



IEC 61400-12 Class 1 Anemometer

Ideal for wind-energy applications

Overview

The A100LK is an anemometer for general meteorology and for wind-energy surveys. Its low power consumption and wide power-supply range make it popular for remote locations with no access to ac power, and its pulse/frequency signal is ideal for use with Campbell Scientific

dataloggers. The sensor is constructed with anodized aluminum alloys, stainless steel, and weather-resistant plastics for long life. It is used as part of our WMS100 wind-monitoring system.

Benefits and Features

- ▶ IEC Class 1 performance
- ▶ Low power consumption
- ▶ High rate of pulses per revolution produced makes it suitable for wind-surveying applications where turbulence is estimated
- ▶ Bearings protected from the entry of moisture droplets and dust, resulting in an instrument suitable for permanent exposure to the weather

Technical Description

Rotation of the A100LK's three-cup rotor is electronically converted to pulse output signals proportional to wind speed. The A100LK produces a higher rate of pulses per

revolution (up to 13) compared to relay-based sensors, making it suitable for wind surveying where turbulence needs to be estimated.

Specifications

Sensor	3-cup anemometer
Measurement Description	Wind speed
Signal Type/Output	Electronic pulse
Range	0 to 77 ms ⁻¹
Threshold	0.15 ms ⁻¹ (starting speed 0.2 ms ⁻¹ , stopping speed 0.1 ms ⁻¹)

Maximum Speed	77.22 ms ⁻¹
Accuracy	1% ±0.1 ms ⁻¹
Distance Constant	2.3 m ±10%
Calibration Data	Supplied for anemometer and rotor at one test speed to an accuracy of ±1% at +15°C.

	(12 Vdc supply and an analog output load of 1 MΩ)
Operating Temperature Range	-30° to +70°C
Rotor	15.2 cm (6 in.) diameter three-cup rotor
Supply Voltage	6.5 to 28 Vdc
Current Consumption	2 mA maximum 1.6 mA typical (no output load)

Power-up Time	5 s
Surge Protection	Vector PC3L2 anti-surge module fitted
Housing Diameter	5.5 cm (2.2 in.)
Height	19.5 cm (7.68 in.)
Weight	490 g (17.3 oz) including 3 m (10 ft) cable

For comprehensive details, visit: www.campbellsci.eu/a100k 



80 Hathern Road, Shepshed, LE12 9GX UK | +(0)1509 828888 | sale@campbellsci.co.uk | www.campbellsci.eu
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