

AIO 2 ALL IN ONE WEATHER SENSOR

ALL ENVIRONMENT OPERATION:

- 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

The AIO 2 All in One Weather Sensor (P/N 102888) 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.



*AIO 2
All in One
Weather Sensor*

THE STANDARD
OF MEASUREMENT

BELFORT INSTRUMENT
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AIO 2 ALL IN ONE WEATHER STATION

SPECIFICATIONS

PERFORMANCE

Wind Speed

Range	0 to 60 m/sec (0 to 168 mph)
Accuracy	± 0.5 m/s or $\pm 5\%$ of reading ¹
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

ELECTRICAL

Measurement Rate	Output: 1 Hz
Signal Output	RS-232C, RS-485, SDI-12
Power Requirements	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
Color	Gloss white powder coat

SHIPPING

Weight	2.3 kg (5.0 lbs)
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STANDARD ACCESSORIES

- 10523 $\frac{3}{4}$ " IPS Pipe Mount
- 10106 Universal Mounting Arm
- 102455 WeatherView Software
- 10600 Digital Sensor Interface
(Provides Wiring Terminals,
USB, 12Vdc Supply)

CABLE

- 10624 Sensor Cable (Separate Item)

OPTIONAL FEATURES AND ACCESSORIES

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

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)



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