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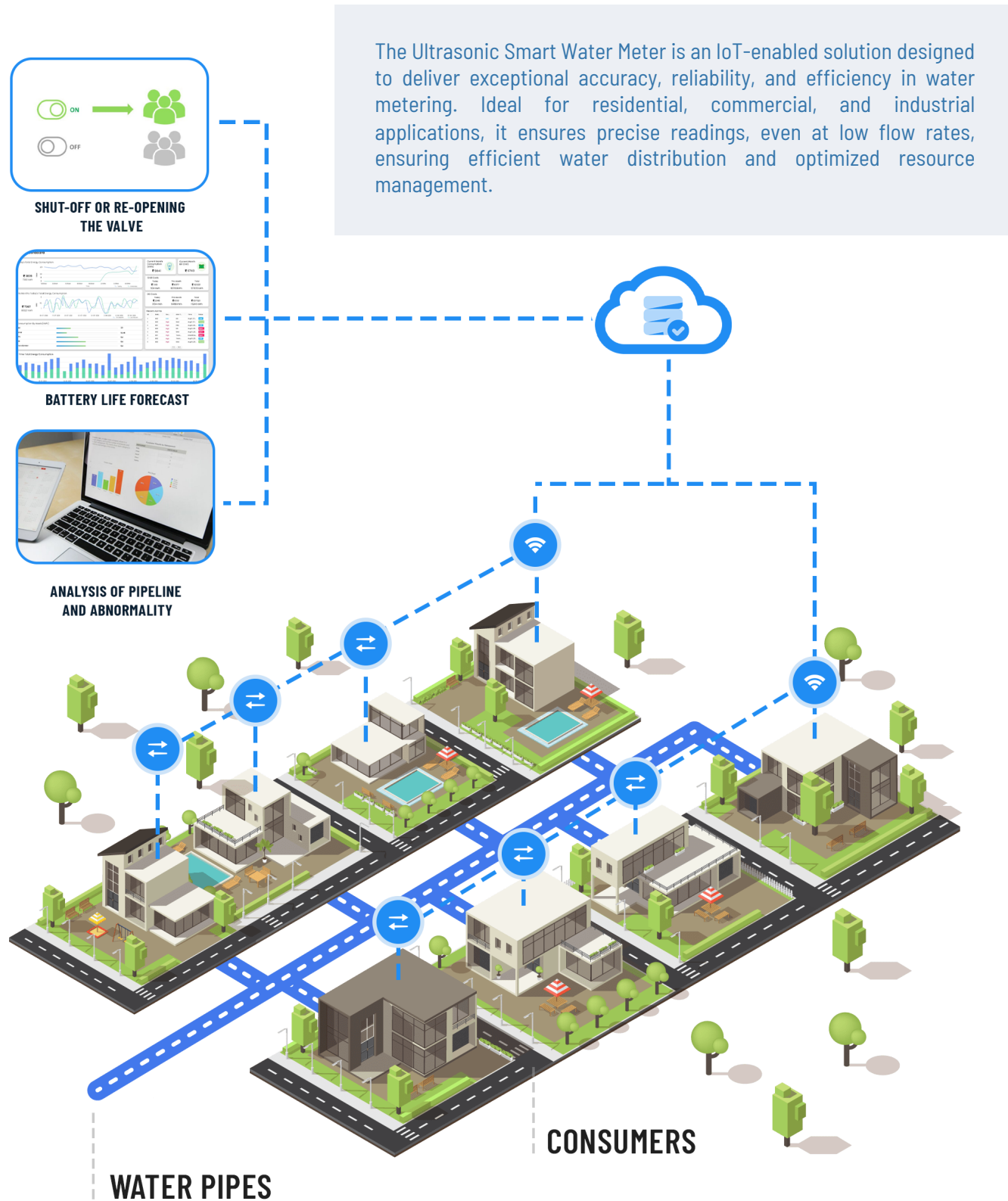
SWM FAMILY SMART WATER METERS CATALOGUE

EFFICIENCY, ACCURACY, AND SAFETY.






