



## HOBO<sup>®</sup> S-WSET-B Sensor

### Wind Speed and Direction Set Smart

The Wind Sensor Set includes Onset's research-grade plug-and-play Wind Speed Smart Sensor and the Wind Direction Smart Sensor. This combination provides average wind speed, highest 3-second wind gust, and average wind direction for the measurement interval. These durable sensors will provide many years of accurate and reliable performance.

NOTE: Mount these on the M-CAA Full Cross Arm for proper sensor spacing for accurate wind measurement in all wind directions.

The cross arm must be mounted on a stable mast, using guy wires as needed to prevent the sensors from vibrating in high winds.

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

#### Key Advantages:

- Wind Sensor Set includes Onset's research-grade plug-and-play Wind Speed Smart Sensor and the Wind Direction Smart Sensor
- Provides average wind speed, highest 3-second wind gust, and average wind direction for the measurement interval
- Durable sensors



## HOBO S-WSET-B Sensor Specifications

| Specifications                       | Wind Speed/Gust (S-WSB-M003)   | Wind Direction (S-WDA-M003)   |
|--------------------------------------|--|---|
| Measurement Range                    | 0 to 76 m/s (0 to 170 mph)   | 0 to 355 degrees, 5 degree dead band  |
| Maximum Wind Speed Survival          | 76 m/sec (170 mph)   | 67 m/sec (150 mph)  |
| Accuracy                             | ± 1.1 m/s (2.4 mph) or<br>± 4% of reading whichever is greater   | ± 5 degrees   |
| Resolution                           | 0.5 m/s (1.1 mph)  | 1.4 degrees   |
| Starting Threshold                   | 1.0 m/s (2.2 mph)  | 1.0 m/s (2.2 mph)   |
| Measurement Definition               | Cup revolutions are accumulated every three seconds for the duration of the logging interval. Wind speed is the average speed for the entire logging interval. Gust speed is the highest three-second wind recorded during the logging interval. | 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 +75°C (-40°F to +167°F)   | -40°C to +70°C (-40°F to +158°F)  |
| Environmental Rating                 | Weatherproof   | Weatherproof  |
| Service Life                         | Greater than 5 years typical   | 4 to 6 years typical depending upon environmental conditions  |
| Housing                              | Three cup polycarbonate anemometer: Modified Teflon® bearings and hardened beryllium shaft with ice shedding design  | Injection-molded housing and vane, static dissipating base, lead-free silicon bronze nose, and aluminum mounting rod.   |
| Bearing Type                         | Modified Teflon® bearings  | two shielded stainless steel ball bearings  |
| Turning Radius                       | 9.5 cm (3.75 in.)  | Approximately 13.5 cm (5.25 in.)  |
| Dimensions                           | 41 x 16 cm (16 x 6.5 in.) including 1.27 cm (0.5 in) diameter mounting rod; 5.5 cm (2.1 in.) drip overhang   | 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 700 g (1.5 lbs)  | Approximately 370 g (13 oz)   |
| Number of Data Channels              | 2  | 1   |
| Measurement Averaging Option         | No   | Automatic averaging (see Measurement Definition)  |
| Cable Length Available               | 3.5 m (11.5 ft)  | 3.5 m (11.5 ft)   |
| Length of Smart Sensor Network Cable | 0.5 m (1.6 ft)   | 0.5 m (1.6 ft)  |
| CE                                   | The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)  | The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)   |
| Part Number                          | S-WSB-M003   | 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).

## Contact Us

Sales (8am to 5pm ET, Monday through Friday)

- ▶ Email [sales@onsetcomp.com](mailto:sales@onsetcomp.com)
- ▶ Call 1-508-759-9500
- ▶ In U.S. toll free 1-800-564-4377
- ▶ Fax 1-508-759-9100

Technical Support (8am to 6pm ET, Monday through Friday)

- ▶ Contact Product Support [www.onsetcomp.com/support/contact](http://www.onsetcomp.com/support/contact)
- ▶ Call 1-508-759-9500
- ▶ In U.S. toll free 1-877-564-4377

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