

Weather Transmitter WXT536

Comprehensive weather data for better-informed solar energy decision making



Key benefits

Designed for demanding environments

With no moving parts, the WXT36 is durable, can be calibrated on site, and requires little to no maintenance. It leverages unique Vaisala solid-state sensor technology that includes WINDCAP® ultrasonic wind sensors to determine horizontal wind speed and direction. Barometric pressure, temperature, and humidity measurements are combined in a PTU module using capacitive measurement for each parameter. This module is easy to change without any contact with the sensors.

Multifunctional use

The WXT536 measures six of the most important weather parameters (air pressure, temperature, humidity, rainfall, wind speed, and direction) in various combinations. It offers a heated option for cold weather accuracy, and its low level of power consumption makes the WTX536 ideal for applications that require battery use.

Straightforward integration and expansion

Offering compact, easy to install, and maintenance-free operation, the WXT536 also provides a wide range of digital and analog communications connection options and easily integrates into third-party data collection platforms.

Solar energy is a cornerstone of the renewable energy industry. Accurate historical and real-time weather data is important for site selection, array design, and solar plant operations. As solar production becomes an ever-more competitive energy option, having a comprehensive set of weather and environmental technologies available that delivers better, bankable data with increased agility and simplicity is critical.

Vaisala Weather Transmitter WXT536 is a convenient, cost-effective multi-parameter weather sensor that provides crucial data without adding significant costs or complexity. These weather insights are important for safe construction and operations, as well as performance monitoring of photovoltaic (PV) plants as described in the IEC 61724-1:2021 standard.

The WXT536 captures accurate, real-time weather data covering rainfall, wind speed, wind direction, air pressure, temperature, and humidity. It delivers the comprehensive weather information needed for effective site planning, array design, operational safety, and for meeting your compliance needs.

Its compact, rugged design and proven measurement technology delivers simplicity and efficiency that requires almost no maintenance. The low power consumption and optional sensor heating makes the WXT536 a robust sensor that delivers reliable data under even the harshest conditions and in the most remote locations.

WXT536 at a glance

Applications

- Gathering comprehensive weather data to feed historical weather modeling necessary for energy yield estimates.
- Monitoring real-time weather conditions at all Master Terminal Units and Remote Terminal Units across a site.
- Enabling better informed, data-driven decisions during the development and operations phases.
- Identifying prime weather condition periods for optimizing energy capture.
- Real-time identification of sudden weather changes to minimize unexpected equipment damages and operational risks.

Key features

Zero moving parts minimizes maintenance and eliminates mechanical failure related data errors.

Built-in self diagnostics automatically validate measurement stability.

Optional thermostatically controlled heaters in the transducer heads and arms prevent build-up of freezing rain and snow for operation in the harshest and coldest environments.

Why Vaisala for renewable energy?

We are innovators, scientists, and discoverers who are helping fundamentally change how the world is powered. Vaisala elevates wind and solar customers around the globe so they can meet the greatest energy challenges of our time.

Our weather and environmental monitoring solutions for renewable energy are guided by several key priorities:

- Thoughtful evolution in a time of change
- Making renewable energy smarter at every stage
- Extending our legacy of leadership

Vaisala is the only company to offer 360-degree renewable energy solutions — from sensors and systems to digital services and actionable intelligence — nearly anywhere on the planet (and even on Mars). Every Vaisala solution benefits from our 85+ years of experience, pioneering deployments in 170+ countries, and unrivaled thought leadership.

Our innovation story, like the renewable energy story, continues.



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