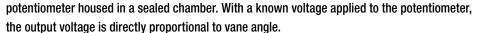


# The Wind Monitor MA is an accurate and reliable wind sensor specifically designed for the rigors of the marine environment.

The wind speed sensor is a four blade helicoid propeller. Unique transducer produces a pulse signal without electrical contacts or slip rings.

The wind direction sensor is a durable molded vane. Vane angle is sensed by a precision



YOUNG

MΑ

All materials are carefully selected for corrosion resistance and maximum durability in the harsh marine environment. Extremely durable oversized ceramic bearings are used throughout. In addition to being more wear resistant, ceramic bearings are more corrosion resistant in environments that are hostile to steel bearings. The instrument mounts on standard 1 inch pipe.

For specific applications, separate signal conditioning devices are available.

Model 05603C Wind Sensor Interface offers calibrated 0-5VDC outputs for wind speed and wind direction. Model 05631C Wind Line Driver provides calibrated 4-20 mA current signals for each channel, useful in high noise areas or for long cables of up to several kilometers. Each interface circuit is supplied in a weatherproof junction box with mounting hardware for installation near the sensor.



Wind Monitor – MA pictured with Marine Wind Tracker display.



Ceramic bearings are long lasting and corrosion resistant.

# Ordering Information MODEL WIND MONITOR MA – 3M CABLE PIGTAIL, NO CONNECTOR 05106 WIND MONITOR MA – 8M CABLE PIGTAIL, NO CONNECTOR 05106-8M WIND MONITOR MA – 12M CABLE PIGTAIL, NO CONNECTOR 05106-12M WIND MONITOR MA – 3M CABLE, WATERPROOF CONNECTOR 05106C \* FOR LONGER CABLE LENGTHS, PLEASE CONTACT US FOR PRICING WIND SENSOR INTERFACE (0-5 VDC) 05603C WIND LINE DRIVER (4-20 mA) 05631C Sensor Cable (6 COND SHIELDED) 18721

# **Specifications**

### Range:

Wind speed: 0-100 m/s (224 mph)

Azimuth: 360° mechanical, 355° electrical (5° open)

### Accuracy

Wind speed: ±0.3 m/s (0.6 mph) or 1% of reading

Wind direction: ±3 degrees

### Threshold:\*

Propeller: 1.1 m/s (2.4 mph) Vane: 1.1 m/s (2.4 mph)

### Dynamic Response:\*

Propeller distance constant (63% recovery) 2.7 m (8.9 ft) Vane delay distance (50% recovery) 1.3 m (4.3 ft)

Damping ratio: 0.3

Damped natural wavelength: 7.4 m (24.3 ft) Undamped natural wavelength: 7.2 m (23.6 ft)

### Power Requirement:

Potentiometer excitation: 15 VDC maximum

### Operating Temperature:

-50 to +60° C

### Signal Output:

Wind speed: magnetically induced AC voltage, 3 pulses per revolution. 1800 rpm (90 Hz) = 8.8 m/s (19.7 mph) Azimuth: analog DC voltage from conductive plastic potentiometer – resistance 10K  $\Omega$ , linearity 0.25%, life expectancy – 50 million revolutions

### **Dimensions:**

Overall height: 37 cm (14.6 in) Overall length: 55 cm (21.7 in) Propeller: 18 cm (7 in) diameter

Mounting: 34 mm (1.34 in) diameter (standard 1 inch pipe)

### Weight:

Sensor weight: 1.0 kg (2.2 lbs) Shipping weight: 2.3 kg (5 lbs)

\*Nominal values, determined in accordance with ASTM standard procedures.

## MODEL 05603C 0-5 VDC outputs

Power Requirement:

8-24 VDC (5 mA @ 12 VDC)

### Operating Temperature:

-50 to +60° C

### **Output Signals:**

0-5.00 VDC full scale

### MODEL 05631C 4-20 mA outputs

Power Requirement:

8-30 VDC (40 mA max.)

### Operating Temperature:

-50 to +60° C

# Output Signals:

4-20 mA full scale

Complies with applicable CE directives.

Specifications subject to change without notice.

Copyright © 2017 R.M. Young Company, Printed in U.S.A. 1/17



# 2801 Aero Park Drive

R.M. YOUNG COMPANY

Traverse City, Michigan 49686 USA TEL: (231) 946-3980 FAX: (231) 946-4772 E-mail: met.sales@youngusa.com Web Site: www.youngusa.com



