WIND MEASUREMENT / DATA SHEET

SS101-05
Dust-Resistant Wind Speed Sensor

All-metal wind speed sensing for reliable monitoring in dusty, outdoor and industrial environments.

Overview

- SS101-05 is a high-performance wind speed sensor for stable and accurate capture of ambient wind speed signals.
- Non-contact magnetic sensing and built-in digital circuitry convert anemometer cup rotation into an output linearly related to horizontal wind speed.
- Alloy structural parts, specialized surface treatment and sealed internal and rotating components help resist water, salt mist, dust and sand.



Measuring range 0-50 / 0-30 m/s	**Start speed** >=0.5 m/s	**Accuracy** +/-0.5 m/s / +/-3%FS	**IP rating** 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.
- All-metal housing with corrosion resistance and strong wind resistance.
- Aluminum alloy wind cups for operation in harsh environments.
- Sealed internal and rotating components help prevent ingress of water, salt mist, dust and sand.
- Fault-tolerant circuit protection, CE EMC and multi-level lightning/surge protection are stated on the source page.

Application Scenarios

- Factories and power plants.
- Ports, industrial and mining sites.
- Wind turbines and large-scale machinery.
- High-altitude operations and construction machinery.
- Outdoor wind monitoring in dusty environments.

Measurement Principle

SS101-05 uses non-contact magnetic sensing. The internal circuit captures anemometer cup rotational speed and produces an electrical output linearly related to ambient horizontal wind speed. Sealed internal and rotating components are designed to limit ingress of water, salt mist, dust and sand.

Technical Specifications

Item	Specification
Measuring range	0-30 m/s; 0-50 m/s
Operating voltage	15-30 VDC
Start-up wind speed	>=0.5 m/s
Accuracy	+/-0.5 m/s (<5 m/s); +/-3%FS (>=5 m/s)

Item	Specification
Output signal	4-20 mA; 0-5 VDC; 0-10 VDC; RS485 (Modbus)
Operating temperature	-20 C to +85 C
Operating humidity	0%-95% RH, non-condensing
Wind resistance	>70 m/s for 30 min
IP rating	IP65
Body material	Aluminum alloy / polyester coating
Wind cup material	Aluminum alloy
Measurement principle	Non-contact magnetic sensing
Burst immunity	Standard: Level 3 (2 kV, 100 kHz), Class B; lightning-resistant: Level 4 (4000 V, 100 kHz), Class B
Surge immunity	Standard: Level 1 (common mode 500 V, differential mode 250 V), Class B; lightning-resistant: Level 4 (common mode 4000 V, differential mode 2000 V), Class B

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

Output / Communication

Output Options

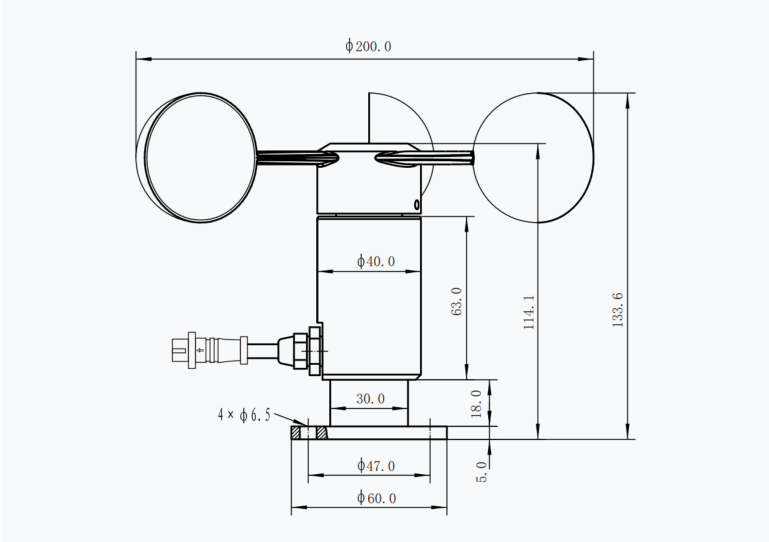
- 4-20 mA analog output.
- 0-5 VDC analog output.
- 0-10 VDC analog output.
- RS485 output using Modbus protocol.

Electrical Notes

- 15-30 VDC operating supply.
- Built-in circuitry supports RF/EMI resistance and lightning-surge protection.
- Verify the actual output and wiring configuration before connection.
- Use the selected product configuration for final installation details.

Mechanical Dimensions / Installation

The official product page presents a dimensions figure but does not expose its dimension values in text. The drawing below is provided as a compact-form-factor reference; verify the final selected configuration before installation.



Reference compact-form-factor drawing; verify final configuration

Product Selection / Ordering Information

Selection	Configuration
Base model	SS101-05 - Dust-Resistant Wind Speed Sensor
Operating voltage	15-30 VDC
Output signal	4-20 mA; 0-5 VDC; 0-10 VDC; RS485 (Modbus)
Construction	Alloy housing with aluminum alloy wind cups
Measuring range	0-30 m/s; 0-50 m/s
Environmental focus	Water, salt mist, dust and sand resistance

Specify SS101-05 with the required output and installation configuration. Final connection details are subject to the actual product.

Electrical Connection / Wiring

The official 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

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