## **XINGYMETER**®







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## 宁波兴远仪表科技有限公司

NINGBO XINGYUAN METER TECHNOLOGY CO.,LTD.

# Introduction

Located in Ningbo Jiangbei, Zhejiang Province, Ningbo Xingyuan Meter Technology Co., Ltd. is a professional manufacturer of smart meters, water meters, heat meters and meters accessories.

We are professional in doing various full series cold/hot water accessories and inner works, size from 15mm to 500mm for various water meters (residential and industrial applications, automatic reading system, intelligent water meter). Especially, we provide OEM projects or items for water meter parts, such as cooper water meter cases, iron water meter cases and plastic water meter cases. We provide many water meter parts to water meter companies. Our company owns many various injection molding machines, ranging from 50g to 2500g, and can do plastic parts and accessories as customer s requests. We are strong in casing and machining many cooper and iron accessories. Our goods are selling well in the domestic and overseas markets.

Our success is based upon personal contact with our customers. We offer them rapid response to all the inquiries and provide high quality services. We are selling not only products, but also the idea, designing, innovation, quality controlling and professional service. XINGYMETER®











## **CERTIFICATES**

#### MID CERTIFICATE





#### ISO 9001:2015







#### ISO45001:2018







## **01** ULTRASONIC WATER METER

## LXSM-W7



#### LXSM-W8









measurement





battery life



optional



measuring



Remote communication

• Covered from DN15 to DN50 for domestic and commercial application, its robust design ensures reliable and long lasting precision and support full smart solutions. It is used to measure water consumption of potable water, for residential water supply purpose.

#### > SPECIFICATIONS (LXSM-W7)

DN	L	Q3/Q1	Q4	Q3	Q2	Q1	
DN	mm	Q3/Q1	m <sup>3</sup>	³/h	L/h		
15	110		3.125	2.5	≥10.0	≥6.25	
20	130	≤R400 Any	5	4	≥16.0	≥10.0	
25	160		7.875	6.3	≥25.2	≥15.75	

#### > SPECIFICATIONS (LXSM-W8)

DN	L	Q3/Q1	Q4	Q3	Q2	Q1	
DN	mm	62/61	m <sup>3</sup>	³/h	L/h		
15	110		3.125	2.5	≥10.0	≥6.25	
20	130	≤R400 Any	5	4	≥16.0	≥10.0	
25	160		7.875	6.3	≥25.2	≥15.75	

• Data communication: MBUS, RS485, Pulse, LoRa, LoRaWAN, NB-IoT, wM-Bus

## **ULTRASONIC PREPAID WATER METER WITH VALVE**

### LXSM-W9



















• Covered from DN15 to DN25 for domestic and commercial application, its robust design ensures reliable and long lasting precision and support full smart solutions. It is used to measure water consumption of potable water, for residential water supply purpose.

#### **SPECIFICATIONS**

DN	L	Q3/Q1	Q4	Q3	Q2	Q1	
DN	mm	Q3/Q1	m <sup>3</sup>	³/h	L/h		
15	130		3.125	2.5	16.0	10.0	
20	130	R250	5	4	25.6	16.0	
25	160		7.875	6.3	40.32	25.20	

• Data communication: MBUS, RS485, Pulse, LoRa, LoRaWAN, NB-IoT, wM-Bus

## **03** ULTRASONIC BULK WATER METER













optional







communication

• Covered from DN50 to DN300, it is a ductile iron cast ultrasonic bulk meter with advanced sensors for precise and reliable measurement to commercial and industrial application. The meter combined with high-tech technology for both superior hydraulic performance and instant alarm to realize smart water management.

#### **SPECIFICATIONS**

DN	L	Q3/Q1	Q4	Q3	Q2	Q1	Min Reading	Max Reading	
	mm		m³/h		L/	L/h		m <sup>3</sup>	
50	200		31.25	25	≥160	≥100		99999.999	
65	200		50	40	≥256	≥160			
80	225		75	63	≥403.2	≥252			
100	250		125	100	≥640	≥400			
125	250	≤R250 Any	200	160	≥1024	≥640	0.00001		
150	300		312.5	250	≥1600	≥1000			
200	350		500	400	≥2560	≥1600			
250	450		787.5	630	≥4032	≥2520			
300	500		1250	1000	≥6400	≥4000			

• Data communication: MBUS, RS485, Pulse, LoRa, LoRaWAN, NB-IoT

## **04** SINGLE-JET SMART WATER METER

LXSC-D7

LXSC-D8

LXSC-D9























• Single jet smart water meters with simple structure and economical bodies. They are an idea choice for a range of sub-metering applications for apartment and commercial buildings.

