Luqeeg Luqeegd3q90zngwk

Luqeeg Wind Speed Sensor User Manual

Model: Luqeegd3q90zngwk

1. Product Overview

The Luqeeg Wind Speed Sensor is a high-accuracy three-cup anemometer engineered for precise wind speed measurement. Its robust construction from durable aluminum alloy ensures reliability in various environments, making it ideal for applications such as power plants, meteorological stations, and general wind monitoring. This sensor is designed for ease of installation and provides an analog voltage output proportional to wind speed.



Image: The Luqeeg three-cup wind speed sensor, showcasing its aluminum alloy construction and attached cable.

2. Specifications

Feature	Detail
Item Type	3 Cups Wind Speed Sensor Anemometer
Material	Aluminum Alloy
Weight	Approx. 419g / 14.8oz
Output Voltage	0-3.8V (Analog)
Purpose	Wind Measurement
Cable Length	Approx. 8m / 26.2ft
Installation Aperture	Approx. 4cm / 1.6in
Applicable Scenarios	Power Plants, Meteorological Stations, General Wind Monitoring
Package Dimensions	8.11 x 6.89 x 5.55 inches
Item Model Number	Luqeegd3q90zngwk

3. Package Contents

- 1 x 3 Cups Wind Speed Sensor Anemometer

4. Setup

Follow these steps to set up your Luqeeg Wind Speed Sensor:

1. **Unpacking:** Carefully remove the anemometer from its packaging. Inspect for any visible damage during transit.
2. **Mounting:** Select a suitable location for installation. Ensure the chosen spot provides an unobstructed path for wind flow from all directions. The sensor features an installation aperture of approximately 4cm (1.6 inches) for secure mounting. Use appropriate mounting hardware (not included) to firmly attach the anemometer to a stable surface or pole.
3. **Cable Connection:** Connect the 8-meter cable from the anemometer to your data acquisition system, display unit, or microcontroller. The cable is designed to be waterproof, oil-resistant, and possesses strong anti-interference capabilities to ensure stable signal transmission.



Installation aperture 4CM Easy to install, easy to operate, and easy to use

Image: The anemometer mounted, highlighting the installation aperture against a background of a sailboat, suggesting outdoor use.



Image: The anemometer with its long cable, set against a backdrop of a large cargo ship, illustrating its suitability for marine or industrial environments.

5. Operating Instructions

The Luqeeg Wind Speed Sensor operates by converting the kinetic energy of wind into an electrical voltage. As wind rotates the three cups, an internal generator produces an analog voltage signal that is directly proportional to the wind speed.

- **Voltage Output:** The sensor provides a linear voltage output ranging from 0 to 3.8V. This voltage represents the measured wind speed.
- **Measurement:** To obtain wind speed readings, connect the sensor's output wires to a voltmeter, a data logger, or an analog-to-digital converter (ADC) on a microcontroller. Ensure your device is configured to read analog voltage signals within the 0-3.8V range.
- **Calibration:** To convert the measured voltage into actual wind speed units (e.g., meters per second, kilometers per hour, miles per hour), calibration is essential. This typically involves establishing a correlation curve between known wind speeds and the corresponding voltage outputs from your specific sensor. Refer to specialized meteorological

equipment guides or sensor calibration resources for detailed procedures. The manufacturer may provide specific calibration coefficients, or you may need to perform an empirical calibration.



Image: The anemometer integrated into a larger weather station setup in a vineyard, demonstrating its application in meteorological monitoring.



Image: A collage showing the anemometer's versatility across different environments: power plants, airports, fishing ports, and meteorological stations.

6. Maintenance

Regular maintenance ensures the longevity and accuracy of your wind speed sensor:

- **Regular Inspection:** Periodically inspect the anemometer for any physical damage, such as bent cups, loose mounting, or obstructions (e.g., leaves, debris) that might hinder the rotation of the wind cups.
- **Cleaning:** Gently clean the wind cups and the main body of the sensor with a soft, damp cloth. Avoid using abrasive cleaners or harsh chemicals, as these can damage the aluminum alloy finish or internal components.
- **Cable Check:** Ensure the 8-meter cable remains intact and free from cuts, kinks, or severe bends. Although designed to be waterproof and oil-resistant, protecting the cable from physical damage will help maintain stable signal transmission.

7. Troubleshooting

If you encounter issues with your Luqeeg Wind Speed Sensor, refer to the following common problems and solutions:

- **No Output or Incorrect Readings:**
  - Ensure the sensor is properly connected to your measurement device.
  - Verify that your measurement device is correctly configured to read analog voltage signals (0-3.8V).
  - Check for any physical obstructions preventing the wind cups from rotating freely.
  - Confirm that there is actual wind present at the sensor's location.
- **Sensor Appears to Draw Power or Act as a Motor:**
  - This sensor is designed to *generate* a voltage when its cups rotate due to wind. It should not draw power or act

as a motor.
    - Ensure that your connection to the sensor is purely for reading its voltage output and that you are not inadvertently supplying power to the sensor's output terminals.
- **Difficulty Converting Voltage to Wind Speed (No Documentation for Conversion):**
    - This sensor provides an analog voltage output (0-3.8V) that is proportional to wind speed. It does not provide pulse counts.
    - To convert the measured voltage into specific wind speed units, a calibration curve is required. This curve maps voltage values to corresponding wind speed values.
    - If specific calibration data is not provided with your unit, you may need to perform an empirical calibration by comparing the sensor's voltage output to a known wind speed source (e.g., another calibrated anemometer or a wind tunnel). Alternatively, contact the manufacturer for specific technical documentation regarding the voltage-to-wind-speed conversion ratio for this model.

8. Warranty and Support

For warranty information, technical support, or further inquiries regarding your Luqeeg Wind Speed Sensor, please visit the official Luqeeg store or contact their customer service directly.

Visit the Luqeeg Store on Amazon

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Example: How do I reset this device or fix this error?

Details

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