SOUND MONITORING / DATA SHEET

SS200-01

Noise Sensor

Flange-mounted outdoor noise sensor for real-time acoustic monitoring.

Overview

SS200-01 is a high-precision noise sensor for sound level measurement, providing wide-range acoustic monitoring for residential, office, workshop, vehicle-measurement and industrial applications.

The sensor uses a high-sensitivity condenser microphone with stable signal, high accuracy, good linearity and long transmission distance.

Its lightweight anti-rust metal and POM housing is designed for corrosion resistance and convenient flange installation.

30-130 dB	0.1 dB	±0.5 dB	RS485 / ANALOG
MEASUREMENT RANGE	RESOLUTION	ACCURACY	OUTPUT OPTIONS

CAPABILITY

Key Advantages & Applications

Key Advantages

- High-sensitivity condenser microphone for stable and accurate measurement.
- Wide measuring range and good linearity.
- Corrosion-resistant metal + POM structure.
- Easy flange installation and long transmission distance.
- Suitable for continuous outdoor monitoring.

Application Scenarios

- Home and residential monitoring
- Office environments
- Workshop and factory spaces
- Automobile / vehicle measurement
- Industrial sound monitoring

TECHNICAL PRINCIPLE

Technical Principle

The sensor converts incoming acoustic pressure into an electrical signal through a high-sensitivity condenser microphone. The internal signal-conditioning circuit amplifies, filters and linearizes the signal, then outputs standardized digital or analog signals for real-time monitoring, data logging and system integration.

GENERAL SPECIFICATIONS

Technical Specifications

Item	Specification
Power Supply	DC 10-30 V
Power Consumption	RS485 version: 0.1 W; analog current output: 0.15 W; analog voltage output: 0.18 W
Operating Environment	-20°C to +60°C; 0-95% RH, non-condensing
Sensor Structure	High-sensitivity condenser microphone; anti-rust metal + POM housing; flange mounting

Item	Specification
Response Time	≤3 s
Stability	<2% during service cycle

Measurement Performance

Parameter	Range / Resolution	Accuracy / Notes
Noise Level	RS485: 30-130 dB; Analog: 30-120 dB	±0.5 dB at reference tone, 94 dB @ 1 kHz; resolution 0.1 dB
Frequency Range	20 Hz-12.5 kHz	For environmental / industrial sound monitoring
Linearity	Good linearity	Stable signal conversion

OUTPUT & COMMUNICATION

Signal & Communication Options

Item	Specification
RS485 Output	Modbus protocol; baud rate 2400 / 4800 (default) / 9600; 8 data bits; no parity; 1 stop bit; default Modbus address 1; function code 03 supported
Parameter Setting	Configured through the provided software via the RS485 interface
Analog Outputs	4-20 mA / 0-5 V / 0-10 V
Load Capability	Current output ≤600 Ω; voltage output resistance ≤250 Ω

CONFIGURATION

Product Selection

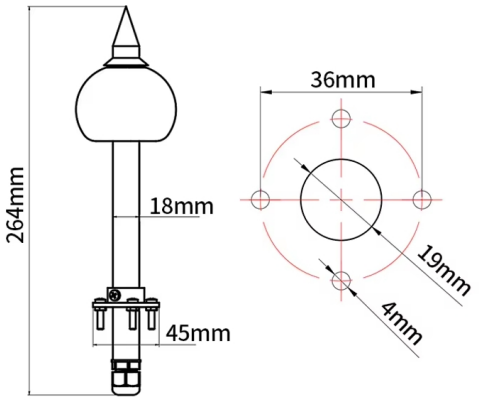
Field	Code	Meaning
Company Code	SS	SpeSense
Base Model	200-01	Noise Sensor
Output / Communication	N01	RS485 interface output
Output / Communication	TTL-05	TTL output, 5 V supply
Output / Communication	TTL-12	TTL output, 10-30 V supply
Output / Communication	I20	4-20 mA current output
Output / Communication	V05	0-5 V voltage output
Output / Communication	V10	0-10 V voltage output
Mounting	FL	Flange mounting
Example Ordering Codes	-	SS200-01N01-FL; SS200-01I20-FL; SS200-01V05-FL; SS200-01V10-FL

MECHANICAL DATA

Mechanical Dimensions

Overall dimensions shown below. Units: mm.

Overall Dimension Drawing



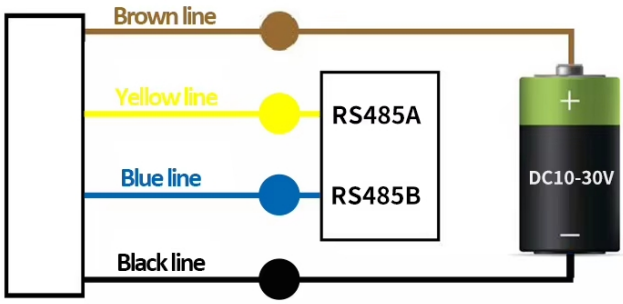
Mechanical Reference

- Overall length: 264 mm
- Shaft diameter: 18 mm
- Flange diameter: 45 mm
- Mounting view: 36 mm hole spacing, 19 mm center hole and 4 mm mounting holes.

ELECTRICAL WIRING

RS485 Version Wiring Diagram

RS485 Wiring Diagram



Wiring Reference

- Brown: power positive
- Black: power negative
- Yellow: RS485A
- Blue: RS485B
- Power supply: DC 10-30 V

INSTALLATION

Installation & Use Notes

- Install vertically using the flange mount.
- Avoid obstructions around the windscreen area.
- Seal cable connections for outdoor use.
- Suitable for continuous environmental sound monitoring.

Note: If the technical indicators and cable definitions differ from the actual product, please refer to the actual order.

CONTACT / SUPPORT

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