



Engineering Specification Sheet
ALL IN ONE Weather Sensors

GENERAL INFORMATION

- **Description:** AMtec All In One weather sensors are equipped with quick connect, quick disconnect connectors that allow safe and easy field installation. Inquire about custom cable lengths.

Temperature and Humidity Sensor Data: WS-TEMPHUM-1

- Accuracy Specification: 3% accuracy @ 25°C from 10-80% RH*. HS Element is digitally profiled thin-film capacitive (32-bit mathematics). Reset Rate**: 24 Hours. Stability: ±1% @ 20°C (68°F) annually for two years. Operating Humidity Range: 0 to 100% RH. Operating Temperature Range: -50° to 50°C (-58° to 122°F). Hysteresis: 1.5% typical. Temperature Coefficient: ±0.1%RH/°C above or below 25°C (typ.). Analog Output: 2-wire, polarity insensitive (clipped and capped). Scaling: 0-100% RH. Input Power: Loop powered 12-30VDC only, 30mA max. Standard cable length: 9'.

Temperature Sensor: WS-CELLTEMP-1

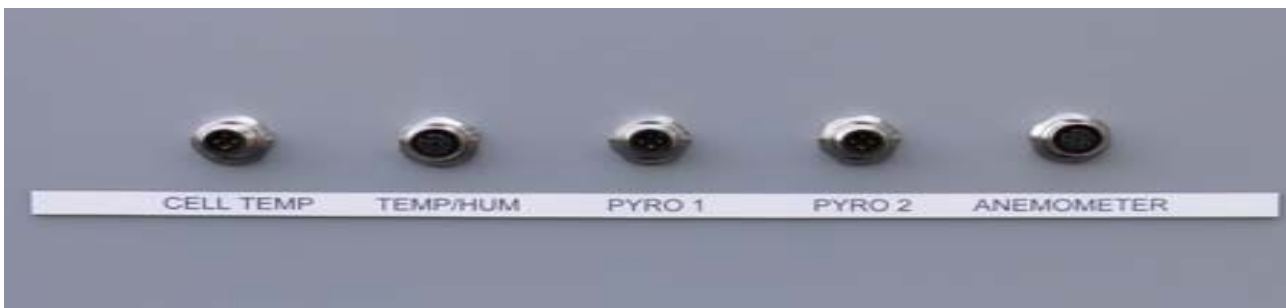
- Accuracy Specification: ±3°. Stainless steel remote probe, designed for high accuracy in remote temperature sensing applications. 22AWG; 2-wire: RTD/Thermistor. Operating Temperature: -25° to 105°C (-13° to 221°F). Standard cable length: 50'

Pyranometer Sensor: WS-PYRO-1

- Accuracy Specification: ±5%. Designed for field measurement of global solar radiation. Sensitivity: Typically 90µA per 1000Wm⁻². Linearity: Maximum deviation of 1% up to 3000 Wm⁻². Stability: < ±2% change over a 1 year period. Response Time: 90µs. Temperature Dependence: 0.15% per °C maximum. Cosine Correction: Cosine corrected up to 80° angle of incidence. Azimuth: < ±1% over 360° at 45° elevation. Tilt: No error induced from orientation. Operating Temperature: -40° to 65°C. Relative Humidity: 0 to 100%. Detector: High stability silicon photovoltaic detector (blue enhanced). Sensor Housing: Weatherproof anodized aluminum case with acrylic diffuser and stainless steel hardware. Standard cable length: 50'

Anemometer Sensor: WS-ANEMO-1

- Wind Speed Sensor turning radius: 4.25" with accuracy: 0.5 mph or ±3%. Speed threshold: 0.8mph. Transducer: Magnetic reed switch. Speed constant: 1.25mph=1pps. Measurement rang: 0-99mph. Wind direction Sensor Azimuth accuracy: ±3°. Resolution: <1°. Transducer: 20K ohm pot, single wiper. Time constant: 2sec. Potentiometer gap: 5°. Turning radius: 6". Distance constant: 1.5'. Damping ratio: 0.4. Vane threshold: 1.2 mph. Measurement range: 0-360° mechanical, 355° electrical. Mounting 1" o.d. pipe. Standard cable length: 40', 5 conductor, 24AWG.



Weather Station Mounting Kit: AM-WS-MK

- Tripod is 3' galvanized steel mount. Antenna Mast is 1ö OD, 0.049 wall, powder coated sky white. Mounting Arm made with aluminum for weather station, .090 aluminum, powder coated sky white.

APPROVALS

- Listed to **UL508A**