#### **▶** OPTIONAL

Meter body material	Electromechanical conversion	Basic water meter	Wireless data communication	Wired data communication	Temperature
brass	reed switch	dry type	NB-IoT	M-Bus	T30
plastic	HRI	semi-dry	wM-Bus	Pulse	T50
			LoRa	RS485	T90
			LoRaWAN		T30/T90

#### **SPECIFICATIONS**

DN	L mm	Q3/Q1	Q4	Q3	Q2	Q1 /h	Capacity of the Pulse Emitter Pulse/HRI
15	80/110/115	≤R160H	3.1	2.5	≥25	≥15.6	r utsc/mit
20	130	≪R50 Any	5	4.0	≥40	≥25	
25	160		7.875	6.3	≥126	≥78.75	1L
32	160	≤R80H ≤R50 Any	12.5	10	≥200	≥125	10L
40	200	≪K30 Ally	20	16	≥320	≥200	

• Data communication: MBUS, RS485, Pulse, LoRa, LoRaWAN, NB-IoT, wM-Bus

# 05 MULTI-JET SMART WATER METER

# LXSC-S4













meter data, controls the electric valve, and realizes the prepaid.













• Multi-jet smart water meter with reliable design to work stable under various of water usage environment . They are an idea choice for a range of municipal, private and industrial water metering applications. Valve control prepaid water meter is based on the radio frequency card as the carrier, reads the water

#### **▶** OPTIONAL

Meter body material	Electromechanical conversion	Basic water meter	Wireless data communication	Wired data communication	Temperature
brass	reed switch	dry type	NB-IoT	M-Bus	T30
ductile iron	encoder	wet type	wM-Bus	Pulse	T50
plastic	HRI	semi-dry	LoRa	RS485	T90
stainless steel			LoRaWAN		T30/T90

#### **SPECIFICATIONS**

DN	L	Q3/Q1	Q4 Q3 Q2		Q2	Q1	Capacity of the Pulse Emitter	
	mm		m³/h		L/h		Pulse	HRI
15	165/190	≤R160H	3.1	2.5	≥25	≥15.6		1L
20	190/195	≤R80V	5	4.0	≥40	≥25	1L	10L
25	225/260		7.875	6.3	≥126	≥78.75	10L	
32	260	≤R80H	12.5	10	≥200	≥125	100L	101
40	300	≤R50V	20	16	≥320	≥200	1m³	10L
50	300		31.25	25	≥500	≥312.5		

• Data communication: MBUS, RS485, Pulse, LoRa, LoRaWAN, NB-IoT, wM-Bus

## 06 ULTRASONIC HEAT METER



• Approval for ultrasonic heat meter with dynamic range up to 1:100(Qi:Qp) in class 2. It has long battery lifetime, high long term stability. Optional with integrated radio. Real date or open metering standard(868 or 433MHZ), individual remote reading(AMR). Conforming to European standard EN1434.

#### > TECHNICAL CHARACTERISTICS

Nominal flow rate	q <sub>p</sub>	m³/h	0.6	1.5	2.5	3.5	6	10
Nominal diameter	DN	mm	15	15	20	25	32	40
Overall length	L	mm	110	110	130	160	180	200
Starting flow rate		l/h	3.5	3.5	4.5	7	7	20
Minimum flow rate (DR 1:100)	qi	l/h	6	15	25	35	60	100
Maximum flow rate	qs	m³/h	1.2	3	5	7	12	20
Operating pressure	PN	bar	16/25	16/25	16/25	16/25	16/25	16/25
Pressure loss at qp	qs	mbar	85	75	100	128	128	95
Temp. range heating	△P	°C	295	295	295	295	295	295

• Data communication: MBUS, RS485, Pulse, LoRa, LoRaWAN, NB-IoT, wM-Bus, 4 pulse input

# SINGLE-JET HEAT METER



• Volume measuring component DN15-DN40. Measures thermal energy consumption in heating and cooling systems. Consists of a flow sensor, an integrator and a pair of temperature sensors. Compact dimensions. High accuracy and durability. Pre-equipped for connection of water meter with pulse output. PC software for data reading and storaging. Conforming to European standard EN1434.

