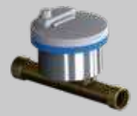

Professional Manufacturer Of Smart Water Meters

METTER

Meter Instruments Co., Ltd

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240703

METTER About Us

Meter Instruments Co., Ltd. (referred to as Meter Instruments) , which was established in 2006, specializes in R&D, production and sales of smart ultrasonic water meters and heat meters. Meter Instruments also provides solutions for smart water and energy-saving heating systems by integrating software and hardware together.

As an advocate and leader in ultrasonic water meter industry, Meter Instruments has focused on ultrasonic flow measurement technology for 20 years, and is the earliest supplier to mass produce and supply residential ultrasonic water meters in China. Up to now, Meter Instruments has provided services to more than 1000 customers and supplied more than 10,000,000 nos of ultrasonic meters

Meter Instruments has obtained EU MID and CE certification, owned a wholly-owned software subsidiary which focuses on smart water platforms, and established four R&D centers, one accredited ISO17025 competence of testing and calibration laboratory, and three production bases which covers a total area of 140000㎡.

Meter Instruments also possesses advanced process, production and testing equipment, which includes but not limited to full servo processing machines, CNC machine tools, multi-axis welding robots, SMT, automatic production lines, 106 sets of flow test bench for residential ultrasonic meters, and flow test tower which is able to test sizes up to DN2400 etc.

Smart metering, smarter METTER. Meter Instruments takes quality as its foundation and creativity as its root, and empowers for the digitization and intelligence of public utilities.

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THREE PRODUCTION BASES

Feiying Road Factory

Automated Smart Production Base

Xiyan Road Factory

Residential Ultrasonic Meter R&D and Production Base

Huoli Shan Factory

Industrial&Commercial Ultrasonic Meter R&D and Production Base

SMART PRODUCTION-AUTOMATED EQUIPMENT

Full Automated SMT Production Line

CNC Machine Tools

Multi-Axis Welding Robots

Flow Test Bench for Large Meters

Flow Test Bench for Residential Meters

FLOW TEST TOWER UP TO DN2400

METTER ULTRASONIC METERING MAKES WATER MORE VALUABLE

Ultrasonic Measurement, No Moving Parts

METTER series of ultrasonic water meter offers the most advanced water flow measurement by using cutting edge ultrasonic technology. Flow measurement is based on transit-time difference method, and all measurements, readings, calculations and data communication are controlled by an advanced, specially designed electronic circuit and chip.

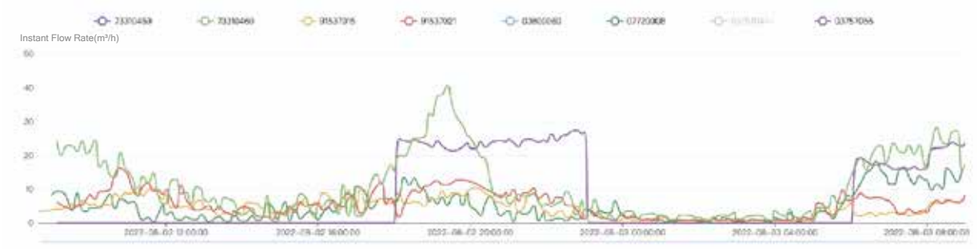
With its straight-through pipe structure design, there is no mechanical moving parts to wear or tear, hence it is able to measure water flow accurately and reliably over the long run with no maintenance needed.

Straight-Through Pipe

Straight-Through Pipe

Instant Flow Rate

Ultrasonic water meter is able to offer visualized instant flow rate data, it allows water supply company to monitor water consumption status and analyze water usage pattern.



Bi-Directional Measurement

Ultrasonic water meter is able to measure forward flow and reverse flow separately, it solves the disputes caused by pressure fluctuation.

Forward Flow

Reverse Flow

Self-Diagnosis and Alarm&Status(More than 60+ available)

- With water/ no water(empty pipe)
- Leakage(Continuous flow rate detected over long period of time)
- Overflow(Flow exceeds measurement range)
- PCB fault(Issues with PCB)
- Reverse flow(Wrong installation direction or other scenarios)
- Abnormal temperature(Temperature monitor)
- Low voltage(Battery voltage)
- Communication fault
- Open/Close valve fault
- Flow sensor fault
- More.....

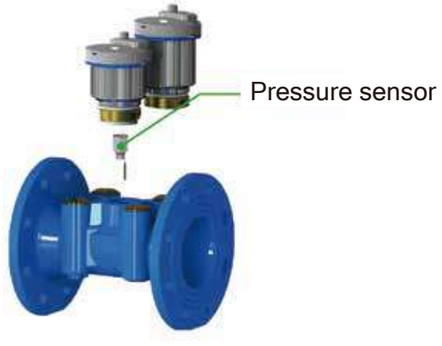
Low Starting Flow, High Measurement Sensitivity

Ultrasonic water meter is able to measure very low starting flow down to 0.5L/h, which makes every drop of water counts.
Ultrasonic water meter is also able to detect leakage hence to reduce water loss.

All Position installation

Ultrasonic water meter can be installed horizontally, vertically or inclined without deterioration of measurement accuracy. Hence, it can be installed according to actual scenarios at site.

