

INDUSTRIAL GRADE SONIC ANEMOMETER

FEATURES:

- No Moving Parts
- No Periodic Maintenance
- Digital & Analog Outputs
- Automatic North Alignment
- Field Configurable
- High Reliability, Portability, & Ruggedness

The 30.5 Sonic Anemometer is designed for ambient wind sensing in harsh environments and industrial applications as a direct replacement for conventional mechanical propeller and cup anemometers, both in terms of performance and cost. The 30.5 requires no periodic maintenance or calibration.

This rugged sensor operates on the principle of measurement of the speed of sound in air. This all-new anemometer utilizes the latest solid-state technology, conserving power, size, and weight, with a power consumption of less than 0.5 W. An optional high-precision compass calibration is available to improve accuracy to ± 3 degrees.

The 30.5 is compact, measuring only 6 inches in diameter and 11 inches high, including the mounting stem. The body is slender and aerodynamic, assuring minimal turbulence in the measured air stream. Measurement interference is further reduced by the transducers' location, positioned out of the measurement air stream.



This placement also increases the sensor's reliability and longevity as dust, debris, snow, and rain will not directly impact the transducers.

The 30.5 is field configurable through a very user-friendly software interface, accessed through a serial port.

Standard digital outputs for the 30.5 Sonic Anemometer are RS-232, RS-485, and MODBUS RTU, which can easily interface to Met One Instruments, Inc. or other commonly available data acquisition systems. A 0-1 VDC analog output is also standard. With an integrated internal compass, the wind direction output for the sensor automatically calibrates to magnetic north.



**Met One
Instruments**

30.5

INDUSTRIAL GRADE SONIC ANEMOMETER



**COUPLE WITH MET
ONE'S BAM 1022 FOR
AN ALL-IN-ONE
REGULATORY AIR
MONITORING STATION**

**OR DEPLOY WITH A
VARIETY OF
MOUNTING OPTIONS:
TRIPOD MOUNT
POLE MOUNT
INSTRUMENT MOUNT**



PERFORMANCE**Wind Speed**:**

Operating Range	0 to 60 m/s (0 to 134 mph)
Accuracy*	± 0.5 m/s (1.1 mph) or 5% (whichever is greater)
Threshold	< 0.2 m/s
Resolution	0.1 m/s
Response Time	1 second

Wind Direction:

Range	0 to 360°
Accuracy*	$\pm 5^\circ$ (Including compass error of $\pm 2^\circ$)
Threshold	< 0.2 m/s
Resolution	1.0°
Response Time	1 second

ELECTRICAL

Measurement Format	Two orthogonal axes, North/South and East/West
Data Output Rate	1 Hz
Operating Frequency	40 KHz
Signal Output	Digital: RS-232, 50 ft, RS-485, 4000 ft Analog: 0 - 1 VDC
Power Requirements	Sensor: 8 - 36 VDC, 40 mA @ 12 VDC
Mean Time Between Failures (MTBF)	80,000 hours

ENVIRONMENTAL

Temperature	-40° to 60° C (-40° to 140° F)
Humidity	0 to 100%

PHYSICAL

Weight	1.16 kg (2.55 lbs)
Size	228 mm (9.0 in) high by 152 mm (6.0 in) diameter
Mounting	$\frac{3}{4}$ in IPS (1.05" or 26 mm OD) vertical pipe stub

SHIPPING

Weight	2.72 kg (6.0 lbs) (w/package)
Volume	0.012 m ³ (0.44 ft ³)

* This accuracy is maintained when the sensor is within ± 10 degrees of vertical.

** WMO Compliant Gust Reporting is achieved through a 3 second rolling data average.



Specifications are subject to change at any time.