

μSMART SERIES

Lightning Strike Station

Model LSS(X)



The Monitor Sensors Lightning Strike Station detects and gives immediate warning of lightning strikes within a defined area. The Lightning Strike sensor counts lightning strikes by detecting electrical fields with signal strength greater than the factory set threshold voltage of the sensor.

Detection sensitivity varies with:

- the severity of the lightning strike, (the peak current of which may vary from a few thousand amperes up to several hundred thousand amperes);
- the sensor threshold voltage which will be set between 0.1 volt and 1 volt depending on the version selected;
- The general topography of the surrounding district;
- The height and installation of the station;
- The ground conductivity; and,
- The proximity of buildings or trees.

As a general guide, typical coverage is an area within a 5-kilometre radius of the sensor for the LS1. When equipped with Monitor Sensors LS3 high sensitivity sensor (0.1 volt/metre), the detection range will extend to beyond 50 klm.

False alarms are a problem in any early warning system and several options are available to screen unwanted noise, the cause of these alarms. There are also options to provide various levels of alarm as storms approach.

The Lightning Strike Station can operate as a stand-alone sensing device or be incorporated into any of the Monitor Sensors range of automatic weather or water quality stations. The basic station is fitted with alarm light, siren and timer devices for automatic cut-off of alarms.

Features

Robust Design
Corrosion Resistant Finish
Low Power Consumption
Low Maintenance
Interchangeable sensors
(LS1, LS2 & LS3)
Mounting Options Available
Remote site power options.

Applications

Meteorological
Auto start up of UPS prior to power failure
Automatic Weather Stations
Forestry - Fire
Emergency Services
Educational
Golf and sports clubs
Sensitive construction sites
Ordnance manufacturing/dumps

Quality Assurance

Monitor Sensors products are manufactured under a third party accredited System ISO9002.

Specifications

Measurement Units:	Electrical field with signal strength >1.0 volt/metre >0.3 volts/metre >0.1 volt/metre
Sensitivity:	LS1 1.0 v/m LS2 0.3 v/m LS3 0.1 v/m
Maximum Count Rate:	5 strikes per second
Alarm:	Audible Alarm - Siren - 98 dba Visual Alarm - Xenon Beacon Flash rate 1/sec Note: Cancel button with remote option available.
Timer:	Visual Alarm on adjustable flashing -2 sec Audible 2 sec - 2 min Beacon 2 sec - 30 mins Cancel button
Temperature Range:	-10 ⁰ C to +50 ⁰ C
Humidity Range:	0-100%
Sensor Output:	+5 volt pulse,
Station Output:	parallel control outputs, 100 millisecond duration for remote operations of Alarms.
Power Supply:	12 v @ 400 ma
Current Drain:	0.1 ma - 400 ma in Alarm condition.
Sensor Weight:	(unpacked): 250 grams
Station Weight:	Depending on configuration (call factory for details)
Dimensions:	Overall height including sensors 2 metres
Related Products:	AWS1 Automatic Weather Station LP1 Lightning Protection Kit BP1 Barometric Pressure Sensor RG(X) Tipping Bucket Rain gauge M10 Standard Cross Arm Mount Free Standing Base Assembly

MMI-0406