



MODEL 03002

WIND SENTRY



Model 03002 = 03102 + 03302

The **Model 03002** Wind Sentry Anemometer and Vane are professional quality sensors suitable for a wide range of wind measurement applications. These economically priced sensors provide excellent sensitivity, corrosion resistance, and minimal parts count for easy maintenance.

The anemometer uses three lightweight hemispherical cups to measure wind speed. Cup wheel rotation produces an AC frequency that is linearly proportional to wind speed. The vane employs a balanced vane assembly with vane position sensed by a long life precision potentiometer. Precision stainless steel ball bearings are used throughout.

The **Model 03002** Wind Sentry Anemometer and Vane set includes crossarm with junction box and mounting for standard 1 inch pipe.

Model 03002V Wind Sentry with Voltage Outputs provides calibrated voltage output signals for wind speed and wind direction. The voltage outputs are convenient for use with many data loggers and recorders.

Model 03002L Wind Sentry with 4-20 mA Outputs provides separate 4-20 mA signals for wind speed and wind direction. The 03002L is useful where cables must pass through high noise areas, span distances up to several kilometers, or for certain industrial applications.

For wind speed only, **Model 03102** Wind Sentry Anemometer is available separately. The Wind Sentry Anemometer is also available with voltage and 4-20 mA current output options.

Ordering information

- 03002 WIND SENTRY ANEMOMETER AND VANE
- 03002L* WIND SENTRY ANEMOMETER AND VANE (4-20mA outputs)
- 03002V* WIND SENTRY ANEMOMETER AND VANE (0-1VDC outputs)
- 03102 WIND SENTRY ANEMOMETER (with mounting bracket)
- 03102L* WIND SENTRY ANEMOMETER (4-20mA outputs)
- 03102V* WIND SENTRY ANEMOMETER (0-1 VDC outputs)

* SPECIFY SUFFIX FOR DESIRED WIND SPEED SCALE:

- 0-50 M/SADD SUFFIX "M"
- 0-100 MPHADD SUFFIX "P"
- 0-100 KNOTSADD SUFFIX "N"
- 0-200 KM/HRADD SUFFIX "K"

SPECIFICATIONS:

Range:

Wind speed: 0 to 50 m/s

Azimuth: 360° mechanical, 352° electrical 8° open

Accuracy:

Wind speed: ±0.5 m/s

Wind direction: ±5

Threshold:

Cup Anemometer: 1.1 m/s

Vane: 1.3 m/s (2.9 mph) at 10°

Dynamic Response:

Cup wheel distance constant: 2.3 m

Vane delay distance: 0.5 m

Damping ratio: 0.2

Signal Output:

Wind speed: AC sine wave, 1 pulse per rev. 1800 rpm (30 Hz) = 22.8 m/s (51.0 mph)

Wind direction: Analog DC voltage from 10KW conductive plastic potentiometer, 1.0% linearity, life expectancy 50 million revolutions.

Power Requirement:

Potentiometer excitation: 15 VDC maximum

Dimensions:

Overall height: 32 cm

Crossarm length: 28 cm between instruments center

Vane length: 22 cm

Cup wheel diameter: 12 cm

Crossarm Mounting: 34 mm diameter

Weight: Shipping weight: 1.3 kg

MODEL 03002V 0-1 VDC outputs

Power requirement: 8 to 24 VDC (5mA @ 12 VDC)

Output: 0 to 1.00 VDC full scale, 0 to 5.00 VDC

MODEL 03002L 4-20 mA outputs

Power requirement: 8 to 30 VDC (40mA max)

Output: 4 to 20 mA full scale