Built-in Pressure Sensor Optional



Built-in Valve Design, Reliable Valve Control Performance

DMA Metering Management Solution

About the Solution

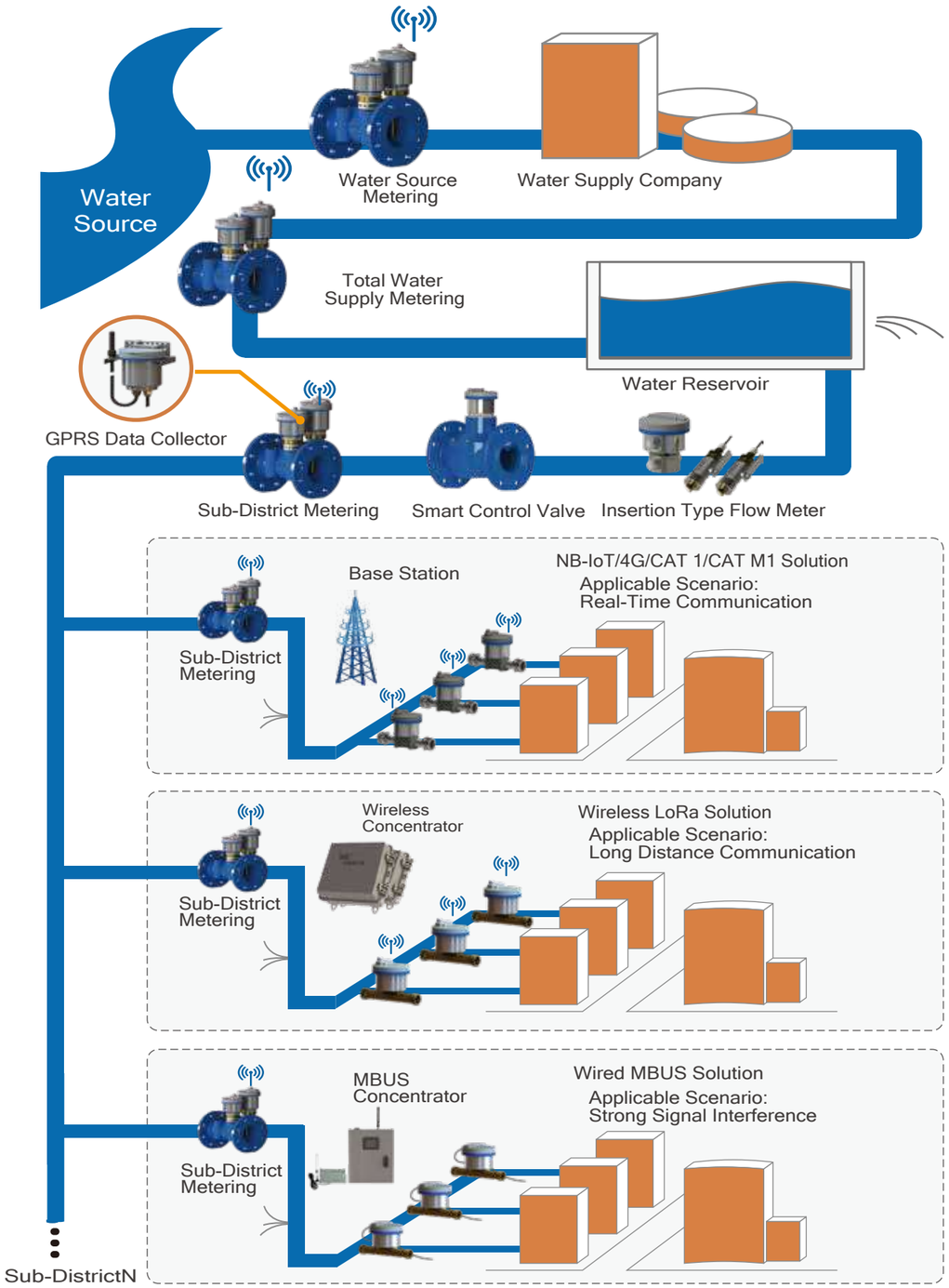
DMA (District Metered Area) Metering Management Solution is based on management and detection of water resource to analyze if there is leakage in water distribution network.

With the help of DMA and advanced water management platform to analyze data collected from water network, water supply company is able to detect leakage speedily and identify leakage points easily. It helps personnel from water supply company to quickly isolate leakage areas and dispatch maintenance teams to repair damage and reduce water losses.

Solution Features

- Water distribution network is divided into multiple manageable metering areas, it is convenient for water supply company to make proper decisions and take prompt actions based on data collected from water meters.
- With features like wide dynamic range, low starting flow and high accuracy, ultrasonic water meter is able to measure accurately even at very low flow, so as to reduce non-revenue water .
- Along with smart valve, water supply company is able to manage and control water distribution network.
- Ultrasonic water meter with built-in Lithium battery, no need external power supply.

METTER



Residential Ultrasonic Water Meter
Mini-Eagle Series(DN15-DN50)

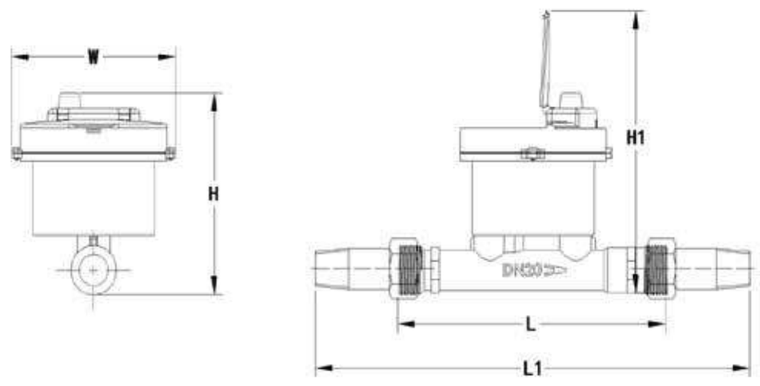
General Description

Mini-Eagle Series residential ultrasonic water meter is made of brass material. Its unique design and good performance make it our most classic ultrasonic water meter.

Features

- Patented pipe design, low pressure loss
- Brass flow pipe, conform with drinking water requirements
- Built-in lithium battery
- Low power consumption
- Wide dynamic range
- High measurement accuracy
- Bi-directional flow measurement
- Not affected by magnetic interference
- Tamper-proof design, automatically record when tamper is detected
- IP68 (waterproof/ submersible)
- Data logger with 2 years of daily totals and 24 monthly totals
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc.
- Do not measure entrained air inside pipeline.

