V1XB SimpleX DRAIN

Ed. 4.26



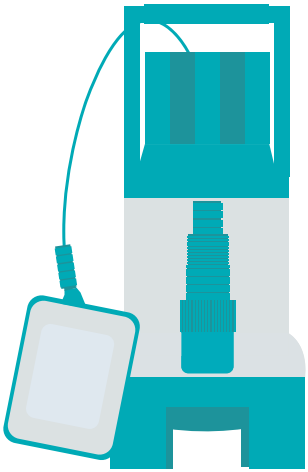
ENGLISH (EN) User manual

Control and protection panel for single-phase pump.
High-level control with float switch at low voltage.
Pumps from 1/2 HP (0.37 kW) to 2 HP (1.5 kW).

General description

Combined with 1 alarm float switch, the **SimpleX Drain** panel monitors your lifting station and reports its status through simple LED indicators.

The **SimpleX Drain** panel ensures the monitoring of a lifting station equipped with a single-phase pump with an integrated float switch, with a maximum current of 12 Amps (2 HP / 1.5 kW).



ENGLISH (EN)

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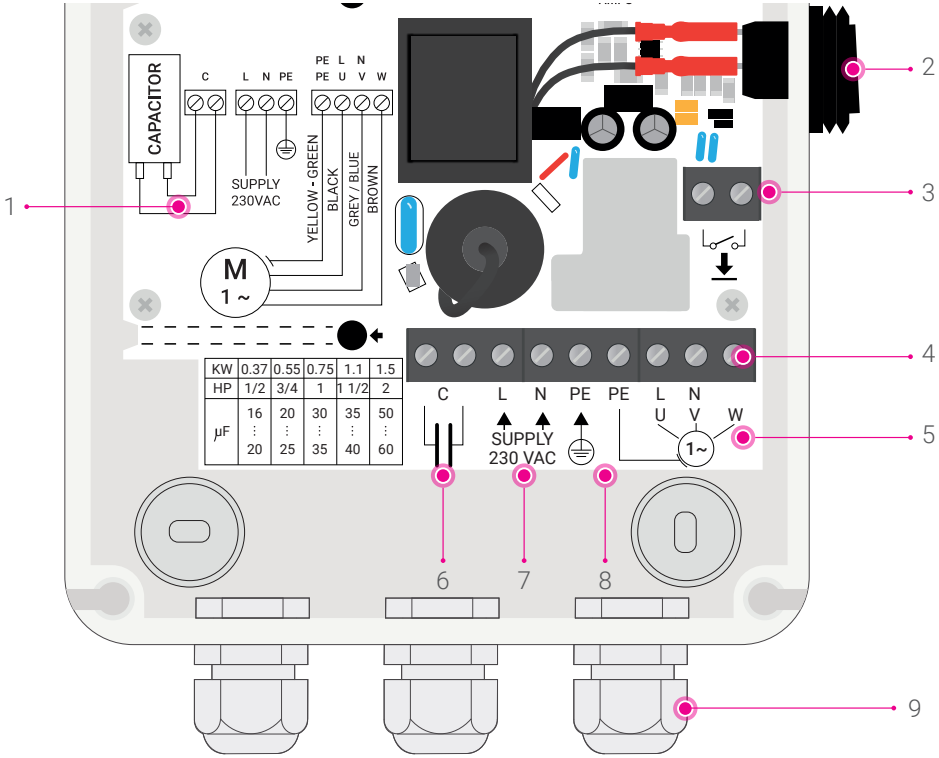
Installation and commissioning of the equipment must be carried out by a qualified/authorized electrician.

