



GILL

WINDOBSERVER 90

Robust ultrasonic wind sensors for challenging environments

PRODUCT OVERVIEW

The WindObserver 90 has been developed for measuring higher wind speeds 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.

With innovative transducer design, this anemometer boasts a very high wind speed range of 0 - 90 m/s (0-201mph) and gives an output status indicating the validity of data, so that you can be confident that the instrument is providing accurate information.

KEY FEATURES & BENEFITS

- 01** 0-90m/s wind speed range
- 02** 0-360° direction range (no dead band)
- 03** Heating power 7A @ 24VAC or DC (1W/cm²)
- 04** IP66 rated stainless steel housing
- 05** Wind tunnel calibrated
- 06** Calibration traceable to national standards
- 07** Averaging/gusts to WMO guidelines

TYPICAL APPLICATIONS

- Aircraft landing systems
- Aviation weather observing systems
- Remote meteorological systems
- Helicopter landing pads
- Transport safety

The WO90 is built from stainless steel to meet the performance demands of wind energy, aviation, marine, oil and gas, and meteorological sectors worldwide



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TECHNICAL SPECIFICATION

Wind Speed

Range	0 - 90 m/s (0-201mph)
Accuracy	±2% @ 12 m/s, ±4% @ 90 m/s
Resolution	0.01 m/s
Starting threshold	0.01 m/s
Offset	±0.01 m/s

Wind Direction

Range	0 - 360°
Accuracy	±2° @ 12 m/s
Resolution	1°
Dead band direction	none

Measurement

Output rate	1 - 4Hz
Parameters	UV, Polar, NMEA
Units	m/s, knots, mph, kph, ft/min
Average (selectable)	Flexible 1-3600 seconds
Block average	0-3600s

Digital output

Communication	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

Operational

Warranty	24 months
Factory calibration	Traceable to National Standards

Accessories

Pipe mount	Contact Gill
Software	WindView software for displaying data*

WindObserver



Power requirement

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

External construction	Stainless steel 316
Size	Refer to diagram overleaf
Weight	1.7kg (with 2m cable) 1.3kg (with connector)

Environmental

Protection class	IP66 (NEMA4X)
Humidity	0% to 100% RH
Operating temperature	-55°C to +70°C (with heating)
Precipitation	300mm/hr
EMC	EN61326-1: 2013, EN60945:2002
Icing	MILSTD810F Method 521.2 Procedure I

