toscano

HIDRONIVEL TH2

Water Level Controller (well or tank)

Main features

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

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.

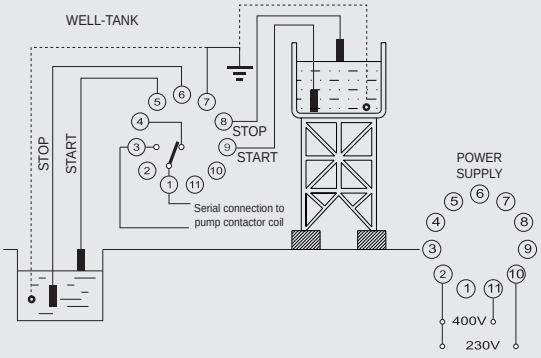
Well: install the low level probe (min.) above the suction valve and the high level probe (max.) at the required height to take optimal advantage of water flow in the well, which may vary according to the time of year.

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).

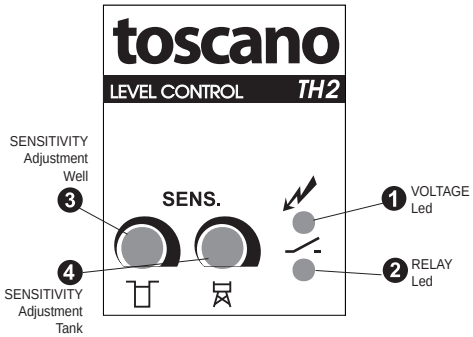
Connection



Warning

CHECK THE CONNECTIONS BEFORE STARTING THE EQUIPMENT. A WRONG WIRING CAN INVOLVE DANGER OF ELECTROCUTION.

Frontal Description



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 betwen 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.

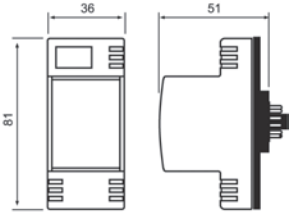
Troubleshooting

In order to verify that the level controller is operating correctly:

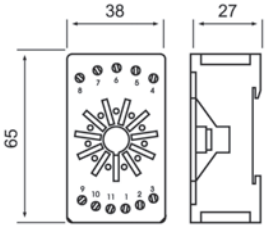
1. Check voltage (230 V in terminal blocks 2-10 / 400 V in terminal blocks 2-11).
2. Disconnect probe leads from the terminal blocks.
3. Switch on power to the level controller (green indicator “1” lights up). Make link between terminal blocks 6 and 7 (nothing should happen). Connect this link to terminal block 5, terminal blocks 5, 6 and 7 are linked (relay activated and red indicator “2” lights up).
4. Join the link to terminal blocks 8 and 9 (thus making a link between terminal blocks 5, 6, 7, 8 and 9). The relay is shutdown and the red indicator “2” lights down.
5. Remove terminal block 8 from the link (relay shutdown). Remove terminal block 9 from the link (relay activated and red indicator lights up).
6. Remove terminal block 5 from the link (relay remains activated). Remove terminal block 6 from the link (relay shutdown).

Size

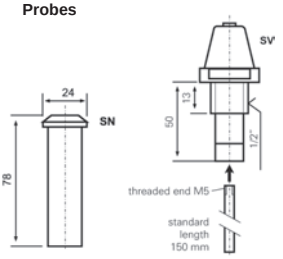
Module



Base (Raíl DIN)



Probes



Technical features

LED status indication	VOLTAGE and ACTIVATED RELAY
Supply Voltage	230 or 400 V AC - 50/ 60 Hz (ask for another voltage)
Power consumption	2 VA
Permissible voltage fluctuations	+10% -20%
Temperature range	-10º +60º C
Probe sensitivity	Adjustable 3 to 60 Kohm.
Probe / sensor voltage	12V AC
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 grs (550 grs. incl. base y 4 probes).