

6501V Weather Transmitter



With the world becoming increasingly sensitive to weather and climate, it is important to measure the weather accurately. The Weather Transmitter 6501V offers a six-in-one solution to measure barometric pressure, humidity, precipitation, temperature, and wind speed and direction - all with one instrument! Compact and lightweight, the 6501V is suitable for weather stations, dense networks, buildings, golf courses, marinas, harbors, and hotels - almost anywhere where real time weather data is needed. Accurate and reliable data provided to you early enough can increase safety to life and property.

To measure wind speed and direction, the 6501V has the Vaisala WINDCAP® sensor that uses ultrasound to determine horizontal wind speed and direction. The array of three equally spaced transducers on a horizontal plane is a Vaisala

specific design, which ensures accurate wind measurement from any horizontal wind direction without blind angles and corrupted readings. Barometric pressure, temperature, and humidity measurements are combined in the PTU module using capacitive measurement for each parameter. It is easy to change the module without any contact with the sensors. Precipitation measurement is based on the Vaisala RAINCAP® sensor.

Specifications

Wind Speed

Range:	0 ... 60 m/s
Response time:	250 ms
Accuracy (0 ... 35 m/s):	±0.3 m/s or ±3%, whichever is greater
Accuracy (35 m/s ... 60 m/s):	±5%
Output resolutions and units:	0.1 m/s, 0.1km/h, 0.1 mph, 0.1 knots

Wind Direction

Azimuth:	0 ... 360°
Response time:	250 ms
Accuracy:	±3°

Liquid Precipitation

Rainfall:	Cumulative accumulation after the latest automatic or manual reset Output resolutions and units 0.01 mm, 0.001 inches
Accuracy:	5%

Air Temperature

Range:	-52 ... +60 °C (-60 ... +140 °F)
Accuracy for sensor at +20 °C:	±0.3 °C (±0.5 °F)

Barometric Pressure

Range:	600 ... 1100 hPa
Accuracy:	±0.5 hPa at 0 ... +30 °C (+32 ... +86 °F) ±1 hPa at -52 ... +60 °C (-60 ... +140 °F)
Output resolutions and units	0.1 hPa, 10 Pa, 0.0001 bar, 0.1 mmHg, 0.01 inHg

Dimensions

Diameter:	127mm
Height:	240mm

General

Operating temperature:	-52 ... +60 °C (-60 ... +140 °F)
Storage temperature:	-60 ... +70 °C (-76 ... +158 °F)
Operating voltage:	5 ... 32 VDC
Typical power consumption:	3 mA at 12 VDC (with defaults)
Serial data interface:	SDI-12, RS-232, RS-485, RS-422, USB connection
Weight:	650 g (1.43 lb)
Housing:	IP65
Housing with mounting kit:	IP66

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