Overview
The A100LK is an anemometer suitable for your general meteorology applications and 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 data loggers. The sensor is constructed from 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

Detailed 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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Threshold</td>
<td>0.15 ms$^{-1}$ (starting speed 0.2 ms$^{-1}$, stopping speed 0.1 ms$^{-1}$)</td>
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<tr>
<td>Maximum Speed</td>
<td>77.22 ms$^{-1}$</td>
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<tr>
<td>Accuracy</td>
<td>1% ±0.1 ms$^{-1}$</td>
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<tr>
<td>Distance Constant</td>
<td>2.3 m ±10%</td>
</tr>
<tr>
<td>Calibration Data</td>
<td>Current Consumption</td>
</tr>
<tr>
<td>--------------------------------------</td>
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<tr>
<td>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)</td>
<td>2 mA maximum</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>1.6 mA typical (no output load)</td>
</tr>
<tr>
<td>Rotor</td>
<td>Power-up Time</td>
</tr>
<tr>
<td>15.2 cm (6 in.) diameter three-cup rotor</td>
<td>5 s</td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>Surge Protection</td>
</tr>
<tr>
<td>6.5 to 28 Vdc</td>
<td>Vector PC3L2 anti-surge module fitted</td>
</tr>
<tr>
<td></td>
<td>Housing Diameter</td>
</tr>
<tr>
<td></td>
<td>5.5 cm (2.2 in.)</td>
</tr>
<tr>
<td></td>
<td>Height</td>
</tr>
<tr>
<td></td>
<td>19.5 cm (7.68 in.)</td>
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<tr>
<td></td>
<td>Weight</td>
</tr>
<tr>
<td></td>
<td>490 g (17.3 oz) including 3 m (10 ft) cable</td>
</tr>
</tbody>
</table>

For comprehensive details, visit: [www.campbellsci.com/a100lk](http://www.campbellsci.com/a100lk)