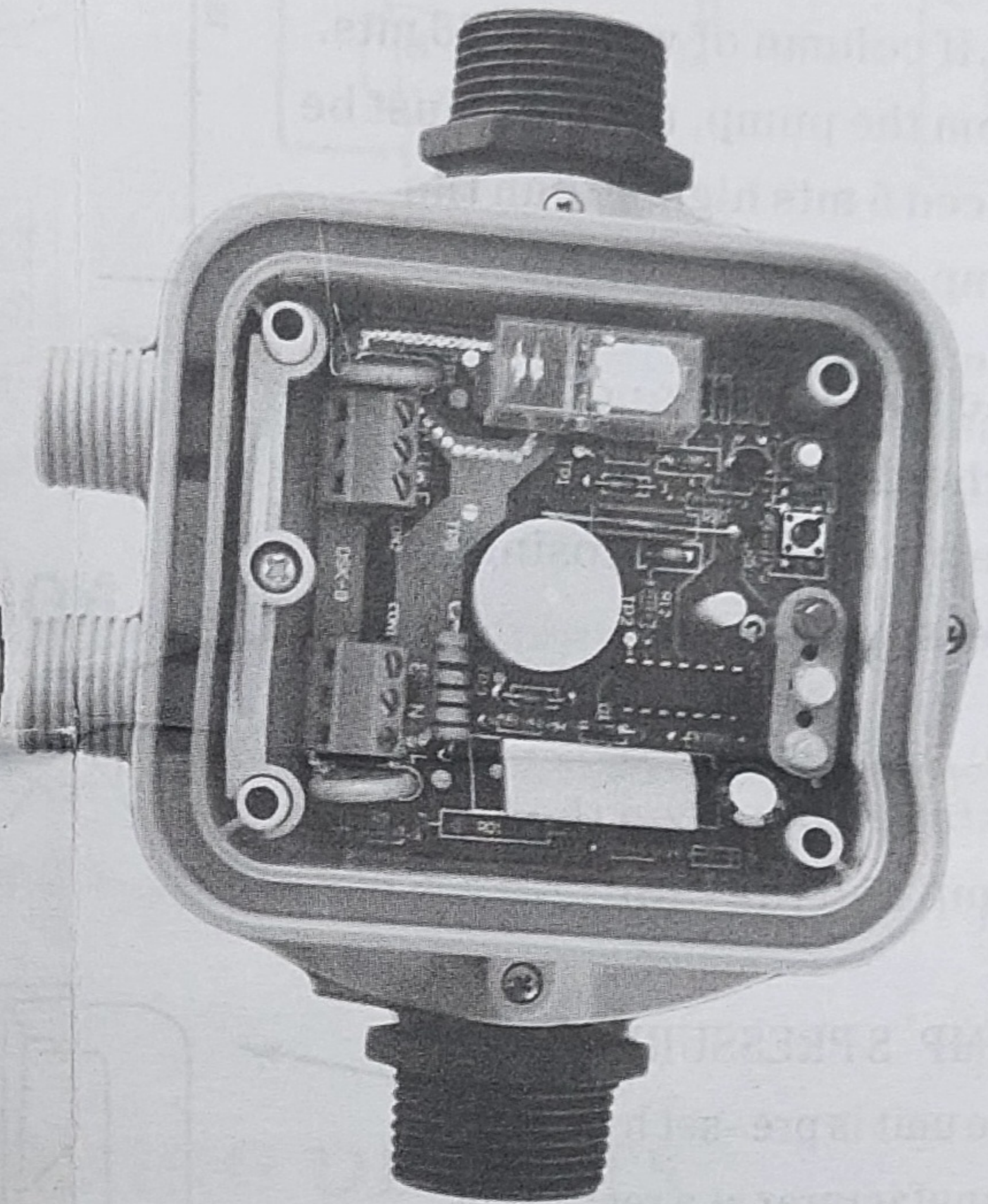
