

Wind Speed and Direction Sensors

High quality, general purpose, ultrasonic anemometers

Gill WindSonic 60 is a low-cost anemometer, which utilises Gill's proven ultrasonic technology to provide wind speed and direction data via one serial or two analogue outputs. To confirm correct operation, outputs are transmitted together with an instrument status code.

WindSonic is WMO-compliant for gust measurement.

With a robust, corrosion-free polycarbonate housing, this small, lightweight wind sensor is recommended for use in harsh environmental conditions and is particularly suited to marine & offshore (ships, data buoys) and land based installations. WindSonic anemometers have no moving parts, offering maintenance-free operation in a wide range of applications.

Typical applications

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

WindSonic key features

- Wind speed & direction sensor
- 0-60 m/s (116 knots) wind speed
- 0-360° wind direction
- WMO-compliant gust wind speed and direction calculated from a rolling average
- NMEA output
- Low power consumption
- Fast start-up
- Solid-state ultrasonic technology - no moving parts
- Corrosion free

Benefits

- High accuracy, low cost wind measurement
- Excellent, well proven reliability
- Low maintenance delivers low cost of ownership
- Models and outputs to suit varied applications



WindSonic ultrasonic anemometers offer high accuracy, low cost wind measurement



WindSonic wind sensors provide excellent reliability combined with low maintenance, for long-term deployment including in remote locations

Wind Speed and Direction Sensors

High quality, general purpose, ultrasonic anemometers

| WIND SPEED | |
|--------------------|------------------------|
| Range | 0 - 60 m/s (116 knots) |
| Accuracy | 2% RMSE @12 m/s |
| Resolution | 0.01 m/s (0.02 knots) |
| Response time | 0.25 seconds |
| Starting threshold | 0.01 m/s |

| WIND DIRECTION | |
|----------------|------------------------------------------------------------------------------------------|
| Range | 0 - 360° (no dead band) |
| Accuracy | 2° RMSE @12 m/s |
| Resolution | 0.1° Option 1,2 & 3 (output at 0, 1 or 2 decimal places) 1° Option 4 0.1° Option 5 |
| Response time | 0.25 seconds |

| MEASUREMENT | |
|------------------------|---------------------------------------------|
| Ultrasonic output rate | 0.25, 0.5, 1, 2 or 4 Hz |
| Parameters | Wind speed & direction or U and V (vectors) |
| Units of measurement | m/s, knots, mph, kph, ft/min |
| Anemometer status | For unit diagnostics |

| OUTPUTS | |
|---------------------------|----------------------------------------------------------------------------|
| Option 1 interface | RS232 |
| Option 2 interfaces | RS232, RS422, RS485** |
| Option 3 interfaces | RS232, RS422, RS485** Analogue 0-5V or 0-20 mA or 4-20 mA |
| Option 1, 2 & 3 protocols | ASCII, NMEA 0183 |
| Option 4 | SDI-12 (refer to manual or separate datasheet for technical specification) |
| Option 5 | Modbus RTU, 2-wire RS-485 |
| Baud Rate | 2400 to 38400 |

| POWER REQUIREMENT | |
|-------------------|------------------------------------------------------------------------------------------------------------------------------|
| Anemometer | 5-30 VDC Option 1 & 2 |
| | 7-30 VDC Option 3 |
| | 9-30 VDC Option 4 & 5 |
| Current drain | Dependent on option selected e.g. < 2 mA @ 12V (SDI-12) to 44 mA @ 12V (4-20 mA) Refer to manual for further advice |
| | Start up time < 5 seconds |

| MECHANICAL | |
|-----------------------|---------------------------|
| External construction | LURAN S KR 2861/1C ASA/PC |
| Size | 142 mm x 163 mm |
| Weight | 0.5 kg |

| ENVIRONMENTAL | |
|-----------------------|-----------------|
| Protection class | IP66 |
| Operating temperature | -35°C to +70°C |
| Storage temperature | -40°C to +80°C |
| Operating humidity | < 5% to 100% RH |
| Precipitation | 300 mm/hr |

| OPERATIONAL | |
|---------------------|---------------------------------|
| Warranty | 24 months |
| Factory calibration | Traceable to National Standards |

