



Engineering Specification Sheet
AM-WS-4 WEATHER STATION

GENERAL INFORMATION

- **Description:** AMtec AM-WS-4 weather station is equipped with quick connect, quick disconnect connectors that allow safe and easy field installation. 14" x 11.43" x 5.20" Nema 4X Fiberglass enclosure. Inquire about wireless option.

Temperature Sensor: WS-TEMP-1

- Accuracy Specification: $\pm 3^{\circ}\text{C}$. The durable probe is encased in a radiation shield to prevent solar heating. 22AWG; 2-wire: RTD/Thermistor 4-20mA. Operating Temperature: -25° to 105°C (-13° to 221°F). Standard cable length: 50'. Inquire about custom cable lengths.

Temperature Sensor: WS-CELLTEMP-1

- Accuracy Specification: $\pm 3^{\circ}$. 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'. Inquire about custom cable lengths.

Anemometer Sensor: WS-ANEMO-1

- Wind Speed Sensor turning radius: 4.25" with accuracy: 0.5 mph or $\pm 3\%$. Speed threshold: 0.8mph. Transducer: Magnetic reed switch. Speed constant: 1.25mph=1pps. Measurement rang: 0-99mph. Wind direction Sensor Azimuth accuracy: $\pm 3^{\circ}$. Resolution: $< 1^{\circ}$. 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. Inquire about custom cable lengths.

Pyranometer Sensor: WS-PYRO-1

- Accuracy Specification: $\pm 5\%$. Designed for field measurement of global solar radiation. Sensitivity: Typically $90\mu\text{A}$ per 1000Wm^{-2} . Linearity: Maximum deviation of 1% up to 3000Wm^{-2} . Stability: $< \pm 2\%$ change over a 1 year period. Response Time: $90\mu\text{s}$. Temperature Dependence: 0.15% per $^{\circ}\text{C}$ maximum. Cosine Correction: Cosine corrected up to 80° angle of incidence. Azimuth: $< \pm 1\%$ 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'. Inquire about custom cable lengths.

Weather Station Mounting Kit: AM-WS-MK (Optional)

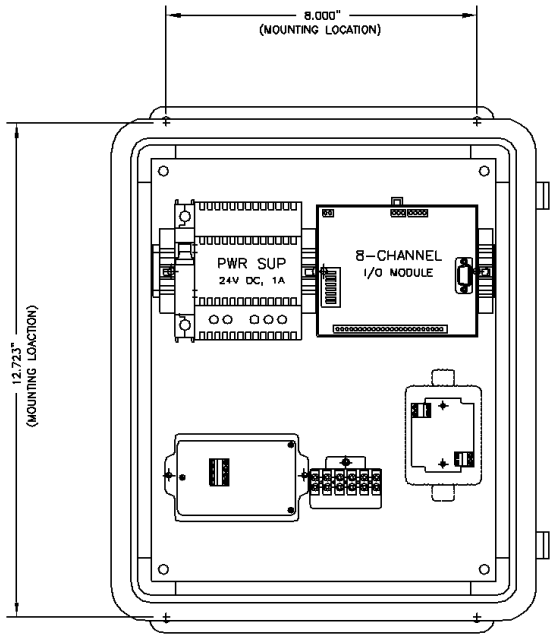
- Tripod is 3' galvanized steel mount. Antenna Mast is 1" OD, 0.049 wall, powder coated sky white. Mounting Arm made with aluminum for weather station, .090 aluminum, powder coated sky white.

APPROVALS

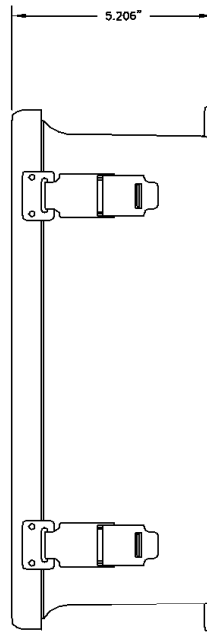
- Listed to **UL508A**



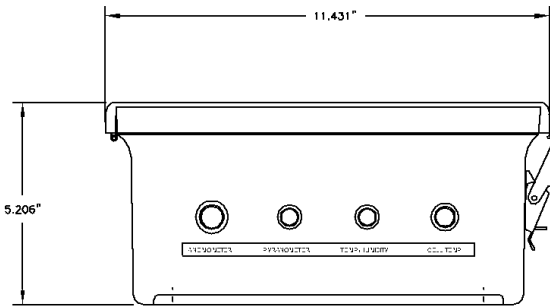
Represents water tight connections



FRONT VIEW WITHOUT DOOR



SIDE VIEW



BOTTOM VIEW

