ULTRASONIC LEVEL MEASUREMENT / DATA SHEET

SS402-03
Integrated Ultrasonic Level Meter

Non-contact ultrasonic measurement for material and liquid levels.

Overview

- SS402-03 is an integrated ultrasonic level meter for non-contact measurement of material and liquid levels.
- Ultrasonic sensing avoids contact with the medium while supporting reliable, cost-effective measurement.
- The integrated design is intended to be easy to install and maintain for common level-measurement requirements.
- Multiple output, communication, power-supply and range options support different system configurations.
- Selectable ranges from 5 m to 50 m are available, with 4-20 mA, RS485 and RS232 options.



Range **5-50 m**	**Accuracy** **0.5-1.0%**	**Output** **4-20 mA**	**Resolution** **3 mm / 0.1%**
Supply **24 VDC**	**Temperature** **-20 to +60 °C**	**Protection** **IP66 / IP68**	**Display** **LCD**

Key Advantages

- Non-contact ultrasonic measurement avoids contact with the medium.
- Reliable and cost-effective measurement for common level-measurement requirements.
- Integrated construction is easy to install and maintain.

Application Scenarios

- Material level measurement.
- Liquid level measurement.
- Non-contact level monitoring where the probe does not contact the medium.

Measurement Principle

SS402-03 uses ultrasonic sensing for non-contact measurement of material and liquid levels. Ultrasonic measurement avoids contact with the medium and supports reliable, cost-effective operation.

Technical Specifications

Parameter	Specification	Parameter	Specification
Measuring range	5 m, 10 m, 15 m, 20 m, 30 m, 40 m or 50 m	**Accuracy**	0.5%-1.0%
Resolution	3 mm or 0.1%, whichever is greater	**Display**	Chinese LCD display
Analog output	4-wire 4-20 mA / 510 Ω load; 2-wire 4-20 mA / 250 Ω load	**Relay**	Optional two AC 250 V / 8 A or DC 30 V / 5 A relays; programmable

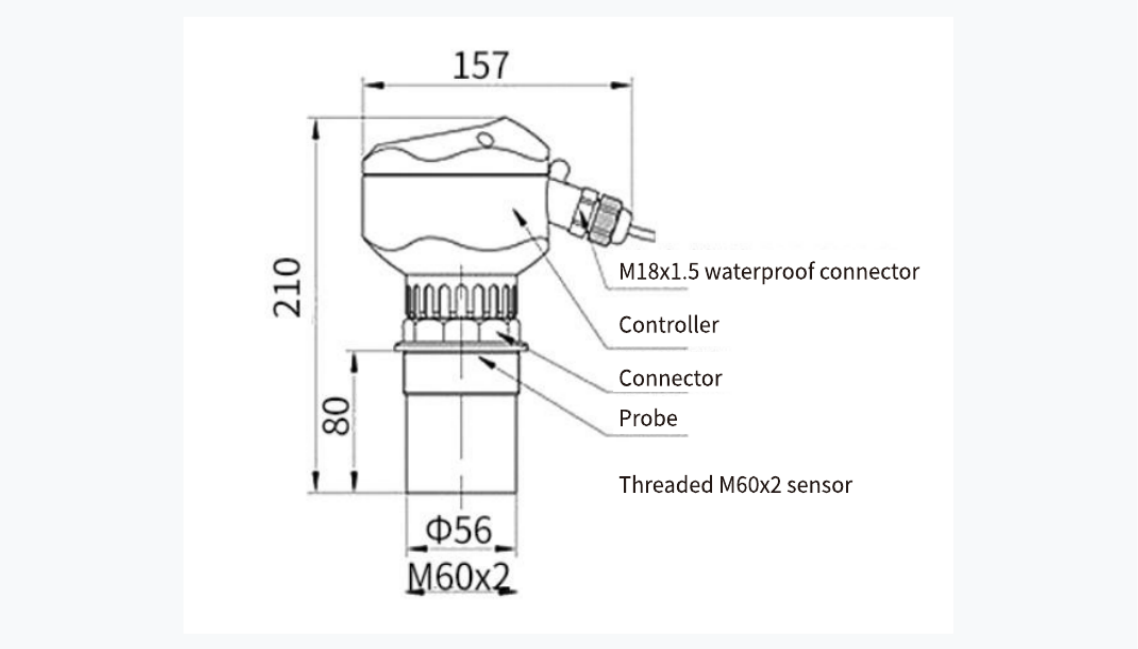
Parameter	Specification	Parameter	Specification
Power supply	Standard 24 VDC; optional 220 VAC +15% 50 Hz; optional 12 VDC or battery power	**Ambient temperature**	Display: -20 to +60 °C; probe: -20 to +80 °C
Communications	Optional RS485 or RS232 communication	**Protection rating**	Display: IP66; probe: IP68
Probe cable	N/A	**Probe mounting**	Depending on range and probe selection
Power consumption	4-wire: 1.92 W without relays or 3.6 W with two relays; 2-wire: 0.48 W		