SAFETY WARNINGS

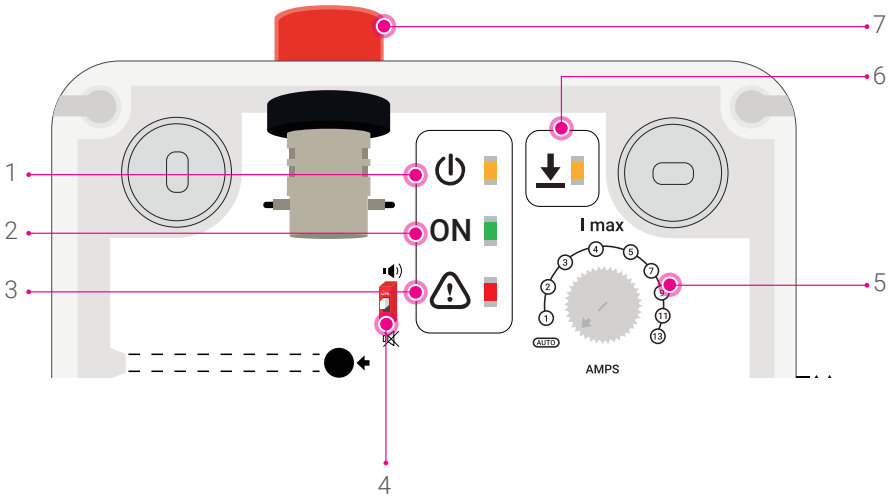
ATTENTION! We recommend following all locally approved safety procedures and instructions when working with equipment connected to the electrical supply. Important safety information is detailed below. For the safe installation and operation of this equipment, be sure to read and understand all precautions and warnings. ⚠ **WARNING:** Before installing, operating, servicing, or testing this equipment, read and understand the contents of this manual. Incorrect operation, handling, or maintenance could cause death, serious personal injury, and damage to the equipment. ⚠ **WARNING:** This equipment is not designed to safeguard human life. Follow all locally approved safety procedures and practices when installing or operating this equipment. Failure to do so could cause death, serious personal injury, and damage to the equipment. ⚠ **WARNING:** Hazardous 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 correctly. Incorrect operation could damage the equipment and possibly cause personal injury. ⚠ **WARNING:** All connections must be made by a qualified person. There is a risk of electric shock if this precaution is not observed. ⚠ **WARNING:** Additional pump motor protection may be added when required by the installation. ⚠ **WARNING:** If the equipment is used or modified outside the manufacturer's specifications, Toscano disclaims all liability for improper use. The interior of the equipment must only be handled by our technical service personnel.

Control and power elements



1. Space for starting capacitor
2. ON/OFF and reset switch.
3. High-level float switch input.
4. Terminal block
5. Motor output
6. Capacitor connections
7. Power supply input
8. Earth terminals
9. Input/output cable glands

Adjustment and signaling elements

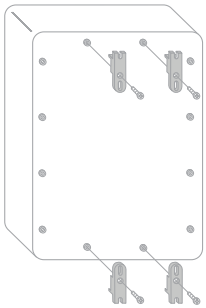


1. Power LED
2. Pump running LED
3. Pump alarm LED
4. Mute switch
5. Overload adjustment (Imax dial)
6. High-level LED
7. Buzzer indicator light

2. INSTALLATION (WALL MOUNTING)

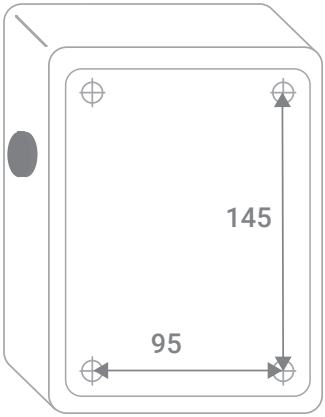
Compliance with the safety regulations in force in each country is mandatory. The side switch is only used to turn the equipment off, on, or reset it. Installation, repair, and maintenance work must always be carried out with the equipment disconnected from the mains power supply.

Clip mounting



1. Position the mounting clips at some of the anchor points provided for this purpose. (screws included)
2. Drill the wall according to where you have positioned the mounting clips.
3. Insert the screws to anchor the equipment using the mounting clips. (screws and wall anchors not included).

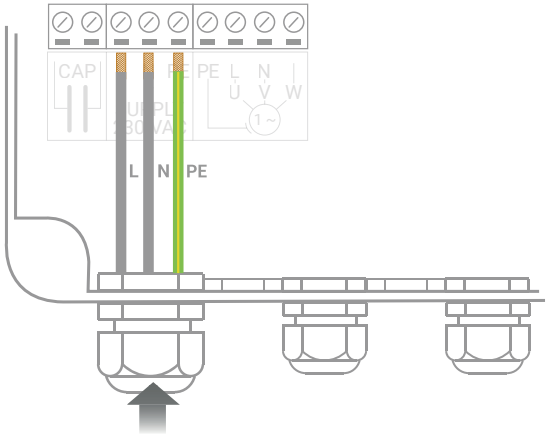
Direct mounting



Drill the wall to the dimensions indicated (in mm) and screw the equipment directly onto it. During operation, the cover must be in place and the cable glands tightened.

