

# Heat Mat

## Ice & Snow Systems



Ice &amp; Snow

## Heat Mat 47 Amp Ice and Snow Melting Thermostat

Intelligent easy to use dual zone controller



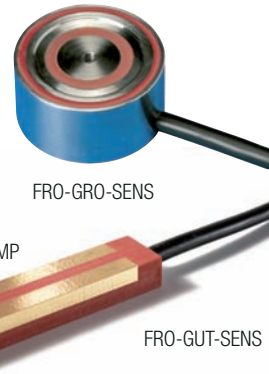
FRO-47A-STAT



FRO-TEM-SENS



FRO-GRO-TEMP



FRO-GRO-SENS

FRO-GUT-SENS

### 47 Amp Ice and Snow Thermostat

An all-in-one solution for ice and snow melting, this thermostat works seamlessly with a variety of temperature and moisture sensors to intelligently control Heat Mat's ice and snow melting cables.

The thermostat has been developed to control systems melting ice and snow in gutters, roofs, driveways, walkways and water pipes. Combining readings from temperature and moisture sensors, the thermostat ensures heating occurs only when it is needed ensuring economical energy use.

- Direct electronic control of up to 10.8kW of heating, approximately 50m<sup>2</sup> of driveway heating
- Dual zone control; roof and driveway heaters can be independently operated by one thermostat
- Moisture sensors to ensure economical energy usage
- Fast commissioning and simple operation with a clear display
- Incredibly flexible operation with many customisable features
- Alarm relay to warn of any system malfunction

### Product Programme

Product Code	Description
FRO-47A-STAT	10.8kW Snow melting thermostat with moisture detection
Sensors	
FRO-TEM-SENS	Wall mounted external air temperature sensor
FRO-GRO-TEMP	External ground or pipe temperature sensor
FRO-GRO-SENS	External ground temperature and moisture sensor
FRO-GUT-SENS	Gutter moisture detection sensor

### Alternative Ice and Snow Thermostats

#### 16 Amp Ice and Snow Thermostat - FRO-16A-STAT

A basic version of the 47 Amp thermostat for use in smaller areas requiring moisture sensors. It is restricted to single zones of up to 3.6kW of heating.

#### 16 Amp Ice and Snow Thermostat - FRO-16A-GSTA

A 16 Amp ice and snow melting thermostat without the ability to run a moisture sensor. It is suitable for all external heating systems where a moisture sensor is not required and can operate up to 3.6kW of heating.

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to find out more or  
visit our website at  
[www.heatmat.co.uk](http://www.heatmat.co.uk)

### 10.8kW Thermostat Features

- A powerful thermostat suitable for economically controlling a wide variety of ice and snow melting systems.
- Suitable for running heating systems for driveways, walkways, roofs, gutters and water pipes.
- Flexible operation; independently control two separate areas of heating.
- Compatible with a variety of sensors including air, pipe and ground temperature sensors and also gutter moisture sensors.
- Can be used with a combined ground temperature and moisture sensor for large driveways or walkways.
- Up to 10.8kW (47 Amp) of heating can be controlled directly by this thermostat without the need for contractors.

### Compatible with:

 In-screed cable

 Self-limiting heating cable



### Driveway and walkway heating

Combining the 47 Amp thermostat with a ground temperature and moisture sensor provides a perfect control system to operate Heat Mat's in-screed heating cable to ensure driveways, loading ramps and walkways remain ice and snow free.

### Roof and gutter heating

Snow and ice build up on roofs and in gutters can seriously damage property, as well as presenting a serious risk to people walking below. The ice and snow thermostat can be used in conjunction with an external air temperature sensor and a gutter moisture sensor to operate either trace heating, or in-screed cables, to ensure roofs and gutters remain free from snow and ice.

### Water pipe systems

For large commercial applications the 47 Amp thermostat can be used to control trace heating systems affixed to water or waste pipes to ensure that they do not freeze. It is particularly suitable for projects where there is a requirement to operate a large system directly from a single thermostat, being able to power up to 800m of 12W trace heating directly.

### Ground temperature and moisture sensor

This sensor is designed to be embedded into the surface of an outdoor driveway or walkway, and is robust enough to be driven over. The sensor monitors moisture and temperature ensuring the system is only energised when there is a risk of ice or snow build up, and not simply when the temperature is approaching zero.

### Gutter moisture detector

Designed specifically for use in gutters, this sensor detects moisture to ensure the gutter heating system is only powered up when required. This sensor is usually used in combination with an external air temperature sensor.

### External air temperature sensor

Mounted in an IP54 housing, this sensor can be affixed to an outside wall to measure the ambient air temperature, and is particularly suitable for being used in combination with a gutter moisture detector.

### External ground and pipe temperature sensor

This IP57 rated sensor is designed to measure pipe or ground temperatures and can be used in areas where temperatures reach up to 120°C

## TECHNICAL SPECIFICATION

### 10.8kW Thermostat FRO-47A-STAT

Supply voltage	120/230V ±10%, 50-60 Hz
Temperature range	0/+5°C
Working range	-20/+5°C
Built-in timer for manual snow melting / afterrun	1-6 hours
Output relay	3 x 16A potential free relay
2 zone application	Output is 2 x 16A potential free relay
Water based system	Controlling a 3 or 4 way valve, primary pump, secondary pump.
Display	Graphic and with backlight
Ambient operating temp	0/+50°C
Housing / incl. cover	IP20
Weight	495 g
Mounting	DIN-rail mount
Dimensions (H/W/D)	170/162/45 mm
LED's indicate the functions:	
On/Green	Supply Voltage to the thermostat
Alarm/Red	Fault indication

### Ground temperature and moisture sensor FRO-GRO-SENS

Senses	Moisture and temperature
Mounting	Outdoor area
Housing	IP68
Operating temperature	-20/+70°C
Dimensions	H32, Ø60 mm

### Gutter moisture detector FRO-GUT-SENS

Senses	Moisture
Mounting	Gutter and down pipe
Housing	IP68
Operating temperature	-20/+70°C
Dimensions (H/W/D)	105/30/13 mm

### External air temperature sensor FRO-TEM-SENS

Sensing	Ambient air temperature
Mounting	Wall surface
Housing	IP54
Operating temperature	-20/+70°C
Dimensions (H/W/D)	86/45/35 mm

### External ground and pipe temperature sensor FRO-GRO-TEMP

Sensing	Temperature
Mounting	On pipe or in construction
Housing	IP57
Operating temperature	-40/+120°C
Dimensions (H/L)	8/2500



## About Heat Mat

With more than 750,000m<sup>2</sup> of underfloor heating installed and 15 years' experience of the UK underfloor heating market, you can rely on Heat Mat to understand your needs and supply the products to satisfy your requirements.

This is why we are the Professional's Choice, the number one underfloor heating supplier to the professional installation market.



## Contact Us

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