



# 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
- Approved by CAA
- Contact free sensing elements
- High reliability in every environment
- All exposed parts in Stainless steel
- Serial TTY output or NMEA0183 (selectable)
- Cable length up to 1000 m (4 core)
- Heated option available
- NATO stock no: 6660-17-112-7536



*OMC-160 installed on tanker*



*OMC-160 installed on mega yacht*

Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.

## Contact Details:

Tel: +44 845 9000 601  
Fax: +44 845 9000 602  
Local Tel: 01382 443000  
Email: [info@omni.uk.com](mailto:info@omni.uk.com)

## Mailing Address:

Suite E, East Kingsway Business Centre,  
Mid Craigie Trading Estate, Mid Craigie Road,  
Dundee, DD4 7RH, UK

# 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 resistant and easy to install. The wind speed sensor is a rotary-cup type, made UV resistant high quality polycarbonate. Rotation of this cup-unit generates pulses in an optical encoder. The encoder is directly connected to the internal microprocessor. The wind direction sensor is a wind vane type, made from stainless steel. The wind vane drives a resolver, which is directly connected, to the internal microprocessor as well.

The microprocessor translates the sine and cosine output from the resolver and the pulses from the wind speed into a combined digital string. Standard the wind sensor is supplied with a TTY output but also an NMEA0183 might be selected. Output frequency may also be selected from 1, 2, 3, or 4 times per second.

## Data Summary

### POWER REQUIREMENTS

- 8 TO 30 VDC 60 mA

### OUTPUTS

- Currentloop ASCII coded output 20 mA
- NMEA-0183 version 2.30

### DIMENSIONS, AS PER SKETCH

- Weight 6.5 kg
- Mounting pole with two clamps for pole max. 65 mm dia

### ENVIRONMENTAL

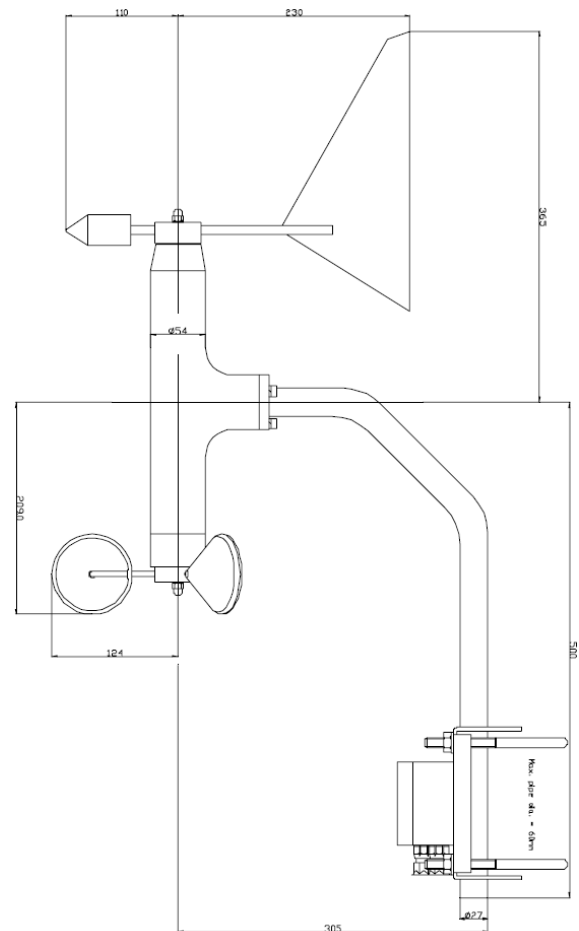
- Operating temperature -25 to 70°C
- Moisture protection IP65
- Humidity 10 to 95%
- EMC EN 50081-1 class B, EN 50082-2
- Conform RoHS directive 2002/95/EC en 2005/18/EC

### ACCURACY

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

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

Observer has an in-house wind tunnel facility but is also able to provide a third party, traceable wind tunnel test certificate. This can be ordered as type number OMC-154 and will be drawn up by the University of Brussels.



Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.

### Contact Details:

Tel: +44 845 9000 601  
 Fax: +44 845 9000 602  
 Local Tel: 01382 443000  
 Email: info@omni.uk.com

### Mailing Address:

Suite E, East Kingsway Business Centre,  
 Mid Craigie Trading Estate, Mid Craigie Road,  
 Dundee, DD4 7RH, UK