

GILL
INSTRUMENTS

Two Axis Wind Speed and Direction Sensors



Solent
Range



Gill Instruments

Gill has more than twenty years experience in the field of ultrasonic gas flow measurement and offers the most extensive range of ultrasonic wind speed and direction sensors on the market today. Rugged construction and the elimination of moving parts removes the need for routine maintenance, making our sensors ideal for operation in all environmental conditions.

All Gill ultrasonic products have the same basic operation: The anemometer measures the time taken for an ultrasonic pulse to travel from one transducer to the opposite transducer and then compares it with the time taken for another pulse to travel in the opposite direction. Likewise, differences are measured between other pairs of transducers allowing calculation of both wind speed and direction.

Solent Range

Typical Applications

- Aviation and Transport Weather** - Airports, Roads, Railways, Marine
- Heating, Ventilation and Air Conditioning (HVAC)** - Monitoring and optimising energy use
- Meteorology and Weather** - Reporting, forecasting and safety
- Environmental** - Industrial hazardous emission monitoring
- Defence** - Aircraft operations on land and sea and armaments direction setting
- Disasters** - Fire, severe storm or terrorism - wind information for fast, corrective action
- Power & Energy** - Wind turbine control



Wind Displays ▶

Gill Wind Displays are compatible with WindSonic and WindObserver, displaying wind speed and direction using highly visible LED technology.

They are available in standard or marine format, 110v or 240v AC operation, with RS422 or NMEA inputs.



◀ WindObserver II

With a rugged stainless steel construction and IP66 rating the WindObserver II is available in three versions:

Standard: With a wind speed range of 0-65m/s, optional de-icing system and digital or analogue outputs, the WindObserver II is the first choice for extreme environments such as encountered on ships, airports, wind turbines and meteorological stations. Thousands are currently in use worldwide providing testimony for its high reliability.

Extreme Weather: This variant of the WindObserver has been designed to remain ice free in most freezing weather conditions. With exceptionally high heating power and the ability to measure wind speeds up to 75 m/s (0-168mph) the instrument is ideal for use in extreme conditions where performance and high reliability are paramount.

Intrinsically Safe: The IS WindObserver complies with the ATEX directive and is approved to EEx ia IIC T5. It is ideal for onshore and offshore oil platforms and petrochemical plants.

WindSonic ▶

With two-year warranty, the WindSonic is the real low cost alternative to conventional cup and vane or propeller wind sensors. The sensor combines wind speed and direction data into one serial stream or two analogue outputs which can be logged using free Gill software.

The unit is lightweight (0.5kg) and robust, being manufactured from a polycarbonate blend case to withstand installation and use, avoiding the problems associated with the fragility of cups or propellers. Designed for marine or land based applications, it requires no expensive site calibration or maintenance and with its corrosion free exterior the WindSonic is a true 'fit and forget' sensor.



◀ MetPak

MetPak combines four essential weather measurements into one instrument - wind speed and direction using proven WindSonic two-axis technology and temperature and humidity using industry standard probes. The unit offers easy single pole installation with SDI-12 or analogue output configurations. MetPak is the cost effective solution for compact weather stations.

Product Finder

SPECIFICATIONS	WindSonic	WindObserver II	Extreme Weather WindObserver	IS WindObserver
Ultrasonic Output Rate	1, 2, 4, Hz	1Hz, 4Hz, 10Hz	1- 4Hz	1Hz
Wind Speed Range	0-60 m/s	0-65 m/s	0-75 m/s	0-75 m/s
Wind Direction Range	0-359° no dead band	0-359° no dead band	0-359° no dead band	0-359° no dead band
Operating Temp Range	-35°C to +70°C	-55°C to +70°C (heating option fitted)	-55°C to +70°C	-30°C to +70°C
Moisture Protection	IP65	IP66	IP66	IP66
External Construction	Luran	Stainless Steel	Stainless Steel	Stainless Steel
Digital Output Options	RS232 / 422 / 485 / SDI-12	RS422	RS422	RS232 / 422
NMEA Output Options	Yes	Yes	Yes	Yes
Analogue Outputs	2 (optional)	3 (optional)	N/A	N/A
Sonic Temp Output	N/A	Yes	N/A	N/A
Approvals	N/A	Lloyds	N/A	EEEx ia IIC T5
Calibration	Generic	Generic	Generic	Generic

SPECIFICATIONS	MetPak
Parameters - Wind	Wind Speed & Direction
Parameters - Met	Temperature & Humidity
Wind Sensor	Windsonic
Temp & Humidity	Combined Sensor
Moisture Protection	IP65
Output Format	SDI-12 or Analogue
External Construction	White Thermoplastic, UV Stable
Calibration	Factory Calibrated
Radiation Shield	6 Plate Naturally Aspirated
Mounting	Single Rugged U-Bolt
Maintenance - Wind Sensor	None Required
Maintenance - Temp & RH	Yearly Check Recommended



The Solent range of ultrasonic anemometers is in continuous development and therefore specifications may be subject to change without prior notice.



Gill Instruments Ltd

Saltmarsh Park, 67 Gosport Street,
Lymington, Hampshire, SO41 9EG
T: +44 (0) 1590 613 500
F: +44 (0) 1590 613 501
E: gill@gill.co.uk

www.gill.co.uk

Copyright Gill Instruments 2009
Reg. No. 2281574 Registered Office: The George Business Centre,
Christchurch Road, New Milton, BH25 6QJ