FLOW CONTROLLER

TECHNICAL PARAMETERS:

Power:	1.1 KW or 2.2KW
Rated Current:	16A
Input Voltage:	220/240V
Frequency:	50Hz
Max Work Pressure:	10 bar
IP Rating:	IP65
Start Pressure:	0.3-7.9 bar adjustable
Shutdown Pressure:	0.5-9.9 bar
Max Ambient Temp.:	60°C
Thread:	G1" male thread

PRODUCT OVERVIEW:

The Automatic Pump Pressure Controller utilizes advanced digital sensor technology to regulate water pumps automatically. It employs a built-in pressure sensor to relay real-time pressure changes in the pipeline, initiating or stopping the water pump accordingly. This controller serves as a comprehensive replacement for traditional water supply systems, eliminating the need for components like pressure switches, four-way valves, and water shortage protectors. Featuring robust insulation and complete isolation of high-voltage components from the pipeline, this controller ensures enhanced safety and reliability. Its integrated design facilitates swift and cost-effective installation.
Notable features include:

1. Adoption of innovative pressure sensing technology over traditional switch signal methods.
2. LCD screen display for clear monitoring of pipeline pressure in real-time.
3. Fully automatic control technology eliminates the need for manual starting pressure adjustments, accommodating pumps with a maximum pressure rating of 10 Bar.
4. Utilization of a percentage starting algorithm widens the starting pressure adjustment range, making the water pump suitable for diverse applications.
5. Incorporation of water shortage protection and self-starting functions.

INSTALLATION GUIDELINES:

1. Thoroughly read and understand this manual before installation.
2. Installation must be performed by qualified professionals, ensuring proper grounding connection.
3. Before powering on, verify correct wiring between the power input and water pump.
4. This controller is suitable only for clean water sources; avoid usage in water containing sand or ferrite.
5. For well water or non-pressurized water inlet pipelines, install a check valve at the pump inlet.
6. Mount the controller vertically either directly on the pump or between the first pipeline faucet and pump outlet. Avoid installing a faucet between the controller and pump.
7. Ensure vertical installation orientation and align water flow direction with the arrow on the controller.
8. Refer to Figures 1 and 2 for specific installation and wiring instructions.

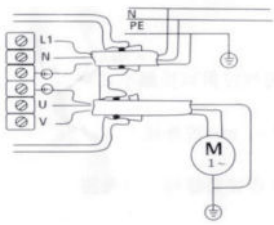


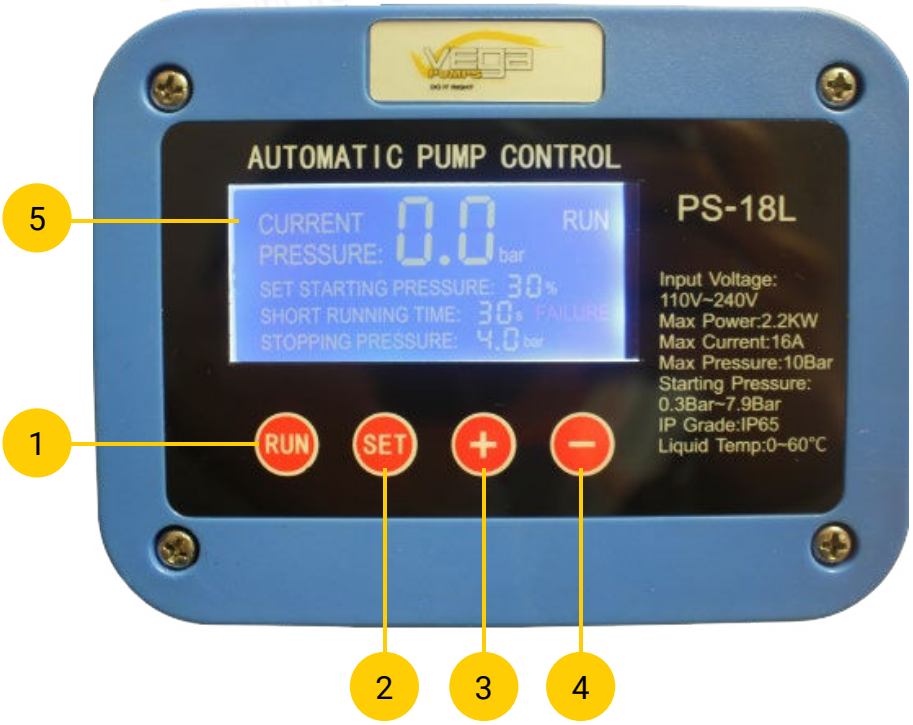
Fig. 1



Fig. 2

FUNCTION DESCRIPTION:

No.	Name	Function Description
1	"RUN" Key	Manually start the water pump in stop state; short press for quick start, long press for extended start.
2	"SET" Key	1. Set stop pressure. 2. Set start pressure. 3. Set water shortage self-starting time.
3	" + " Key	Increase parameters
4	" – " Key	Decrease parameters
5	Display Area	1. "000" Indicates real-time pressure. 2. "060" Indicates a starting pressure as a percentage of the shut off pressure. 3. "030" indicates water shortage restart time (e.g., 30 seconds).



OPERATION INSTRUCTIONS:

1. The controller automatically stops according to the pump's maximum pressure during normal operation, requiring no stop pressure setting.
2. Users can adjust settings for different applications:
   - Set Shut off pressure: Press "SET" once and adjust with "+" or "–" keys range 0.5 - 9.9 bar.
   - Set starting pressure: Short press "SET" twice and adjust with "+" or "–" keys within the range of 30-80%. Factory default is 60%.
   - Set water shortage self-start time: Short press "SET" three times and adjust within 0-60 seconds using "+" or "–" keys. Factory default is 30 seconds.
   - Water shortage is indicated by flashing light, with pump cycling detection intervals.
3. Press "RUN" to manually start the pump.
4. If frequent start-stop cycles exceed 15 times consecutively (each not less than 30 seconds), "LEP" is displayed to prompt pipeline leakage check, without affecting normal use.
5. Normal water usage restores the displayed pressure values.

POSSIBLE OPERATIONAL FAILURE:

Fault Problem	Reasons not related to the controller	Reasons related to the controller
Pump does not start	1. The voltage is too low.	1. The key is stuck.
	2. Pump malfunctions.	2. The controller is damaged.
	3. Wire connection error.	
Pump does not stop	1. Severe pipeline leaks.	1. The controller is damaged.
		2. The flow check valve is stuck.
Intermittent Pump Operation	1. Minor leak in pipeline.	1. The controller is damaged.
Water shortage light flashing	1. The pump is damaged.	1. The controller is damaged.
	2. Water shortage.	
	3. Initial pump water priming issue.	
	4. The inlet of the water pump is leaking.	
Display Protection Code "OTP"	1. Pipeline pressure exceeds 9.9 bar for 5 seconds.	1. The controller is damaged.
		2. The pressure sensor is damaged.