

## WeatherPort General Purpose Wind Sensors

This series of **WeatherPort Wind Sensors** are moderately priced quality transducers designed for general application. A combination of injection molded thermoplastic, anodized aluminum, and stainless steel parts contribute to reliable operation in adverse environments.

These sensors are easy and inexpensive to maintain. The combination three cup anemometer and wind vane units utilize an in-line configuration, eliminating the need for a crossarm.

The anemometer produces a series of output pulses having a frequency directly proportional to wind speed. Wind direction is measured by a balanced vane coupled to a 20k ohm conductive plastic potentiometer. With a constant excitation voltage of less than 15 volts, the output from the wiper arm is proportional to the wind azimuth angle.

### Specifications

#### Model 200-WS-01 Wind Speed Sensor

Turning radius: 4.25"	Accuracy: 0.5 mph or $\pm 3\%$
Speed threshold: 0.8 mph	Size: 4.5" H x 8.5" W
Transducer: Magnetic reed switch	Mounting: 1" o.d. pipe
Speed constant: 1.25 mph=1 pps	Cable: 40', 2 conductor, 24 AWG
Measurement range: 0-99 mph	Weight/shipping: 1 lb/2 lbs

#### Model 200-WS-04 Wind Direction Sensor

Azimuth accuracy: $\pm 3^\circ$	Resolution: $< 1^\circ$
Transducer: 20K ohm pot, single wiper	Time constant: 2 sec
Potentiometer gap: $5^\circ$	Turning radius: 6"
Distance constant: 1.5'	Size: 12-1/2" H x 8" W
Damping ratio: 0.4	Mounting: 1" o.d. pipe
Vane threshold: 1.2 mph	Cable: 40', 3 conductor, 24 AWG
Measurement range:	Weight/shipping: 1 lb/2 lbs
0-360° mechanical, 355° electrical	

#### Model 200-WS-02 Wind Speed & Direction Sensor

The 200-WS-02 is a combination of the above sensors, mounted in an in-line configuration.

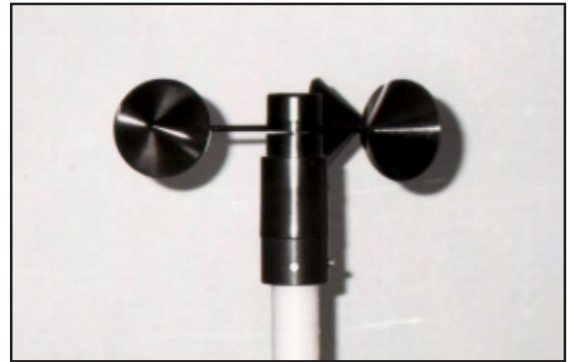
Cable: 40', 5 conductor, 24 AWG  
Weight/Shipping: 2 lbs/3 lbs

#### Environmental

Operating temperature:  $-40^\circ$  to  $+60^\circ\text{C}$   
Relative humidity: 0-100%

### Ordering Information

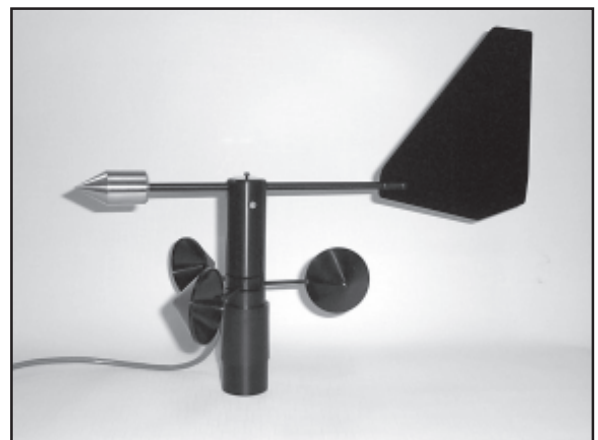
200-WS-01	Wind Speed Sensor, 40' cable
200-WS-02	Wind Speed & Direction Sensors, 40' cable
200-WS-04	Wind Direction Sensor, 40' cable
200-600	Crossarm, 24" wide, without sensors
200-601	Wind Speed & Direction Sensors on Crossarm, 40' cable
330-0224	Additional Cable, per foot (WS-01)
330-0324	Additional Cable, per foot (WS-04)
330-0524	Additional Cable, per foot (WS-02)



