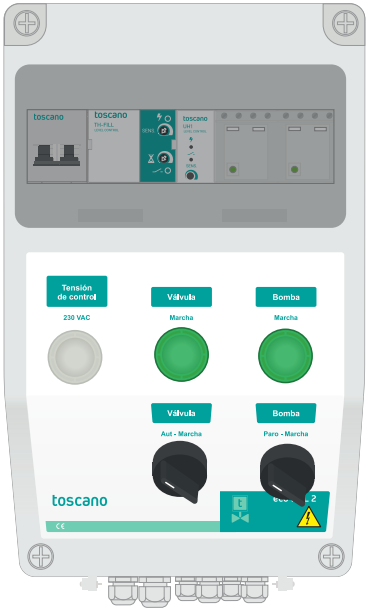
vigilec | ECO

toscano

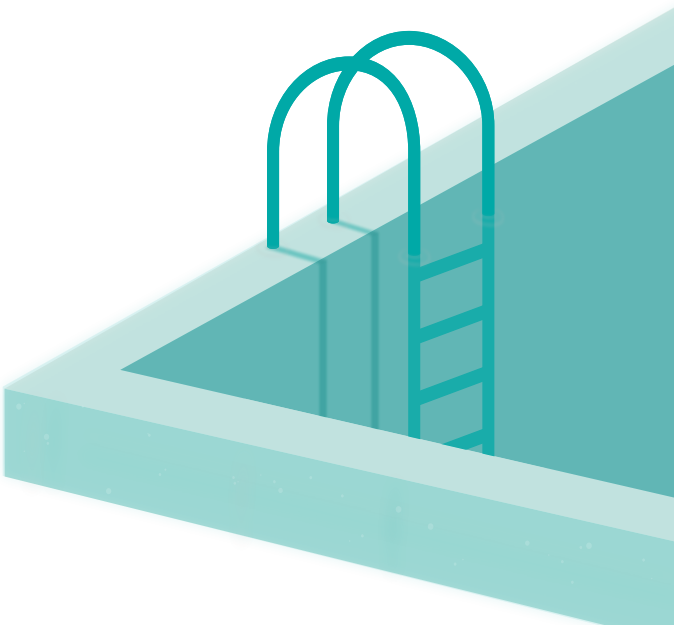
ECO-FILL-2

Ed. 4.25



ENGLISH (EN) User manual

Level control panel for buffer tank of overflow pools



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ENGLISH (EN)

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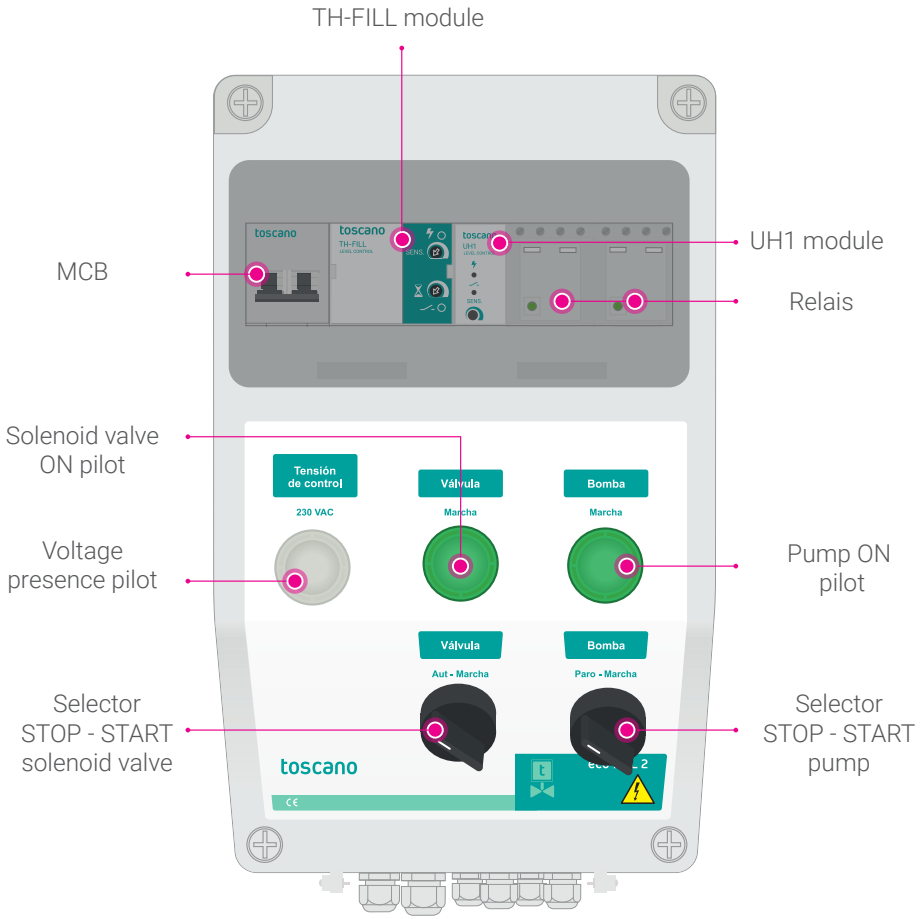
SAFETY WARNING

