WindMaster™ HS

3-Axis Horizontal-Head Anemometer

GILL

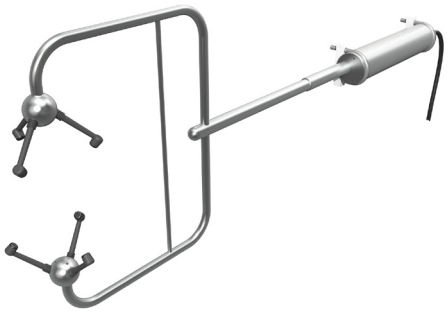
Key Features

- **Precision 3-axis sonic anemometer**
- **Horizontal head for minimal flow disturbance**
- **Integral electronics**
- **0-45m/s wind speed**
- **Stainless steel construction**
- **32Hz output rate**
- **Sonic temperature output**
- **U, V, W Vector outputs**

The WindMaster HS anemometer has been designed for scientific research applications requiring accurate 3-axis wind speed and direction and sonic temperature data.

This instrument utilises advanced ultrasonic measurement technology, with a unique horizontal head design which allows for accurate measurement of high angles of attack with minimum flow interruption from the anemometer geometry.

The Integral electronics unit provides four optional analogue inputs and outputs.



WIND SPEED

Range	0 - 45 m/s
Resolution	0.01 m/s or 0.001 m/s
Accuracy*	<1.5% RMS @12 m/s
Accuracy*	<1% RMS @12 m/s (Custom)

DIRECTION

Range	0 - 359.9°
Resolution	0.1°
Accuracy	2° @12 m/s
Accuracy	0.5° @12 m/s (Custom)

SONIC TEMPERATURE

Range	-40°C to +70°C
Resolution	0.01°C

SPEED OF SOUND

Range	300-370 m/s
Resolution	0.01 m/s
Accuracy	< ±0.5% @ 20°C

MEASUREMENT

Internal sample rate	20Hz / 32 Hz or sync to user poll
Output rate	1, 2, 4, 5, 8, 10, 16, 20 & 32 Hz
Units of measure	m/s, mph, kph, knots, ft/min
Formats	UVW or Polar
Averaging	0 - 3600 s

POWER REQUIREMENT

Anemometer	9-30 VDC (55mA @12 VDC)

*Accuracy specification applies for wind speeds <32m/s and for wind incidence <±150° in the horizontal plane and up to ±30° from the horizontal.

DIGITAL OUTPUT

Communication	RS232, 422, 485* * 2 wire point to point
Baud rates	2400 - 57600
Format	ASCII or Binary

ANALOGUE OUTPUTS - OPTIONAL

Resolution 14 bits	4 channels available
Selectable range	User selectable full scale wind speed
Output type	0-20mA, 4-20mA, 0-5V, ±2.5V, ±5V