#### TECHNICAL CHARACTERISTICS

Nominal flow rate	q <sub>P</sub>	m³/h	0.6	1.5	2.5	3.5	6	10
Nominal diameter	DN	mm	15	15	20	25	32	40
Overall length	L	mm	110	110	130	160	180	200
Starting flow rate		l/h	6	8	15	20	30	50
Minimum flow rate (DR 1:50)	qi	l/h	12	30	50	70	120	200
Maximum flow rate	qs	m³/h	1.2	3	5	7	12	20
Operating pressure	PN	bar	16/25	16/25	16/25	16/25	16/25	16/25
Pressure loss at qp	qs	mbar	85	75	100	128	128	95
Temp. range heating	△P	°C	295	295	295	295	295	295

• Data communication: MBUS, RS485, Pulse, LoRa, LoRaWAN, NB-IoT, wM-Bus, 4 pulse input

## **08** ULTRASONIC BULK HEAT METER

LXUR-H2



TECHNICAL CHARAC									
Nominal caliber	Minimum flow	Common flow	Maximum flow	Body length					
Nominal Caliber	qi (m³/h)	$qp(m^3/h)$	qs(m³/h)	mm					
DN 50	0.15	15	30	200					
DN 65	0.25	25	50	200					
DN 80	0.4	40	80	225					
DN 100	0.6	60	120	250					
DN 125	1.0	100	200	250					
DN 150	1.5	150	300	300					
DN 200	2.5	250	500	350					
DN250	4.0	400	800	450					
DN300	6.0	600	1200	500					
Measurement accuracy		Level 2 specified in GB/T 32224-2015 "heat meter"							
Connection method		Flange co	nnection						
Pressure loss		≤0.02	2MPa						
Nominal pressure		≤1.6	MPa						
Temperature Sensor	1.5m standard	two-wire PT1000 paired temp	erature sensor (wire length can l	oe ordered)					
Data storage	Cor	tinuously store the historical re	ecords of the previous 18 month	S					
Power failure protection	the power failure, and	d the metering function will be	e flow and corresponding time ca automatically restored after the hen the power is off is guarantee	power is restored,					
Remote transmission		M-Bus remote transmission, I	RS-485 remote transmission						
Power supply		Built-in high-energ	gy lithium battery						
Protection level		IP6	58						
Environmental rating		Clas	ss A						
Temperature range		(4~95	5)°C						
Temperature difference range		(3~7	0)K						
Installation method	Water inlet or backwa	ater (default water inlet, backw	ater instalation should be specif	ec when ordering)					
Installation location	Horizontal or vertical								
Durability		Life cycle	≥10 years						
Display		8-digit LCD liquid	d crystal display						
Anti-magnetic interference  When it is interfered by a magnetic field with a strength not greater than 100KA/m,it should not affect the measurement and remote transmission characteristics of the heat meter.									

• Data communication: MBUS, RS485, Pulse, LoRa, LoRaWAN, NB-IoT

# O9 SINGLE-JET WATER METER

LXSC-D<sub>1</sub>

LXSC-D<sub>2</sub> R160

LXS-FD

LXSC-DP











• It has the characteristics of small size, light weight, magnetic transmission structure, and anti-magnetic function, the counter uses vacuum seal, anti-condensation atomization, can keep the reading clear. Meter body can use copper or plastic. All the Materials in contact with water, consciously selected by the known resistance to corrosion. Meets to the requirements of Directive 2004/22/EC on measuring instruments and of European Standard EN14154 and International Organization of Legal Metrology OIML R49.

