toscano

TH5

Water Level Controller
Long distance

Main Features

Level sensing relay based on a conductive probes system. Well or tank control.

Especially for long distance (up to 6 km.) control by wires.

Plugs into 11-pin base. High and low level probes.



Probes 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.

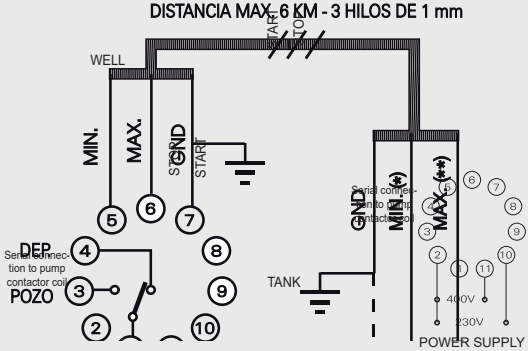
Well: install the low level probe (min.) above the suction valve and the high level probe (max.) at the required height to take optimal advantage of water flow in the well, which may vary according to the time of year.

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 correcto 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



SPECIAL LOW VOLTAGE:

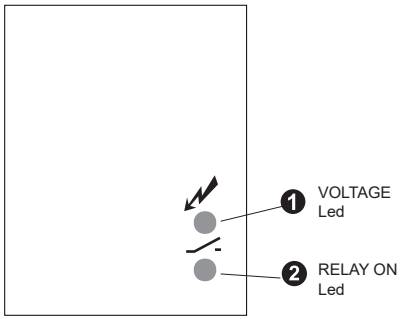
POWER SUPPLY 24 Vac / Vdc : Terminal blocks 2 and 11

POWER SUPPLY 12 Vac / Vdc : Terminal blocks 2 and 10 (In VDC no matter polarity)

Warning

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

Frontal description



Troubleshooting

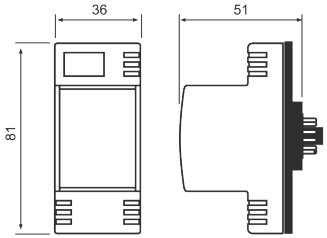
In order to verify that the level controller is operating correctly:

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 5 and 7 (nothing should happen). Connect this link to terminal block 6: terminal blocks 5, 6 and 7 are linked (relay activated and red indicator “2” lights up). Remove terminal block 6 from the link (relay remains activated).
4. Lastly, remove the bridge betwen terminal blocks 5 and 7 (relay shutdown and red indicator lights down.)

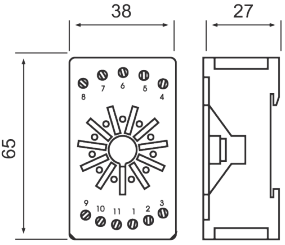
If the level controller operates as required during these tests, check that the well or tank are properly grounded when the probes are connected. If it is not, because the well or tank are made of an insulating material, install a third probe on terminal block 7 at the bottom of the well or tank.

Size

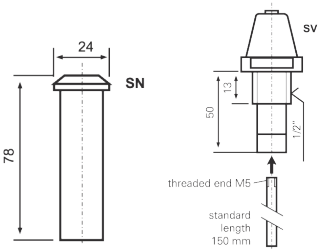
Module



Base (Rail DIN)



Probes



Technical features

LED status indication	VOLTAGE and ACTIVATED RELAY
Supply Voltage	230 or 400 V AC - 50/ 60 Hz (ask for another voltage)
Power consumption	2 VA
Permissible voltage fluctuations	+10% -20%
Temperature range	-10º +60º C
Probe sensitivity	30 Kohm
Probe / sensor voltage	12V AC 50 Hz
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).