

# PresSystem - Advanced Electronic Pressure Controller

Fixed Speed Pressure Control With Adjustable Pressure and CosPhi Protection

- **No Valves or Flow Restriction**
- **Simple In-Line Mounting**
- **User Programmable**
- **Start/Stop Pressure Control**
- **Fixed Speed, Adjustable Pressure**
- **Dual Voltage Capability**
- **CosPhi Dry Run Protection**



## How Does It Work?

*Mac3 PresSystem CosPhi* is a single phase fixed speed variable pressure controller with CosPhi dry-run protection.

Variable pressure is achieved by allowing the user to set both the start and stop pressure of the pump. This also avoids the need to run the pump to the end of its pressure curve producing substantial efficiency gains and reduced run time.

CosPhi monitoring of the power factor of the pump, rapidly detects dry running without a float switch and is ideal for use with borehole pumps.

*PresSystem CosPhi* controller is intended for use in clean water with no solids between pH 5 – 9.

*PresSystem CosPhi* is designed to operate in either **Automatic** or **Pressure Switch** mode.

In **Automatic** mode, *PresSystem CosPhi* will determine automatic pressure settings for the pump by running for 40 seconds upon first start up.

In **Pressure Switch** mode, the start pressure, stop pressure and dry run pressure can be adjusted as desired to suit the needs of a particular installation.

The innovative use of a recessed pressure sensor eliminates losses associated with more basic pressure controllers.

The ability to operate with 2 pressure points instead of just the restart pressure means a pump can be run below the peak of its efficiency curve, and with a suitable sized pressure vessel will achieve efficiencies much nearer to that of an inverter than of a typical fixed speed system. Pump motor and bearing life are improved, reducing maintenance intervals and cost of ownership, and at much lower initial cost than any variable speed solution.

*PresSystem* requires a pressure vessel and a pump capable of at least 1 bar pressure (at least 1.5bar recommended). In addition a non-return valve must be fitted.



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<b>Technical Specifications</b>	
<b>Physical</b>	
Width, Length, Height	170mm, 230mm, 82mm
Weight	0.6 Kg
Material - Body	Polypropylene
Material - Pipe	Stainless 304
Mounting	In-Line, Vertical or Horizontal
Inlet	1" BSPT Male
Outlet Fitting	1" BSPT Male
Operational Pressure	1.5 - 8 Bar
Max System Pressure	20 Bar
Maximum Flow	120 L/min
<b>Electrical</b>	
Power Supply	230 Vac / 117 Vac
Pump Power Supply	230 Vac / 117 Vac
Pump Current	8 Amp
Maximum Pump Power	1.5 kw (2 h.p) at 230Vac 0.75 kw (1 h.p) at 117Vac
Display	LED Multi-Segment Display
Keypad	Membrane
Pressure Control	Variable
Pressure adjustment	Digital via control panel
Fault detection	Yes
Pump Protection	Dry Running: CosPhi , Pressure Control
Pressure Sensing	Integrated Pressure Sensor (Replaceable Unit)
<b>Level Control</b>	
Level Sensing	Float Switch
<b>Environmental Limits</b>	
Liquid Conditions	Clean Water, No Solids, pH 5 - 9
Water Temperature	1 - 40°C
Operating Temperature	5 - 50°C
Ingress Protection Rating	IP50

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