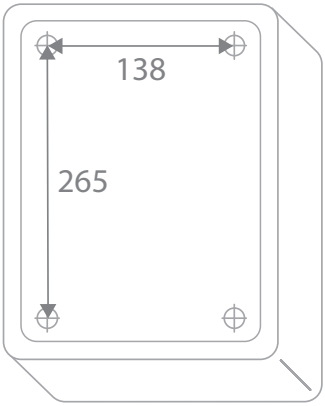
We recommend to follow all procedure and safety instructions approved in your area operating with equipment connected to the electrical power supply. Important safety information is detailed hereafter. For safe installation and operation of this equipment, be sure to read and understand all cautions and warnings. ⚠ **WARNING:** Before installing, operating, servicing, or testing this equipment, read and understand the contents of this manual. Improper operation, handling, or maintenance could result in death, serious personal injury, and equipment damage. ⚠ **WARNING:** This equipment is not designed to safeguard human lives. Follow all locally approved safety procedures and practices installing or operating this equipment. Failure doing so could result in death, serious personal injury, and equipment damage. ⚠ **WARNING:** Dangerous voltages. Contact with electrical current will cause serious personal injury or death. Follow all locally approved safety procedures when working near high voltage lines and equipment ⚠ **WARNING:** This equipment requires periodic inspection and maintenance to ensure proper operation. If not properly maintained, it may fail to operate properly. Incorrect operation could cause damage to the equipment and possibly result in personal injury. ⚠ **WARNING:** All connections must be made by a qualified person in charge. There is a risk of electric shock if this warning is not heeded. ⚠ **WARNING:** If the equipment is used or modified outside the manufacturer's specifications, Toscano disclaims all liability due to improper use. The interior of the equipment should only be handled by personnel of our technical service.

1. EXTERNAL LAYOUT



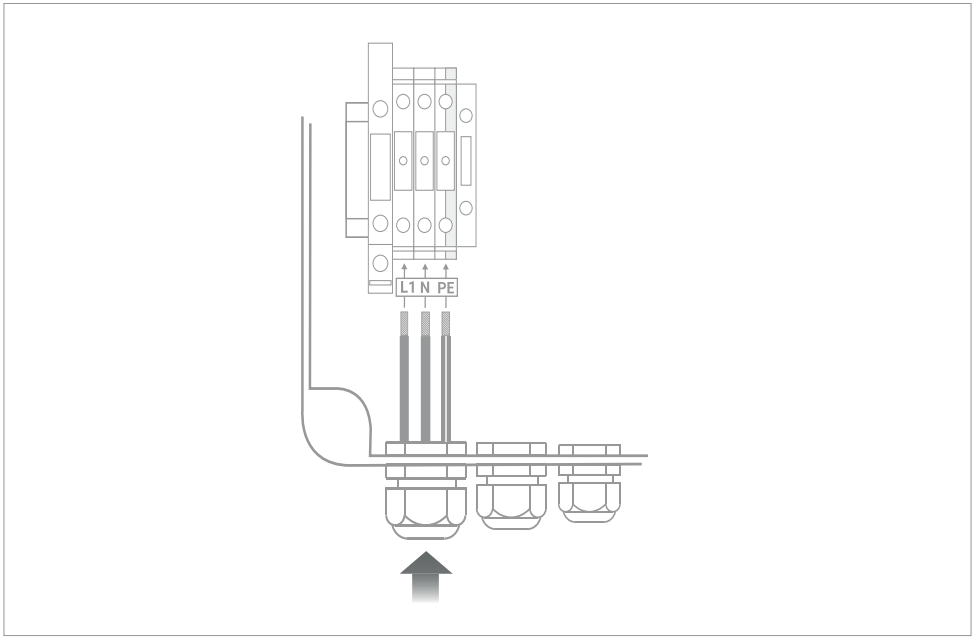
2. SETTING-UP (WALL MOUNTING)

