



## OMC-160 Wind Speed & Direction Sensor

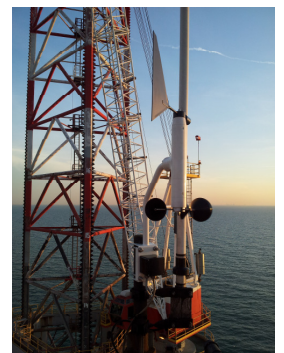
The popular and often used wind sensor OMC-160 is a combined wind speed and direction sensor, based on the cup and vane principle. Having chosen for the highest quality stainless steel materials and internal non-contact measuring devices, this sensor stands for a long life time, having the highest accuracies within both the low range as well as the high range wind speeds. This sensor is commonly used within the shipping and offshore industry but can also be found on many airfields, container terminals and harbours, along highways and on bridges.

### Features:

- High accuracy sensor
- Contact free sensing elements
- High reliability in every environment
- All exposed parts in Stainless steel
- RS422 NMEA0183 output
- Cable length up to 1000 m (4 core)
- Heated option available (OMC-163)
- Alignment and status LED's in junction box



*OMC-160 installed on a Tanker*



*OMC-160 installed on an offshore Platform*

# OMC-160 Wind Speed & Direction Sensor

## General

The OMC-160 comprises a combined in-line wind speed and wind direction sensor. The system is robust, corrosion resistive and easy to install. The wind speed sensor is a rotary-cup type, made UV resistant high quality polycarbonate. The wind direction sensor is a wind vane type, made from stainless steel.

The wind sensor is supplied with a RS422 NMEA0183 output. Output frequency standard 4 Hz. Option 1 Hz. Baudrate standard 4800 option 9600.

The wind sensor comes with a vertical mounting bracket which includes a junction box and two u-bolds for mast mounting

The OMC-160 is a cup and vane anemometer. Cup and vane anemometers are the most common instrumentation for measurement of wind speed and direction. Cup and vane anemometers are the primary sensors for wind measurement used by the leading meteorological services all over the world. Therefore the readings of the OMC-160 anemometer are inter-comparable with the readings of other cup and vane anemometers without any conversions.

For a more comprehensive discussion on the measurement principle please refer to Chapter 5 of the WMO CIMO guide<sup>1</sup>

## Data Summary

### POWER REQUIREMENTS

- 8 TO 30 VDC 60 mA

### OUTPUT

- RS422 NMEA-0183 V 4.1, IEC 61162-1

### DIMENSIONS, AS PER SKETCH

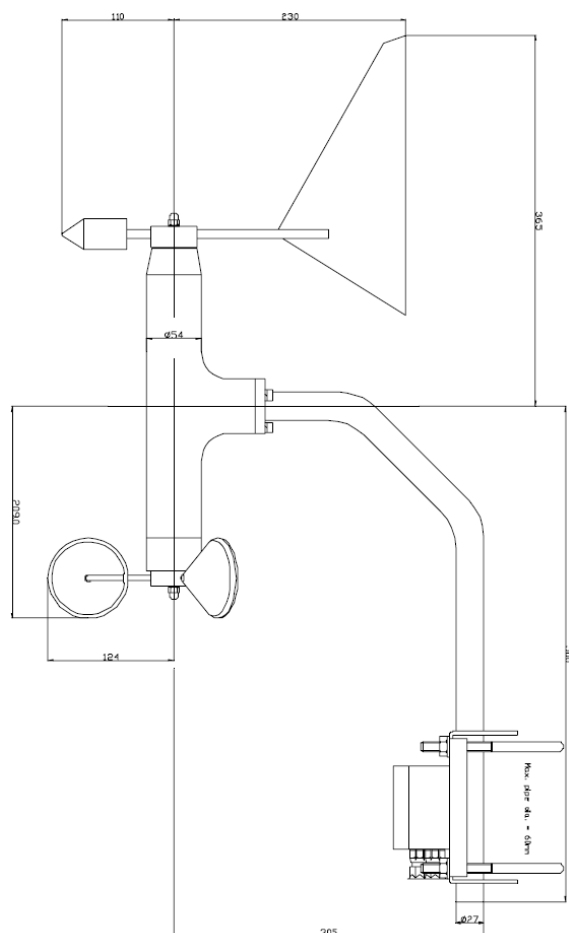
- Weight 6.5 kg
- Mounting pole with two clamps for pole 35-60 mm dia.

### ENVIRONMENTAL

- Operating temperature  $-25$  to  $70^{\circ}\text{C}$
- Ingress Protection IP65 acc. To EN-60529
- Humidity 5 to 95%
- EMC EN 50081-1 class B, EN 50082-2
- Conform RoHS directive 2002/95/EC en 2005/18/EC

### ACCURACY

- Wind speed: better than 2% FRO
- Wind direction:  $\pm 2$  degrees
- Speed range: 0,3...75 m/s



Rietdekkerstraat 6  
2984 BM Ridderkerk

P.O. Box 60  
2980 AB Ridderkerk  
The Netherlands

Phone +31 (0)180 463 411  
Telefax +31 (0)180 463 530  
E-mail info@observator.com  
www.observator.com