

# Ultrasonic Smart Water Meter

SWM103



## Compact, High-Performance, and Smart Water Metering Solution

The SWM103 Ultrasonic Smart Water Meter is a compact and intelligent metering solution designed for residential, pure water, and drinking water applications. Featuring ultrasonic measurement technology, it delivers high-precision readings, exceptional durability, and zero mechanical wear, ensuring long-term stability and reliability.

## KEY FEATURES & BENEFITS



### Compact & Versatile for Residential and Pure Water Applications

Designed specifically for residential, pure water, and drinking water metering. Its compact structure makes it ideal for space-constrained installations.



### High-Quality Pipe Construction

Manufactured using corrosion-resistant copper, ensuring long-lasting performance in demanding environments.



### Temperature Adaptability (T30 / T50 / T70)

Designed for optimal performance in a variety of temperature conditions, supporting cold and temperate climates.



### Tamper-Proof & Data-Secure Design

Equipped with tamper detection and encrypted data transmission to ensure fraud resistance and metering integrity.



### Replaceable Battery for Extended Service Life

Designed with a replaceable battery module to simplify maintenance and reduce lifecycle costs while maintaining uninterrupted service.



### Ultrasonic Metering Technology

Utilizes advanced ultrasonic technology for precise and stable water consumption measurement with zero mechanical wear—ensuring excellent long-term reliability and maintenance-free operation.



### Superior Accuracy & Wide Measuring Range

Delivers Grade 2 accuracy with flexible range ratio options (R100, R125, R160, R250, R400), adapting to diverse consumption profiles and flow conditions. Complies with AF standards.



### Leak & Burst Pipe Detection

Integrated with intelligent alarm functions for detecting water dripping and burst pipe events, supporting water conservation and network safety.



### Flexible Communication Interfaces

Offers seamless integration with multiple communication protocols: MBUS, RS485, Pulse, LoRaWAN, NB-IoT, Zigbee, 4G, and Wireless M-Bus (wMBUS), enabling smart utility network compatibility.



### Certified to International Standards

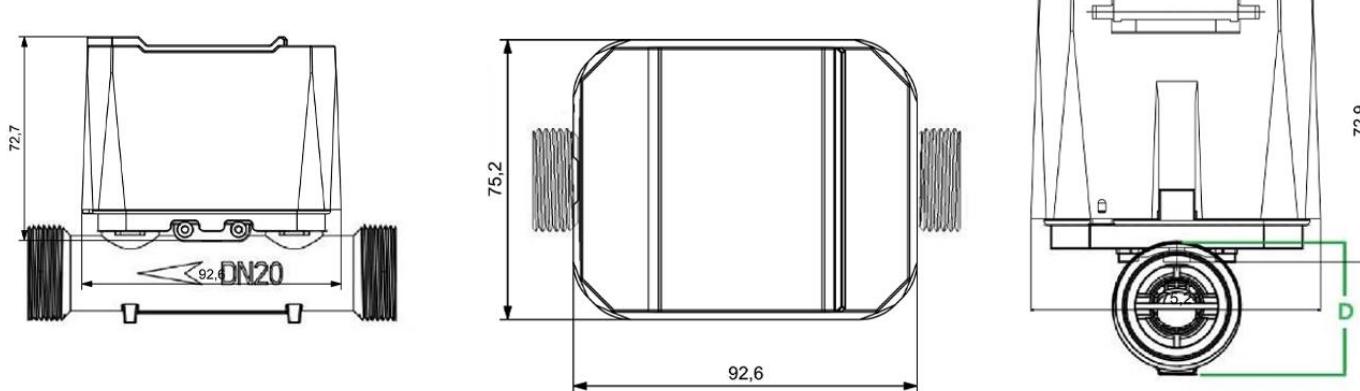
Fully compliant with GB/T 778 and ISO 4064 standards, meeting international quality and performance benchmarks for ultrasonic water meters.

# Applications

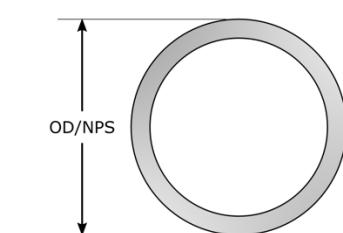
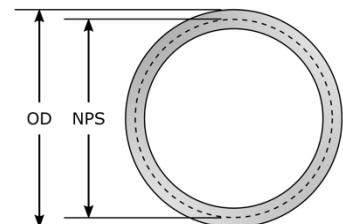
	Residential and commercial water metering
	Smart city water management systems
	Remote monitoring and billing solutions
	Leak detection and water conservation programs

The SWM103 Ultrasonic Smart Water Meter is designed for modern, efficient, and precise water metering, making it the ideal solution for next-generation smart water management systems.

# External Dimensions



Diameter (mm)	DN15	DN20	DN25
Thread	G <sup>3</sup> /4B	G1B	G1 1/4B
L(mm)	110	130	160
H(mm)	94	98.7	105.3
W(mm)	69	69	69



# Technical Parameter

Performance	Parameter		
	DN15	DN20	DN25
Diameter			
Length(mm)	110	130	160
Q,(m <sup>3</sup> /h)	2.5	4	6.3
Start Flow(L/h)	2	2	2
Meteorologic Class	Q/01=100/125/160/200/250;		
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	Optica I/M BUS/RS485/Pulse/LoRaWan/NB-IoT/Zigbee/4G/wMBUS; (Optional)		
Power	DC3.6V Lithium Battery		
Protection Class	IP68		
Environmental	Temperature: -25°C- + 55°C		
Installation	Horizontal or Vertical		
Battery Life	Life Period > 6 years		
Flow measure	Reverse flow is measurable		
Stream Field Sensitivity	U000		