



GILL

WINDOBSERVER 70

Robust ultrasonic wind sensors for challenging environments

PRODUCT OVERVIEW

The WindObserver 70 is a solid state, heated ultrasonic anemometer designed for use within the aviation industry and for more extreme weather conditions.

The sensor has been accepted for service by both the FAA Federal Aviation Administration (USA) and the CAA Civil Aviation Authority (UK) for the observation and reporting of surface wind. This WindObserver meets the requirements of Annex 3 to the Convention on International Civil Aviation Organization (ICAO) when supplied as part of a suitable AWOS.

KEY FEATURES & BENEFITS

- 01** FAA & CAA accepted* for airport applications
- 02** Heating power 7A @24VAC or DC (1W/cm²)
- 03** Calibration traceable to national standards
- 04** IP66 rated stainless steel construction
- 05** Easy to install and long operational life.
- 06** Averaging/gusts to WMO guidelines
- 07** High quality measurement with no dead band
- 08** 0-70m/s wind speed range

TYPICAL APPLICATIONS

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

* Accepted by the FAA & CAA for the observation and reporting of surface wind as part of a suitable AWOS



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TECHNICAL SPECIFICATION

Wind Speed

Range	0 - 70 m/s (0-156mph)
Accuracy	<2% RMSE or 0.2m/s RMSE, whichever is greater (0-70m/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 (0-70m/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)	Rolling average - 1, 2, 10 m.n, Gust - 3s
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

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

WindObserver



Power requirement

Anemometer Only	9 - 30 VDC (60mA max, 50mA average)
Heating	Max 7A @24 VAC or DC

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

Approvals	Lloyds register type approval
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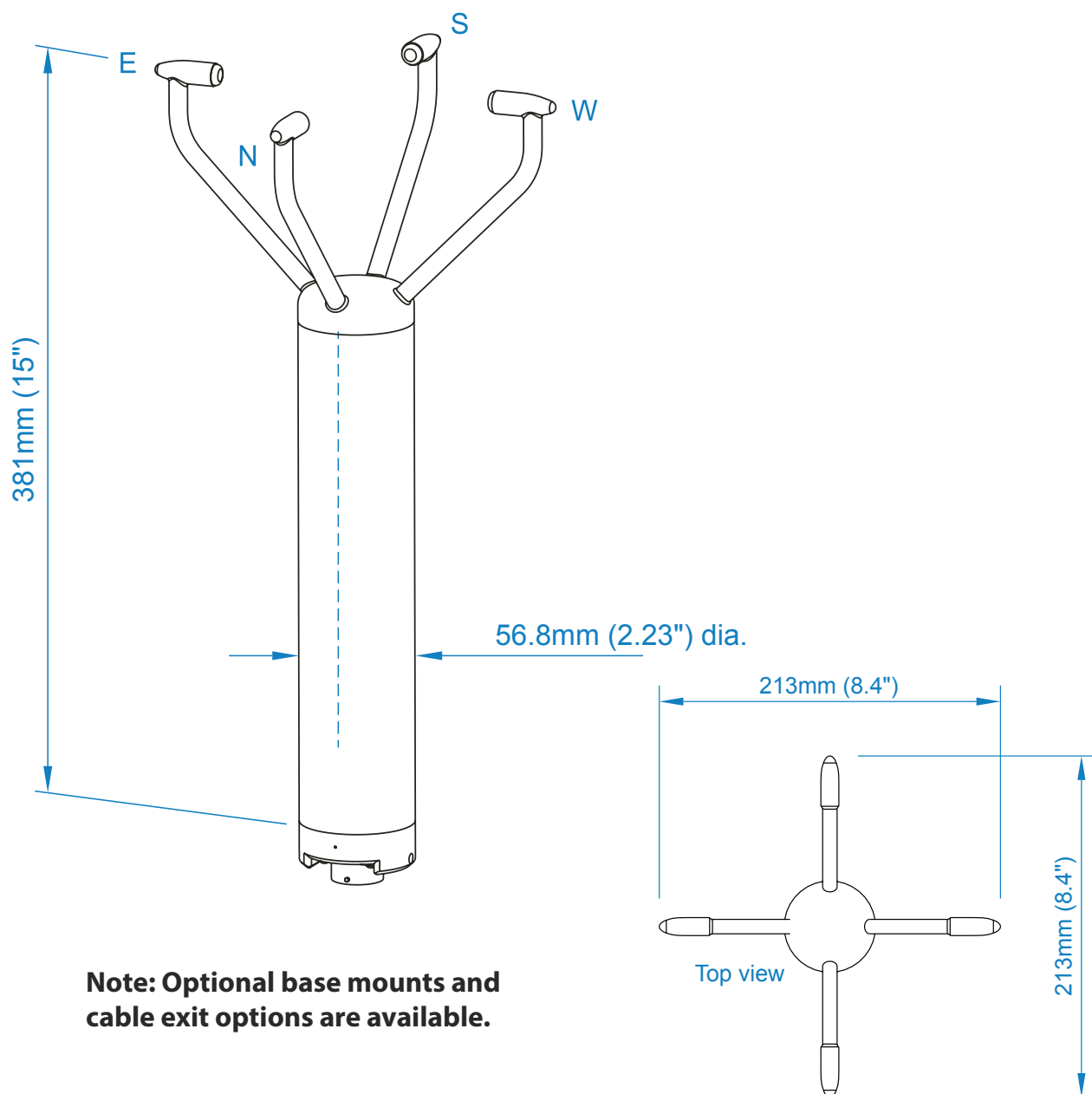
Accessories