ULTRASONIC SMART WATER METER






Precision, Connectivity, and Sustainability for Smart Water Management



Smart, Compact & Versatile Design

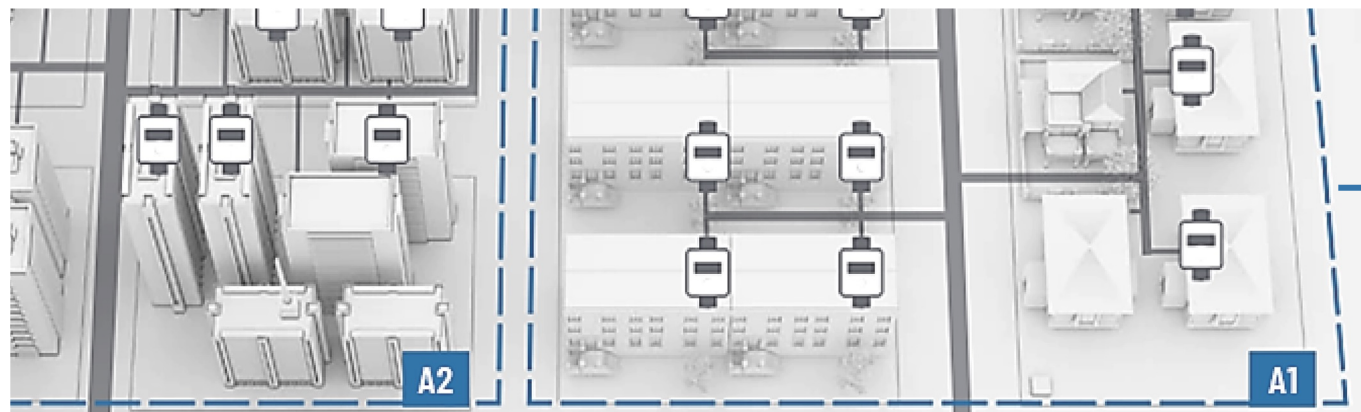
-  **Lightweight & Space-Saving**
Ideal for riser pipes, downpipes, or overhead installations.
-  **Drinking Water Compliant**
Constructed from high-quality, certified materials that meet the strictest safety regulations.
-  **Strong Anti-Interference & Low Power Consumption**
Ensures uninterrupted performance in challenging conditions.

Key Features & Benefits

-  **Highly Accurate & Reliable**
Ultrasonic technology eliminates mechanical wear, ensuring long-term stability and precision in water measurement.
-  **Advanced Connectivity & Remote Monitoring**
Supports multiple communication protocols for real-time data collection, leak detection, and remote management, enhancing operational efficiency.
-  **Minimal Maintenance & Extended Service Life**
With no moving parts, the meter experiences zero mechanical wear, leading to low operational costs and an extended lifespan of over 15 years.
-  **Optimized Water Distribution & Consumption Insights**
Delivers accurate billing, intelligent water allocation, and enhanced efficiency for modern smart water networks.
-  **Highly Secured Data & Fraud Resistance**
Features tamper-proof and fraud-resistant mechanisms with manipulation detection and encrypted data transmission, ensuring secure, accurate, and reliable water metering.

ADVANCED SMART WATER METERING – BUILT FOR A SMARTER, SUSTAINABLE FUTURE

Our Ultrasonic Smart Water Meters are engineered to transform traditional water metering into an intelligent, connected, and sustainable solution—ideal for residential, commercial, and urban utility networks.



Future-Ready Connectivity

Seamlessly integrating NB-IoT, LoRaWAN, and Wireless M-Bus (wM-Bus), these meters deliver reliable, energy-efficient, and scalable communication across any infrastructure.



ensures deep signal penetration in underground or indoor environments, offering licensed-band, low-power connectivity with over 15 years of battery life—perfect for dense urban deployments.



enables long-range, low energy communication with minimal infrastructure—ideal for wide-area city and rural coverage.



(Wireless M-Bus) supports short range, low-energy wireless communication optimized for building-level and retrofit applications, using a proven European standard.

REMOTE UPGRADE (FOTA):

Supports firmware updates over the air, keeping the system up to date without manual intervention.

These multi-protocol options allow utilities to deploy customized smart metering networks that are flexible, secure, and cost-effective.

Intelligent Data & Monitoring Capabilities

Beyond accurate metering, these devices continuously monitor and log critical operational data:



Real-time alerts for temperature changes, flow stagnation, and reverse flow, enabling fast intervention and preventive maintenance.



