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WHEN MEASUREMENTS MATTER

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.

WindSonics 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)

Accuracy	±3°
Resolution	1°

Wind Speed

Range	0 to 60 m/s
Accuracy	±2% (@ 12 m s^{-1})
Resolution	0.01 m/s

For comprehensive details, visit: www.campbellsci.com/windsonic1-etm

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