



## WINDSONIC1-ETM

2-D Sonic Wind Sensor with RS-232 Output and Mounts for ET107 Station



### Overview

The WindSonic1-ETM is a two-dimensional ultrasonic anemometer for measuring wind speed and direction. On this version of the WindSonic1, the cable is fitted with a connector and has the ideal length for attachment to the ET107 Station.

The WindSonic1-ETM includes a 1.2 ft pipe that can be used with the ET107's crossarm U-bolt bracket.

*WindSonic1 are manufactured by Gill Instruments Ltd.*

### Detailed Description

The WindSonic1 uses two pairs of orthogonally oriented transducers to sense the horizontal wind. The transducers bounce the ultrasonic signal from a hood, thus minimizing the effects of transducer shadowing and flow distortion.

Unlike mechanical anemometers, the WindSonic1 has no moving parts to be periodically replaced—minimizing routine maintenance costs.

### Specifications

Operating Humidity	< 5% to 100% RH
Operating Temperature	-35° to +70°C
Storage Temperature	-40° to +80°C
Input Voltage	9 to 30 Vdc
Typical Current Drain	~15 mA (continuous)
Measurement Frequency	40 Hz block averaged to a 1 Hz output frequency
Outputs Parameters	Polar (direction and speed) or orthogonal ( $U_x$ and $U_y$ wind)
Output Signal	RS-232

Maximum Cable Capacitance	2500 pF
Maximum Cable Length	15.24 m (50 ft) For configurations requiring longer cable lengths, contact an application engineer at Campbell Scientific.
Diameter	14.2 cm (5.6 in.)
Length	16.0 cm (16.3 in.)
Weight	0.5 kg (1.1 lb)

#### Wind Direction

Range	0° to 359° (no dead band)
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Accuracy	$\pm 3^{\circ}$
Resolution	$1^{\circ}$

Wind Speed	
Range	0 to 60 m/s
Accuracy	$\pm 2\%$ (@ 12 m s <sup>-1</sup> )
Resolution	0.01 m/s

For comprehensive details, visit: [www.campbellsci.com.au/windsonic1-etm](http://www.campbellsci.com.au/windsonic1-etm) 