



WINDSONIC4-QD

2-D Sonic Wind Sensor with SDI-12 Output for RAWS-F Stations



Overview

The WindSonic4-QD is a two-dimensional ultrasonic anemometer for measuring wind speed and direction. This sensor provides an alternative to the 034B-QD, a traditional mechanical cup and vane anemometer. Unlike mechanical

anemometers, there are no moving parts to be periodically replaced—minimizing routine maintenance costs.

*WindSonic*s are manufactured by Gill Instruments Ltd.

Detailed Description

The WindSonic4 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.

The WindSonic4-QD outputs an SDI-12 signal that is read by the RAWS-F's on-board CR1000M module. This sensor provides an alternative to the 034B-QD, a traditional mechanical cup and vane anemometer. Unlike mechanical anemometers, there are 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 (typical)
Input Voltage	9 to 30 Vdc
Typical Current Drain	< 10 mA (@12 V)
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	SDI-12 version 1.3
Diameter	14.2 cm (5.6 in.)
Cable Length	2.74 m (9 ft)
Length	16.0 cm (6.3 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 $\pm 2\%$ (@ 12 m/s)

Resolution 0.01 m/s

For comprehensive details, visit: www.campbellsci.com/windsonic4-qd 



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