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smart metering
solutions.

SWM101 P/B

Ultrasonic
Smart Water Meter



SWM101 B
Brass Pipe



SWM101 P
Plastic Pipe

APPLICATIONS

- Residential and commercial drinking water metering
- Smart city water management systems
- Remote monitoring and billing applications
- Water conservation and leakage detection initiatives

Advanced, Reliable, and Intelligent Water Metering

The **SWM101** Ultrasonic Smart Water Meter is a high-precision, intelligent metering solution designed for drinking water supply applications. Equipped with an Ultrasonic sensor for highly accurate readings, it enables leak prevention, ensuring efficient utility operations. Built with premium materials and powered by cutting-edge ultrasonic technology, this advanced meter delivers exceptional accuracy, long-term reliability, and zero mechanical wear and tear.

Communication Technologies:

NB-IoT · LoRaWAN · M-Bus · M-Bus wireless · LTE-M

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KEY FEATURES & BENEFITS

Ultrasonic Measurement Technology

Advanced ultrasonic sensing provides accurate, stable water measurement with no moving mechanical parts, helping reduce wear and maintain long-term measurement performance.

Pre-Payment & Smart Billing Functionality

Equipped with remote pre-payment capabilities and T5557 swipe card compatibility, supporting flexible billing and customer-friendly utility management.

Low-Flow Detection & Wide Dynamic Range

Designed to detect very low flow rates while maintaining reliable measurement across a wide operating range, supporting improved consumption monitoring and accurate billing.

High-Quality Construction for Drinking Water Applications

Specially designed for drinking water metering using high-grade brass and copper for superior durability and corrosion resistance.

Advanced Accuracy & Wide Range Ratio

Achieves Class 2 accuracy with multiple range ratio options (R100, R125, R160, R250), enabling precise measurement across variable flow conditions.

Temperature Adaptability (T30/ T50/T70/T90)

Built to perform across a range of environmental conditions, including cold and temperate climates. TAF-compliant.

Multi-Protocol Communication Interfaces

Supports a wide array of communication interfaces including MBUS, RS485, Pulse, LoRaWAN, NB-IoT, Zigbee, 4G, and Wireless M-Bus (wMBUS), ensuring seamless integration and remote monitoring flexibility.

Reverse Flow Measurement & Monitoring

Supports bidirectional flow measurement, enabling the meter to detect and measure reverse water flow for improved network monitoring, anomaly detection, and system control.

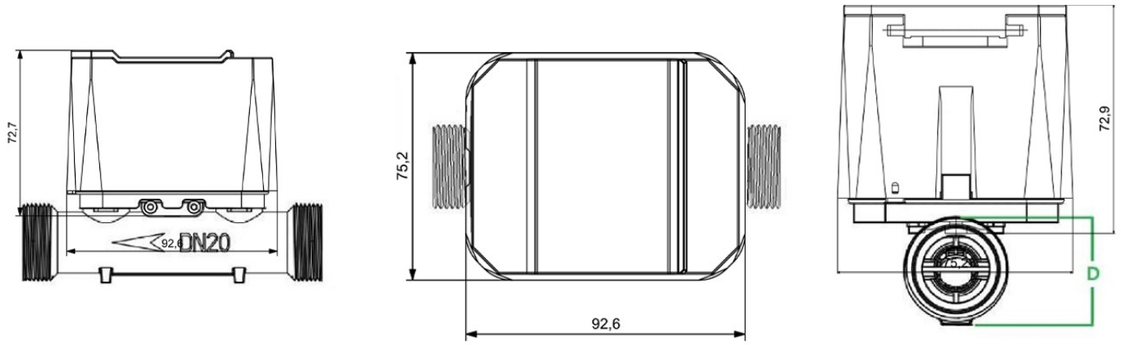
Tamper-Resistant & Secure Data Transmission

Built-in fraud resistance and tamper detection with encrypted data transmission ensure data integrity and metering reliability.

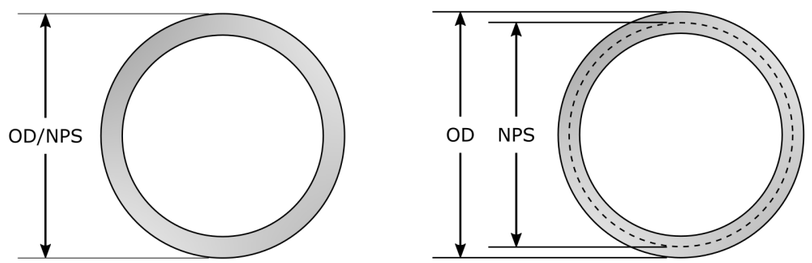
Full Compliance with International Standards

Certified in accordance with GB/T 778 and ISO 4064 standards, meeting global requirements for water meter performance and safety.

Product Dimensions



Diameter (mm)	DN15	DN20	DN25
Thread	G¾B	G1B	G1 ¼B
L(mm)	110/165	130/195	160/225
H(mm)	94	98.7	105.3
W(mm)	69	69	69



The **SWM101** Ultrasonic Smart Water Meter is engineered for efficiency, precision, and smart connectivity, making it an ideal choice for modern water metering solutions.

Technical Parameter

Performance	Parameter		
Diameter	DN15	DN20	DN25
Length(mm)	110/165	130-195	160/225
$Q_{max}(m^3/h)$	2.5	4	6.3
Start Flow(L/h)	2	2	2
Metrological Class	Q^3/Q^1 = R100, R125, R160, R200, R250, R400;		
Accuracy Class	Class 2		
Pressure Stage	MAP16	Pressure loss	< 0.063MPa
Stage Temperature	T30/T50/T70; Default T30		
Data Storage	with daily storage, daily freeze, monthly storage, monthly freeze, annual storage (Customizable data storage mode according to customer requirements)		
Transmission	Optical/M-BUS/RS485/Pulse/LoRaWan/NB- IoT/ Zigbee/4G/wMBUS		
Power	DC3.6V Lithium Battery		
Protection Class	IP68		
Environmental	Temperature: -25°C~ + 55°C		
Installation	Horizontal or Vertical		
Battery Life	Life Period ≥ 10 years		
Flow measure	Reverse flow is measurable		
Stream Field Sensitivity	UODO		