#### **SPECIFICATIONS**

DN	L	Q3/Q1	Q4	Q3	Q2	Q1	Capacity of the Pulse Emitter
	mm		m <sup>3</sup>	³/h	L/	/h	Pulse/HRI
15	80/110/115/120/190	≤R160H	3.1	2.5	≥25	≥15.6	
20	130	≤R50Any	5	4.0	≥40	≥25	
25	160	< D0011	7.875	6.3	≥126	≥78.75	1L 10L
32	160	≤R80H ≤R50 Any	12.5	10	≥200	≥125	102
40	200		20	16	≥320	≥200	

#### > SPECIFICATIONS (MINI TYPE)

DN	L	Q3/Q1	Q3/Q1 Q4 Q3		Q2	Q1	Capacity of the Pulse Emitter	
	mm		m <sup>3</sup>	³/h	L,	/h	Pulse/HRI	
15	80/110	≤R80H	3.1	2.5	≥50	≥31.25	101	
20	130	≤R50 Any	5	4.0	≥80	≥50	10L	

## 10 MULTI-JET WATER METER

**LXSC-E1 R160** 

LXSC-GK

LXS-F8

LXSC-G





sensitivity







resistance







registers



body material

• Suitable for household water consumption measurement. It is mainly composed of meter body and mechanism, which has the characteristics of simple structure. Stable performance, long service life, stable and reliable transmission performance, small pressure loss, intuitive reading. Internal filter screen, with sufficient filtering area.

#### **SPECIFICATIONS**

DN	L	Q3/Q1	Q4	Q3	Q2	Q1	Capacity of the Pulse Emitter	
	mm		m <sup>3</sup>	/h	L/h		Pulse	HRI
15	105/165/190		3.1	2.5	≥25	≥15.6		1L
20	105/190/195		5	4.0	≥40	≥25	1L	10L
25	110/225/260	≤R160H	7.875	6.3	≥63	≥39.4	10L	
32	260	≤R80V	12.5	10	≥100	≥62.5	100L	10L
40	300		20	16	≥160	≥100.0	1m³	100
50	300		31.25	25	≥250	≥156.3		

## 11 VOLUMETRIC ROTARY PISTON WATER METER

#### LXH-S

#### LXH-A

### LXH-E<sub>4</sub>











registers







orientation



Remote reading

• Volumetric rotary piston water meter that equip with rotary piston for supper sensitive and precise measurement. They are an idea choice for a range of single or multifamily houses, public buildings, and metering points, and beinstalled in any position without any loss of metrological parameters.

#### **▶** OPTIONAL

Meter body material	Electromechanical conversion	Basic water meter	Wireless data communication	Wired data communication	Temperature
brass	reed switch	dry type	NB-IoT	M-Bus	T30
plastic	HRI	semi-dry	wM-Bus	Pulse	T50
			LoRa	RS485	
			LoRaWAN		

#### SPECIFICATIONS

DN	L	Q3/Q1	Q4	Q3	Q2	Q1	Capacity of the Pulse Emitter	
	mm		m <sup>3</sup>	³/h	L,	/h	semi-dry type	dry type
15	110/115/165/170		3.125	2.5	≥10	≥6.25		
20	130/154/165/190		5	4	≥16	≥10	0.5L	1L 10L
25	170/260	≤R400 Any	7.875	6.3	≥25.20	≥15.75		
32	260		12.5	10	≥40	≥25		
40	300		20	16	≥64	≥40		

## **12** WOLTMAN WATER METER

#### LXLC-B

## **LXLC-MINI B**



• It is turbine woltman water meter with magnetic transmission for industrial and irrigation application, covers the sizes from DN40 to DN200 and meets to the requirements of Directive 2014/32/EU on measuring instruments and of European Standard EN14154. It was designed with super high measuring range and be able to reach flow profile at U0D0 installation. The interchangeable, removable measuring mechanism can be easy removed from the body for checking, maintaining and replacing, no needs to dismantle the body form the pipe.

#### **SPECIFICATIONS**

DN	L	Q3/Q1	Q4	Q3	Q2	Q1	Min Reading	Max Reading	Capacity of the Pulse Emitter
	mm		m³/h		m²/h		n	1 <sup>3</sup>	m³/P
40	200	R50	20	16	0.51	0.32		999999.999	
50	200		50	40	0.8	0.5	0.0005		0.01/0.1/1
65	200	R80	78.75	63	1.26	0.7875			
80	225		78.75	63	1.26	0.7875			
100	250		125	100	2	1.25			
125	250		200	160	3.2	2			
150	330		312.5	250	5	3.125		9999999.99	0.1/1/10
200	350		500	400	8	5		9999999. <mark>99</mark>	0.1/1/10

## **WOLTMAN WATER METER**





















• It is turbine woltman water meter with magnetic transmission for industrial and irrigation application, covers the sizes from DN50 to DN200. It was designed with super high measuring range and be able to reach flow profile at U0D0 installation.