A built-in logbook stores up to 40 historical events, while the flow histogram provides visual consumption analysis—helping utilities detect inefficiencies, leaks, or tampering.



Stagnation detection supports hygiene monitoring by issuing alerts when no flow is recorded over preset durations.

— Low-Power Architecture & Battery Intelligence

Optimized for long-term deployment, the meter's low-energy design ensures over 15 years of battery life. An advanced battery management system monitors consumption and forecasts remaining power to maintain uninterrupted service.

— Firmware Over-The-Air (FOTA) Updates

Using the NB-IoT interface, firmware can be updated remotely—enabling compliance with evolving standards, adding new features, and resolving issues without replacing hardware.

— Engineered for Durability

Built with over 40 years of ultrasonic metering expertise, the device has no moving parts, making it highly resistant to wear, sediment, and harsh environmental conditions. Its IP68/IP66 protection ensures waterproof and UV-resistant operation, even under extreme temperature variations..

— Committed to Sustainability

The meter's compact, recyclable design reduces material usage, packaging waste, and transportation emissions. Long service life and remote maintenance further support sustainability goals.

Smart, efficient, and built to last—delivering intelligence, precision, and sustainability in one advanced solution.

SWM107

Ultrasonic Smart Water Meter with Valve Control



Advanced, Reliable, and Intelligent Water Metering with Remote Valve Control

The SWM107 Ultrasonic Smart Water Meter is a high-precision, intelligent metering solution designed for drinking water supply applications. Equipped with remote valve control functionality, it enables seamless automated water management, remote shut-off, and 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. The integrated valve control system enhances operational efficiency, allowing utilities and consumers to manage water supply remotely, prevent unauthorized usage, and optimize resource allocation.

KEY FEATURES & BENEFITS



Precision Ultrasonic Measurement

Utilizes ultrasonic metering technology with no moving parts, ensuring long-term accuracy, reliability, and zero mechanical wear.



Remote Valve Control & Intelligent Automation

Supports intelligent water management through remote valve control, automated shut-off, and scheduled valve cleaning—ideal for efficient utility operations and smart city infrastructure.



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.



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.



Tamper-Resistant & Secure Data Transmission

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



Leakage & Burst Pipe Detection with Auto Shut-Off

Integrated alarms for water drips and burst pipe events, with automatic shut-off functionality to prevent water loss and enhance system safety.



High-Quality Construction for Drinking Water Applications

Specially designed for drinking water metering using high-grade SS304/L316 copper for superior durability and corrosion resistance.



Temperature Adaptability (T30 / T50 / T70)