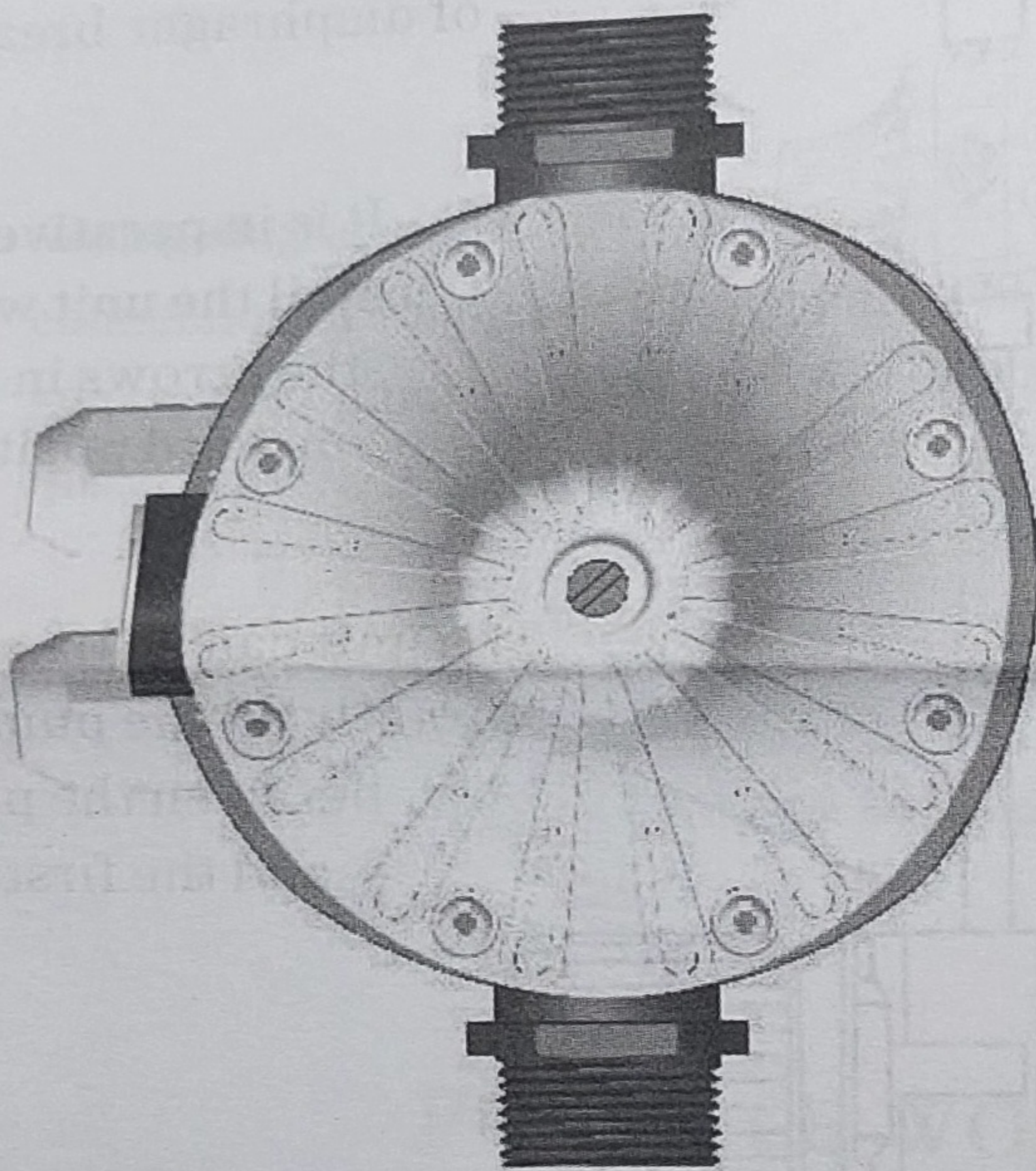