Output and Communication

Interface	Configuration
Analog output	4-wire 4-20 mA / 510 Ω load; 2-wire 4-20 mA / 250 Ω load
RS485	Optional communication interface
RS232	Optional communication interface
Relay	Optional two programmable relays: AC 250 V / 8 A or DC 30 V / 5 A
Display	Chinese LCD display

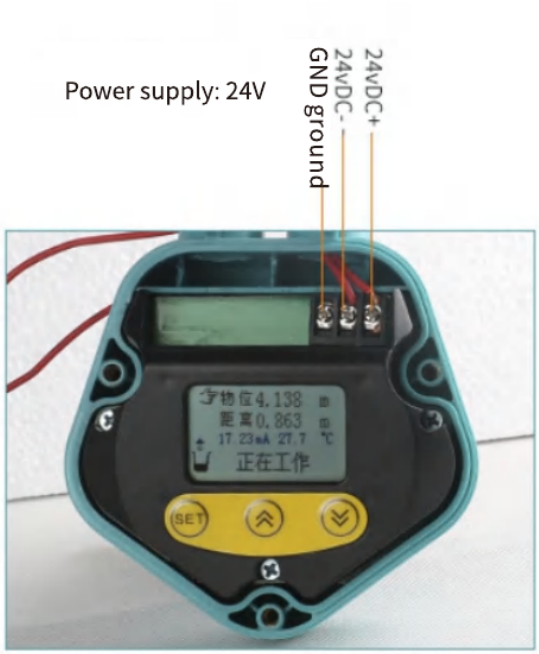
Available configurations include 4-20 mA output, optional RS485 or RS232 communication, and optional programmable relays.

Mechanical Dimensions / Installation

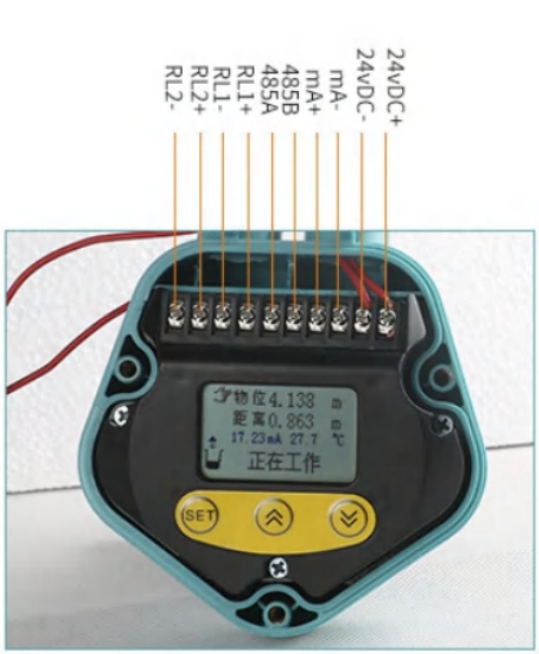


Dimension drawing: controller, connector, probe and threaded M60×2 sensor. Dimensions are shown in millimetres; the drawing identifies an M18×1.5 waterproof connector and a 157 mm maximum width.

Electrical Connection



Two-wire wiring diagram



Four-wire wiring diagram

Wire color	Definition
Two-wire terminal	GND, 24 VDC-, 24 VDC+
Four-wire terminal	24 VDC+, 24 VDC-, mA+, mA-, 485A, 485B, RL1+, RL1-, RL2+, RL2-

Product Selection / Ordering Information

Selection	Configuration
Base model	SS402-03 — Integrated Ultrasonic Level Meter
Precision code	1: ±0.5%FS; 2: ±1%FS
Output code	1: 4-20 mA; 2: 4-20 mA + RS485; 3: 4-20 mA + RS232
Power-supply code	1: 24 VDC; 2: 12 VDC; 3: 220 VAC
Range code	5 m, 10 m, 15 m, 20 m, 30 m, 40 m or 50 m
Relay option	Optional two programmable relays; not available in the 2-wire configuration
Protection / temperature	Display IP66; probe IP68; display -20 to +60 °C; probe -20 to +80 °C

Specify SS402-03 with the required precision, output, power-supply and range configuration. Final configuration remains subject to the listed options.

CONTACT / SUPPORT

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