Technical Specifications



METTER

Size		DN15	DN20	DN25	DN32	DN40	DN50
Dimensions	L (mm)	165	195	225/260	230/260	245/300	300
	L1 (mm)	261	301	347/382	356/386	376/431	440
	W (mm)	108	108	108	108	108	108
	H1 (mm)	167	172	177	186	197	207
	H (mm)	102	107	112	121	132	159
Pipe Joint-Sensor		G3/4"	G1"	G1 1/4"	G1 1/2"	G2"	G2 1/2"
Pipe Joint- Tail Pieces		R1/2"	R3/4"	R1"	R1 1/4"	R1 1/2"	R2"
Max. Flow Q4(m^3/h)		3.125	5	7.875	12.5	20	31.25
Constant Flow Q_3(m^3/h)		2.5	4.0	6.3	10	16	25
R100 Q2/Q1 (L/h)		40/25	70/40	100/63	160/100	260/160	400/250
R160 Q2/Q1 (L/h)		25/16	40/25	70/40	100/63	160/100	250/160
R250 Q2/Q1 (L/h)		16/10	25/16	40/25	70/40	100/63	160/100
R400 Q2/Q1 (L/h)		10/6	16/10	25/16	40/25	63/40	100/63
Starting Flow(L/h)		1.5	2.0	2.5	4.0	5.0	20.0
Accuracy Class		Class 2					
Pressure Class		PN16(PN10/ PN25)					
Environmental Class		Class B/O					
Electromagnetic Class		E1/E2					
Pressure Loss Class		△P63(△P25,△P40)					
Flow Sensitivity Class		U5/D3(U0/D0)					
Temp Class		T30(T50,T70,T90)					
Data Logger		With 2 years of daily totals and 24 monthly totals					
Communication Interfaces		Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB -IoT, MBUS, RS485, Pulse, 4 - 20mA, Infrared etc optional					
Power Supply		3.6VDC(Replaceable Lithium Battery)					
Measurement Cycle		Once per second					
Average Working Current		≤20μA					
Customization		Other technical specifications upon customer's requests					

Residential Ultrasonic Water Meter
Mini-Eagle with Valve Series(DN15-DN40)

General Description

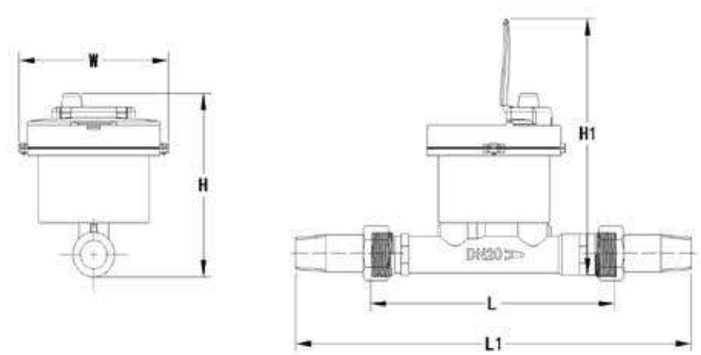
Mini-Eagle with Valve Series ultrasonic water meter is made of brass material. Its unique design and good performance make it our most classic ultrasonic water meter.
With built-in ball valve, Mini-Eagle with Valve Series is ready to provide remote valve control solution with high stability, good performance and low faulty rate.

Features

- Patented pipe design, low pressure loss
- Brass flow pipe, conform with drinking water requirements
- Built-in lithium battery
- Low power consumption
- Wide dynamic range
- High measurement accuracy
- Bi-directional flow measurement
- Not affected by magnetic interference

- Tamper-proof design, automatically record when tamper is detected
- IP68 (waterproof/ submersible)
- Data logger with 2 years of daily totals and 24 monthly totals
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc.
- Do not measure entrained air inside pipeline.
- Built-in ball valve, ready for remote valve control

Technical Specifications



METTER

Size		DN15	DN20	DN25	DN32	DN40
Dimensions	L(mm)	165	195	225/260	230/260	245/300
	L1(mm)	261	301	347/382	356/386	376/431
	W(mm)	108	108	108	108	108
	H1(mm)	175	180	182	186	197
	H(mm)	115	120	125	121	132
Pipe Joint-Sensor		G3/4"	G1"	G1 1/4"	G1 1/2"	G2"
Pipe Joint-Tail.Pieces		R1/2”	R3/4"	R1"	R1 1/4"	R1 1/2"
Max Flow Q4(m³/h)		3.125	5	7.875	12.5	20
Constant Flow Q3(m³/h)		2.5	4	6.3	10	16
R100 Q2/Q1 (L/h)		40/25	70/40	100/63	160/100	260/160
R160 Q2/Q1 (L/h)		25/16	40/25	70/40	100/63	160/100
R250 Q2/Q1 (L/h)		16/10	25/16	40/25	70/40	100/63
R400 Q2/Q1 (L/h)		10/6	16/10	25/16	40/25	63/40
Starting Flow(L/h)		1.5	2.0	2.5	4.0	5.0
Accuracy Class		Class 2				
Pressure Class		PN16(PN10/ PN25)				
Environmental Class		Class C				
Electromagnetic Class		E1/E2				
Pressure Loss Class		△P63(△P40)				
Flow Sensitivity Class		U5/D3				
Temp Class		T30(T50,T70,T90)				
Data Logger		With 2 years daily totals and 24 monthly totals				
Communication Interfaces		Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485 optional				
Power Supply		3.6VDC(Replaceable Lithium Battery)				
Measurement Cycle		Once per second				
Average Working Current		≤20μA				
Built-in Valve		Built-in ball valve				

Residential Ultrasonic Water Meter
Mini-Hot-Hatch Series(DN15-DN50)

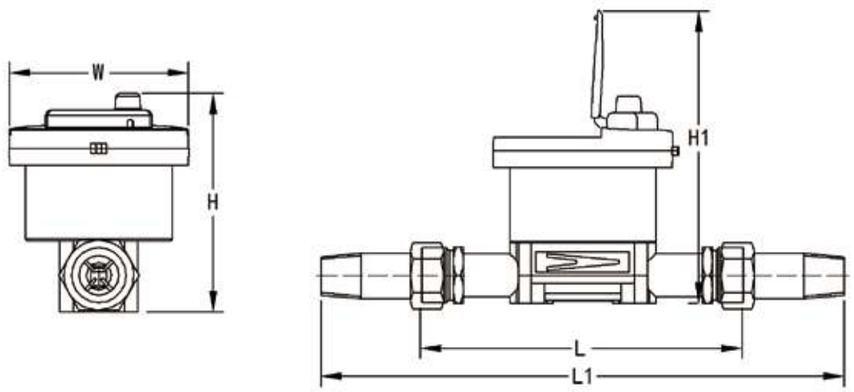
General Description

Mini-Hot-Hatch Series ultrasonic water meter is made of stainless steel material. It is safe and suitable for drinking water measurement. Its length can be customized according to different requirements in different countries around the world.