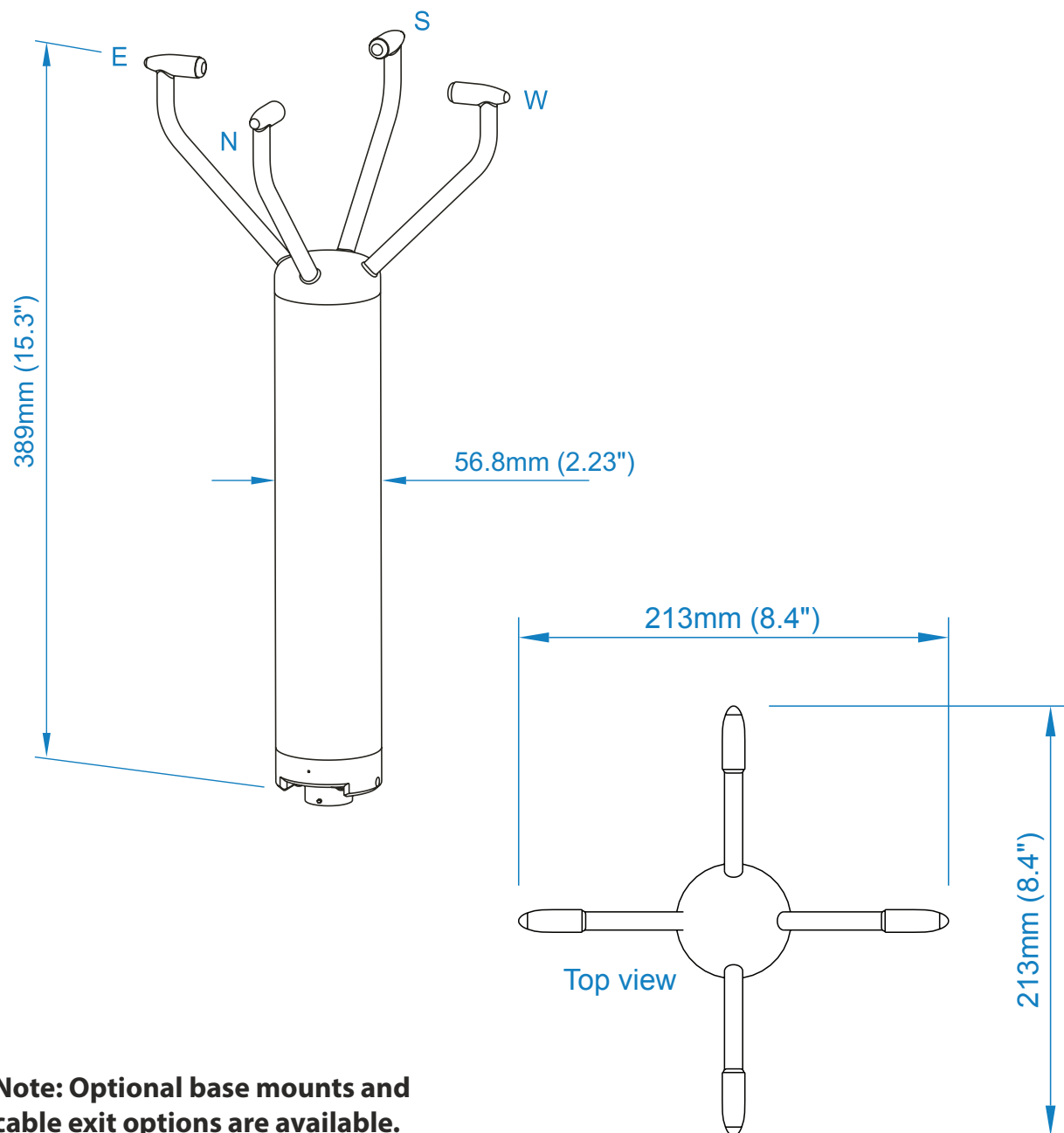
Approvals

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

* Download software free from gillinstruments.com

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**Note: Optional base mounts and
cable exit options are available.**

Designed and manufactured in the UK by
Gill Instruments Limited. Specifications may be subject to change without
prior notice.

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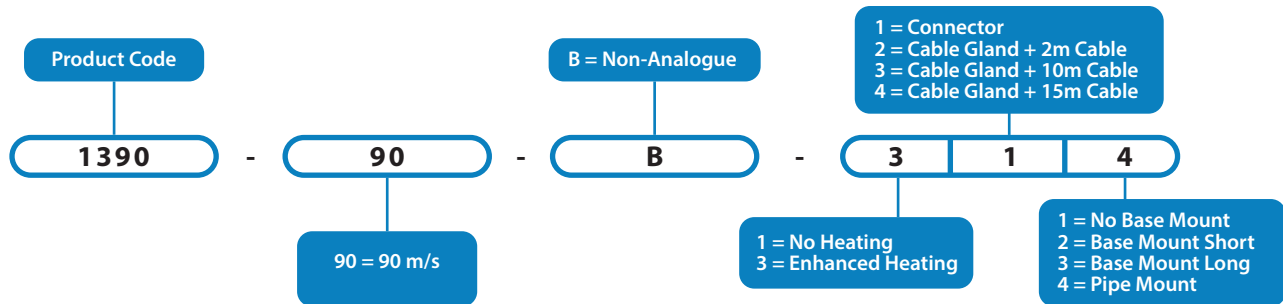
MORE INFO

For more information about Gill's WindObserver range,
please email contact.gi@gill.group

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WindObserver product numbers explained



Connection options

Drawings below shown without base mounts

WindObserver fitted with cable gland and flying lead

WindObserver fitted with integral connector

Gasket (supplied)

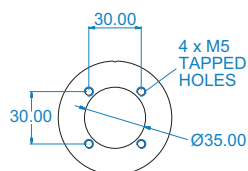
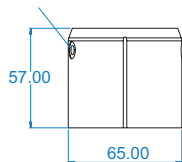
Cable length options
2m, 10m & 15m

150 mm (5.9") fios longos

Base & Pipe mount options

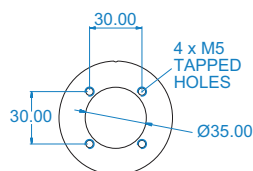
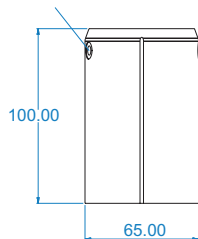
Base mount support

M5 CLEARANCE HOLES



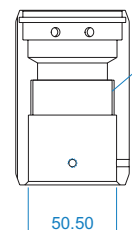
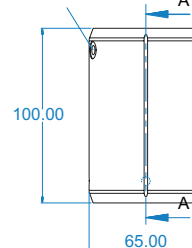
Base mount long

M5 CLEARANCE HOLES



Pipe mount

M5 CLEARANCE HOLES



All options are supplied with appropriate fixing screws and washers.

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