

Extreme Weather WindObserver™ Ultrasonic Anemometer



Key Features

- Heating power 7A @ 24VAC or DC (1W/cm²)
- 0-75m/s wind speed
- 0-359° wind direction range (no dead band)
- Wind speed/direction accuracy for turbine control ±1° within ±25° of datum
- Calibration traceable to NAMAS standards
- Free data logging software
- IP66 rated stainless-steel housing
- Pipe mount as standard, other options available

The Extreme Weather WindObserver has been developed for use in extreme weather environments featuring 150 Watts of electrical heating power in the anemometer head. This anemometer has been designed to remain ice free in most freezing weather conditions. The sensor provides data via RS422/RS485 bidirectional link, which allows several units to be networked together and data logged on demand.

This anemometer boasts a very high wind speed range of 0 - 75 m/s (0-168mph) and gives an output status indicating the validity of data, so that you can be confident that the instrument is providing accurate information. The Windows® based WindCom™ communications package allows the user to configure the anemometer in various modes from a PC. Constructed from IP66 rated Stainless steel this anemometer meets the stringent performance criteria specified by wind turbine manufacturers, airports, marine, oil and gas production, and meteorological organisations around the world.



Wind Speed

Range	0 - 75 m/s (0-168mph)
Starting threshold	0.01 m/s
Accuracy	±2% @12 m/s (1% for turbine control)
Resolution	0.01 m/s
Offset	±0.01 m/s

Direction

Range	0 - 359°
Dead band direction	None
Accuracy	±2° @12 m/s (1° for turbine control)
Resolution	1°

Measurement

Ultrasonic output rate	1 - 4 Hz
Parameters	UV, Polar, NMEA
Units	m/s, knots, mph, kph, ft/min
Averaging	Flexible 1-3600 seconds

Power Requirement

Anemometer only	20 - 30 VDC (60mA max, 50mA average)
Heating	Max 7A @24 VAC or DC

Digital Output

Communication (Operat'n)	RS422/RS485 full duplex/half duplex
Baud rates	1200, 2400, 4800, 9600, 19200, 38400
Formats	8 bit data; odd, even or no parity
Anemometer status	Supplied as part of standard message

Mechanical

External construction	Stainless steel 316
Size	476mm x 213mm
Weight	2.5kg (No Cable)

Environmental

Protection class	IP66 (NEMA4X)
Humidity	< 0% to 100% RH
Operating temperature	-55°C to +70°C
Precipitation	300mm/hr
EMC	EN 61326-1: 2006, EN 55011: 2007
Icing	MILSTD810F Method 521.2 Procedure I

Approvals

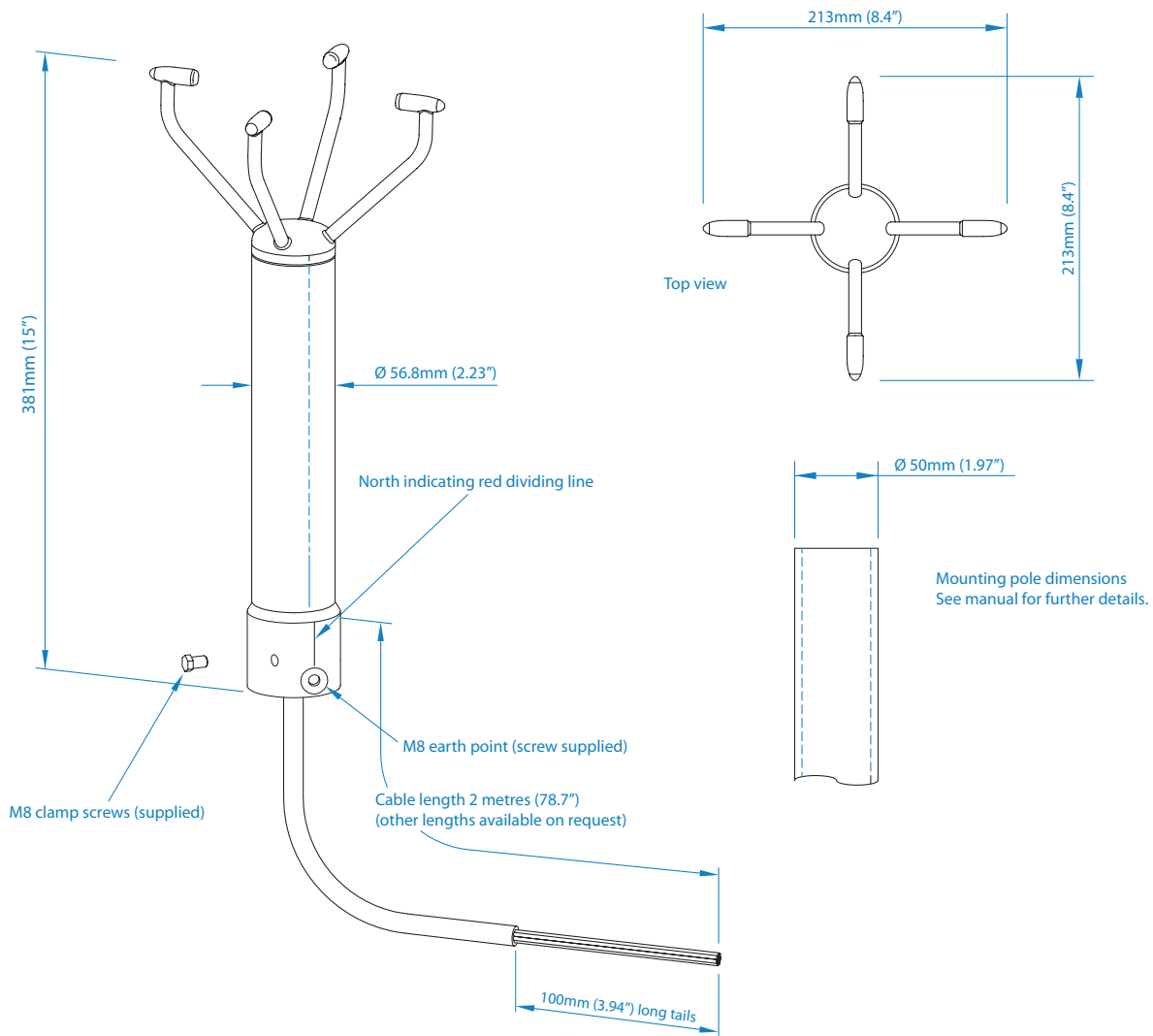
Standards	Traceable to NAMAS standards
Site calibration	None required. Integrity check unit (Zero wind) supplied as optional extra

Extreme Weather WindObserver™

Ultrasonic Anemometer

Typical Applications

- Building controls/structural safety
- High altitude mountainous regions
- Arctic/Antarctic Weather monitoring
- Marine vessels dynamic positioning systems
- Wind turbine control
- Road & rail tunnels/transport safety
- Ports & Harbours
- Aircraft landing systems



Specifications may be subject to change without prior notice.



Gill Instruments Ltd
Saltmarsh Park
67 Gosport Street
Lymington
Hampshire
SO41 9EG, UK

T: +44 (0) 1590 613 500
F: +44 (0) 1590 613 555
E: anem@gill.co.uk

www.gill.co.uk



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Reg No. 3154453 Registered Office: The George Business Centre, Christchurch Road, New Milton, BH25 6QJ