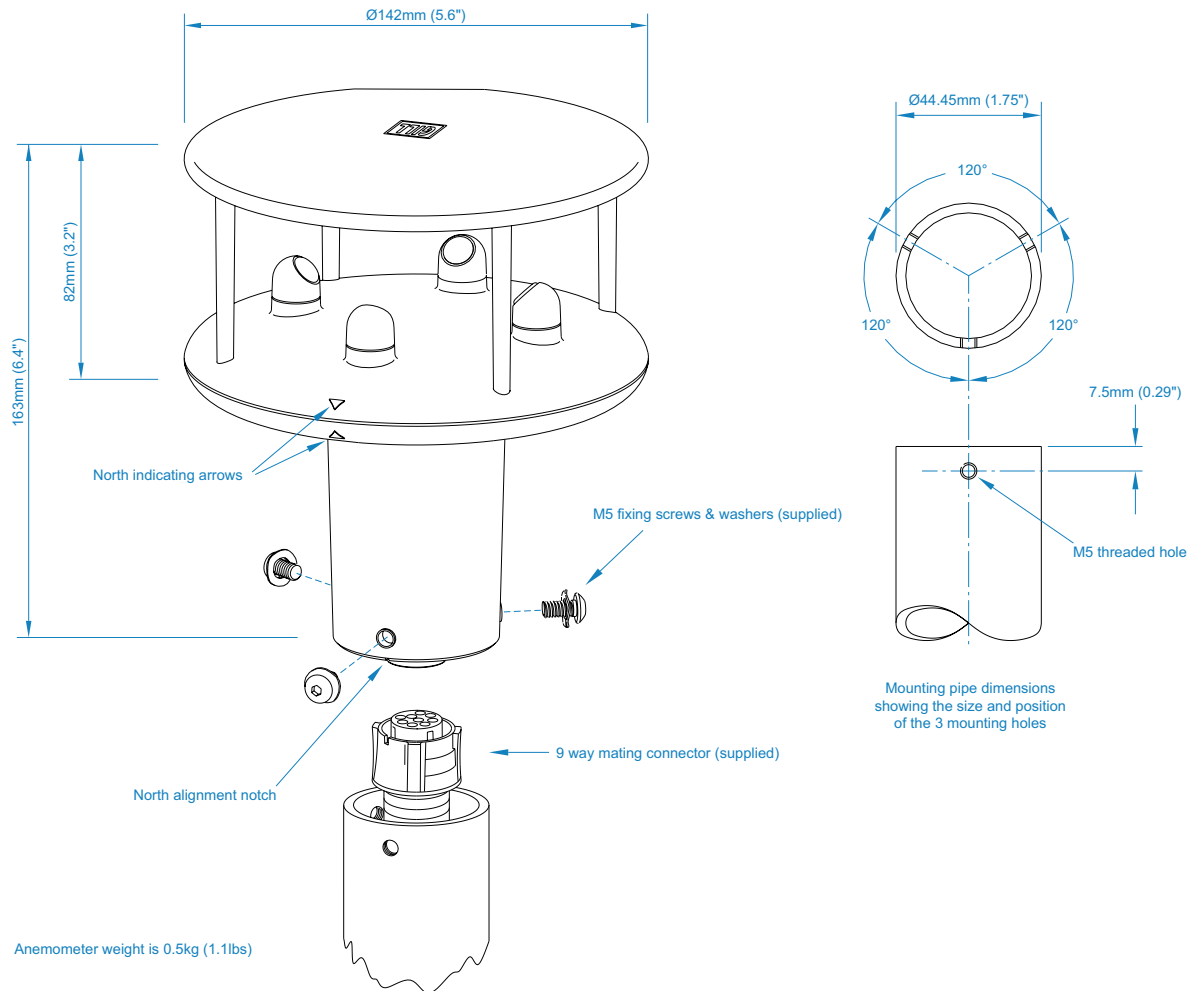
| ACCESSORIES | |
|--------------------------|-----------------------------------|
| Pipe mounting (optional) | 44.45 mm (1.75 in) diameter |
| Wind software | Display / logging* |
| Cables (optional) | Available to match output options |
| Display (optional) | See Gill Display datasheet |

* Download software free from gillinstruments.com

** 2-wire is point-to-point only

Wind Speed and Direction Sensors

High quality, general purpose, ultrasonic anemometers



Specifications may be subject to change without prior notice.

For more information about the WindSonic range, please contact Gill Instruments.

Designed and manufactured in the UK by Gill Instruments Limited.