WIND MEASUREMENT / DATA SHEET

SS101-04
Compact Wind Speed Sensor

Compact, sealed wind speed sensing for industrial, port, construction and outdoor monitoring applications.

Overview

- SS101-04 is a compact wind speed sensor for stable and accurate capture of ambient wind speed signals.
- Built-in digital circuitry and non-contact magnetic sensing convert cup rotation into an output linearly related to horizontal wind speed.
- Sealed internal and rotating components support water, salt-mist and dust resistance for outdoor operation.



Measuring range **0–50 / 0–30 m/s**	**Start speed** **≥0.5 m/s**	**Accuracy** **±0.5 m/s / ±3%FS**	**Protection** **IP65**
Output **4–20 mA / 0–5 V / 0–10 V**	**Digital** **RS485 (Modbus)**	**Wind resistance** **>70 m/s, 30 min**	**Temperature** **–20°C to +85°C**

Key Advantages

- Non-contact magnetic sensing measurement principle.
- Built-in high-performance sensor for accurate and reliable data collection.
- Wide wind speed measurement range and low start-up wind speed.
- Sealed internal and rotating components for water, salt-mist and dust resistance.
- Fault-tolerant circuit protection helps prevent damage from wrong wiring.
- RF/EMI resistance, lightning-surge protection and CE EMC compliance are stated in the source material.

Application Scenarios

- High-altitude operations and construction machinery.
- Port machinery and outdoor industrial equipment.
- Factories, power plants and industrial/mining sites.
- Wind turbines and large-scale machinery.
- General outdoor wind speed monitoring.

Measurement Principle

SS101-04 measures wind speed using non-contact magnetic sensing. As the three cups rotate in the airflow, the internal digital circuit captures rotational speed and generates an electrical output linearly related to ambient horizontal wind speed.

Technical Specifications

Item	Specification
Operating voltage	15–30 VDC
Measuring range	0–50 m/s; 0–30 m/s
Start-up wind speed	≥0.5 m/s
Accuracy	±0.5 m/s (<5 m/s); ±3%FS (≥5 m/s)
Wind resistance	>70 m/s for 30 min
Protection level	IP65
Operating temperature	−20°C to +85°C
Working humidity	0%–95% RH, non-condensing
Output signal	4–20 mA; 0–5 VDC; 0–10 VDC; RS485 (Modbus)
Body material	Aluminum alloy / polyester coating
Measurement principle	Non-contact magnetic sensing

Specific electrical performance and wiring definitions are subject to the actual product and selected output configuration.

Output / Communication

Output Options

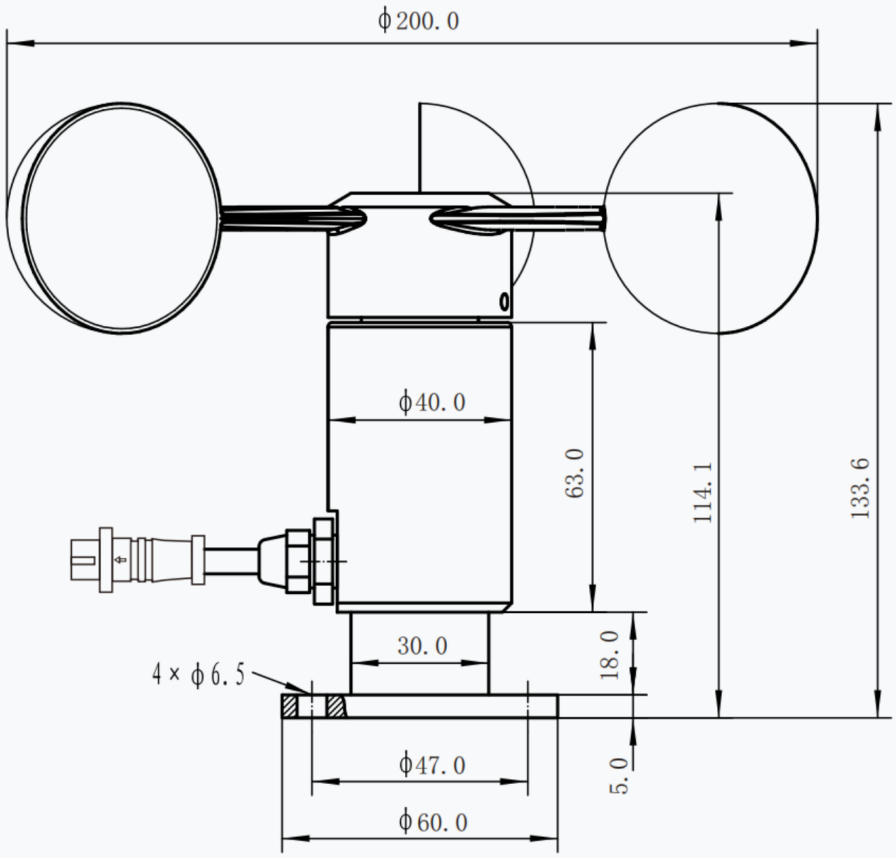
- 4–20 mA analog output.
- 0–5 VDC analog output.
- 0–10 VDC analog output.
- RS485 output using Modbus protocol.

Electrical Notes

- 15–30 VDC operating supply.
- Internal digital circuitry supports RF/EMI and lightning-surge protection.
- The compact sealed design is intended for outdoor wind speed monitoring.
- Final connection details are configuration-dependent; verify the actual product.

Mechanical Dimensions / Installation

The representative compact-sensor drawing shows a Ø200 mm wind-cup span, Ø40 mm body section, Ø60 mm mounting flange and 4 × Ø6.5 mm mounting holes. Verify the selected mounting and connector orientation before installation.



Representative compact-sensor dimension drawing

Product Selection / Ordering Information

Selection	Configuration
Base model	SS101-04 — Compact Wind Speed Sensor
Operating voltage	15–30 VDC
Output signal	4–20 mA; 0–5 VDC; 0–10 VDC; RS485 (Modbus)
Construction	Compact sealed three-cup anemometer
Measuring range	0–50 m/s; 0–30 m/s
Units	Wind speed: m/s

Specify SS101-04 together with the required output and installation configuration. Final connection details are subject to the actual product.

Electrical Connection / Wiring

The accessible product page lists output signal families but does not provide a pin-level wiring table in text. Use the wiring definition supplied with the selected product configuration; do not assume a universal pin assignment.

CONTACT / SUPPORT

SpeSense Technologies Inc.
Add: No. 9 Yuhe Road, Guitang Subdistrict, Yuhua District, Changsha City
Tel: +86-15386478166
Email: info@spesense.com
Web: www.spesense.com

WHATSAPP WECHAT
WhatsApp / WeChat