3. MAINS WIRING

- Power supply wiring (supply)

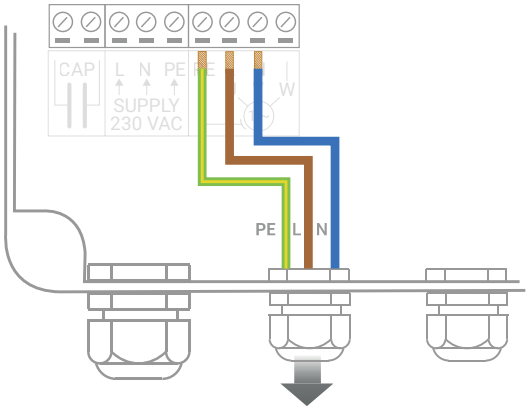


The supply line must come from a thermal-magnetic protection device that is correctly sized.

4. PUMP WIRING

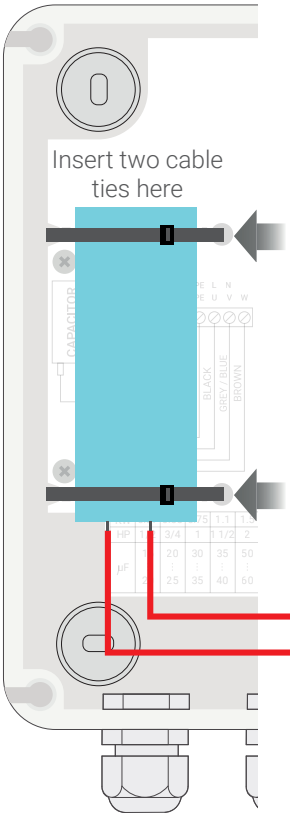
- With capacitor integrated in the pump

Supports a pump with a power rating between 1/2 HP (0.37 kW) and 2 HP (1.5 kW).



Do not forget to connect the protective earth (PE) wire.

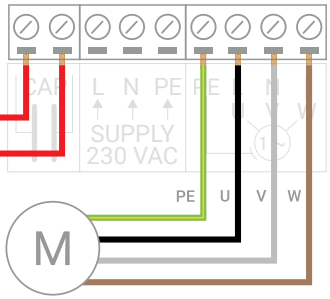
- With external capacitor in the panel



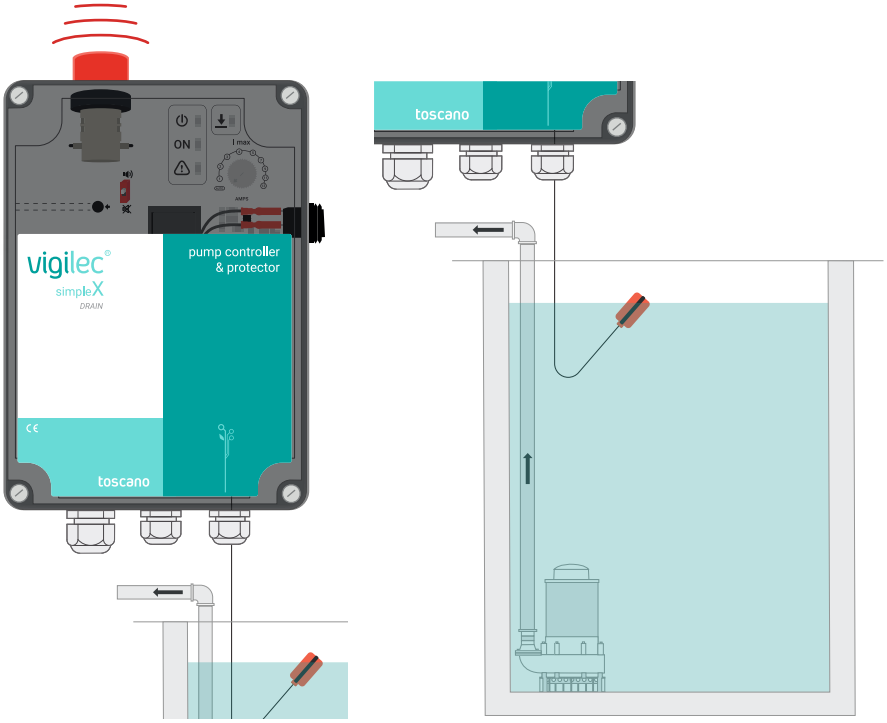
Indicative capacitance table

KW	0.37	0.55	0.75	1.1	1.5
HP	1/2	3/4	1	1 1/2	2
µF	16 ⋮ 20	20 ⋮ 25	30 ⋮ 35	35 ⋮ 40	50 ⋮ 60

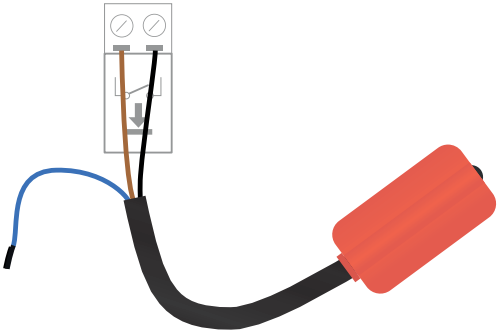
Refer to your pump's documentation to determine the exact capacitance value required



