

**The Wind Monitor-JR is a compact, high-performance wind speed and wind direction sensor for utility, buoy, and shipboard applications.**

Designed specifically for applications where compact size is of paramount importance, the Wind Monitor-JR offers the same rugged construction as our standard Wind Monitor in a package that is 40% smaller. The smaller sensor is ideal for many applications where size and weight are critical and the sensitivity of the standard Wind Monitor is not required.

The four blade propeller is integrated with the shaft, offering a simplified assembly. Output signal is an AC sine wave voltage signal with frequency directly proportional to wind speed. Like our other Wind Monitor models, slip rings and brushes are eliminated for increased reliability.

The wind direction sensor is a durable molded vane. Vane angle is sensed by a precision potentiometer housed in a sealed chamber. All housing parts are injection molded, UV stabilized thermoplastic. Fittings are stainless steel and anodized aluminum. Precision grade, stainless steel ball bearings are used throughout. Transient protection and cable terminations are located in a convenient junction box. The instrument mounts on standard 1 inch Pipe. For offshore and marine use, **Model 04106 Wind Monitor-JR (Marine Model)** offers the added features of special bearing lubricant and sealed heavy duty cable pigtail in place of the junction box.



## Specifications

### Range:

Wind speed: 0-60 m/s (134 mph)  
 Gust survival: 100 m/s (220 mph)  
 Azimuth: 360° mechanical, 352° electrical, (8° open)

### Accuracy:

Wind speed:  $\pm 0.5$  m/s (1 mph) <10 m/s  
 5% of reading >10 m/s  
 Wind direction:  $\pm 5^\circ$

### Threshold Sensitivity:

Propeller: 1.0 m/s (2.2 mph)  
 Vane: 1.7 m/s (3.8 mph) @ 10° displacement

### Dynamic Response:

Propeller distance constant: 2.0 m (6.6 ft)  
 Vane delay distance: 0.8 m (2.6 ft)  
 Damping ratio: 0.3

### Signal Output:

Wind speed: magnetically induced  
 AC sine wave voltage: 3 pulses per revolution.  
 1800 rpm (90Hz) = 8.8 m/s  
 Azimuth: analog DC voltage from conductive plastic potentiometer, 10 K  $\Omega$ , resistance, 1% linearity, life expectancy 50 million revolutions.

### Power Requirement:

Potentiometer excitation 15 VDC maximum.

### Dimensions:

Overall height: 33 cm  
 Overall length: 31 cm  
 Propeller: 13 cm diameter  
 Mounting: 34 mm (1.34 in) diameter  
 (standard 1 inch pipe)

### Weight:

Sensor weight: 0.5 kg (1.1 lb)  
 Shipping weight: 1.5 kg (3.3 lb)

## MODEL 04101V 0-1 VDC outputs

### Power Requirement:

8-24 VDC (5 mA @ 12 VDC)

### Operating Temperature:

-50 to 50° C

### Output Signals:

0-1.00 VDC full scale  
 0-5.00 VDC optional

## MODEL 04101L 4-20 mA outputs

### Power Requirement:

8-30 VDC (40 mA max.)

### Operating Temperature:

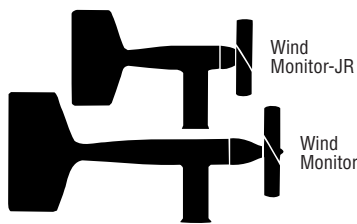
-50 to 50° C

### Output Signals:

4-20 mA full scale



Complies with applicable CE directives.  
 Specifications subject to change without notice.



## Ordering Information

- 04101 WIND MONITOR-JR
- 04101L\* WIND MONITOR-JR (4-20 mA outputs)
- 04101V\* WIND MONITOR-JR (0-1 VDC outputs)
- 04106 WIND MONITOR-JR (Marine Model)

\* SPECIFY SUFFIX FOR DESIRED WIND SPEED SCALE:

0-50 M/S .....	ADD SUFFIX "M"
0-100 MPH .....	ADD SUFFIX "P"
0-100 KNOTS .....	ADD SUFFIX "N"
0-200 KM/HR .....	ADD SUFFIX "K"



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