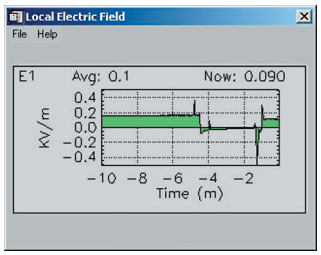
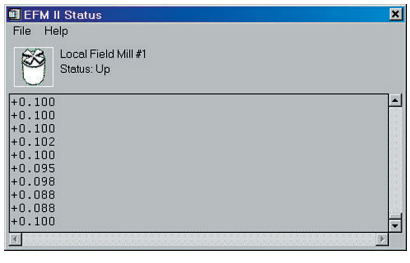
Thunderstorm Electric Field Mill EFM550

Features

- Advance warning of overhead lightning threat
- High-resolution lightning threat data
- Exceptional reliability and low maintenance
- Minimizes false alarms
- No preventative maintenance required during the first two years of operation
- Flexible siting and easy installation

Vaisala Thunderstorm Electric Field Mill EFM550 integrates with Vaisala local-area, real-time lightning systems to monitor the development and dissipation of overhead lightning threats by measuring the local atmospheric electric field.





EFM550 data can be displayed using optional Vaisala ALARM Automated Lightning Alert Risk Management Software to show current electric field measurements numerically and graphically.

Advance Warning of Overhead Lightning Threat

EFM550 integrates with these local-area, real-time lightning information systems:

- Vaisala Thunderstorm Lightning Warning System TWX300
- Vaisala Thunderstorm Sensor TSS928™ with Vaisala ALARM Automated Lightning Alert Risk Management software

EFM550 provides for flexible and convenient operation. Digital output supports on-site system and function tests. The mill allows for correction adjustment of electric-field enhancement. Hardware for roof mount is included.

Adding EFM550 to these systems provides advance warning of overhead lightning threats and then identifies when the threat has passed to operations especially vulnerable to lightning, such as:

- Aircraft refueling and ramp safety
- Aerospace operations
- Munitions and blasting operations
- Ordnance facilities
- Explosives handling and storage
- Hazardous material handling
- Oil storage and refineries
- Chemical processing
- Maritime tanker ports
- Mining operations

Technical Data

Measurement Performance

Measurement range	Max. ±10 kV/m
Accuracy	±5 % of reading Offset ±50 V/m
Response time	1 s
Signal interface	RS-232 (8-bit binary, 1200 baud)
Sampling	Fixed 2/s message rate

Operating Environment

Operating temperature	-23 ... +50 °C (-10 ... +130 °F)
Storage temperature	-23 ... +50 °C (-10 ... +130 °F)
Operating humidity	0 ... 100 %RH

Inputs and Outputs

Operating voltage	100 ... 240 VAC, 50 ... 60 Hz; or 20 ... 30 VDC
Power consumption	2.3 W
Power protection	Multi-stage transient protection

Mechanical Specifications

Motor	Brushless 25 000 h MTBF
Cable	4-twisted pair Min. 24 AWG
Mounting	Hardware included for convenient mounting to a vertical pipe or flat mounting surface. Minimum 15.2 cm (6.0 in) clearance from bottom of junction box to mounting surface. Maintain a minimum of 45.7 cm (18.0 in) area clear between mill head and mounting surface.

Support Services and Standard Warranty

Training, technical support, spare parts and service agreements are available for maintaining optimal sensor performance. Vaisala warrants all products manufactured by Vaisala to be free from defects in workmanship or material for one year from the date of delivery. Contact your Vaisala Sales Representative for specific support services and product warranty details.

Dimensions in cm (inches)

VAISALA

www.vaisala.com

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