







014A

3-Cup Anemometer



# Reliable, Accurate Wind Speed

Compatible with all Campbell Scientific dataloggers

1049 Nu-Rail Fitting

## **Overview**

The 014A is a three-cup anemometer that monitors wind speed for the range of 0 to 45 m s<sup>-1</sup> with a threshold of 0.45 m s<sup>-1</sup>. It connects directly to a Campbell Scientific datalogger, which mea-

sures the 014A's pulse signal and converts the signal to engineering units (mph, m s<sup>-1</sup>, knots).

## **Benefits and Features**

- Ideal for applications that do not require wind direction measurements
- > Sealed magnetic reed switch
- Designed for continuous, long term, unattended operation in adverse conditions
- > Standard aluminum cup assembly has a distance constant of less than 4.5 m
- > For greater sensitivity, an optional LEXAN cup assembly has a distance constant of less than 1.5 m

# **Technical Description**

## Construction

The 014A is constructed of corrosion-resistant, stainless-steel and anodized aluminum. It's three-cup anemometer assembly contains a sealed magnetic reed switch. Rotation of the cupwheel produces a pulse that is directly proportional to wind speed.

## Mounting

The 014A attaches to a Campbell Scientific crossarm using a 1049 Nu-Rail fitting or CM220 Right Angle Mounting Bracket. It also can be attached to the top of our CM110, CM115, and CM120 stainless-steel tripods using the CM216 Sensor Mounting Kit.

Note: The 014A is manufactured by Met One Instruments (Grants Pass, OR) but is cabled by Campbell Scientific for use with our dataloggers.



# **Ordering Information**

## **Wind Speed Sensor**

**014A-L** Met One Wind Sensor with user-specified cable length. Enter cable length, in feet, after the -L. Must choose a cable termination option (see below).

#### Cable Termination Options (choose one)

**-PT** Cable terminates in stripped and tinned leads for direct connection to a datalogger's terminals.

**-PW** Cable terminates in connector for attachment to a prewired enclosure.

#### Mounts

**1049** ¾-in. x 1-in. Nu-Rail fitting for attaching the 014A to a crossarm, such as a CM202, CM204, or CM206.

**CM220** Right Angle Mounting Bracket for attaching the 014A to a crossarm, such as a CM202, CM204, or CM206.

CM216 Sensor Mounting Kit for attaching sensor to the top of a CM110, CM115, or CM120 tripod.

## **Specifications**

▶ Range: 0 to 45 m s<sup>-1</sup> (0 to 100 mph)

> Starting Threshold: 0.45 m s<sup>-1</sup> (1.0 mph)

Accuracy: 0.11 m s<sup>-1</sup> (0.25 mph) or 1.5%

Distance Constant Standard: < 4.5 m (15 ft) Optional Fast Response: < 1.5 m (5 ft)</p>

Contact Rating: 10 mA maximum

▶ Temperature Range: -50° to +70°C

Radius: 10.4 cm (4.1 in)Height: 34.8 cm (13.7 in)

Sensor Weight: 318 g (11 oz)

Cable Description: vinyl jacket, shielded, with quick-connect connector for attachment to the sensor

Cable Weight: 140 g (5 oz) per 10 ft length

Cable Length Recommendations <sup>1</sup>						
CM106B <sup>2</sup>	CM110 <sup>2</sup>	CM115 <sup>2</sup>	CM120 <sup>2</sup>	UT10	UT20	UT30
4 m (13 ft)	4 m (13 ft)	6 m (19 ft)	7 m (24 ft)	4 m (13 ft)	7 m (24 ft)	10 m (34 ft)

#### Notes:

- 1. The lengths assume the sensor is mounted atop the tripod/tower at the end of a 2 ft crossarm.
- 2 The lengths assume the enclosure is mounted to the tripod mast. If it is mounted to the leg base, add 0.6 m (2 ft) to the cable length.