5. CONNECTING A FLOAT SWITCH FOR HIGH-LEVEL WARNING



When the float rises, the contact closes between BLACK (common) and BROWN (N.O.). The BLUE wire (N.C.) is not used; it is intended for other applications (filling) and must therefore be left insulated. When there is a high level, the LED lights up. If the equipment detects a high level, the buzzer indicator light remains active. The equipment has a switch to mute the buzzer indicator light.



6. USE OVERLOAD ADJUSTMENT (IMAX)

Essential for correct operation.

Automatic calibration (Set to “auto”)

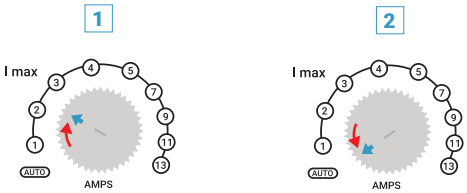
The pump must run for 1 minute. The equipment calibrates the overload at +15% above the measured current.

To perform Auto-calibration

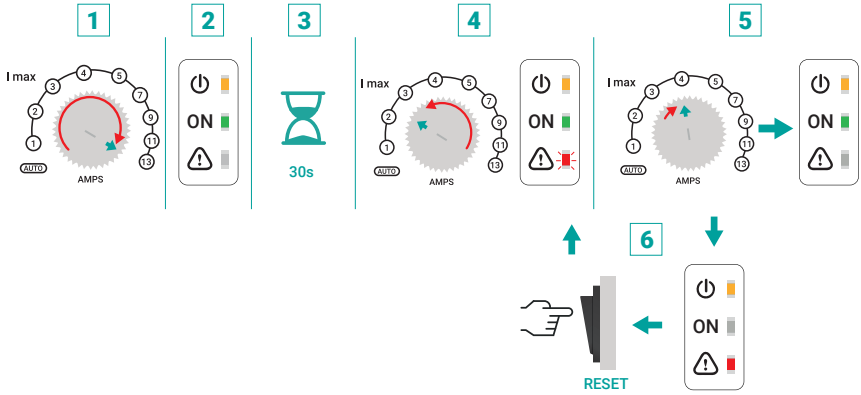
1. When the float built into the pump rises, the pump starts and the **ON** LED flashes.
   ON → 
2. When the LED stops flashing (1 min), calibration is complete.

To repeat Auto-calibration

1. Increase Imax slightly
2. Lower Imax to Auto



Manual calibration (optional)



1. Set the Imax dial to 13 A.
2. If the float built into the pump rises, the pump starts.
3. Wait at least 30 seconds with the pump running.
4. Slowly turn the Imax dial, decreasing its value, until the red indicator light flashes.
5. Now turn the Imax dial in the opposite direction, increasing the value, until the red indicator light turns off.
6. If the thermal fault trips (red indicator light on steady), set the side switch to “0” for a couple of seconds to reset, then repeat from step 5).

7. EXCESSIVE RUN TIME WARNING

A pumping cycle typically lasts a few minutes at most. If the float built into the pump becomes stuck, the pump may never stop, which can damage it. If pumping continues for more than 5 minutes, the buzzer indicator light will activate every 8 seconds to warn of this issue.



8. TECHNICAL SPECIFICATIONS

Power supply	230 VAC, 50/60 Hz
Maximum current	12 A AC3
Signaling	Power on, pump running, pump fault, and alarm level
Audible alarm activation	Thermal fault, alarm level, and excessive run time
Thermal protection adjustment (Imax)	Automatic (>15%) or manual from 0.5 to 13 A
Delay before thermal disconnection	Fixed at 7 seconds
Voltage applied to the alarm float	12 VDC
Alarm buzzer indicator light	Red, 90 dB
Maximum terminal cross-section	4 mm^2 (Power / Control)
Cable gland configuration	Power supply: 1xM16 / Motor: 1xM16 / Control: 1xM16
Operating temperature	-10 ºC to +55 ºC
Degree of protection	IP50
Dimensions (height x width x depth)	250 x 155 x 80 mm
Net weight	0.65 kg
Software version	V.1.0

NOTES

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