



OMC-118 WindObserver II in a tunnel or on a sea-going vessel (STB and PS) with OMC-122(M) bracket

## Datasheet

# 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 applications 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 Observator 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.

### Features

- Precision Ultrasonic Anemometer
- Optional De-Icing System
- Lloyds Register Type Approved
- Stainless Steel 316 construction
- Analogue outputs (optional)
- NMEA output
- User selectable output format
- Sonic temperature
- Can be connected to the Observator display line

### Applications

- Marine Vessels and offshore platforms
- Helideck Monitoring Systems
- Ports & Harbours
- Road & Rail Tunnels
- Wind Turbine Control
- Airports

## General

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 Observer's experience as the recognized world-leading supplier of all-weather ultrasonic wind sensors.

The elimination of moving parts, together with a rugged 316 stainless steel construction, means that the 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 Observer, 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 1, 2, 4, 5, 8 and 10Hz
- Parameters UV, Polar, NMEA, Tunnel
- Units m/s, Knots, MPH, KPH ft/min
- Block averaging flexible 1-3600 s
- Rolling average 1,2,10 min, Gust 3s

### Wind Speed

- Range 0 - 65m/s (0-145mph), Accuracy 2% @12m/s
- Resolution 0.01m/s, Offset  $\pm 0.01$ m/s

### Wind Direction

- Range 0 - 359° Accuracy  $\pm 2^\circ$  @12m/s, 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

### Power Requirement

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

### Digital Output

- Communication RS422, full duplex, network facility
- Baud rate 1200 up to 38400, formats 8 data, odd, even or no parity

### Optional Analogue Outputs

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

### Dimensions

- Size 381mmx213mm, Weight 1.4kg (excl. OMC-122(M))

### Environmental

- Moisture protection IP66 (NEMA 4X)
- Operating temperature -55°C to +70°C (Heated option)
- Humidity 5% to 100% RH

## Welcome to the world of Observer

Since 1924 Observer has evolved to be a trend-setting developer and supplier in a wide variety of industries. Originating from the Netherlands, Observer has grown into an internationally

oriented company with a worldwide distribution network and offices in Australia, Germany, the Netherlands, Singapore and the United Kingdom.

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