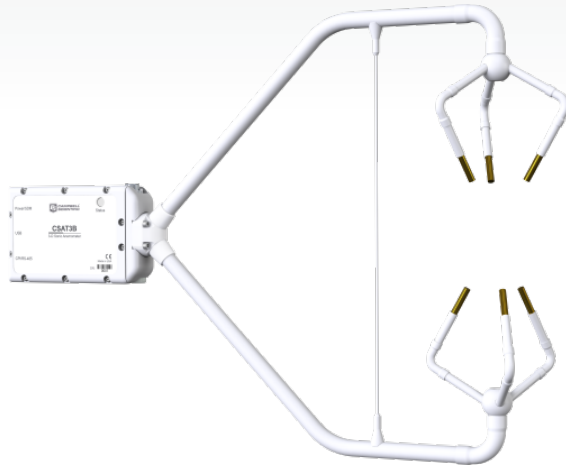








# Wind Speed and Wind Direction Sensors







Wind vanes, anemometers, and lidar



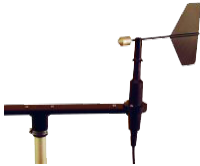





Wind vanes measure wind direction and are often used with anemometers, which measure wind speed. Campbell Scientific offers a variety of anemometer designs: cup, propeller, ultrasonic, sonic, and lidar. Most of our wind sensors are modified slightly from the manufacturers' stock items so that they may be used with our data loggers in research, air quality, and general purpose meteorological applications.

		<i>Measurement Description</i>	<i>Operating Temperature Range</i>	<i>Starting Threshold</i>	<i>Accuracy</i>
<p><b>05103-L</b> Wind Monitor</p> <p>Popular</p> 		Wind speed and direction	-50° to +50°C (assuming non-riming conditions)	<ul style="list-style-type: none"> <li>▶ Wind Direction: 1.1 m/s (2.4 mph) at 10° displacement</li> <li>▶ Wind Speed: 1.0 m/s (2.2 mph)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Wind Direction: ±3°</li> <li>▶ Wind Speed: ±0.3 m/s (±0.6 mph) or 1% of reading</li> </ul>
<p><b>CSAT3B</b> 3-D Sonic Anemometer with Integrated Electronics</p> <p>Popular</p> 		Highest-quality wind speed and direction	-40 to +50°C (equivalent to 305 to 368 m s <sup>-1</sup> in speed of sound)	—	—
<p><b>CSAT3BH</b> Heated 3-D Sonic Anemometer with Integrated Electronics</p> <p>Popular</p> 		Highest-quality wind speed and direction	-40 to +50°C (equivalent to 305 to 368 m s <sup>-1</sup> in speed of sound)	—	—
<p><b>WINDSONIC4-L</b> 2-D Sonic Wind Sensor with SDI-12 Output</p> <p>Popular</p> 		Wind speed and direction	-35° to +70°C	—	<ul style="list-style-type: none"> <li>▶ Wind Direction: ±3°</li> <li>▶ Wind Speed: ±2% (@ 12 m/s)</li> </ul>

