OMC-118 Ultrasonic Wind Sensor

The OMC-118 WindObserver II is used in cases an ultrasonic wind sensor is required. As a Commercial Of The Shelf sensor, Observator instruments has supplied this stainless steel instrument to several Navies. Other application where has Observator applied this sensor are in general marine and offshore applications as well in several tunnels. The WindObserver II can be connected to all Obsermet equipment like data loggers, signal conditioning units and displays using the NMEA or Polar format.

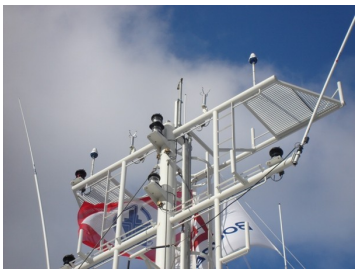
The WindObserver II has a standard range of 0..65 m/s, and an optional version is also available with a 0..75 m/s range.

OMC-118 shown fitted to the optional OMC-122 mounting bracket

Features:

- Enhanced anti-icing design
- Analogue outputs (optional)
- NMEA output
- User selectable output format
- Sonic temperature
- Communication software
- Can be connected to the Obsermet display line

Tunnel



Stb and PS sensors

OMC-118 Ultrasonic Wind Sensor

The WindObserver II provides one of the best accurate and cost-effective 2-axis wind measurement sensors. It combines the latest patented advances in ultrasonic technology together with Obsermet's ten years experience as the recognized world-leading supplier of all-weather ultrasonic wind sensors. The elimination of moving arts, together with a rugged stainless steel construction, means that WindObserver II is virtually maintenance free and requires no calibration on site. An optional heated version keeps the unit free from ice and snow, providing continuous use even in the most extreme weather conditions. The flexible design ensures that the WindObserver II can be configured by the user to their requirements, which may include analogue outputs, up to 10 Hz digital output, heating or sonic temperature. The Windows™ based *Anemcom II* communications package allows the user to operate the anemometer in a various modes, permitting the measurement of U & V vectors or wind speed and direction.

Communication is via an RS422 bi-directional link, which allows several units to be networked together and data to be logged on demand. The WindObserver II, like all wind sensors supplied by Obsermet, is rigorously tested to internationally recognized standards and meets the stringent performance criteria specified by meteorological, naval and airport authorities and oil and utility companies around the world.

SPECIFICATION

Measurement
Output 1Hz, 4Hz, 10Hz
Parameters UV, Polar, NMEA, Tunnel
Units m/s, Knots, MPH, KPH ft/min
Averaging Flexible 1-3600 seconds

Wind Speed
Range 0 - 65m/s (0-145mph), Accuracy 2%
Resolution 0.01m/s, Offset ±0.01m/s

Wind Direction
Range 0 - 359° Accuracy ±2° Resolution 1°

Sonic Temperature Output
Range -40°C to + 70°C

Anemometer Status
Supplied as part of output digital message

Starting Threshold
0.01 m/s

Dead Band Wind Direction
None

Power Requirement
Anemometer only 9-30 V DC (40mA @ 12VDC)
Optional Heating - 3A @ 24V AC or DC

Digital Output
Communication RS422, full duplex, network facility
Baud rates 1200, 2400, 4800, 9600, 19200, 38400
Formats 8 data, odd, even or no parity

Optional Analogue Outputs
Quantity 3 (speed, direction, status or sonic temperature)
Scale Multiples of ± 10m/s up to ± 70m/s
Type ± 2.5V, 0-5V or 4-20mA
V output impedance 60 Ohms
4-20mA loading 10-300 Ohms

Dimensions
Size 405mm x 210mm
Weight 1.5kg

Materials
External Construction Stainless Steel 316

Environmental
Moisture protection IP66 (NEMA4X)
Operating temperature -55°C to +70°C
Humidity 5% to 100% RH
Precipitation up to 300mm/hr
EMC BS EN 50081-1: 1992 (Emissions class B)
BS EN 50082-2: 1992 (Immunity)
FCC class A
Icing MILSTD810E Method 521.1 Procedure 1

Standards Traceable to NAMAS standards
Site Calibration None required

In-house wind tunnel facilities are available but also wishes to acknowledge the support provided from the following organisations in regard to independent, traceable wind tunnel testing of Solent products

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