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



Pre-Payment & Smart Billing Functionality

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

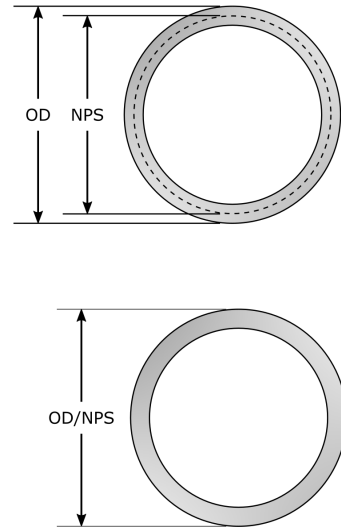


Full Compliance with International Standards

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

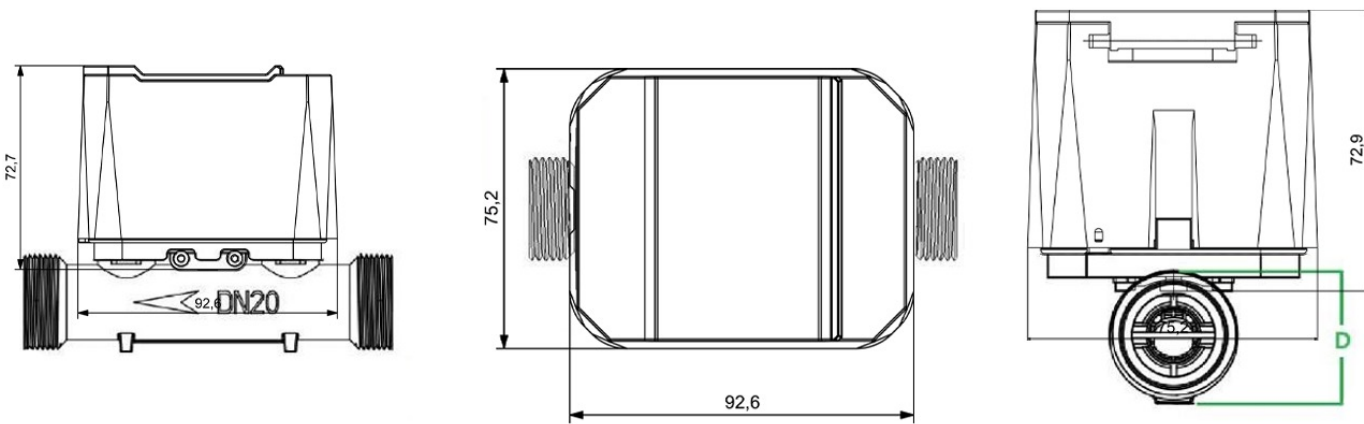
Applications

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



The SWM107 Ultrasonic Smart Water Meter is engineered for efficiency, precision, and smart connectivity, making it an ideal choice for modern water metering solutions.

External Dimensions



Diameter (mm)	DN15	DN20	DN25
Thread	G ³ / ₄ B	G1B	G1 ¹ / ₄ B
L(mm)	165	195	260
H(mm)	96.5	96.5	107
W(mm)	97	97	97

Technical Parameter

Performance	Parameter		
Diameter	DN15	DN20	DN25
Length(mm)	165	195	260
Q,(m ³ /h)	2.5	4	5
Start Flow(L/h)	2	2	3
Meteorologic Class	Q ³ /Q ¹ =100, 125, 160, 200, 250, 400;		
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/Pu lse/LoRaWa n/N B- loT/ 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	UODO		

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.



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.



High-Quality Pipe Construction

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



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.



Temperature Adaptability (T30 / T50 / T70)

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



Leak & Burst Pipe Detection

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



Tamper-Proof & Data-Secure Design

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



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.



