

200-WS-23 Current Loop Wind Sensor



Current Loop Wind Sensor Printed Circuit Board in NEMA Enclosure



200-WS-02 Wind Speed & Direction Sensor

The **WeatherPort Model 200-WS-23 Wind Sensor** monitors wind speed and direction. The electronics converts the raw signals from the wind sensors to proportional 4 to 20 mA current loop values for use by process control or monitoring systems. It acts like a variable resistance that draws 4-20 mA when powered with 8 to 30 Vdc. No external power is required because the encoding electronics for wind speed and for wind direction are isolated and powered from their respective 2-wire current loops.

Two versions are offered. The 200-WS-23 measures both wind speed and direction, while the 200-WS-23S measures wind speed only. Both systems consist of two subassemblies, a wind sensor and a signal conditioning electronics package in a NEMA housing. Although it has only one PC board, it contains two completely independent circuits, one for wind speed and one for wind direction.

The wind sensor includes a three cup anemometer and wind vane. The sensor is ruggedly constructed of UV resistant ABS plastic and anodized aluminum parts, and includes 40' of cable. Additional cable lengths can be supplied. The electronics package is supplied in a gasketed wall mount NEMA enclosure.

Specifications

Wind Speed

Speed threshold: 0.8 mph
 Transducer type: Reed switch
 Speed constant: 1.25 mph = 1 pps
 Measurement range: 0-100 mph (standard)
 Optional: 0-50 m/s, 0-100 knots, 0-200 km/hr
 Accuracy: 1 mph or $\pm 3\%$

Wind Direction

Azimuth accuracy: $\pm 3^\circ$
 Bearings: Bushing
 Potentiometer gap: 5°
 Threshold: 1.2 mph
 Measurement range: 0-360°

Current Loop

Accuracy: $\pm 1\%$ full scale
 Output span: 4 to 20 mA, proportioned to 0-100 mph
 Output span: 4 to 20 mA, proportioned to 0-360°
 Supply voltage range: 8 to 30 Vdc
 2-wire loop interface: Screw terminal block
 Interface power: Derived from current loop
 Circuit time constant: 1 sec
 Temperature range: -58° to 140° F (-50° to 60° C)

Dimensions

Wind speed and direction: 12" H x 10" W
 Wind speed only: 4.5" H x 8.5" W
 Electronics enclosure size: 4.7" H x 4.7" W x 2.25" D
 Sensor cable length: 40'
 Weight/Shipping: 4 lbs/6 lbs

Ordering Information

200-WS-23	Current Loop Wind Speed & Direction Sensor
200-WS-23S	Current Loop Wind Speed Sensor
200-WS-01B	Replacement Wind Speed Sensor
200-WS-02F	Replacement Wind Speed & Direction Sensor
330-0524	Additional Sensor Cable, per foot
395-A-003	Optional Mast Mounting Hardware, for electronics encl