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 10 m/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 10 m/s
  - **OUTPUT RESOLUTION:** 1°

**PRECIPITATION**
- **RAINFALL:** Cumulative accumulation after the latest automatic or manual reset
- **COLLECTION AREA:** 60cm²
- **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

**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, 0.01 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

**AVAILABLE FROM:** Unidata Pty Ltd | 40 Ladner Street, O’Connor, 6163 Western Australia | Tel: +61 8 9331 8600 | info@unidata.com.au | www.unidata.com.au