

## 1 Features & Benefits

- Simple setup & installation
- Includes 2m long sensor
- Soft start function (gradual switch-on)
- Built in encapsulated sensor
- Two temperature ranges
- Solid state reliability
- Maintenance free
- IP65 Ingress protection
- Current capacity 25A Max.
- Output & load fault detection
- Power & output LED indicators
- BMS alarm


**RoHS Compliant**


## 2 Product Overview

The **ENVIROSTAT MP6i** is an

electronic thermostat designed to give energy-efficient frost protection to pipe work where thermal insulation alone cannot protect pipes from freezing or being damaged by ice. The unit controls heater tape or Infra-Red (IR) quartz lamps.

**MP6i - Frost Protection 6kW** - various alarm indication temperature control functions and additional alarm features.

## 3 Product Setup

Connect the mains supply and load to the controller using the appropriate round section cable. Position the sensor to measure the air temperature where required or use cable ties or metal strap (Jubilee- clip type) to fix the sensor to a pipe etc.

## 4 Operation

Set the Set Point Temperature using the main knob.

When the ambient temperature drops below the set point temperature, the load output soft-starts for 1 second before the main output relay energises, the output LED will be lit.

When the ambient temperature is equal to or greater than the set point temperature, the load output switches off and the status LED will be off.

### 4.1 ALARMS & RELAY

The unit can detect an open-circuit or short-circuit temperature sensor. In addition to this, the unit tests the output immediately at power up and every four hours thereafter. The output will switch off momentarily during a test. Normal operation will resume once the test is complete. The Alarm relay is normally energised when system is 'healthy'.

The unit can detect the following faults:

1. Open-circuit/short-circuit temperature sensor.
2. Open-circuit load.
3. Short-circuit semiconductor device or relay.
4. Open-circuit semiconductor device or relay.

In all above cases, the alarm LED will flash.

For the temperature sensor alarm the rate is approximately one tenth of a second and for the output/load alarm the rate is approximately half a second.





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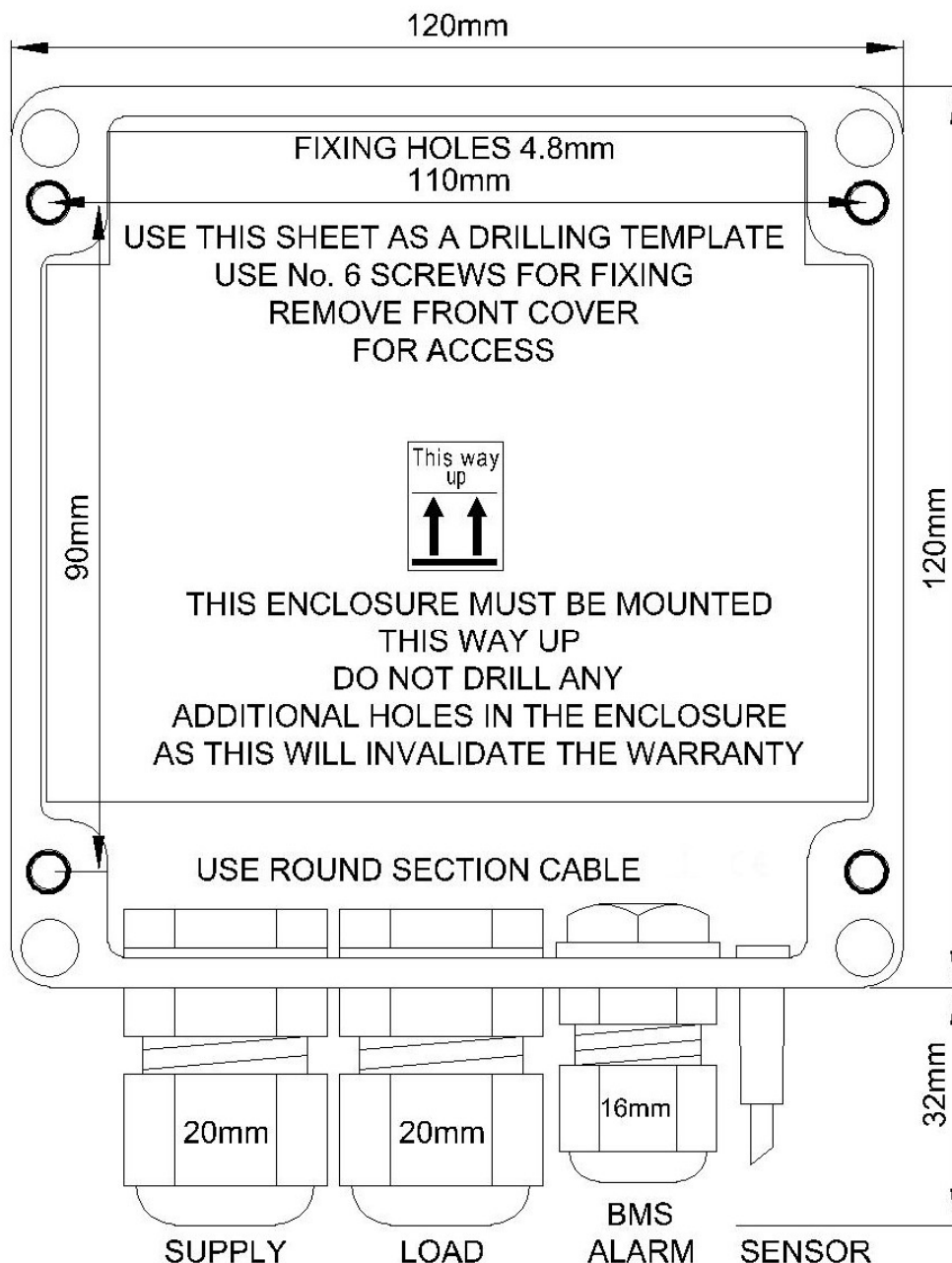
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## 5 Installation Mounting