Features

- Patented pipe design, low pressure loss
- Stainless steel flow pipe, conform with drinking water requirements
- Built-in lithium batteryLow power consumption
- Wide dynamic range
- High measurement accuracy
- Bi-directional flow measurement
- Not affected by magnetic interference
- Tamper-proof design, automatically record when tamper is detected
- IP68 (waterproof/ submersible)
- Data logger with 2 years of daily totals and 24 monthly totals
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Encoder, Infrared etc.
- Do not measure entrained air inside pipeline.
- Conform with ISO4064 and AWWA standards
- Length can be customized according to requirements

Technical Specifications



METTER

Size		DN15	DN20	DN25	DN32	DN40	DN50
Dimensions	L (mm)	165	195	225/260	230/260	245/300	300
	L1 (mm)	261	301	347/382	356/386	376/431	440
	W (mm)	108	108	108	108	108	108
	H1 (mm)	167	172	177	186	197	207
	H (mm)	102	107	112	121	132	159
Pipe Joint-Sensor		G3/4"	G1"	G1 1/4"	G1 1/2"	G2"	G2 1/2"
Pipe Joint- Tail Pieces		R1/2"	R3/4"	R1"	R1 1/4"	R1 1/2"	R2"
Max. Flow Q4(m^3/h)		3.125	5	7.875	12.5	20	31.25
Constant Flow Q_3(m^3/h)		2.5	4.0	6.3	10	16	25
R100 Q2/Q1 (L/h)		40/25	70/40	100/63	160/100	260/160	400/250
R160 Q2/Q1 (L/h)		25/16	40/25	70/40	100/63	160/100	250/160
R250 Q2/Q1 (L/h)		16/10	25/16	40/25	70/40	100/63	160/100
R400 Q2/Q1 (L/h)		10/6	16/10	25/16	40/25	63/40	100/63
Starting Flow(L/h)		1.5	2.0	2.5	4.0	5.0	20.0
Accuracy Class		Class 2					
Pressure Class		PN16(PN10/ PN25)					
Environmental Class		Class B/O					
Electromagnetic Class		E1/E2					
Pressure Loss Class		△P63(△P25,△P40)					
Flow Sensitivity Class		U5/D3(U0/D0)					
Temp Class		T30(T50,T70,T90)					
Data Logger		With 2 years of daily totals and 24 monthly totals					
Communication Interfaces		Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Encoder,Infrared etc optional					
Power Supply		3.6VDC(Replaceable Lithium Battery)					
Measurement Cycle		Once per second					
Average Working Current		≤20μA					
Customization		Other technical specifications upon customer's requests					

Residential Ultrasonic Water Meter
Mini-Hot-Hatch with Valve Series(DN15-DN50)

General Description

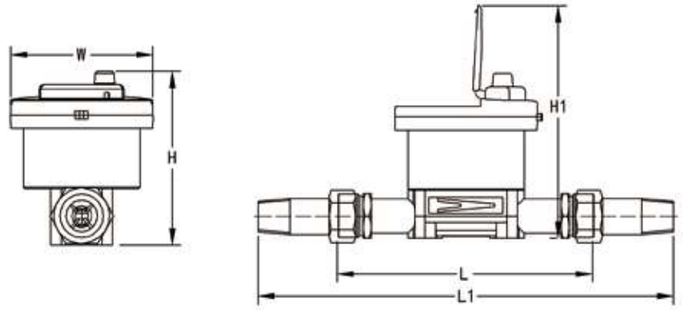
Mini-Hot-Hatch with Valve Series ultrasonic water meter is made of stainless steel material. It is safe and suitable for drinking water measurement. Its length can be customized according to different requirements in different countries around the world.
With built-in ball valve, Mini-Hot-Hatch with Valve Series is ready to provide remote valve control solution with high stability, good performance and low faulty rate.

Features

- Patented pipe design, low pressure loss
- Stainless steel flow pipe, conform with drinking water requirements
- Built-in lithium battery
- Low power consumption
- Wide dynamic range
- High measurement accuracy
- Bi-directional flow measurement

- Not affected by magnetic interference
- Tamper-proof design, automatically record when tamper is detected
- IP68 (waterproof/ submersible)
- Data logger with 2 years of daily totals and 24 monthly totals
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Encoder,Infrared etc.
- Do not measure entrained air inside pipeline.
- Conform with ISO4064 and AWWA standards
- Length can be customized according to requirements
- Built-in ball valve, ready for remote valve control

Technical Specifications



METTER

Size		DN15	DN20	DN25	DN32	DN40	DN50
Dimensions	L (mm)	165	195	225/260	230/260	245/300	300
	L1 (mm)	261	301	347/382	356/386	376/431	440
	W (mm)	110	110	110	110	110	110
	H1 (mm)	167	172	177	186	197	207
	H (mm)	102	107	112	121	132	159
Pipe Joint-Sensor		G3/4"	G1"	G1 1/4"	G1 1/2"	G2"	G2 1/2"
Pipe Joint- Tail Pieces		R1/2"	R3/4"	R1"	R1 1/4"	R1 1/2"	R2"
Max. FlowQ4(m^3/h)		3.125	5	7.875	12.5	20	31.25
Constant FlowQ_3(m^3/h)		2.5	4.0	6.3	10	16	25
R100 Q2/Q1 (L/h)		40/25	70/40	100/63	160/100	260/160	400/250
R160 Q2/Q1 (L/h)		25/16	40/25	70/40	100/63	160/100	250/160
R250 Q2/Q1 (L/h)		16/10	25/16	40/25	70/40	100/63	160/100
R400 Q2/Q1 (L/h)		10/6	16/10	25/16	40/25	63/40	100/63
Starting Flow(L/h)		1.5	2.0	2.5	4.0	5.0	20.0

Accuracy Class	Class 2
Pressure Class	PN16(PN10/ PN25)
Environmental Class	Class B/O
Electromagnetic Class	E1/E2
Pressure Loss Class	△P63(△P25,△P40)
Flow Sensitivity Class	U5/D3(U0/D0)
Temp Class	T30(T50,T70,T90)
Data Logger	With 2 years of daily totals and 24 monthly totals
Communication Interfaces	Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc optional
Power Supply	3.6VDC(Replaceable Lithium Battery)
Measurement Cycle	Once per second
Average Working Current	≤20μA
Built-in Valve	Built-in ball valve
Customization	Other technical specifications upon customer's requests