#### **SPECIFICATIONS**

DN	L	Q3/Q1	Q4	Q3	Q2 or Q1	Min Reading	Max Reading	Capacity of the Pulse Emitter
	mm			m³/h		n	1 <sup>3</sup>	m³/P
50	200	≤R250H ≤R160 Any	50/78.75	40/63	≥0.25	0.0005	999999.999	0.01/0.1/1
65	200		78.75/125	63/100	≥0.39			
80	225		78.75/125	63/100	≥0.39			
100	250		125/200	100/160	≥0.63			
125	250		200/312.5	160/250	1			
150	330		312.5/500	250/400	1			0.1/1/10
200	350		500/787.5	400/630	≥1.58			0.1/1/10

## 14 IRRIGATION&AGRICULTURE WATER METER







resistance



reading





Simple installation







• It is turbine water meter for irrigation and agriculture application, It covers the size from DN50 to DN300. It has a high flow pass capacity to meet with the rural requirement of water supply and drainage.

#### **SPECIFICATIONS**

DN	L	Q3/Q1	Q4	Q3	Q2 or Q1	Min Reading	Max Reading	Capacity of the Pulse Emitter
	mm		m	³/h	L/h	m	1 <sup>3</sup>	m³/P
50	200		78.75	63	≥1.6	0.001	999999. <mark>99</mark>	
65	200		78.75	63	≥1.6			0.1/1
80	225		125	100	≥2.5			
100	250		200	160	<b>≥</b> 4			
125	250	≤R40H	312.5	250	≥6.3			
150	300		500	400	≥10			
200	350		787.5	630	≥16		9999999.9	
250	450		1250	1000	≥25	0.01		1/10
300	500		2000	1600	≥40			

## 15 COMBINATION WATER METER



• Combination water meter consists of a large water meter and a small water meter. The flow conversion device automatically controls the water flow through the small water meter or the large water meter at the same time according to the size of the flow meter. The metering range is from the minimum flow of the small water meter to the maximum flow of the large water meter, which is the largest range ratio among all the water meters. The complex water meter has the advantages of easy maintenance, wide measuring range and minimal starting flow, which not only meets the needs of large flow measurement, but also maximizes the minimum flow measurement and reduces metering leakage.

#### MAIN TECHNICAL DATE

Size	mm	Dn50*Dn15	Dn65*Dn20	Dn80*Dn20	Dn100*Dn20	Dn150*Dn40	Dn200*Dn50		
Metrological Class									
Qmax	m³/h	30	50	80	120	300	500		
Qn	m³/h	15	25	40	60	150	250		
Qt	m³/h	0.12	0.2	0.2	0.2	0.8	1.2		
Qmin	m³/h	0.03	0.05	0.05	0.05	0.2	0.3		
Max. Reading	m³		999999.999+	-99999. <mark>9999</mark>		9999999.99+	-999999. <mark>999</mark>		
Min. Reading	Liter		0.05						
Max. Pressure	Bar	PN16							
Max. Temperate	°C	40							

## **METER PARTS AND OTHERS**













heat meter parts























water meter parts

#### XINGYMETER®

# COMMUNICATION MODULES FOR WATER METERS

- Different communication interfaces: Wire MBUS; Wire RS485; Wire pulse; LoRa; LoRaWAN; NB-IoT
- Reverse flow detection
- Removal detection
- Magnet detection
- 10+ years lithium battery lifetime
- Protection class: IP65/ IP68
- Data storage in nonvolatile memory: 60 months, 184 days, 1488 hours
- Server software for data reading and storaging
- RF USB modem for configuring and data reading



#### **INTRODUCTION**

The main function of the device is to convert the mechanical reading of the water meter into electronic reading, detect the forward and reverse signals of the water meter, and transmit the signals outward through RS-485 or M-Bus communication.



#### **REMOTE TRANSMISSION**