200-WS-01 Wind Speed Sensor



200-WS-04 Wind Direction Sensor



200-WS-02 Combination Wind Speed & Direction Sensor

## WeatherPort High Sensitivity Wind Sensors

The **WeatherPort High Sensitivity Wind Sensors** are similar to those shown on the previous page, but they are specially configured to meet U.S. Environmental Protection Agency requirements for PSD (Prevention of Significant Deterioration).

### Specifications

#### Speed

Turning radius: 4.25"  
 Speed threshold: 0.8 mph  
 Transducer: Magnetic reed switch  
 Speed Constant: 1.25 mph = 1 pps  
 Measurement range: Speed 0-99 mph  
 Accuracy: 0.5 mph or  $\pm 3\%$

#### Direction

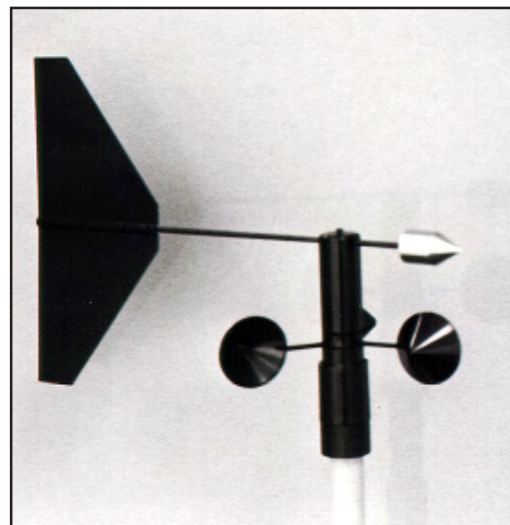
Azimuth accuracy:  $\pm 3^\circ$   
 Transducer type: 20K ohm potentiometer, single wiper  
 Potentiometer gap:  $5^\circ$   
 Measurement range: 0-360°  
 Linearity: 1%  
 Distance constant: 2.6'  
 Damping ratio: 0.4  
 Vane threshold: 0.8 mph  
 Turning radius: 12.5"

#### Overall

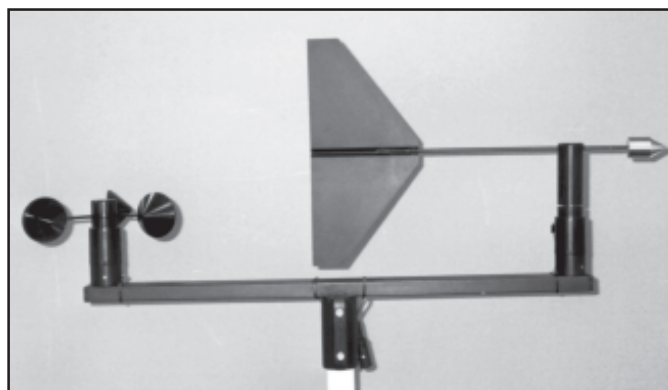
Dimensions:  
 WS-04H: 12-1/2" H x 16-1/2" L x 1-1/2" W  
 WS-05: 12-1/2" H x 16-1/2" L x 8" W  
 Mounting: 1.07" i.d. fits over 1" o.d. (3/4" i.d.) pipe  
 Cable: 40', 5 conductor, 24 AWG, shielded  
 Weight/shipping: 2 lbs/4 lbs

### Ordering Information

200-WS-04H	High Sensitivity Wind Direction Sensor, 40' cable
200-WS-05	High Sensitivity Wind Speed & Direction Sensors, 40' cable
200-605	High Sensitivity Wind Speed & Direction Sensors on Crossarm, 40' cable
330-0324	Additional Cable, per foot (WS-04H)
330-0524	Additional Cable, per foot (WS-05)



200-WS-05 High Sensitivity Wind Sensor



200-605 High Sensitivity Wind Speed & Direction Sensors on crossarm



200-601 General Purpose Wind Speed & Direction Sensors on crossarm