Residential Ultrasonic Water Meter
Mini-Horn Series(DN15-DN20)

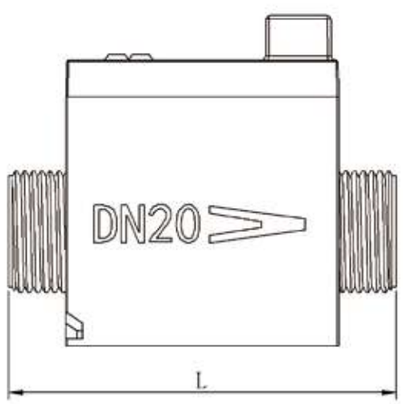
General Description

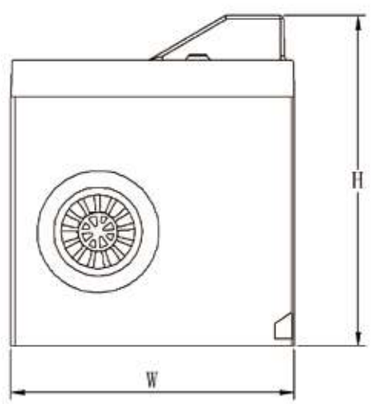
Mini-Horn Series is one of the earliest residential ultrasonic water meter made of composite material, it is corrosion-resistant to ensure longevity.
Due to its compact design, its dimension is much smaller than regular water meters, hence it is suitable for a lot of scenarios especially in areas where installation space is limited.

Features

- Patented pipe design, low pressure loss
- Lead-free composite flow pipe, conform with drinking water requirements
- Built-in lithium battery
- Low power consumption
- Wide dynamic range
- High measurement accuracy
- Bi-directional flow measurement
- Not affected by magnetic interference
- Tamper-proof design, automatically record when tamper is detected
- IP68 (waterproof/ submersible)
- Data logger with 2 years of daily totals and 24 monthly totals
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc.
- Do not measure entrained air inside pipeline.

Technical Specifications





METTER

Size		DN15	DN20
Dimensions	L (mm)	80/110/165	105/130/195
	L1 (mm)	176/206/261	211/236/301
	W (mm)	69	74
	H1 (mm)	121	124
	H (mm)	88	93
Pipe Joint-Sensor		G3/4"	G1"
Pipe Joint- Tail Pieces		R1/2"	R3/4"
Max. FlowQ4(m³/h)		3.125	5
Constant FlowQ3(m³/h)		2.5	4.0
R100 Q2/Q1 (L/h)		40/25	70/40
R160 Q2/Q1 (L/h)		25/16	40/25
R250 Q2/Q1 (L/h)		16/10	25/16
R400 Q2/Q1 (L/h)		10/6	16/10
Starting Flow(L/h)		1.5	2.0
Accuracy Class		Class 2	
Pressure Class		PN16(PN10/ PN25)	
Environmental Class		Class B/O	
Electromagnetic Class		E1/E2	
Pressure Loss Class		△P63(△P25,△P40)	
Flow Sensitivity Class		U5/D3(U0/D0)	
Temp Class		T30(T50,T70,T90)	
Data Logger		With 2 years of daily totals and 24 monthly totals	
Communication Interfaces		Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc optional	
Power Supply		3.6VDC(Replaceable Lithium Battery)	
Measurement Cycle		Once per second	
Average Working Current		≤20μA	
Customization		Other technical specifications upon customer's requests	

Residential Ultrasonic Water Meter
Mini-Horn with Valve Series(DN15-DN20)

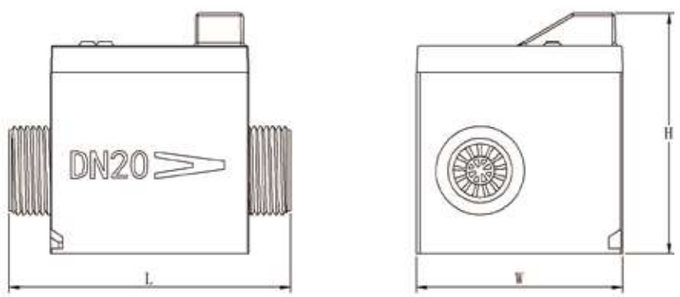
General Description

Mini-Horn with Valve Series is one of the earliest residential ultrasonic water meter made of composite material, it is corrosion-resistant to ensure longevity.
Due to its compact design, its dimension is much smaller than regular water meters, hence it is suitable for a lot of scenarios especially in areas where installation space is limited.
With built-in ball valve, Mini-Horn with Valve Series is ready to provide remote valve control solution with high stability, good performance and low faulty rate.

Features

- Patented pipe design, low pressure loss
- Lead-free composite flow pipe, conform with drinking water requirements
- Built-in lithium battery
- Low power consumption
- Wide dynamic range
- High measurement accuracy
- Bi-directional flow measurement
- Not affected by magnetic interference
- Tamper-proof design, automatically record when tamper is detected
- IP68 (waterproof/ submersible)
- Data logger with 2 years of daily totals and 24 monthly totals
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc.
- Do not measure entrained air inside pipeline.
- Built-in ball valve, ready for remote valve control

Technical Specifications



METTER

Size		DN15	DN20
Dimensions	L (mm)	110/165	130/195
	L1 (mm)	206/261	236/301
	W (mm)	84	89
	H1 (mm)	125	125
	H (mm)	96	96
Pipe Joint-Sensor		G3/4"	G1"
Pipe Joint- Tail Pieces		R1/2"	R3/4"
Max. FlowQ4(m^3/h)		3.125	5
Constant FlowQ_3(m^3/h)		2.5	4.0
R100 Q2/Q1 (L/h)		40/25	70/40
R160 Q2/Q1 (L/h)		25/16	40/25
R250 Q2/Q1 (L/h)		16/10	25/16
R400 Q2/Q1 (L/h)		10/6	16/10
Starting Flow(L/h)		1.5	2.0
Accuracy Class		Class 2	
Pressure Class		PN16(PN10/ PN25)	
Environmental Class		Class B/O	
Electromagnetic Class		E1/E2	
Pressure Loss Class		△P63(△P25,△P40)	
Flow Sensitivity Class		U5/D3(U0/D0)	
Temp Class		T30(T50,T70,T90)	
Data Logger		With 2 years of daily totals and 24 monthly totals	
Communication Interfaces		Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc optional	
Power Supply		3.6VDC(Replaceable Lithium Battery)	
Measurement Cycle		Once per second	
Average Working Current		≤20μA	
Built-in Valve		Built-in ball valve	
Customization		Other technical specifications upon customer's requests	

