



# GILL

## WINDOBSERVER II

Robust ultrasonic wind sensors for challenging environments

### PRODUCT OVERVIEW

The Gill WindObserver II is a precision, solid-state ultrasonic anemometer which has been type approved by the Lloyds Register for use in marine and offshore applications.

The WindObserver II provides wind speed and direction data via 1 digital and 3 optional analogue outputs and features and IP66 rated stainless steel housing, which is particularly suitable for use in salt-water environments.

Offering a high wind speed measurement range, this anemometer has an optional de-icing system enabling the sensor to operate effectively in environmental conditions.

### KEY FEATURES & BENEFITS

- 01** Precision Ultrasonic Anemometer
- 02** 0-65m/s Wind Speed
- 03** 0-360° Wind Direction
- 04** Optional De-Icing System
- 05** Stainless Steel construction
- 06** Lloyds Register Type Approved
- 07** American Bureau of Shipping (ABS) product design assessed (PDA)

### TYPICAL APPLICATIONS

- Aircraft landing systems
- Marine vessel dynamic positioning systems
- Wind turbine control systems
- Ports & harbours
- Road & rail monitoring
- Power generation and transmission safety

Optional de-icing system enabling the sensor to operate effectively at high altitude or in freezing rain



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## TECHNICAL SPECIFICATION

### Wind Speed

|                    |                                                         |
|--------------------|---------------------------------------------------------|
| Range              | 0 - 65 m/s (0-145mph)                                   |
| Accuracy           | <2% RMSE or 0.2m/s RMSE, whichever is greater (0-65m/s) |
| Resolution         | 0.01 m/s                                                |
| Starting threshold | 0.01 m/s                                                |
| Offset             | ±0.01 m/s                                               |

### Wind Direction

|                     |                    |
|---------------------|--------------------|
| Range               | 0 - 360°           |
| Accuracy            | <2° RMSE (0-65m/s) |
| Resolution          | 1°                 |
| Dead band direction | none               |

### Measurement

|                      |                                           |
|----------------------|-------------------------------------------|
| Output rate          | 1Hz, 2Hz, 4Hz, 5Hz, 8Hz or 10Hz           |
| Parameters           | UV, Polar, NMEA, Tunnel                   |
| Units                | m/s, knots, mph, kph, ft/min              |
| Average (selectable) | Rolling average - 1, 2, 10 m.n, Gust - 3s |
| Block average        | 0-3600s                                   |

### Digital output

|                   |                                         |
|-------------------|-----------------------------------------|
| Communication     | RS422/RS485 full duplex/<br>half duplex |
| Baud rates        | 1200, 2400, 4800, 9600,<br>19200, 38400 |
| Formats           | 8 bit data; odd, even or no parity      |
| Anemometer status | Supplied as part of standard message    |

### Analogue output

|                     |                                            |
|---------------------|--------------------------------------------|
| Quantity            | 3 (Speed, direction, status or sonic temp) |
| Scale               | Multiples of ±10 m/s up to ±70             |
| Type                | ±2.5 V, 0-5 V or 4-20mA                    |
| V output resistance | 60 Ohms                                    |
| 4-20mA loading      | 10-300 Ohms                                |

## WindObserver



### Power requirement

|                    |                         |
|--------------------|-------------------------|
| Anemometer only    | 9-30 VDC (40mA @12 VDC) |
| Heating (optional) | 3A @24 VAC or DC        |

### Mechanical

|                       |                     |
|-----------------------|---------------------|
| External construction | Stainless steel 316 |
| Size                  | 1.4kg               |

### Environmental

|                       |                                        |
|-----------------------|----------------------------------------|
| Protection class      | IP66 (NEMA4X)                          |
| Humidity              | < 5% to 100% RH                        |
| Operating temperature | -55°C to +70°C<br>(with heating)       |
| Precipitation         | 300mm/hr                               |
| EMC                   | EN61326-1: 2013, EN60945:2002          |
| Icing                 | MILSTD810F Method 521.2<br>Procedure I |

### Approvals

|                  |                                                                                        |
|------------------|----------------------------------------------------------------------------------------|
| Standards        | Lloyds Register type approval<br>ABS Product design assessed                           |
| Site Calibration | None required. Integrity check unit (Zero wind) supplied as optional extra (Zero wind) |