Automatic Control For Water Pump

1.0-2.5bar



SPECIFICATIONS

Input voltage	220-240V	Maximum working pressure	10bar
Frequency	50/60Hz	Max working temperature	60°C
Intensity Max.	10A	Connection	1" male
Protection rating	IP65		

INSTRUCTIONS FOR CORRECT UNIT INSTALLATION

If the column of water between the pump and the highest tap exceeds 15 mts, the unit cannot be installed directly on the pump, but it has to be raised until the column of water between the unit and the highest tap does not exceed 15 mts.

I.E. If column of water is 20 mts. From the pump, the unit must be placed 5 mts higher than the pump.

The unit is equipped with a check valve to prevent the pipeline from losing pressure.

No taps can be installed between the pump and the unit.

PUMP'S PRESSURE

The unit is pre-set by the manufacturer at a restarting pressure of 1.6 bar.

The pressure produced by the pump must be normally 1.0 bar higher than the pre-set pressure.

Read the indicated pressure showed in the pressure gauge when the pump starts and perform on the screw according to the wished side (Pressure adjusting must be performed by professional). As per stands the starting pressure should be 0.2 bar higher than the manometric one, and the pump will have to give at least a pressure 1.0 bar higher than the adjust one, Example:

USING HEIGHT	OPERATING PRESSURE ADJUSTMENT	MINIMUM PUMP PRESSURE
20m	2.2bar	3.2bar
25m	2.7bar	3.7bar

This operation only adjusts the starting pressure, not the working pressure which only depends on the pump feature. It will be easier to proceed with the adjustment if a top of the installation is opened, that will reduce the pressure of the control.

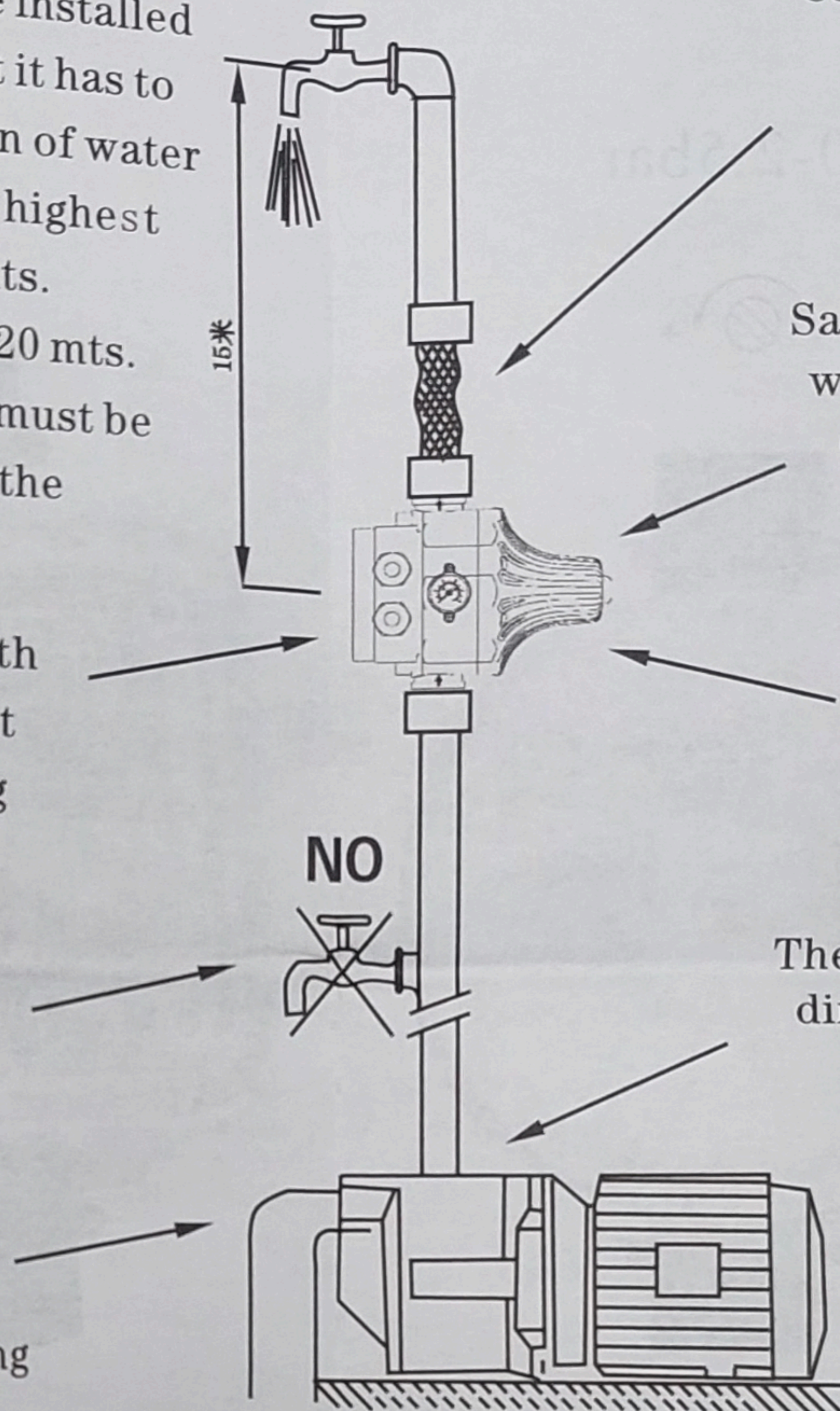
It is advisable to connect the unit outlet to the system by means of a flexible hose.

