



Thunderstorm Detector Model 6500

Thunderstorm Detection Up To 200 nautical miles

The Model 6500 Thunderstorm Detector detects electrical discharges associated with thunderstorms within a 200 nautical mile radius of the system. The Model 6500 is a passive sensor that listens for electromagnetic signals with a receiving antenna. There is no transmitter, and so no harmful transmissions.

Consisting of an antenna mounted to a 28" x 32" ground plane and a processor housed in a NEMA 4X enclosure, the entire package mounts simply to a 2½" pipe (2.875" O.D.) using two U-bolts.

High Sensitivity Antenna

The Model 6500's antenna is a combined crossed-loop and sense antenna, which can correlate the electric and magnetic signatures of lightning strikes better than other systems due to its patented sense channel technology. The antenna has been designed to help filter out pulsed noise from sources other than atmospheric electrical discharges.

On-Board Processor

The Model 6500's processor houses the data acquisition circuitry, along with circuitry to process strike data and communicate with the AWOS Data Collection Platform (DCP). Communication with the DCP is via an RS-485 link.



- Detects and plots cloud-to-ground electrical discharges
- 200 nautical mile range
- Passive sensor—no transmitter or harmful transmissions
- Built-in, ongoing self-tests
- Status information sent at regular intervals to assure proper sensor operation

Dependable Lightning Data

The Model 6500's antenna detects the electrical and magnetic fields generated by cloud-to-ground electrical discharges that occur within a 200 nautical mile radius of the antenna, and sends the resulting 'discharge signals' to the processor. The processor digitizes, analyzes, and converts the discharge signals into range and bearing data, then stores the data in memory.

The DCP polls the sensor every two seconds via a 2-wire RS-485 link. When polled, the sensor transmits a data package consisting of strike data and status information. When errors are detected, a command can be sent from the DCP requesting a complete error log from the sensor. This error log provides greater detail on the nature and severity of the error.

Specifications

Measuring Range:	0-200 nautical miles
Internal Voltage:	11-32 volts dc
Current:	0.82 A (maximum) @ 12 volts dc 0.38 A (maximum) @ 28 volts dc
Operating Temperature:	-60 to +70° C
Relative Humidity:	up to 100%
Communication:	RS-485, 4800 baud
Mounting:	2½" pipe (2.875" O.D.)
Weight:	40 lbs. (18 kg)



All Weather Inc.
1165 National Drive
Sacramento, CA 95834

Phone: 916 928-1000
USA Toll Free: 800 824-5873
Fax: 916 928-1165
www.allweatherinc.com