Replaceable Battery for Extended Service Life

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

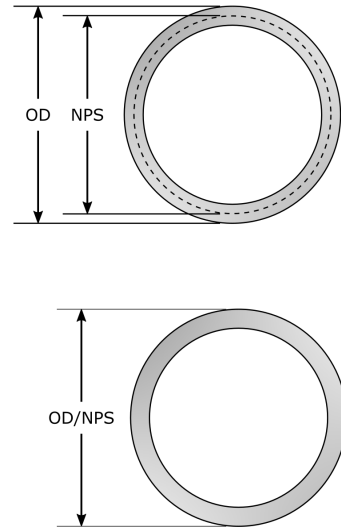


Certified to International Standards

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

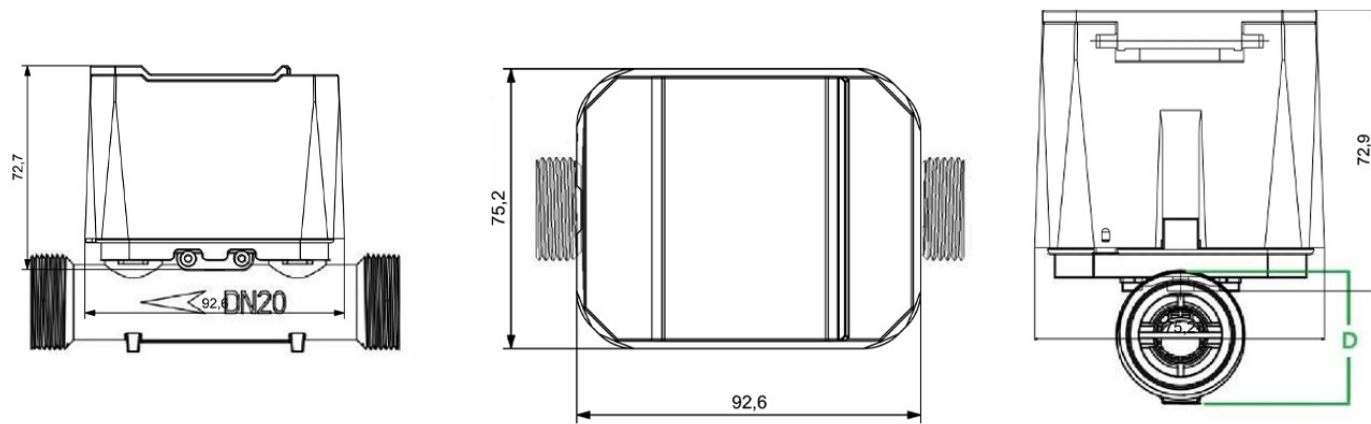
Applications

-  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 ³ / ₄ B	G1B	G1 ¹ / ₄ B
L(mm)	110/165	130/195	160/225
H(mm)	94	98.7	105.3
W(mm)	69	69	69

Technical Parameter

Performance	Parameter		
Diameter	DN15	DN20	DN25
Length(mm)	110/165	130/195	160/225
Q,(m ³ /h)	2.5	4	6.3
Start Flow(L/h)	2	2	2
Meteorologic Class	Q ³ /Q ¹ =100, 125, 160, 200, 250, 400;		
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/Pu Ise/LoRaWa n/N B- loT/ 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	UODO		

Ultrasonic Smart Water Meter

SWM103-P



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

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Leak & Burst Pipe Detection

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Flexible Communication Interfaces

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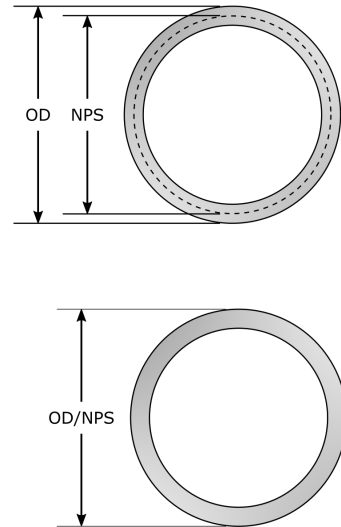


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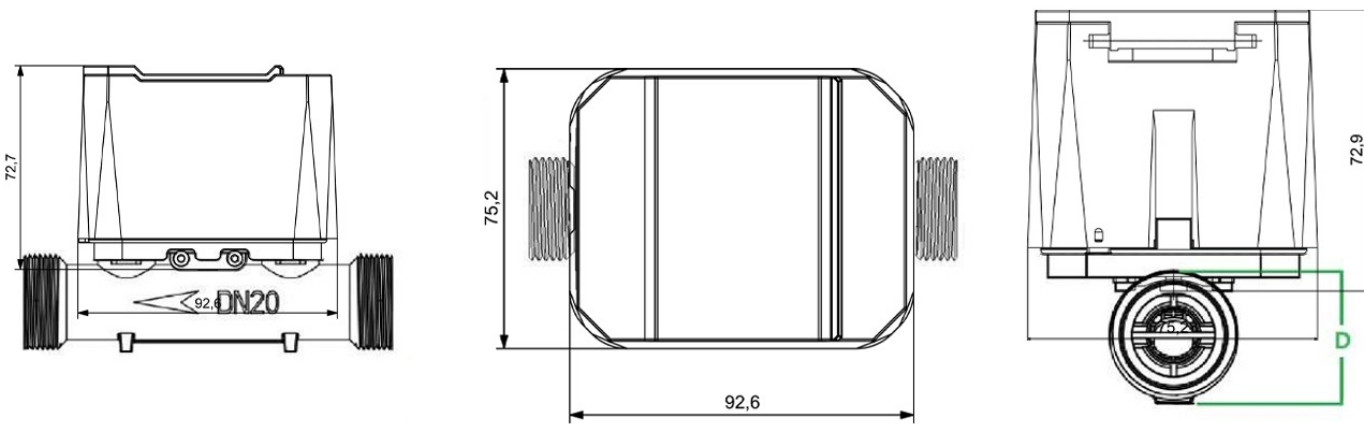
Applications

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-  Smart city water management systems
-  Remote monitoring and billing solutions
-  Leak detection and water conservation programs



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Transmission	Optica I/M BUS/RS485/Pu lse/LoRaWa n/N B- loT/ 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	UODO		