CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

034B-QD

Wind Set for RAWS-F Station

Cable Connection for Fire Weather Quick Deployment Station

Overview

The 034B-QD, manufactured by Met One, combines a three-cup anemometer and vane into a single integrated package to measure wind speed and direction. This wind set is constructed out of lightweight aluminum and is designed for continuous, long-term operation for your applications.

For this version of the 034B Wind Set, the cable terminates in a military style connector (instead of pigtails) and is the ideal length for attachment to a RAWS-F Fire Weather Quick Deployment Station.

Detailed Description

The 034B-QD monitors wind speed using a three-cup anemometer that contains a sealed magnetic reed switch. Rotation of the cup wheel produces a pulse that is directly proportional to wind speed. The frequency of the pulse is measured by the data logger pulse count channel, then converted to engineering units (mph, m/s, knots).

Wind direction is sensed with a potentiometer. With the precision excitation voltage from the data logger applied to the potentiometer element, the output signal is an analog voltage that is directly proportional to the azimuth of the wind direction.

Specifications

Operating Temperature Range	-30° to +70°C
Cable Length	259.08 cm (102 in.)
Weight	907 g (2.0 lb) with 3.35-m (11-ft) cable

Wind Speed (Anemometer)

Range	0 to 75 m/s (0 to 167 mph)
Accuracy < 10.14 m/s (22.7 mph)	0.1 m/s (0.25 mph)
Accuracy > 10.14 m/s (22.7 mph)	±1.1% of true
Resolution	(0.7998 m s^{-1}) / (scan rate in seconds) or (1.789 mph) / (scan rate in seconds)
Starting Threshold	0.4 m/s (0.9 mph)
Sensor Output	Pulsed contact closure
Anemometer Radius	10.7 cm (4.2 in.)
Anemometer Height	24.4 cm (9.6 in.)

Wind Direction (Vane)

Mechanical Range	360°
Electrical Range	356° (4° open)
Accuracy	±4°
Damping Ratio	0.25
Resolution	< 5°
Potentiometer Resistance	0 to 10 kΩ (open at crossover)
Vane Length	33.5 cm (13.2 in.)

For comprehensive details, visit: www.campbellsci.com/034b-qd

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