

AIO 2 All-In-One Weather Sensor

The AIO 2 All in One Weather Sensor is the next-generation weather instrument that measures temperature, relative humidity, wind speed, wind direction, and barometric pressure in a single compact, rugged unit.

This AIO 2 integrates a unique low-power sonic anemometer, the Sonimometer™, with a multi-element temperature sensor, fast-response capacitive relative humidity sensor, state-of-the-art barometric pressure sensor, and an internal flux-gate compass for automatic alignment of wind direction to magnetic north for quick deployment (true/magnetic North offset is adjustable by the user through software command). The result is a professional grade all-in-one weather station designed for reliability, longevity, and ease of installation.

The small footprint and power efficiency of the AIO 2 make it ideal for remote regions, urban environments, air quality networks, construction/remediation sites, and other network applications.

Designed for maximum portability and utility, the AIO 2 is uniquely applicable for rapid deployment and use by one person under all conditions. The unit may be mounted on a tripod or vehicle mast.

Data output is a serial, digital message that can be interfaced to most data logging systems. Software is provided for user interface. Options are offered for wireless communication.

The AIO 2 All in One Weather Sensor is supported by a number of accessories, including carrying cases, a compact quick deploy lightweight tripod, and external power options. Additional complete and custom packages are available for HAZMAT and air quality applications.



FEATURES

- All-In-One Measurement of Temperature, Relative Humidity, Wind Speed, Wind Direction, and Barometric Pressure
- Integrated Sonimometer™ Wind Sensor
- Automatic Wind Direction Alignment to Magnetic or True North
- Rugged, Reliable, Quick to Deploy
- All Metal Construction
- Weather Protected Multi-Sensor Design
- No Moving Parts
- Low Power Consumption
- Digital Output
- Proven Field-Use History

Specifications

PERFORMANCE

Wind speed

Range: 0 to 60 m/sec (0 to 134 mph)
Accuracy: ± 0.5 m/s or $\pm 5\%$ of reading
Resolution: 0.1 m/s

Wind direction

Range: 0° to 360°
Accuracy: $\pm 5^\circ$ @ wind speed > 2.2 m/s
Resolution: 1.0°

Temperature

Range: -40°C to +60°C
(-40°F to +140°F)
Accuracy: $\pm 0.2^\circ\text{C}$ 2
Resolution: 0.1°C

Relative Humidity

Range: 0 to 100%
Accuracy: $\pm 3\%$
Resolution: 1.0%

Pressure

Range: 600 to 1100 hPa
Accuracy: ± 0.50 hPa 3
Resolution: 0.1 hPa

Precipitation

External Rain Gauge Input
Resolution 0.25 mm or 0.01", user selectable

Notes:

1. Whichever is greater
2. Over the range of 0° to 60°C. $\pm 0.5^\circ$ from -40° to 0°C.
3. At constant temperature (25°C)

ELECTRICAL

Measurement Rate
Signal Output
Power Requirements

Output: 1 Hz
RS-232C, RS-485, SDI-12
8 to 36 VDC;
30 mA nominal @ +12 VDC

ENVIRONMENTAL

Temperature

-40°C to +60°C
(-40°F to +140°F)

Humidity

0 to 100%

PHYSICAL

Construction

Aluminum and stainless steel

Weight

1.3 kg (2.9 lbs)

Size

266 mm (10.5 in) high by
113 mm (4.5 in) dia.

Mounting

Mounting and alignment
adapter vertical $\frac{3}{4}$ -inch pipe
Gloss white powder coat

Colour

SHIPPING

Weight

2.3 kg (5.0 lbs)

STANDARD ACCESSORIES

10523	¾" IPS Pipe Mount
10106	Universal Mounting Arm
102455	WeatherView Software
10600	Digital Sensor Interface (Provides Wiring Terminals, USB, 12Vdc Supply)

OPTIONAL FEATURES AND ACCESSORIES

- Support tripod
- Carrying case
- External battery
- Analog converter
- 1" Pipe Mount (P/N 10489)

CABLE

10624	Sensor Cable (Separate Item)
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