Residential Ultrasonic Water Meter
Mini-Elephant with Valve Series(DN15-DN25)

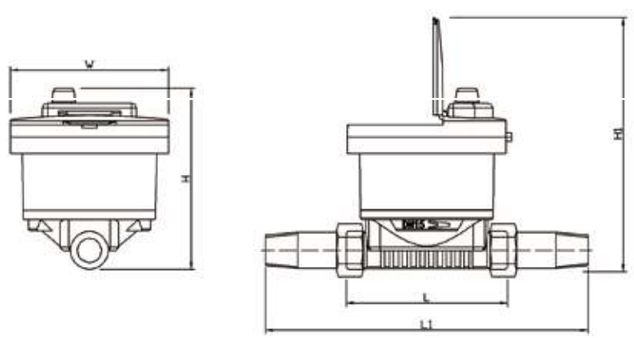
General Description

Hard water is prone to scaling in the pipeline, which not only affects drinking water safety but also affects measurement accuracy, Mini-Elephant with Valve Series residential ultrasonic water meter is made of composite material, with its straight pipeline design,it is not easy to scale.
With built-in ball valve, Mini-Elephant with Valve Series is ready to provide remote valve control solution with high stability, good performance and low faulty rate.

Features

- Patented pipe design, low pressure loss
- Lead-free composite flow pipe, conform with drinking water requirements
- Built-in lithium battery
- Low power consumption
- Wide dynamic range
- High measurement accuracy
- Bi-directional flow measurement
- Not affected by magnetic interference
- Tamper-proof design, automatically record when tamper is detected
- IP68 (waterproof/ submersible)
- Data logger with 2 years of daily totals and 24 monthly totals
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc.
- Do not measure entrained air inside pipeline.
- Built-in ball valve, ready for remote valve control

Technical Specifications



METTER

Size		DN15	DN20	DN25
Dimensions	L (mm)	110	190	225
	L1 (mm)	206	296	347
	W (mm)	108	108	108
	H1 (mm)	190	196	209
	H (mm)	125	131	144
Pipe Joint-Sensor		G3/4"	G1"	G1 1/4"
Pipe Joint- Tail Pieces		R1/2"	R3/4"	R1"
Max. FlowQ4(m^3/h)		3.125	5	7.875
Constant FlowQ_3(m^3/h)		2.5	4.0	6.3
R100 Q2/Q1 (L/h)		40/25	70/40	100/63
R160 Q2/Q1 (L/h)		25/16	40/25	70/40
R250 Q2/Q1 (L/h)		16/10	25/16	40/25
R400 Q2/Q1 (L/h)		10/6	16/10	25/16
Starting Flow(L/h)		1.5	2.0	2.5
Accuracy Class		Class 2		
Pressure Class		PN16(PN10/ PN25)		
Environmental Class		Class B/O		
Electromagnetic Class		E1/E2		
Pressure Loss Class		△P63(△P25,△P40)		
Flow Sensitivity Class		U5/D3(U0/D0)		
Temp Class		T30(T50,T70,T90)		
Data Logger		With 2 years of daily totals and 24 monthly totals		
Communication Interfaces		Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc optional		
Power Supply		3.6VDC(Replaceable Lithium Battery)		
Measurement Cycle		Once per second		
Average Working Current		≤20μA		
Customization		Other technical specifications upon customer's requests		

Residential Ultrasonic Water Meter
Mini-Swallow Series(DN15-DN20)

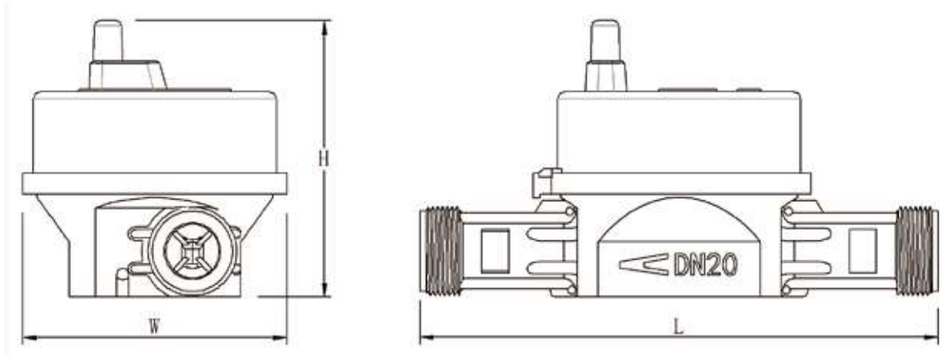
General Description

Hard water is prone to scaling in the pipeline, which not only affects drinking water safety but also affects measurement accuracy, Mini-Swallow Series residential ultrasonic water meter is made of composite material, with its straight pipeline design,it is not easy to scale.

Features

- Patented pipe design, low pressure loss
- Lead-free composite flow pipe, conform with drinking water requirements
- Built-in lithium battery
- Low power consumption
- Wide dynamic range
- High measurement accuracy
- Bi-directional flow measurement
- Not affected by magnetic interference
- Tamper-proof design, automatically record when tamper is detected
- IP68 (waterproof/ submersible)
- Data logger with 2 years of daily totals and 24 monthly totals
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc.
- Do not measure entrained air inside pipeline.