Pipe mount	Contact Gill
Software	WindView software for displaying data*

* Download software free from gillinstruments.com

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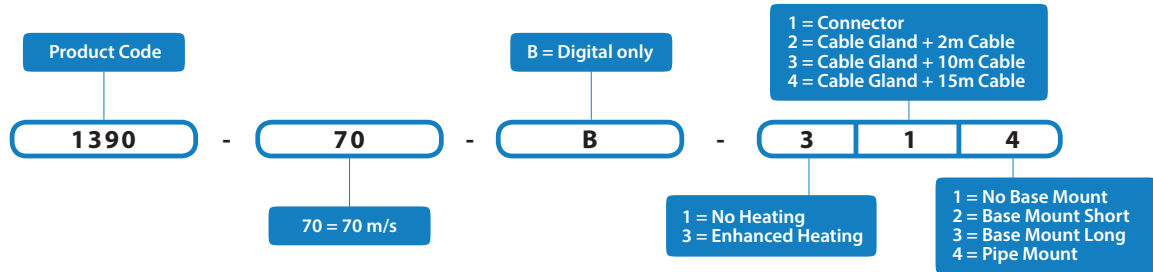
MORE INFO

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)

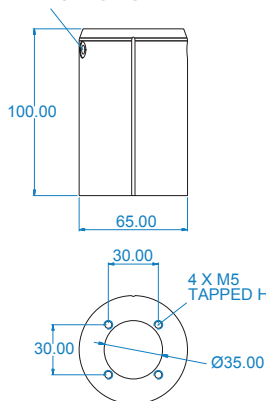
Cable length options
2m, 10m & 15m

150 mm (5.9") fios longos

Base & Pipe mount options

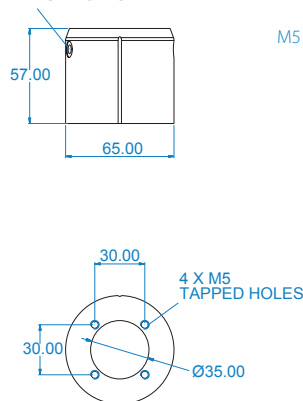
Base mount support

M5 CLEARANCE HOLES



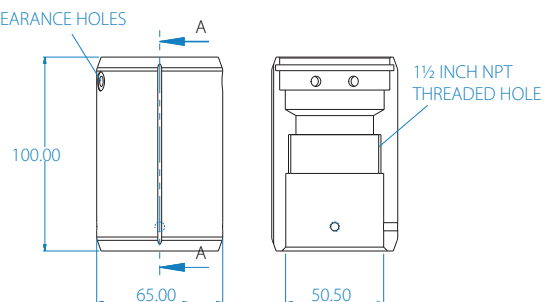
Base mount long

M5 CLEARANCE HOLES



Pipe mount

M5 CLEARANCE HOLES



All options are supplied with appropriate
fixing screws and washers.

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