



PRODUCT OVERVIEW

LEVEL MEASUREMENT

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Ultrasonic Distance/Level Sensors UL103

Profiles

UL103 ultrasonic level/distance sensor adopts a non-contact measurement and features high reliability, and maintenance-free operation. This advanced sensor is designed to resist environmental electromagnetic interference, making it highly resistant to disturbances, ensuring accurate measurements in both closed and open containers.

With its exceptional precision, the sensor achieves accuracy up to 0.25%F.S, regardless of the output signal type. It boasts a minimal blind area, providing precise measurements even in close proximity to the sensor. Additionally, it incorporates comprehensive protection mechanisms, effectively minimizing interference from obstacles and maintaining stable readings.

UL103 utilizes the Modbus-RTU communication protocol, enabling seamless integration into various systems. Its serial port offers flexible baud rate options, including 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200, ensuring compatibility with a wide range of communication setups.

Furthermore, we offer OEM services, allowing customization to cater to your specific requirements.



Characteristics

- ☆ Accuracy: $\leq \pm 0.5\%$ F.S, small blind area
- ☆ 0-50°C wide automatic temperature compensation
- ☆ Advanced algorithm adopted, not affected by low temperature
- ☆ Reverse polarity protection, surge lightning protection, anti-obstacle interference supported
- ☆ Fast response, power-off self-recovery function
- ☆ Economical and maintenance free design
- ☆ IP67 high protection class, IP68 can be customized

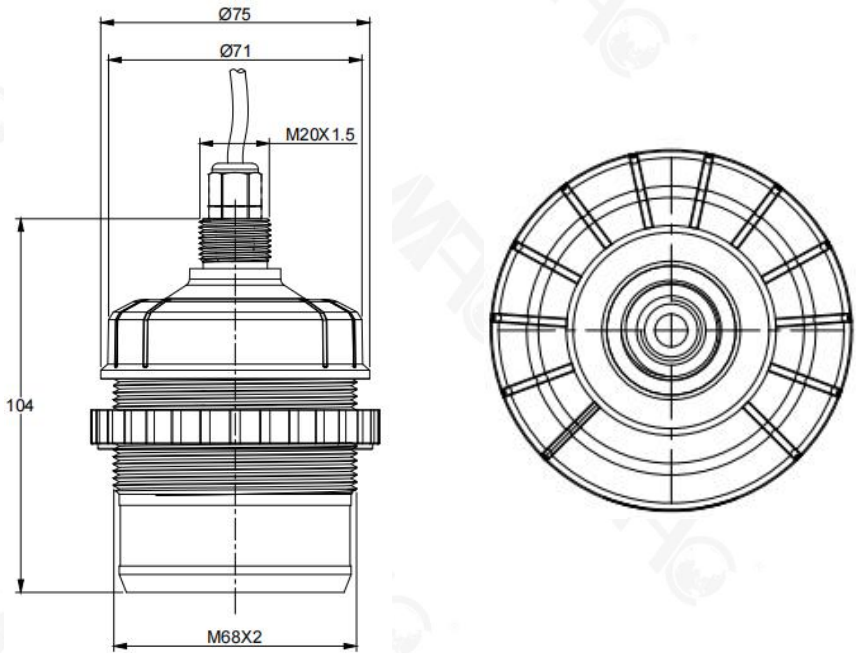
Applications

- ☆ Water
- ☆ Oil
- ☆ Diesel level measurement
- ☆ Pump control in tank...
- ☆ Treatment plants
- ☆ Food industry
- ☆ Chemical industry
- ☆ Rivers, channels, lakes...
- ☆ Process control

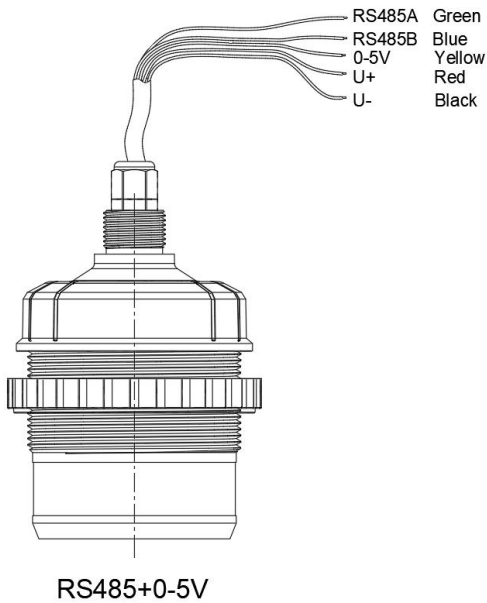
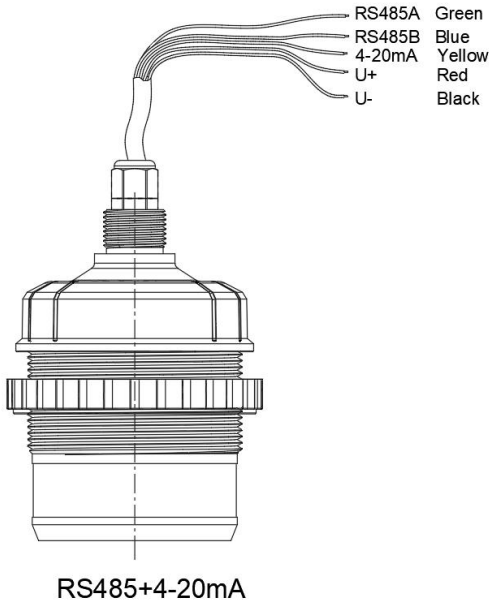
Specifications