Technical Specifications



METTER

Size		DN15	DN20
Dimensions	L (mm)	165	195
	L1 (mm)	261	301
	W (mm)	95	95
	H1 (mm)	161	166
	H (mm)	96	101
Pipe Joint-Sensor		G3/4"	G1"
Pipe Joint- Tail Pieces		R1/2"	R3/4"
Max. FlowQ4(m^3/h)		3.125	5
Constant FlowQ_3(m^3/h)		2.5	4.0
R100 Q2/Q1 (L/h)		40/25	70/40
R160 Q2/Q1 (L/h)		25/16	40/25
R250 Q2/Q1 (L/h)		16/10	25/16
R400 Q2/Q1 (L/h)		10/6	16/10
Starting Flow(L/h)		1.5	2.0
Accuracy Class		Class 2	
Pressure Class		PN16(PN10/ PN25)	
Environmental Class		Class B/O	
Electromagnetic Class		E1/E2	
Pressure Loss Class		△P63(△P25,△P40)	
Flow Sensitivity Class		U5/D3(U0/D0)	
Temp Class		T30(T50,T70,T90)	
Data Logger		With 2 years of daily totals and 24 monthly totals	
Communication Interfaces		Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc optional	
Power Supply		3.6VDC(Replaceable Lithium Battery)	
Measurement Cycle		Once per second	
Average Working Current		≤20μA	
Customization		Other technical specifications upon customer's requests	

Ultrasonic Water Meter
Commercial&Industrial Series(DN50-DN300)

General Description

Meter Instruments offers a series of integrated, hermetically-sealed water meters by adopting the most advanced ultrasonic transit-time differernce technology for reliable flow measurement in municipal, commercial, industrial, distribution applications where the mechanical water meter fails due to the harsh environment.

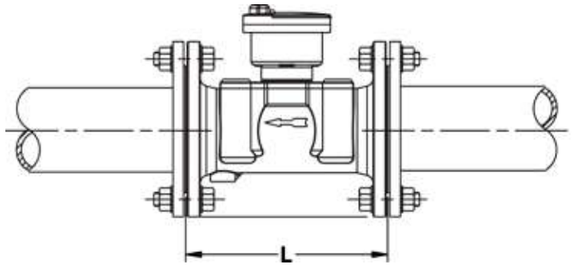
Features

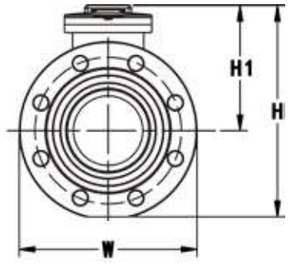
- Size range from DN50-300(up to DN2400 upon requests)
- Ductile iron and stainless steel optional
- Customized pipe length and flange specifications
- Patented multi-channel technology
- High accuracy, accuracy doesn't degrade over the long run
- Not affected by water impurity
- Not affected by magnetic interference
- Low pressure drop
- IP68 protection(Waterproof/ Submersible)
- Bi-directional flow measurement
- Tamper-proof design
- Built-in temp sensor and Pressure sensor optional
- Multiple communication interfaces optional: Lora, WMBUS, GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA, Infrared etc.
- Leakage detection

Stainless Steel

Ductile Iron

Technical Specifications





Size		DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
L	mm	200	200	225	250	250	300	350	450	500
W	mm	165	185	200	220	250	285	340	405	460
H1	mm	150	158	175	181	199	217	246	272	320
H	mm	235	248	264	287	320	355	410	452	550
Max. Flow Q_4	m³/h	31.25	50	78.75	125	200	312.5	500	787.5	1250
Constant Flow Q_3	m³/h	25	40	63	100	160	250	400	630	1000
Transition Flow Q_2	m³/h	0.16	0.256	0.4	0.64	1.02	1.6	2.56	4.0	6.4
Min. Flow Q_1	m³/h	0.1	0.16	0.25	0.4	0.64	1	1.6	2.52	4.0
Starting Flow	m³/h	0.02	0.025	0.03	0.035	0.05	0.07	0.1	0.15	0.25
Channel No.		Four Channels							Six Channels	
End Connection		Flange(PN16 or upon request)								
Flow Cell Material		304SS or Ductile Iron								
Accuracy Class		Class 2								
Pressure Class		PN16(PN10/ PN25)								
Environmental Class		Class B/O								
Electromagnetic Class		E1/E2								
Pressure Loss Class		△P25(△P63,△P40)								
Flow Sensitivity Class		U5/D3(U0/D0)								
Temp Class		T30(T50,T70,T90)								
Data Logger		With 2 years of daily totals and 24 monthly totals								
Communication Interfaces		GPRS/4G, CAT1, CAT M1, NB-IoT, MBUS, RS485, Pulse, 4-20mA etc optional								
Power Supply		3.6VDC(Replaceable Lithium Battery)								
Measurement Cycle		Once per second								
Average Working Current		≤20μA								
Customization		Other technical specifications upon customer's requests								

Ultrasonic Flow Meter(DN15-DN2400)

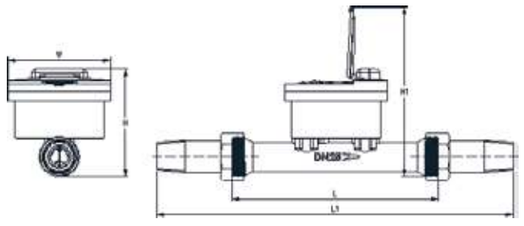
General Description

Ultrasonic flow meter, DN size:DN15-DN2400, utilize transit-time difference principle to measure, memorize and display the flow passing through flow sensor.
Applications:
Municipal, commercial and distribution applications, including reclaim and irrigation water;
Commercial buildings, including campus, malls, hospitals and airport facilities;
Industrial water, including waste water treatment etc.

Features

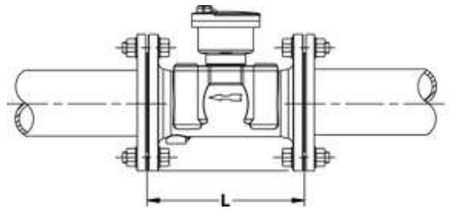
- Communication interfaces: LORA, GPRS/4G, NB-IoT, CAT1, CAT M1, MBUS, RS485, Pulse, 4-20mA etc optional;
- Compatible with GPRS/4G remote reading system solution, flow meter is able to remotely communicate with the data center;
- Data logger with 24 monthly totals and 2 years daily totals;
- Patented waterproof technology, ready to work in humid environment.