		<i>Measurement Description</i>	<i>Operating Temperature Range</i>	<i>Starting Threshold</i>	<i>Accuracy</i>
<b>03002-L</b> Wind Sentry Set <span style="background-color: #4CAF50; color: white; padding: 2px;">Popular</span>		Wind speed and direction	-50° to +50°C (assuming non-riming conditions)	<ul style="list-style-type: none"> <li>➤ Wind Speed (Anemometer): 0.5 m/s (1.1 mph)</li> <li>➤ Wind Direction (Vane): 0.8 m/s (1.8 mph) with 10° displacement</li> <li>➤ Wind Direction (Vane): 1.8 m/s (4 mph) with 5° displacement</li> </ul>	<ul style="list-style-type: none"> <li>➤ Wind Direction (Vane): ±5°</li> <li>➤ Wind Speed (Anemometer): ±0.5 m/s (1.1 mph)</li> </ul>
<b>05108-L</b> Wind Monitor-HD		Wind speed and direction	-50° to +60°C (assuming non-riming conditions)	<ul style="list-style-type: none"> <li>➤ Wind Direction: 1.0 m/s (2.2 mph) at 10° displacement</li> <li>➤ Wind Speed: 1.0 m/s (2.2 mph)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Wind Speed: ±0.3 m/s (±0.6 mph) or 1% of reading</li> <li>➤ Wind Direction: ±3°</li> </ul>
<b>05108-45-L</b> Wind Monitor-HD, Alpine Version		Wind speed and direction	-50° to +60°C (assuming non-riming conditions)	<ul style="list-style-type: none"> <li>➤ Wind Direction: 1.0 m/s (2.2 mph) at 10° displacement</li> <li>➤ Wind Speed: 1.0 m/s (2.2 mph)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Wind Direction: ±3°</li> <li>➤ Wind Speed: ±0.3 m/s (±0.6 mph) or 1% of reading</li> </ul>
<b>05305-L</b> Wind Monitor, Air Quality Version		Wind speed and direction	-50° to +50°C (assuming non-riming conditions)	<ul style="list-style-type: none"> <li>➤ Wind Direction: 0.5 m/s (1.0 mph) at 10° displacement</li> <li>➤ Wind Speed: 0.4 m/s (0.9 mph)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Wind Direction: ±3°</li> <li>➤ Wind Speed: ±0.2 m/s (±0.4 mph) or 1% of reading</li> </ul>
<b>WINDSONIC1-L</b> 2-D Sonic Wind Sensor with RS-232 Output		Wind speed and direction	-35° to +70°C	—	<ul style="list-style-type: none"> <li>➤ Wind Speed: ±2% (@ 12 m s<sup>-1</sup>)</li> <li>➤ Wind Direction: ±3°</li> </ul>
<b>014A-L</b> 3-Cup Anemometer		Wind speed	-50° to +70°C	0.45 m/s (1.0 mph)	0.11 m/s (0.25 mph) or 1.5%

		<i>Measurement Description</i>	<i>Operating Temperature Range</i>	<i>Starting Threshold</i>	<i>Accuracy</i>
<b>024A-L</b> Wind Direction Sensor		Wind direction	-50° to +70°C (assumes non-riming conditions)	—	±5°
<b>03101-L</b> Wind Sentry Anemometer		Wind speed	-50° to +50°C (assumes non-riming conditions)	0.5 m/s (1.1 mph)	±0.5 m/s (1.1 mph)
<b>ICEFREE3A</b> Anemometer		Wind speed	-40° to +60°C	—	—
<b>27106T-L</b> Vertical Propeller Anemometer		Vertical wind speed	-50° to +50°C	—	—
<b>P2546D-L</b> Three-Cup Anemometer with MEASNET Calibration (electronic version)		Wind speed	Switching Characteristics: -40° to +60°C	< 0.3 m/s	—
<b>P2546C-L</b> Three-Cup Anemometer with MEASNET Calibration (coil version)		Wind speed	Switching Characteristics: -35° to +60°C	< 0.4 m/s	—

		<i>Measurement Description</i>	<i>Operating Temperature Range</i>	<i>Starting Threshold</i>	<i>Accuracy</i>
<b>P2546A-L</b> Three-Cup Anemometer with MEASNET Calibration		Wind speed	Switching Characteristics: -35° to +60°C	< 0.4 m/s	—
<b>A100LK-L</b> Vector Anemometer		Wind speed	-30° to +70°C	—	1% ±0.1 ms <sup>-1</sup>
<b>03301-L</b> Wind Sentry Vane		Wind direction	-50° to +50°C (assuming non- riming conditions)	<ul style="list-style-type: none"> <li>▶ 0.8 m s<sup>-1</sup> (1.8 mph) with 10° displacement</li> <li>▶ 1.8 m/s (4 mph) with 5° displacement</li> </ul>	±5°
<b>ICEFREE3V</b> Wind Vane Sensor		Wind direction	-40 to +80°C	—	—
<b>020C-L</b> Wind Direction Sensor		Wind direction	-50° to +85°C (-58° to +185°F)	—	±3°
<b>034B-L</b> Wind Set		Wind speed and direction	-30° to +70°C	Wind Speed (Anemometer): 0.4 m/s (0.9 mph)	<ul style="list-style-type: none"> <li>▶ Wind Speed (Anemometer): 0.1 m/s (0.25 mph) at &lt; 10.14 m/s (22.7 mph)</li> <li>▶ Wind Direction (Vane): ±4°</li> <li>▶ Wind Speed (Anemometer): ±1.1% of true at &gt; 10.14 m/s (22.7 mph)</li> </ul>

For comprehensive details, visit: [www.campbellsci.com/wind-speed-direction](http://www.campbellsci.com/wind-speed-direction) 

