Weather Station

WSC Advanced
4.906x.0x.00x

Thies CLIMA

Reliable weather data with forecast insights, thanks to precise sensors, durability, and connectivity in a compact design.

WSC Advanced is a compact, full-featured weather station designed for building management systems, agriculture, traffic control and smart city applications. The instrument provides precise directly measured meteorological parameters complemented with weather forecast insights - a unique feature in its class! The WSC Advanced combines advanced features with a user-friendly design, making it a future-proof solution for multiple applications.

Wide scope of available measured values «

Wind speed
Wind direction
3-fold brightness
Twilight
Global radiation
Precipitation status
Precipitation status/intensity
Weather status (frost, ice, snow)
Air temperature
Absolute air pressure
Relative air pressure
Relative air humidity
Absolute air humidity
Dew point temperature
Internal housing temperature
Time / date
Geostationary data/GPS
Sun position (elevation / azimuth)

Forecast data
24h trends for wind direction, air temperature, perceived temp, rel. humidity, air pressure, cloud cover, visibility, amount of precipitation

... available through a wide range of interfaces.

THE WORLD OF WEATHER DATA

THERMACERN®

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Precise measurement in a compact design with THERMACERN(R):

The WSC Advanced has a thermal wind sensor for measuring wind speed and wind direction without moving parts. This results in an elegant, omnidirectional, minimalist design that also meets aesthetic requirements. The WSC Advanced also uses THERMACERN(R), a highly robust, long-term stable ceramic component for precipitation measurement. In addition to the precipitation status (yes/no), THERMACERN(R) can also be used to measure the intensity of precipitation, another unique feature in this device class.

Connectivity, wired and wireless:

WSC Advanced is one of the most communicative weather stations on the market. It offers a comprehensive selection of interfaces, RS-485, Modbus, WLAN, LoRaWan, MQTT, Thies Cloud & Cumulus APP.

**Protocol MQTT, IoT-networks and more:**

The communication strength is also reflected in the supported protocols. The station supports the common ASCII and MODBUS protocols via the serial interface. The MQTT standard is used for WLAN connections and opens up access to the IoT - the Internet of Things. MQTT also ensures an uncomplicated connection to the free Thies CLIMA Cloud. The measured values are continuously recorded and can be conveniently analyzed, processed and displayed via any web browser or the Cumulus app on mobile devices, regardless of location. Individual alarms can also be set up, based on threshold values. The configuration of the MQTT settings enables connection to any MQTT server.

Data trending for smart controlling:

With a connection to the Thies Cloud via WLAN, the sensor enables access to reliable forecast data for the next 24 hours, e.g. wind speed, wind direction, air temperature and more.
The forecast data received can be retrieved via the MODBUS protocol and used for intelligent control concepts, e.g. when using heat pumps and for low-energy houses.

Test the possibilities of the Thies Cumulus Cloud, free of charge: www.thiesclima.com/en/Thies-Cumulus/

Operating voltage: 18 ... 30VDC, 18 ... 28VAC (optional: low-power version)
Current consumption: 120mA @ 24V (max. 1.5A AC, max 0.5A DC)
Temperature range: -30 ... +60 ºC
GPS reception: Lifetime of the RTC (without supply voltage): approx. 3 days
Weight: 0.22kg
Protection class: IP65 in operating position
Connection type: 7-pin plug

Grub screw M4
Hexagon socket 2mm
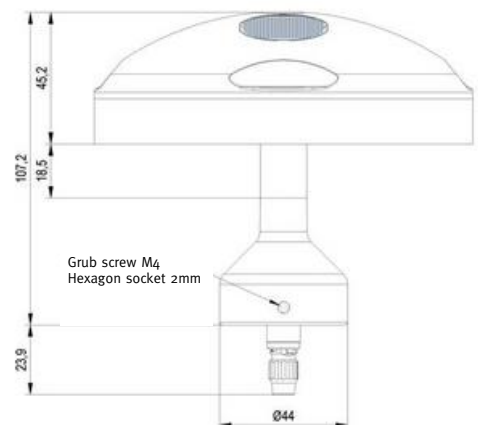
MQTT (Message Queuing Telemetry Transport). The lightweight, reliable protocol enables efficient publish/subscribe mechanisms for IoT connectivity. By using MQTT, device-to-device communication becomes seamless, ensuring high-performance data transmission and integration into IoT networks.