

Aitoserlea KM53V86 (0-5V)

Aitoserlea Three Cup Anemometer Instruction Manual

MODEL: KM53V86 (0-5V)

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the Aitoserlea DC 12-24V Three Cup Anemometer with 0-5V output. This device is designed for accurate wind speed measurement in various weather monitoring applications. Please read this manual thoroughly before using the product.

2. Safety Information

- Ensure the power supply voltage (DC 12-24V) matches the device specifications to prevent damage.
- Avoid installing the anemometer in locations prone to direct lightning strikes without adequate lightning protection.
- Do not attempt to disassemble or modify the unit, as this may void the warranty and cause malfunction.
- Handle the anemometer with care to avoid damaging the rotating cups or the sensor mechanism.
- Keep the device away from strong electromagnetic interference sources.

3. Package Contents

Verify that all items are present upon unpacking:

- 1 x Aitoserlea Three Cup Anemometer (0-5V Output) with 1M Cable and Flange Base

4. Specifications

Parameter	Value
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Model No.	KM53V86
Output Type	0-5V Analog
Material	Aluminum
Measuring Range	0-30 M/S
Measurement Accuracy	±3%
Start-up Wind Speed	0.2 M/S
Resolution	0.1 M/S
Power Consumption	<3W
Protection Grade	IP67
Power Supply	DC 12-24V
Cable Length	1 Meter

5. Product Overview and Dimensions



Side view of the Aitoserlea Three Cup Anemometer showing overall dimensions: 126mm height and 100mm cup arm span.



Top-down view of the Aitoserlea Three Cup Anemometer base, indicating a 60mm diameter flange, 47mm bolt circle diameter, and 6mm mounting holes.



Close-up view of the anemometer's base and cable connection, highlighting the robust IP67 rated connector.



Internal view of the anemometer's circuit board, showing the KM53V86 sensor module responsible for wind speed measurement.

6. Setup

- Mounting:** Secure the anemometer's flange base to a stable, level surface using appropriate fasteners through the 6mm mounting holes. Ensure the cups are unobstructed and can rotate freely in all directions. The mounting location should be representative of the wind conditions to be measured.
- Wiring:** Connect the anemometer's cable to your data acquisition system or controller. The 0-5V output model typically has three wires:
 - Red Wire:** DC 12-24V Power Supply (+)
 - Black Wire:** Ground (-)
 - Yellow/Green Wire (or similar):** 0-5V Analog Output Signal

Ensure correct polarity and secure connections to prevent damage or inaccurate readings.

- Power On:** Once mounted and wired, apply the DC 12-24V power supply. The anemometer will begin measuring

wind speed immediately.

7. Operating Instructions

The Aitoserlea Three Cup Anemometer continuously measures wind speed and provides an analog voltage output proportional to the detected speed.

- **Output Interpretation:** For the 0-5V output model, the voltage directly correlates to the wind speed within the 0-30 M/S range. Typically, 0V corresponds to 0 M/S, and 5V corresponds to 30 M/S. You can use a linear scaling formula to convert the measured voltage to wind speed (M/S).
- **Data Acquisition:** Connect the 0-5V output signal to a compatible data logger, analog-to-digital converter (ADC), Programmable Logic Controller (PLC), or microcontroller for real-time data monitoring and recording.

8. Maintenance

- **Regular Inspection:** Periodically inspect the rotating cups for any signs of damage, cracks, or accumulation of debris (e.g., leaves, dust, ice) that could impede rotation.
- **Cleaning:** Gently clean the exterior of the anemometer and the cups with a soft, damp cloth. Avoid using harsh chemicals or abrasive materials.
- **Cable and Connections:** Check the cable for any signs of wear, fraying, or damage. Ensure all electrical connections remain secure and free from corrosion.
- **Mounting Stability:** Verify that the anemometer remains securely mounted and that its position has not shifted.

9. Troubleshooting

- **No Output or Incorrect Readings:**
 - Verify the power supply is within the DC 12-24V range and correctly connected.
 - Check all wiring connections for proper polarity and secure contact.
 - Ensure the cups are rotating freely and are not obstructed by debris or physical damage.
 - Confirm that the data acquisition system is correctly configured to read a 0-5V analog input.
- **Intermittent Readings:**
 - Inspect the cable for any signs of damage or breaks.
 - Check for loose connections at both the anemometer and the receiving device.

10. Warranty and Support

For warranty information or technical support, please contact your retailer or the manufacturer directly. Provide your product model number (KM53V86) and purchase details when seeking assistance.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question