

ULTRASONIC WIND SENSOR



WindObserver II

- || **DECREASED DOWN TIME AND SERVICE COSTS**
- || **CONTINUOUS OPERATION IN EXTREME WEATHER CONDITIONS**
- || **REDUCED SET UP AND INSTALLATION TIME**

The WindObserver II provides the best solution on the market for reliable, accurate and cost-effective 2 axis wind measurement. It combines the latest patented advances in ultrasonic technology. The elimination of moving parts, together with a rugged stainless steel construction, means that WindObserver II is virtually maintenance free and requires no calibration on site. The optional heated head keeps the unit free from ice and snow, providing continuous use even in the most extreme weather conditions. A new flexible design ensures that the WindObserver II can be configured by the user to their exact requirements, which may include analog outputs, 10 Hz output or heating. The Windows™ based Anemcom II communications package allows the user to operate the anemometer in various modes, permitting the measurement of U & V vectors or wind speed and direction. Communication is via an RS422 bi-directional link, which allows several units to be networked together and data to be logged on demand. The WindObserver II is rigorously tested to internationally recognized standards and meets stringent performance criteria specified by meteorological, naval and airport authorities and oil and utility companies around the world.

FEATURES

- || Enhanced anti-icing design
- || Analog outputs
- || NMEA output
- || User selectable output format
- || 1, 2, 4, 5, 8 or 10 Hz output
- || Sonic Temperature
- || Communications software
- || Calibration to national standards

APPLICATIONS

- || Meteorological
- || Wind turbines
- || Transport
- || Tunnels
- || Motorways
- || Bridges
- || Military
- || Marine
- || Aviation

THE STANDARD
OF MEASUREMENT

BELFORT INSTRUMENT

SPECIFICATIONS

Measurement

Output	1Hz, 2Hz, 4Hz, 5 Hz, 8 Hz, 10Hz
Parameters	UV, Polar, NMEA, Tunnel, Binary
Units	m/s, Knots, MPH, KPH ft/min
Averaging	Flexible 1-3600 seconds

Wind Speed

Range	0 - 65 m/s (0-145 mph)
Accuracy	± 2% @ 12m/s
Accuracy of Reading..	% of Reading
Resolution	0.01m/s

Wind Direction

Range	0 - 359°
Accuracy	± 2°
Resolution	1°

Sonic Temperature

Range	-40°C to +70°C
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Anemometer Status

Supplied as part of
standard message

Starting Threshold

0.01m/s

Dead Band Wind

Direction None

Power Requirement

Anemometer only	9-30 V DC (14mA @ 12V DC)
Heating – Optional ...	3A @ 22-30V DC, 44-60V AC

Dimensions

Size	405mm x 210mm
Weight	1.5kg

Standards Traceable to NAMAS
standards

WINDOBSERVER II 2 AXIS ULTRASONIC WIND SENSOR

Digital Output

Communication	RS422, full duplex, network facility
Baud rates	1200, 2400, 4800, 9600, 19200, 38400
Formats	8 data, odd, even or no parity

Analog Output – (Optional)

Quantity	3 (speed, direction, status or sonic temperature)
Scale	Multiples of ± 10 m/s up to ± 70 m/s
Type	± 2.5V, 0-5V or 4-20mA
V output resistance ...	60 ohms
4-20mA loading	< 300 ohms

Environmental

Moisture protection ..	IP66 (NEMA4X)
Operating Temperature	-55°C to +70°C
Humidity	5% to 100% RH
Precipitation	300mm/hr
EMC	BS EN 50081-1: 1992 (Emissions Class B) BS EN 50082-2: 1997 (Immunity) FCC Class A MILSTD810E Method 521.1 Procedure 1
Icing	

Site Calibration

None Required

Materials

External Construction Stainless Steel 316

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