Wind System WindSonic™ Ultrasonic Sensor

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FEATURES

- Wind speed and direction sensor
- Low-cost 2-axis ultrasonic technology
- 0-60m/s (116 knots) wind speed
- 0-359º wind direction
- Digital or analogue output options
- Low power consumption
- Fast start-up
- Corrosion-free polycarbonate exterior
- Solid-state – maintenance-free

DESCRIPTION

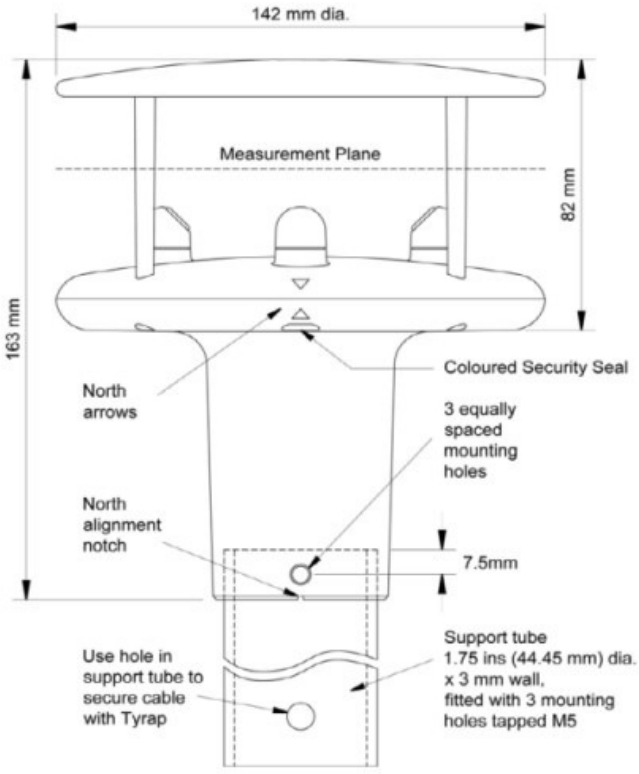
WindSonic™ is a robust, low cost ultrasonic wind sensor with no moving parts. This 2-axis ultrasonic wind sensor offers maintenance-free wind speed and direction monitoring for true 'fit and forget' wind sensing.

The WindSonic utilises Gill's proven ultrasonic technology. It is a genuine low cost alternative to conventional cup and vane or propeller wind sensors, with all of the advantages of solid-state ultrasonic technology. With no moving parts to jam, break or wear out, this ultrasonic wind sensor is ideal for use in harsh weather conditions and eliminates the need for expensive on-site maintenance.

Wind speed and direction data is output via one serial or two analogue channels. To confirm correct operation, serial outputs are transmitted together with an instrumentation status code.

WindSonic has been designed as a lightweight (0.5kg) and robust ultrasonic wind sensor, with a corrosion-free polycarbonate construction.

Low power consumption, no moving parts and the corrosion free exterior make the WindSonic ideal for a wide range of wind monitoring applications. Particularly suited to marine & offshore (ships, data buoys) and land based installations, especially in remote locations where access is difficult and power availability limited.



The serial data output is ideal for interfacing with a **WS-15A Display Unit** or for data logging to a **SpaceLogger® WindLogger**.

MODEL	OUTPUTS
Option 1	RS232
Option 2	RS232 + RS422 + RS485 + NMEA 0183
Option 3	RS232 + RS422 + RS485 + NMEA 0183 0-5 V or 0-20 mA or 4-20 mA
Option 4	SDI-12

TYPICAL APPLICATIONS

Remote weather monitoring stations
Building controls
Tower crane & construction site safety
Ports & harbours
Data buoys
Marine vessels
Road & rail tunnels
Environmental field sites
Mobile weather monitoring vehicles
Small airports & helipads
Coastal weather monitoring stations

SPECIFICATION

Wind Measurement	Sensor	Gill WindSonic™ ultrasonic 2-axis
	Parameters	Polar Wind Speed & Direction or U & V Vectors
Wind Speed	Range	0-60m/s (116 knots, 134 mph)
	Accuracy	± 2% @12m/s
	Resolution	0.01 m/s (0.02 mph)
	Threshold	0.01 m/s (0.02 mph)
	Response time	0.25 seconds
	Units of measure	m/s, knots, mph, kph, ft/min
Wind Direction	Range	0 to 359 degrees – no dead band
	Accuracy	± 3°@12m/s
	Resolution	1°
	Response time	0.25 seconds
Outputs	Option 1	RS232
	Option 2	RS232 + RS422 + RS485 + NMEA 0183
	Option 3	RS232 + RS422 + RS485 + NMEA 0183 0-5 V or 0-20 mA or 4-20 mA
	Option 4	SDI-12
	Baud rates	2400 to 38400
	Data output rate	0.25, 0.5, 1, 2 or 4 Hz
	Anemometer status	Status codes provided within the data message string
Mechanical	External construction	LURAN UV stabilised black thermoplastic
	Mounting	Pipe mounting: 44.45mm (1.75 inch) diameter
	Weight	0.5kg
	Size	142mm diameter x 160mm height
Power Supply	Supply voltage	5-30 V dc Option 1 & 2
		7-30 V dc Option 3
		9-30 V dc Option 4
	Current	From 5.5mA @ 12V
	Start up time	<5 seconds
Environmental	Protection class	IP65
	Operating temperature	-35°C to +70 °C
	Storage temperature	-40°C to +80 °C
	Operating humidity	<5% to 100% humidity
	EMC	EN 61326: 1998
Miscellaneous	Calibration	Factory calibrated, traceable to National Standards
	MTBF	15 years
	Warranty	2 years
	Software	Wind & WindView - free software providing the means for configuring the WindSonic sensor and reading output data

The manufacturer reserves the right to amend the specification and therefore the information in this document may be subject to change. Please check our website www.r-p-r.co.uk for details

ACCESSORIES

WS-15A Display Unit
Digital display of wind speed & direction data with configurable wind speed alarm output

SpaceLogger® WindLogger
Time-stamped data logging to an SD or MMC card in compact economical package

Sensor Mounting Mast
0.9m anodised aluminium mast, drilled & tapped to suit WindSonic mounting

Cabling & Connector
RS232 or RS485 cabling supplied to required length. WindSonic connector supplied separately to sensor

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