



S-WDA-M003 Sensor

Wind Direction Smart Sensor

The Wind Direction Smart Sensor is a research-grade plug-and-play sensor for measuring and logging wind data. It provides average wind direction for the measurement interval. This highly-durable wind vane has a drip overhang for anti-icing. Its shielded stainless-steel ball bearings and static-dissipating housing provide a long sensor life. The sensor calculates a unit vector average of the wind direction, providing data directly in degrees.

NOTE: an M-CAA Full Cross Arm or M-CAB Half Cross Arm is required for mounting.

Interested in wireless sensors? The wireless Wind Speed and Direction sensor is available for use with the HOBOnet Field Monitoring System.

Supported Measurements:

Wind

Key Advantages:

- Research-grade plug-and-play sensor for measuring and logging wind direction data
- Highly-durable wind vane has a drip overhang for anti-icing
- Shielded stainless-steel ball bearings



S-WDA-M003 Sensor Specifications

Specifications	Wind Direction
Measurement Range	0 to 355 degrees, 5 degree dead band
Maximum Wind Speed Survival	67 m/sec (150 mph)
Accuracy	± 5 degrees
Resolution	1.4 degrees
Starting Threshold	1.0 m/s (2.2 mph)
Measurement Definition	Unit vector components of wind direction are accumulated every three seconds for duration of logging interval. Average direction is calculated from the average of these.
Operating Temperature Range	-40°C to +70°C (-40°F to +158°F)
Environmental Rating	Weatherproof
Service Life	4 to 6 years typical depending upon environmental conditions
Housing	Injection-molded housing and vane, static dissipating base, lead-free silicon bronze nose, and aluminum mounting rod.
Bearing Type	two shielded stainless steel ball bearings
Turning Radius	Approximately 13.5 cm (5.25 in.)
Dimensions	46 x 20 cm (18 x 8.5 in) including 1.27 cm (0.5 in) diameter mounting rod, 2.5 mm (0.1 in) drip overhang
Weight	Approximately 370 g (13 oz)
Number of Data Channels	1
Measurement Averaging Option	Automatic averaging (see Measurement Definition)
Cable Length Available	3.5 m (11.5 ft)
Length of Smart Sensor Network Cable	0.5 m (1.6 ft)
CE	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)
Part Number	S-WDA-M003

A single HOBO Weather Station logger can accommodate 15 data channels and up to 100 m (325 ft) of smart sensor cable (the digital communications portion of the sensor cables).