Direct wall mounting

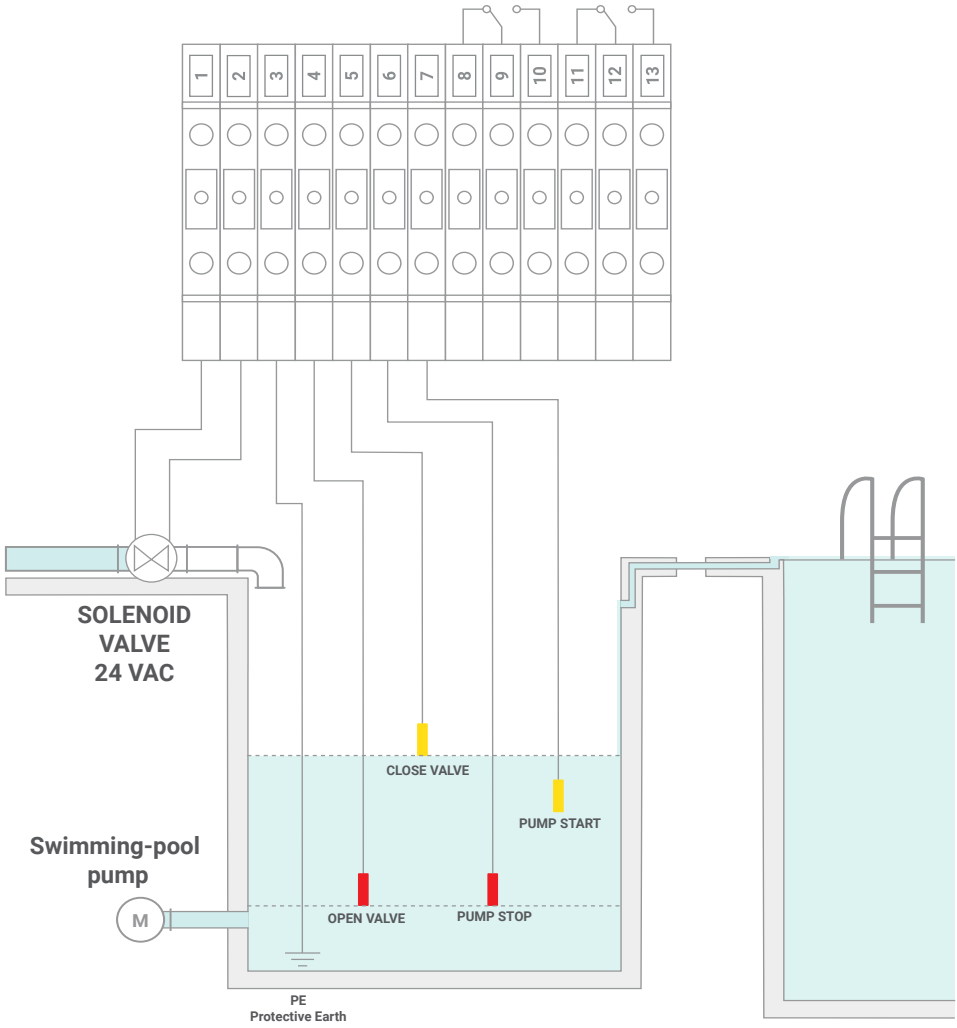


Drill the wall at the indicated dimensions (in mm) and screw the equipment directly to the wall.

3. POWER CONNECTION



4.LEVEL CONTROL INPUTS (TERMINALS 1 TO 7)



Operation

ECO-FILL-2 panel allows to maintain the level in the buffer tank of overflow pools. For this purpose, 4 level probes and a filling control valve are used. An extra probe will be necessary if the buffer tank is made of insulating material.

- 24 VAC Solenoid Valve

  Solenoid valve will be connected to terminals 1 and 2. This will allow the passage of water from the network to fill the buffer tank.

- Protective earth (PE) float (optional)

  If the buffer tank is made of insulating material, a probe must be added at the bottom, connected to terminal 3.

- Valve opening probe

  The probe that controls the opening of the valve should be connected to terminal 4. When the buffer tank level is too low and drops to the level of this probe, the valve will allow water to flow through to refill it.

- Valve closing probe

  The probe that controls the closing of the valve should be connected to terminal 5. Once the buffer tank is sufficiently filled and reaches the level of this probe, the valve will close the water flow.

- Pump stop probe

  The probe that controls the swimming-pool pump stop must be connected to terminal 6. The suction level of the pump must be taken into account so that the pump does not start running without water. When the level reaches this probe, the pump will stop.