This is a fixing-hole template which may be used for securing the enclosure to the wall.





NOTE: If mounted in the vertical plane they MUST be as shown to ensure IP rating.



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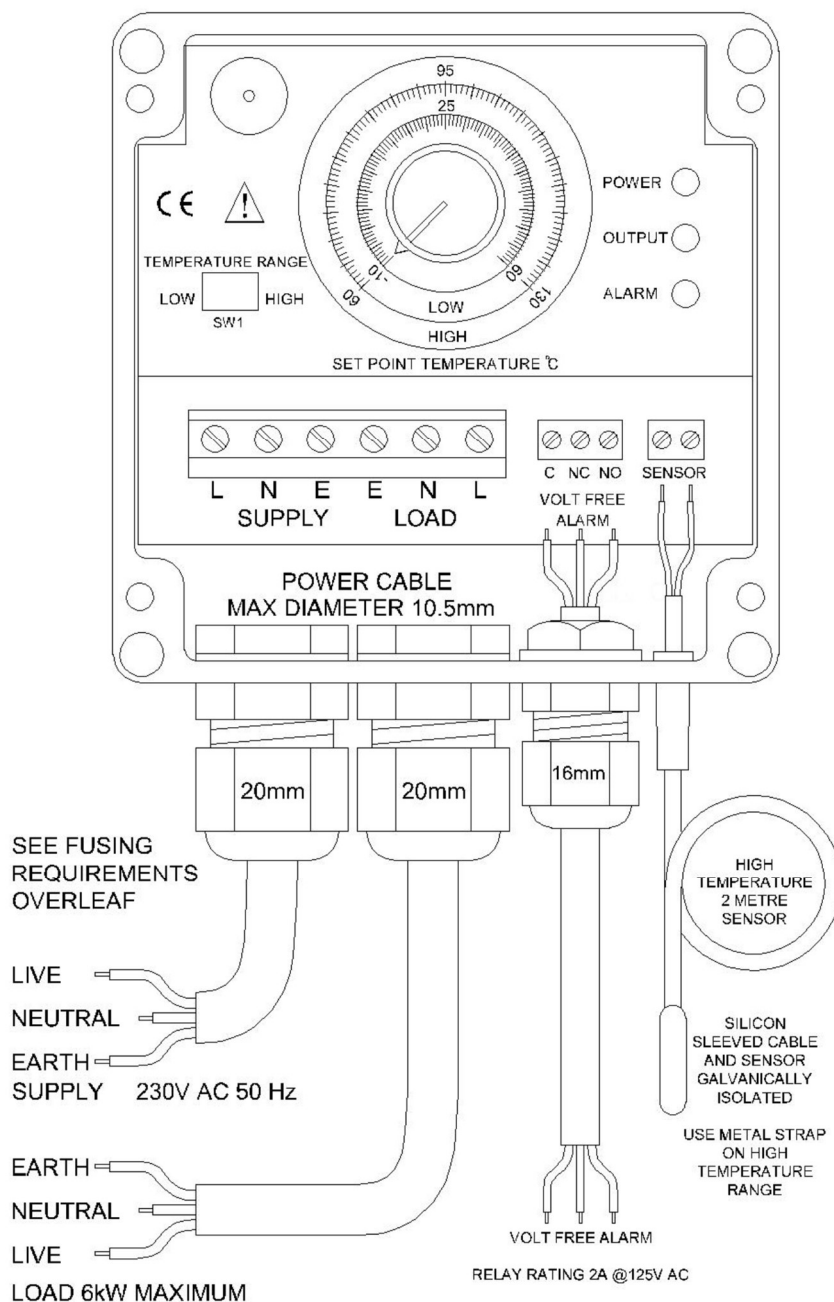
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## 6 Installation Wiring