Model	UL103
Parameter	
Range	2.5m, 5m, 10m,15m, others on request
Blind Area	4-20mA/0-5v(2.5m/5m):≤200mm 4-20mA/0-5V(10m):≤300mm 4-20mA/0-5V(15m):≤500mm
Output	4-20mA(3 wires)&RS485 Modbus RTU; 0-5V(3 wires)&RS485 Modbus RTU Optional
Power Supply	DC 24V(default); DC 12V(by customized)
Accuracy	0.5%F.S (typical), 0.25%F.S (by customized)
Operating temp.	-10°C to 50°C
Beam angle	12°
IP rating	IP67 typical, IP68 by customized
Measuring mode	Distance mode(default), or level mode optional
Working current	≤300mA
Installation mode	Nut clamping fixed installation, screw-in installation, M68×2
Response time	0.5s (default for 2.5m/5m); 1s (default for 10m); 2s (default for 15m). Adjustable from 0.5 to 10s via software or Modbus commands. Faster settings may reduce the device's lifespan.
Product material	Polypropylene + glass fiber

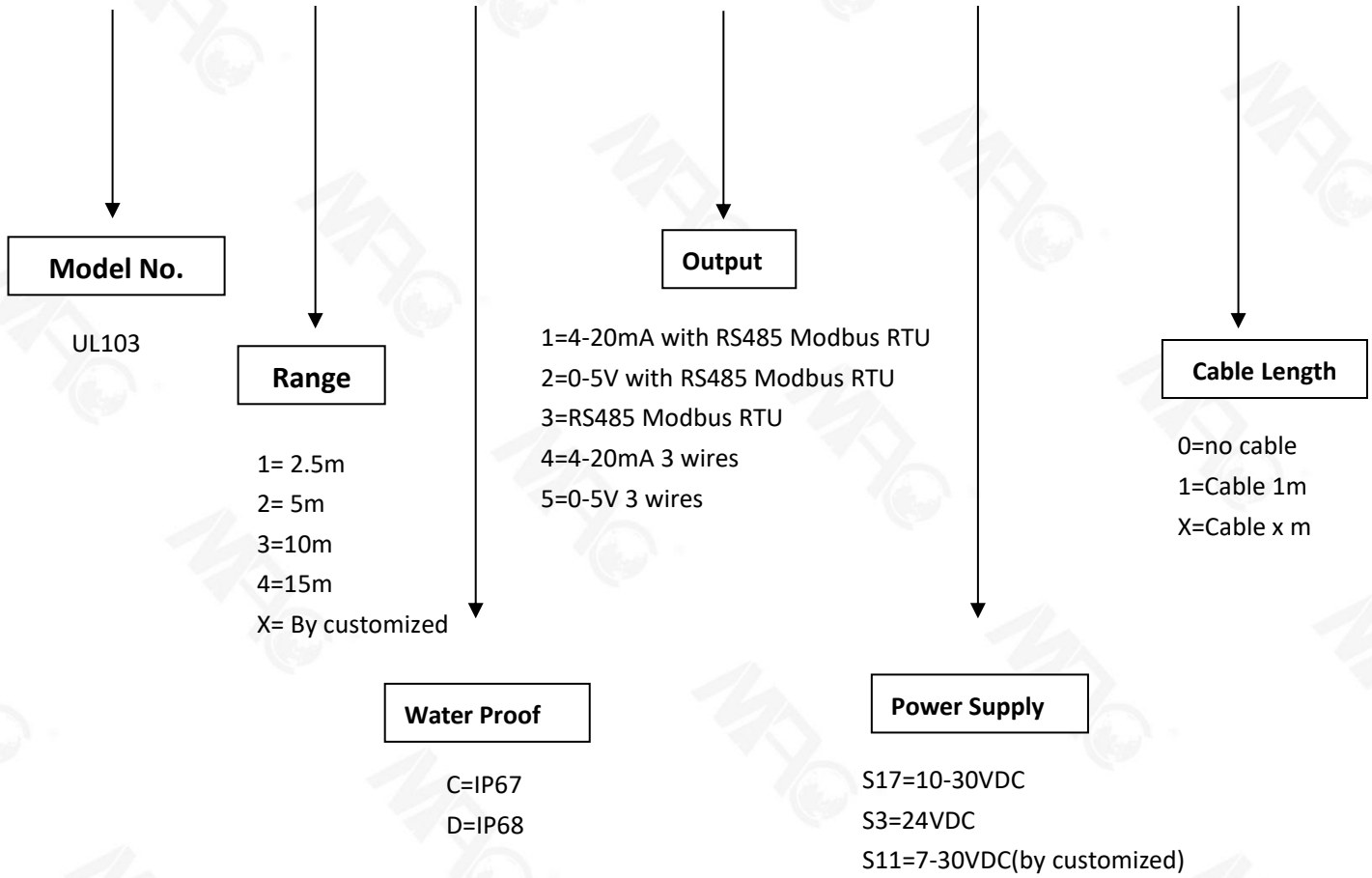
Dimension and Drawing



Electrical Connections



Order Information

UL1031C2S170**Application attentions:**

- For level measurement, the sensor must not be installed near the tank input.
- It is recommended that the sensor be protected against sun and rain.
- The sensor must be installed perpendicular to the surface to be measured and should not be placed close to the side surface.