the terminals.
2. Giving power to the system (pilot "VOLTAGE"). Alarm on (5 and 11 closed). Make a bridge between 2 and 3 (should not happen at all). Joining the former bridge to the terminal 1, being joined to terminal 1, 2 and 3. (Alarm off). Make a bridge between 9 and 10: the relay is active (5 and 4 closed) and the pilot light "ON RELAY".

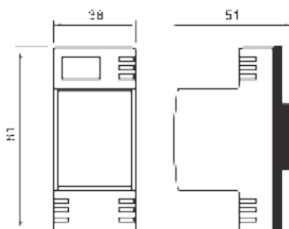
Disconnect the terminal 1 (the relay continues on).

3. Finally, remove the bridge between 2 and 3 (the relay is deactivated and the pilot goes out.) The alarm is activated. Remove jumper between 9 and 10.

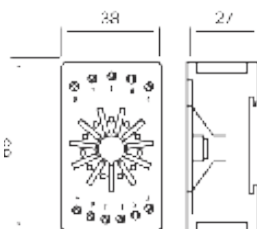
If these tests the equipment is working properly, check to connect the probes to the vessel is in contact with "land", if not so, as this insulation, install a third probe to the terminal 3 located at the bottom of the well or deposit.

Size

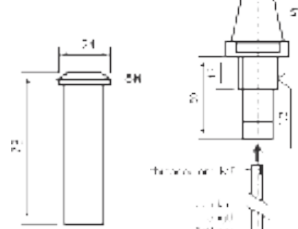
Module



Base (Rail DIN)



Probes



Technical features

LED status indication VOLTAGE and ACTIVATED RELAY

Supply Voltage 230 or 400 V AC - 50/ 60 Hz

Power consumption 2 VA

Permissible voltage fluctuations +10% -20%

Temperature range -10° +60° C

Probe sensitivity Adjustable 3 to 60 Kohm.

Probe / sensor voltage 12V AC 50 Hz

REMOTE voltage 12V DC

Probe intensity 1,2 mA maximum in short-circuit

Terminal block maximum section 2 x 2,5 mm²

Load contact AC1 : 10 A - 250V AC

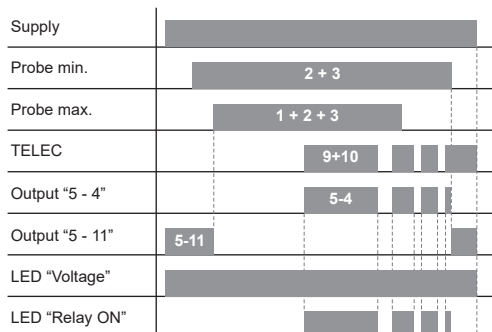
AC11 : 2,5 A - 230V AC

DC1 : 1 A - 250V DC

DC11 : 5 A - 24V DC

Approximate average weight 140 g (320 g. incl. base and 2 probes).

Operating diagram



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