Safety valve preventing water emission in case of diaphragm breaks

It is imperative to install the unit with the arrows in the upward position.

The unit can be installed directly on the pump, or between the pump and the first tap.

Before starting the unit check suction and ensure that the pump is primed.



UNIT STARTING AND WORKING

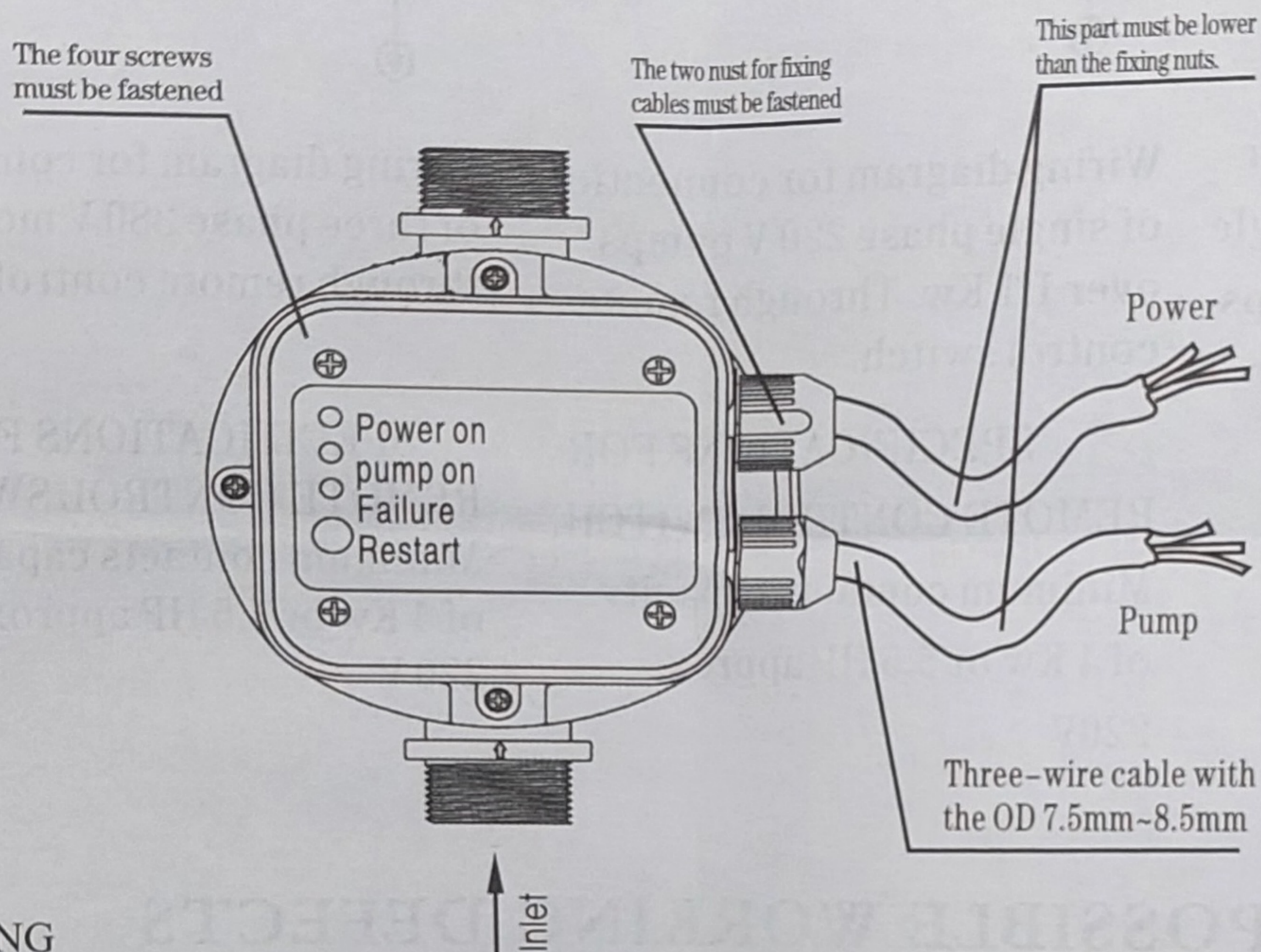
Warning

Never take the electronic board out of the control box.

The wiring diagram inside the terminal block will show you how to make correct connection. Wrong connection will destroy the whole electronic circuit.

Cable used for connection must be a three-wired one with compulsory grounding end. It shall have the outer diameter at 7.5mm min and 8.5mm max. One of the leading end of the cable must be lower than the position of the fixing screws while the cable being connected to the power as shown in the Fig.

The four screws on the panel board and the two nuts for fixing cable must be well fastened to avoid water entering into the control box and damaging the electronic circuit.



STARTING

When the unit is connected to the electrical network, the green led "Power On" lights up and the yellow led "On" (pump in operation) 2 seconds later indicating that the pump has been started. The pump continues to operate for dozens of seconds enabling the system to fill in the pipes and to reach the required pressure. If this lapse is insufficient, the red led "Failure" lights up. In this event, keep the "Restart" button pressed and wait, with a tap opened, until the red led is off.

Once released the button and closed the tap, the unit stops the pump at its maximum pressure.

FUNCTIONING

The starting operation archived, the unit is programmed to perform all the pump control operations automatically.