- Pump running probe

  The probe that controls the running of the swimming-pool pump should be connected to terminal 7. When the level reaches this probe, the pump will start.

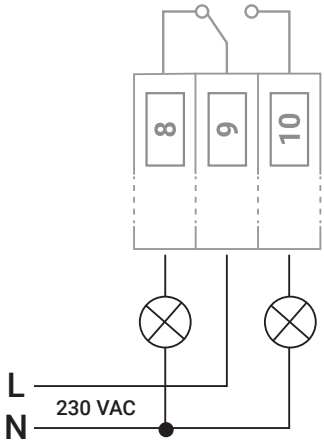
5. LEVEL CONTROL OUTPUTS (TERMINALS 8 TO 13)

Opening / closing the valve - Terminals 8, 9 & 10

When the valve is closed, the contact between terminal 8 (NC) and terminal 9 (C) is closed.

When the valve is open, the contact between terminal 10 (NO) and terminal 9 (C) is closed.

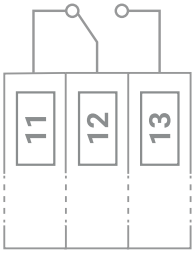
Example: This output can be used to connect a status light.



Pump start / stop - Terminals 11, 12 & 13

When the buffer tank level reaches the “Pump Start” probe, the contact between 12 (C) and 13 (NO) is closed.

When the buffer tank level drops to the “Pump Stop” probe, the contact between 12 (C) and 11 (NC) is closed.



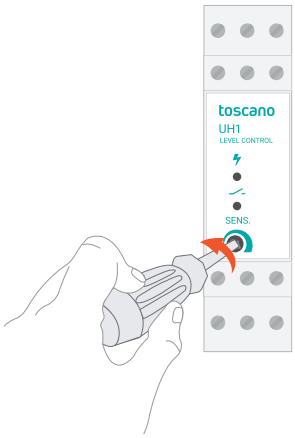
6. SENSITIVITY ADJUSTMENT

The equipment leaves the factory with the sensitivity adjusted to the maximum, to work normally. There are cases in which due to particular circumstances of the installation (high humidity, considerable distance between probes and equipment, ground capacity of the probe cable) it will be necessary to reduce the sensitivity to avoid activation due to the aforementioned causes.

TH-FILL

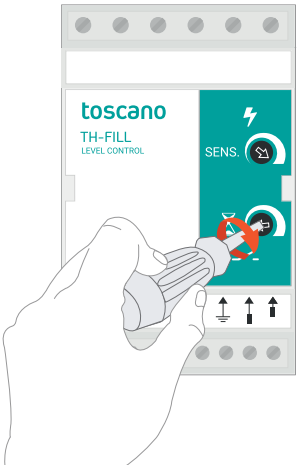


UH1



Using a screwdriver, turn the sensitivity selector of TH-FILL (valve start/stop probes) and UH1 (pump start/stop probes) to the desired value.

7. VALVE CLOSING/OPENING DELAY SETTING



To avoid the wave effect, it is possible to set a valve opening and closing delay time between 5 and 40 seconds.

Using a screwdriver, turn the TH-FILL delay adjustment selector to the desired value.

8. TECHNICAL CHARACTERISTICS

Power suply	230 VAC
Frequency	50/60 Hz
Voltage on valve start and stop probes (TH-FILL)	24 VAC 50 Hz
Voltage on pump start and stop probes (UH1)	12 VAC 50 Hz
Probe current	1.2 mA max. in short circuit
Sensitivity of valve start and stop probes (TH-FILL)	Adjustable from 60 to 200 kΩ
Sensitivity of pump start and stop probes (UH1)	Adjustable from 3 to 60 kΩ
Solenoid valve output	24 VAC / 16 VA max.
Valve opening/closing delay time	Adjustable from 5 to 40 seconds
Signaling	Presence of voltage, valve running and pump running (front panel). Presence of voltage and valve status (TH-FILL). Presence of voltage and relay status (UH1).
Control terminals blocks	$4mm^2$ (power) / $4mm^2$ (valve) / $2,5mm^2$ (control)
Output contact	Valve: Potential free, 5 A / 250 VAC max. Pump: 2 A - 250 VAC max.
Cable gland (Power/Control)	2xM20/4xM16
Working temperature	-10 +55ºC
Protection degree	IP65
Size (Height x Width x Depth)	330 x 215 x 15 mm
Net weight	2.6 kg (without probes) 3 kg (including probes)

NOTES

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