### Operational

|                     |                                 |
|---------------------|---------------------------------|
| Factory calibration | Traceable to National standards |
|---------------------|---------------------------------|

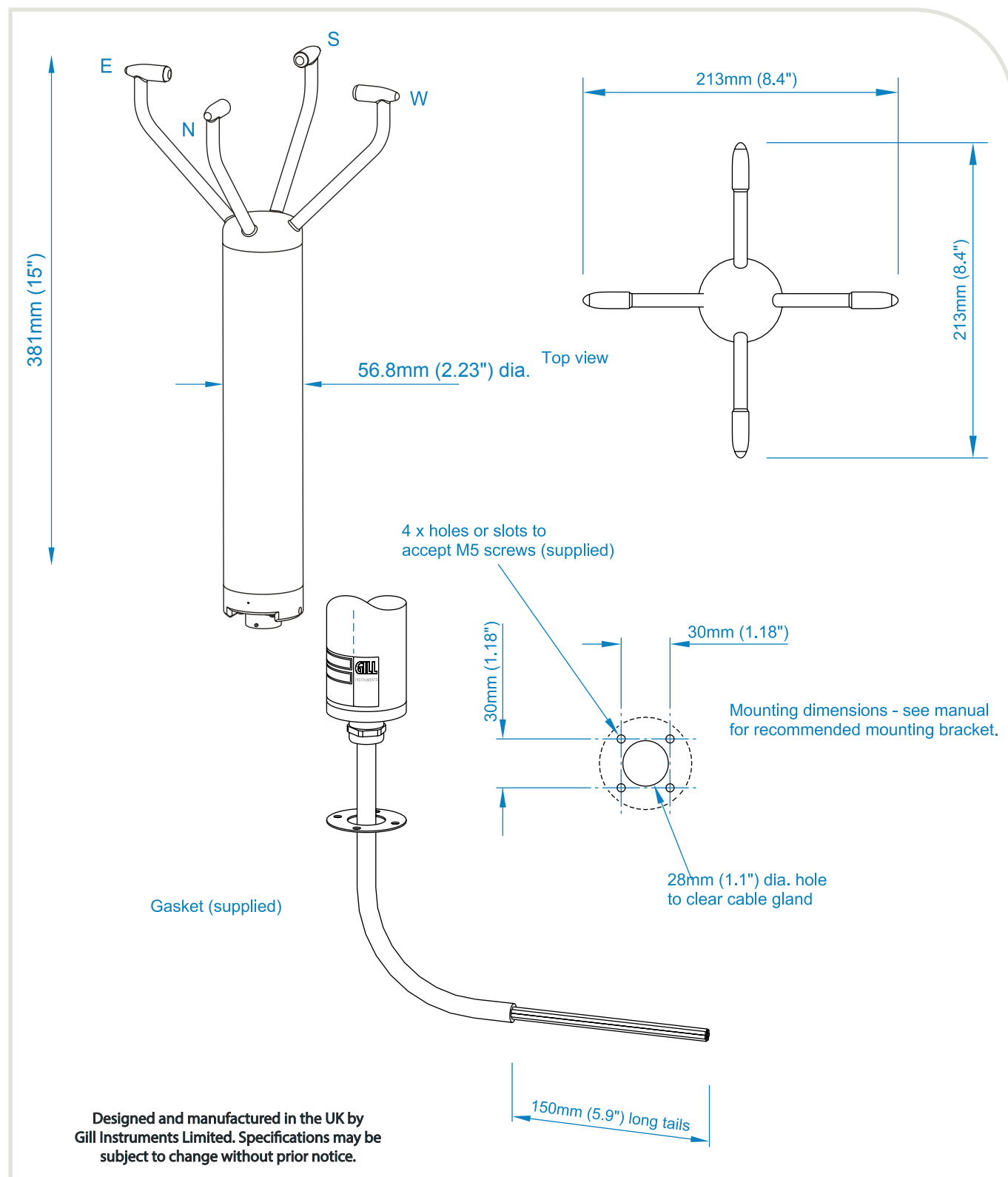
### Accessories

|                   |                          |
|-------------------|--------------------------|
| Pipe mount        | Contact Gill             |
| WindView Software | Display/logging software |

\* Download software free from [gillinstruments.com](http://gillinstruments.com)

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## MORE INFO

For more information about Gill's WindObserver range,  
please email [contact.gi@gill.group](mailto:contact.gi@gill.group)