

6501

WEATHER TRANSMITTER



MODEL D



The weather transmitter 6501 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 6501 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 6501 incorporates 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 acoustic RAINCAP® sensor.

SPECIFICATIONS

PHYSICAL SPECIFICATIONS	
SIZE:	Diameter 115mm x 238mm tall, IP66
WEIGHT:	850 grams (including three batteries)
OPERATING TEMPERATURE:	-52°C to 60°C. Not affected by humidity
ELECTRICAL SPECIFICATIONS	
WIND SPEED	
RANGE:	0 ... 60 m/s
RESPONSE TIME:	250 ms
AVAILABLE VARIABLES:	average, maximum and minimum
ACCURACY:	±3% at 10m/s
OUTPUT RESOLUTION:	0.1 m/s, 0.1km/h, 0.1 mph, 0.1 knots
WIND DIRECTION	
AZIMUTH:	0 ... 360°
RESPONSE TIME:	250 ms
AVAILABLE VARIABLES:	average, maximum and minimum
ACCURACY:	±3% at 10m/s
OUTPUT RESOLUTION:	1°
PRECIPITATION	
RAINFALL:	Cumulative accumulation after the latest automatic or manual reset
COLLECTION AREA:	60cm ²
OUTPUT RESOLUTIONS:	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 (±0.17°F)
OUTPUT RESOLUTIONS:	0.1°C (0. 1°F)
RELATIVE HUMIDITY	
RANGE:	0 ... 100 %RH
ACCURACY FOR SENSOR:	±3 %RH at 0 ... 90 %RH ±5 %RH at 90 ... 100 %RH
OUTPUT RESOLUTIONS:	0.1 %RH
PTU MEASURING INTERVAL:	1 ... 3600 s (= 60 min), at one second steps
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:	0.1 hPa, 10 Pa, 0.001 bar, 0.1 mmHg, 0.01 inHg
OPERATING VOLTAGE:	6 ... 24 VDC
TYPICAL CURRENT CONSUMPTION:	3 mA at 12 VDC (with defaults)
OUTPUTS:	SDI-12, RS-232, RS-485, RS-422
CABLE:	5m of 8 core cable