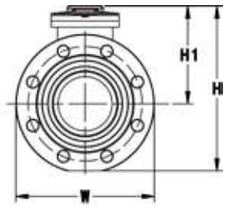
Technical Specifications



DN Size		DN15	DN20	DN25	DN32	DN40
Dimension	L (mm)	165	195	225/260	230/260	245/300
	L1 (mm)	261	301	347/382	356/386	376/431
	W (mm)	110	110	110	110	110
	H1 (mm)	167	172	177	186	197
	H(mm)	102	107	112	121	132
Pipe Joint -Flow Cell		G3/4"	G1"	G1 1/4"	G1 1/2"	G 2"
Pipe Joint- Tail Pieces		G1/2"	G3/4"	G1"	G1 1/4"	G1 1/2"
Qmax	m^3/h	3.0	5.0	7.0	10.0	15.0
0.4Qmax	m^3/h	1.2	2	2.8	4	6
Qt	m^3/h	0.2	0.33	0.5	0.75	1.25
Qmin	m^3/h	0.12	0.2	0.3	0.5	0.6
Water Temp		（0.1 - 30）℃				
Ambient Temp		(0.1-50)°C				
Installation Method		V/H				
Working Pressure		≤1.0MPa				
Measuring Medium		Water				
Accuracy Class		Class 2,Class1.5, Class1 optional				

METTER





DN Size	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN450	DN500
L (mm)	200	200	225	250	250	300	350	450	500	500	500	500	500
W (mm)	165	185	200	220	250	285	340	405	460	550	580	640	715
H1 (mm)	150	158	175	181	199	217	246	272	320	470	475	510	560
H (mm)	235	248	264	287	320	355	410	452	550	640	670	730	805
Qmax (m^3/h)	25	40	60	100	150	200	300	500	800	1000	1500	2000	3000
0.4Qmax (m^3/h)	10	16	24	40	60	80	120	200	320	400	600	800	1200
Qt (m^3/h)	2.0	3.5	5.0	8.0	13	19	30	50	75	100	135	200	300
Qmin (m^3/h)	1.0	2.0	3.0	5.0	7.5	10	18	30	40	55	75	100	150
End Connection	Flange												
Communication Interfaces	LORA, GPRS/4G, NB-IoT, CAT1, CAT M1, MBUS, RS485, Pulse, 4-20mA etc optional												
Installation Method	H/V												
Measuring Medium	Water												
Working Pressure	≤1.6MPa												
Water Temp	(0.1-30)°C												
Ambient Temp	(0.1-50)°C												
Accuracy Class	Class2, Class1.5, Class1 optional												
Notes	For DN600-DN2400, please contact us to get more details												

Ultrasonic Flow Meter
Insertion Series

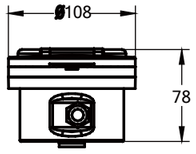
General Description

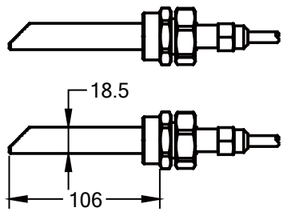
Insertion Series ultrasonic flow meter, size range from DN40 ~ DN2400. With its low power consumption design and built-in lithium battery, there is no need external power supply.
With the patented multi-channel ultrasonic metering technology, Insertion Series is able to provide robust, excellent long-term stability and high accuracy measurement. Flow sensor can be inserted into the pipeline without shutting down water flow.

Features

- Multiple communication interfaces optional;
- With built-in battery, no need external power supply;
- Easy for installation and maintenance;
- With built-in data logger, records 2 years daily totals and 24 monthly totals;
- Suitable for all commonly used pipes.

Technical Specifications





DN Size	DN40-DN2400
Accuracy Class	Class1.0, Class1.5, Class2.0 optional
Pressure	≤2.0MPa
Communication Interfaces	MBUS, RS485, GPRS, 4-20mA, Pulse etc optional
Protection Class	IP68
Measuring Medium	Water
Water Temp	(0.1 - 55)°C
Ambient Tem	(-25 - 55)°C
Data Logger	Record 2 years of daily totals and 24 monthly totals
Power Supply	3.6VDC, Lithium battery, ensure 6 years' battery life
Average Current	≤30μA
Display	LCD, 9 digits
Channel No.	1- 8 channels

Smart Control Valve
Pilot Valve Series（DN32-DN300）

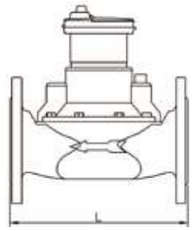
General Description

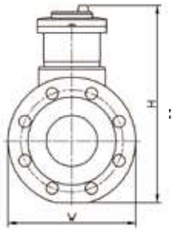
Pilot Valve Series smart control valve offers an easy way to remotely open and close valve to control water supply within distribution network. It provides various communication interfaces, such as LORA, GPRS/4G, NB-IoT, CAT1, CAT M1, MBUS, RS485 etc, together with ultrasonic water meters, they offer advanced utility management capabilities to increase revenue and save water and energy resources.

Features

- Compatible with RF IC Card(non-contact mode) to control valve;
- Seamlessly integrated into DMA metering system to open/close valve to control water distribution in the district;
- With built-in battery, no need external power supply;
- Along with ultrasonic water meters and GPRS data collector, it is able to provide a solution to accurately measure meter data, remotely read, transmit, control and provide valid basis for billing purpose.

Technical Specifications





DN Size	DN32	DN40	DN50	DN80	DN100	DN150	DN200	DN300
L(mm)	170	170	250	280	300	350	400	610
W(mm)	120	120	165	200	220	285	340	460
H(mm)	204	204	249	289	310	359	416	538
Pipe Joint	G1 1/4	G1 1/2	Flange(PN16 or upon request)					
Water Temp	≤70°C							
Ambient Temp	-25°C--- +55°C							
Working Pressure	≤1.0MPa							
Protection Class	IP68							
Power Supply	3.6VDC, 8.5Ah,Lithium battery							
Static Current	≤10μA							
Communication Interfaces	LORA, GPRS/4G, NB-IoT, CAT1, CAT M1, MBUS, RS485 etc optional							
Valve On/Off	＞10000 times							
Battery Life	＞6 years							