Diagram shows the wiring connections and cable entry – FP6i shown.





NOTE: the glands MUST be tightened to ensure the IP rating. The 'set point' control dial is also shown.



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## 7 Specifications

(all models unless otherwise stated)

Supply voltage	230V ac +/- 10%
Supply frequency	50Hz
Power switching capacity	6kW max.
Load current	25A max.
Temperature range	-10-60°C and 60-130°C
Temperature accuracy	1°C
Current consumption	16mA
Soft start duration	1 second
Output and load fault detection	Only on FP6i model (see ALARMS section for details)
Power and status LED indicators	(see ALARMS section for details)
Supply terminal connections	0.2 to 6mm <sup>2</sup> rising clamp
Gland cable entry	10.5 & 8mm Ø (Note: cable MUST be round to ensure IP rating)
Ambient operating temperature	-20-40°C
Ingress protection (IP) rating	IP65
Built-in sensor	Encapsulated 10kΩ NTC thermistor probe, 2m long
Sensor monitoring	For open or short circuit - unit shuts down and alarms
Sensor terminal connections	0.1 to 1.5mm <sup>2</sup> Rising clamp
Sensor mounting	To secure to pipe etc., use appropriately sized nylon cable ties or metal strap
Building Management System (BMS)	Alarm relay normally energised when system is 'healthy'
<b>Dimensions</b>	
Enclosure dimensions	120(W) x 120(L) x 65(H)
Fixing holes and centres	4 x 4.8mm Ø holes on fixing centres 110(W) x 90(L)mm

## 8 Fusing

It is recommended to use standard F-type quick-blow fuse or circuit breaker (MCB 'type 'B'- rated at 20A Max.) for 'in line' unit protection. (See the SRA Datasheet for further information).

## 9 CE Marking

This product family carries a "CE marking" and are RoHS compliant. For further information see the recommendations section or contact our sales desk. See the Declaration of Conformity).

## 10 Recommendations

Other documents available on request, which may be appropriate for your application:-

Code	Identity	Description
X10255	SRA	Safety Requirements: Addressing the Low Voltage Directive (LVD) including, Thermal Data/Cooling, Live Parts Warning, Earthing Requirements and Fusing Recommendations
P01.1	COS	UAL Conditions of Sale

**NOTE** It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.E. wiring regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment. For International Standards refer to I.E.C/ directive IEC 950.

## 11 Order Code

State Part Number	Envirostat-MP6i-230V (Sensor length)
Options	110V model available on request Other sensor lengths on request