ANALOGUE INPUTS - OPTIONAL

Resolution 14 bits	Up to 4 single ended or 2 differential
Input type	±5V

MECHANICAL

Weight	2.96 kg
Size	956 x 347 x 120mm

ENVIRONMENTAL

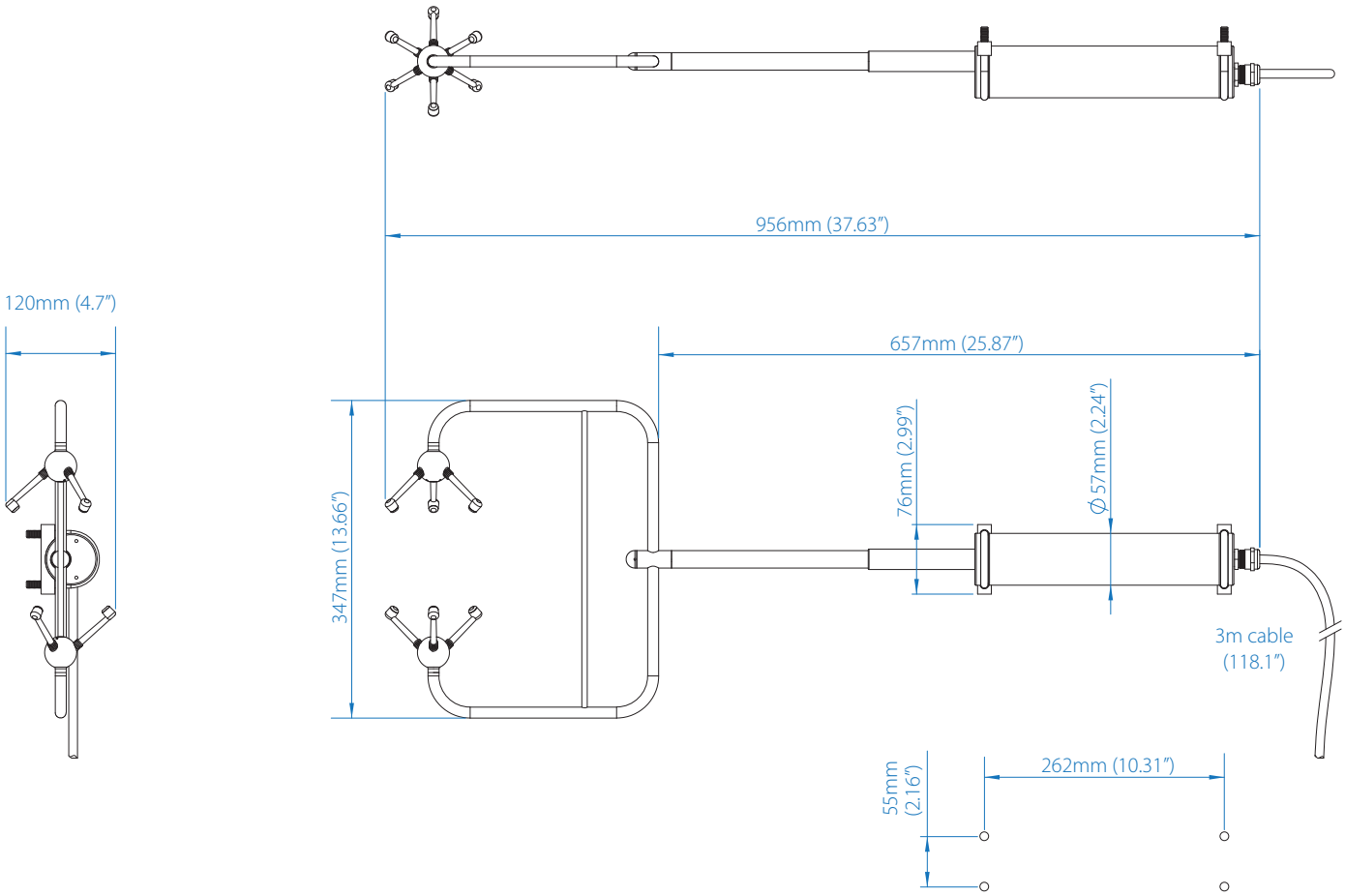
Protection class	IP65
Operating temp	-40°C to +70°C
Humidity	< 5% to 100% RH
Precipitation	300mm/hr
EMC	BS EN 61000 - 6 - 3 (Emissions) BS EN 61000 - 6 - 2 (Immunity)

OPTIONAL

Junction box
Custom calibration

Typical Applications

- Eddy Covariance Systems
- Offshore Installations
- Structural Monitoring
- Wind Profiling



Mounting hole template for WindMaster HS 'U' Bolts
4 holes Ø9.5mm (0.37")
Max mounting plate thickness 5mm (0.19")

Specifications may be subject to change without prior notice.

Gill Instruments Limited
Saltmarsh Park, 67 Gosport Street
Lymington, Hampshire SO41 9EG
United Kingdom

Tel: +44 (0) 1590 613 500
Fax: +44 (0) 1590 613 501
anem@gillinstruments.com

www.gillinstruments.com

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