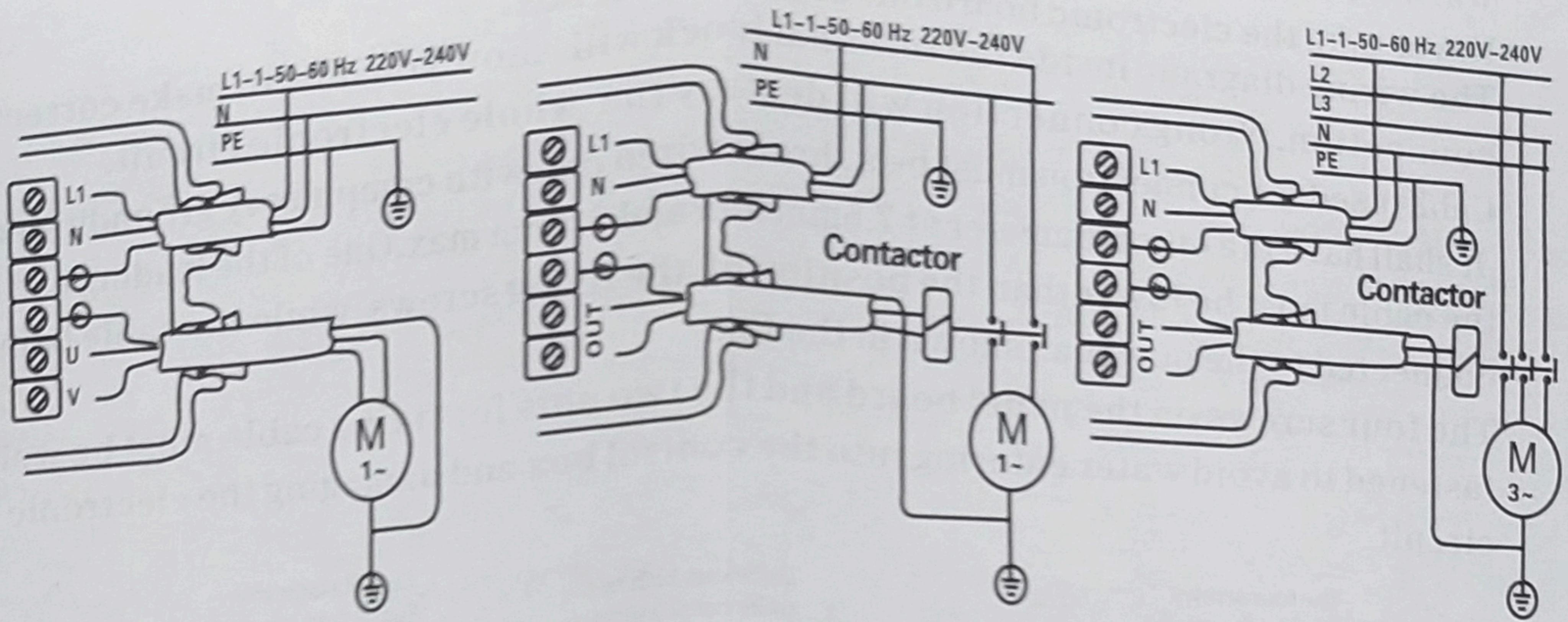
When breakdowns occur, such as water failure, obstruction of the suction pipe etc., the unit can prevent damages caused by its working in the absence of water.

When there is no water supply in the system, the water pump will stop automatically after 20s running and the red led will glint. The water pump runs automatically for 40s after stopping for 10s and checks the water supply; If there is no water supply, the water pump runs automatically for 40s after stopping for 10s again and checks the water supply; If there is still no water supply, the water pump will stop automatically and turn to the dry-running protection status.

During stopping the pump, the water pump will start automatically if the flow through the controller is more than the starting flow.

Rectification of the failures that have caused the blockage, allows the system to be restarted by pressing the "Restart" button.

WIRING DIAGRAMS FOR CONNECTING THE UNIT TO DIFFERENT KINDS OF PUMP'S MOTORS



Wiring diagram for connection of single-phase 220V pumps up to 1.1 Kw.

Wiring diagram for connection of single phase 220 V pumps over 1.1 Kw. Through remote control switch.

Wiring diagram for connection of three phase 380 V motor pumps through remote control switch.

SPECIFICATIONS FOR REMOTE CONTROL SWITCH
 Minimum contacts capacity of 4 Kw or 5.5 HP approx.
 220V

SPECIFICATIONS FOR REMOTE CONTROL SWITCH
 Minimum contacts capacity of 4 Kw or 5.5 HP approx.
 220 V

POSSIBLE WORKING DEFECTS

TYPE OF DEFECT	CAUSES DEPENDING ON THE UNIT	CAUSES NOT DEPENDING ON THE UNIT
-The pump does not start	-The electronic card is broken	-Voltage failure -Pump jammed -Electric cables inverted(Line/motor)
-The pump does not stop	-The electronic card is broken -The flow detector is blocked in the upper position -The reset button is blocked -The pump does not provide sufficient pressure	-Presence of leaks which are higher than the minimum flow 0.6 l/min
-Intermittent pump working	-The electronic card is broken -The pump does not provide sufficient pressure	-Presence of leaks which are lower than the minimum flow 0.6l/min
-The pump is jammed	-The electronic card is broken -The pump provides a pressure which is lower than the restarting pressure	-Water failure -Suction problems