

# **Bluetooth® Anemometer**

## **850020**

### **Instruction Manual**

SPER  
SCIENTIFIC

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Environmental Measurement Instruments

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## INTRODUCTION

Sper Scientific's Bluetooth® Anemometer Meter is small, light, and simple to use. Simultaneously displays air temperature in °C or °F, and air velocity in 5 units of measure, on the meter's large 1-½" high backlit display. Features minimum and maximum hold (peak), data hold and moving average functions. The meter offers the convenience of Bluetooth® for wireless communication with free iOS and Android Apps. Results can also be remotely viewed on your smartphone in real time, saved and exported. This enables the meter to be used as a remote wireless probe and as a datalogger. Comes ready to use with instructions, tripod screw, and a 9V battery.

## PANEL DESCRIPTION


1. Anemometer Vane
2. LCD Display
3. HOLD/💡 button
4. MAX/MIN button
5. Power button
6. Range selection
7. Bluetooth button



## MEASUREMENT PROCEDURES

1. Turn the meter on/off by pressing the **POWER** button.
2. Airspeed will appear in large digits on the lower display and temperature in smaller digits on the upper display.
3. Hold the red button down for 2 seconds to toggle between temperature readings in °C and °F.
4. Press the red button to toggle between m/s, ft/min, km/h, MPH, knots.

## BACKLIGHT

Press  for 2 seconds to turn the illuminated display on/off.

## HOLD FUNCTION

With the meter on, press the **HOLD** button to display “HOLD” and the last reading. Press **HOLD** again to exit this function.

## MAX/MIN FUNCTION

Max/Min readings are continually updated as soon as you enter the Max/Min mode. These readings are reset when you exit the Max/ Min mode, or when the meter is turned off.

1. Press the **MAX/MIN** button once to display “MAX” and the maximum (peak) recorded airflow. The display will be updated only when the max (peak) is exceeded.

2. Press the **MAX/MIN** button again to display “MIN” and the minimum airflow. The display will be updated only on reaching a lower airflow.
3. Press the **MAX/MIN** button again to view a moving average of airflow since you first entered Max/Min mode.
4. Press the **MAX/MIN** button again to exit Max/Min mode. The current reading is now displayed and continually updated.


## **AUTO POWER OFF**

1. If no buttons are pushed for about 10 minutes, the meter will automatically turn off.
2. While the meter is on, press the power button for 2 seconds to override Auto Power Off: “⓪” disappears from the display indicating that Auto Power Off is disabled.

**Note...** The meter defaults to Auto Power Off each time it is turned on.

## **BLUETOOTH® COMMUNICATION**

### **Download and pairing**





1. Download the iOS or Android “Meterbox Pro” APP to your smartphone.
2. Press the  button on the meter to activate Bluetooth®.
3. Press “Connect Device” on the APP.
4. Now choose “850020” from the device list that now appears. The meter will immediately begin displaying a real time graph of your meter’s readings.

### **Saving your results**

5. To begin recording data press the red button on screen. You will now be asked to name and save the file. The data will now start recording. Press the red button again to stop recording.



## Viewing saved Data

6. Press  at the top of the screen to view saved data. Next, choose “Files” at the bottom of the screen, then choose the file you wish to view. A graph of the entire record will now appear. Press  on the lower right to see the data including recording times, maximum, minimum and average readings.
7.  (saved data file graph) enables you to add notes and photos to your data file.
8. Press  at the top of the screen to export the data for to your computer for further analysis or storage.


## Settings

### Alarms:

1. Select Instrument Type: **Environmental Meter**.
2. Press **Next** then **Choose Function** and select your alarm parameter.
3. Insert your **Hi** and **Low** alarm values.
4. Repeat steps 3 & 4 for additional alarm parameters you wish to set for your meter.
5. Use the **Alarm** switch at the bottom to enable / disable the alarm for the parameter shown. Use the **Allow Alarm** switch at the top to enable / disable alarms on all parameters.



**Recording:** Choose your test sample rate and duration.

## BATTERY REPLACEMENT

- Turn off the meter when  is displayed.
- Open the battery compartment and insert a fresh 9V battery.
- Replace the cover.

# SPECIFICATIONS

Airspeed	Range	Resolution	Accuracy
Airspeed m/s	1.10~25.00 m/s	0.01 m/s	+/- (3%+0.30 m/s)
Airspeed km/h	4.0~90.0 km/h	0.1 km/h	+/- (3%+1.0 km/h)
Airspeed ft/min	220~4920 ft/min	1 ft/min	+/- (3%+40 ft/min)
Airspeed mph	2.5~56.0 mph	0.1 mph	+/- (3%+0.4 mph)
Airspeed knots	2.2~48.0 knots	0.1 knots	+/- (3%+0.4 knots)

Display	½" high digits, 4-digit LCD, display updates every 0.5 seconds.
Sensor	Air velocity sensor NTC-type precision thermistor.
Operating Altitude	7000' (2000 meters) maximum
Operating Environment	32-122°F (0°C - 50°C) <80% RH
Storage Environment	14 to 140°F (-10 to 60°C) <80% RH
Low Battery	 will flash when battery voltage drops below 7.2V. When battery voltage drops below 6.5V the backlight and  will flash twice and the meter will auto power off.
Dimension	8 x 2" x 1-½" (213 x 54 x 36 mm)
Weight	6 oz (172 g)

## **OPTIONAL ACCESSORIES**

840093 Field Tripod

850020V Replacement Anemometer Vane

# NOTES

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## WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for **one (1) year** from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover damage resulting from accident, misuse, or abuse of the product. To obtain warranty service, ship the unit postage prepaid to:

**SPER SCIENTIFIC LTD,**  
8281 E. Evans Rd., Suite 103  
Scottsdale, AZ 85260  
(480) 948-4448

The defective unit must be accompanied by a description of the problem and your return address. Register your product online at [www.sperwarranty.com](http://www.sperwarranty.com) within 10 days of purchase.

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