

# Vaisala Thunderstorm Warning System TWX300



*In the main application, lightning warning areas and electric field mills are monitored in real-time. Remote alarm displays, email notifications, and relays are triggered once a lightning warning is issued by the TWX300 workstation.*

## Features and Benefits

- Track cloud-to ground and/or cloud data approaching and leaving the area of concern
- Measure electrostatic field levels for reliable monitoring of lightning development overhead
- High-resolution GIS mapping from MapInfo®
- Create multiple warning areas of any size or shape
- Automatically triggers alarms and all-clears throughout facility

## Proactive lightning risk management

Vaisala Thunderstorm Warning System TWX300 uses real-time lightning information from Vaisala's scientifically validated lightning detection networks in combination with on-site electric field mills to monitor approaching thunderstorms and those that may develop overhead. Operations and safety managers rely on Vaisala Thunderstorm Warning System TWX300 to support safety goals, improve operational efficiency, and eliminate the subjective nature of ceasing activities due to lightning in the area of concern.

TWX300 is designed for working environments that are most

vulnerable to the hazards of lightning and need up-to-the second 24/7 lightning tracking, and automated lightning warnings including airports, explosives testing, mining and blasting operations, munitions depots, refineries and sporting facilities.

The TWX300 has new features such as Diagnostic replay to analyze past events and improve operational efficiencies, lightning density display mode, email notification of warnings and all clears, time-controlled email notification and relay settings, auto-screen image capture to distribute display information on an Intranet, alarm file viewer for a visual timeline of warnings, supports Vaisala's secondary data format for use of total lightning information.

# Technical data

## TWX300 Workstation

Provided by Vaisala with the Microsoft Windows XP (SP2) operating system (minimum), TWX300 software, Vaisala Lightning Data Server (VLDS), Watchdog Timer and Card, and optional Relay Card.

## TWX300 Software

Includes the Main Application, Diagnostic Replay, Central Data File Viewer, EFM Data File Viewer, Alarm File Viewer, Configuration File Viewer, and TWXS1200 Central Data File Converter.

## TWX300 Interfaces

Local Sensors – 0 to 7 Vaisala Electric Field Mill EFM550s  
Alarm Distribution – Remote Alarm Display System (RADS) via RS232/Ethernet Device Server or Modem; Email notification via Ethernet; or Relays via RS232, RS232/Ethernet Device Server, or Modem.  
Threat Display – Remote Alarm Display System (RADS) and TWX300 software RADS Display Window

## Lightning Data Source

U.S. National Lightning Detection Network®, Canadian Lightning Detection Network, or from any lightning detection network using Vaisala Thunderstorm Central Processor CP7000 or CP8000 and preceding central processors LP (IMPACT) and CPS (SAFIR).

## Electric Field Mill EFM550

Range +/- 10,000 V/m max.  
Mount Height 30 in. (76.2 cm) min.  
See Vaisala Electric Field Mill EFM550 Data Sheet for more detailed specifications

## Remote Alarm Display System (RADS)

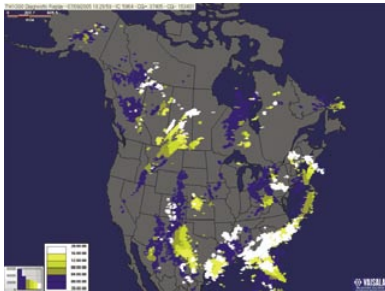
Basic Display - Three colored (red, amber, green) 20 dual-LED light panels support up to five combinations of threat condition  
Reliability Features – Visually alerts user to outage of TWX300 processor or communications. Built-in battery backup.

## Relay Kit

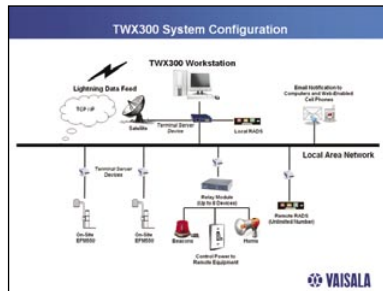
Relays 8 form C relays rated for 15A at 24DC and 120VAC, and 10A at 240VAC  
Load Rating 5A for all three voltage ranges

## Support Services

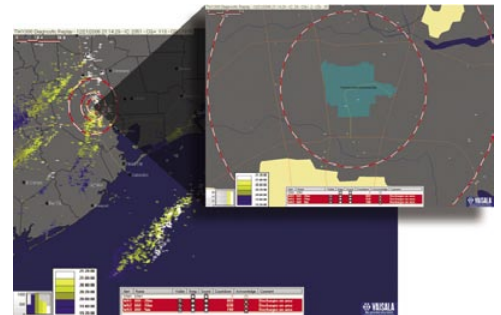
Training, technical support, and spare parts services are available for maintaining optimal system performance. Contact your Sales Representative for Vaisala Lifeguard TWX300 service agreement information. Vaisala provides a manufacturer's warranty for one-year from the date of delivery.



Cloud-to-ground lightning from Vaisala's U.S. National Lightning Detection Network® is used by weather forecasters and operations managers to closely monitor thunderstorm development, strength, and paths for more accurate severe weather forecasting and for issuing warnings.



The typical Vaisala Thunderstorm Warning System TWX300 installation leverages an existing local area network to connect to the central lightning network and local electric field mill data sources. Alarms are distributed through the remote alarm displays (RADS), email notification, and relays.



An example of the TWX300 warning areas in alert as lightning strikes the property of George H. Bush Intercontinental Airport in Houston.

# VAISALA

For more information, visit [www.vaisala.com](http://www.vaisala.com) or contact us at [sales@vaisala.com](mailto:sales@vaisala.com)

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