SCL-61H

Anti-freezing

Ultrasonic Water Meter

Scope of application

The anti-freezing ultrasonic water meter can work stability under continues low-temperate condition, and it is used for residential areas and buildings.

Features

- Low starting flowrate, up to 0.0015 m^3/h.
- Integrated mechanical design with protection class of IP68, able to work in long-term water immersion.
- Micro-power consumption technology, lithium battery powered.
- No mechanical moving parts and abrasion for long lifetime.
- Use of ultrasonic flow measurement technology, be installed in different angles without affecting measurement accuracy, low pressure loss.
- Multiple transmission methods, optical interface, NB-IoT, RS-485, M-Bus and RF radio frequency.
- Unique anti-freezing design and anti-low temperature electronic devices make the water meter has strong environment adaptability.
- The meter has the temperature sensor built in it, and is able to alarm in the smart water supply platform when the water temperature is close to 0℃.

HUI ZHONG

Technical Parameters

Item		Parameter
Accuracy class		Class 2
Nominal diameter (mm)		DN15~DN25
Dynamic range		R160
Maximum working pressure		1.6MPa
Working environment		-25℃~+55℃, ≤100%RH(If exceed this range, please specify when ordering)
Water temperature class		T30, T50, T70 (default: T30)
Class of upstream flow field sensitivity		U10
Class of downstream flow field sensitivity		D5
Category of climatic & mechanical environmental conditions		Class O
Electromagnetic environmental class		E2
Operation		Photosensitive key
Display indication		LCD, 10 digits + prompting characters
Values displayed		Accumulated flow rate (m^3), Instantaneous flow rate (m^3/h), Water temperature (℃), Accumulated effective running time (h), Date (y/m/d), Time (h/m/s), Software version/ Meter ID, Display test
Display resolution		Accumulated flow rate: 0.001 m^3, Instantaneous flow rate: 0.01m^3/h, Water temperature: 0.01℃
Display range		Accumulated flow rate: 0m^3～+1999999.999m^3
Data communication	Photoelectric interface	Baud rate 2400bps; Protocol EN13757
	NB-IoT	NB-IoT network, data report period once per day (If exceed this range, please specify when ordering)
	RS-485/M-Bus	Baud rate: 2400bps, 4800bps, 9600bps, default: 2400bps; Transmission distance≤1200m; Support CJ/T 188 protocol, Huizhong protocol, Modbus protocol, EN13757 protocol, default: EN13757 protocol
	RF	470MHz/868MHz
Data storage	RS-485/M-Bus/ RF	Storage by EEPROM of cumulative flowrate and effective running time. Data can be saved for a period of 100 years after power failure.
	NB-IoT	1. Current 24 months of monthly accumulated flow rate, cumulative running time and maximum flow rate. 2. Current 730 records of daily frozen cumulative quantity, cumulative running time and diagnostic code. 3. Reported historical data for at least latest 1 month. 4. Latest 60 reported log records. 5. Latest 100 alarm records. The data can be kept in 100 years after power off.
Power supply	RS-485/M-Bus/ RF	Battery powered DC3.6V, one battery can continuously work for over 10 years
	NB-IoT	Battery powered DC3.6V (Continuous working years: more than 7 years/8 years/ 10 years optional)
Protection class		IP68
Storage temperature		-25℃~+55℃
Installation position		Water supply pipe

* Note: Test for battery lifetime at ambient 25±5℃; Beyond the range, the battery lifetime can be shortened.

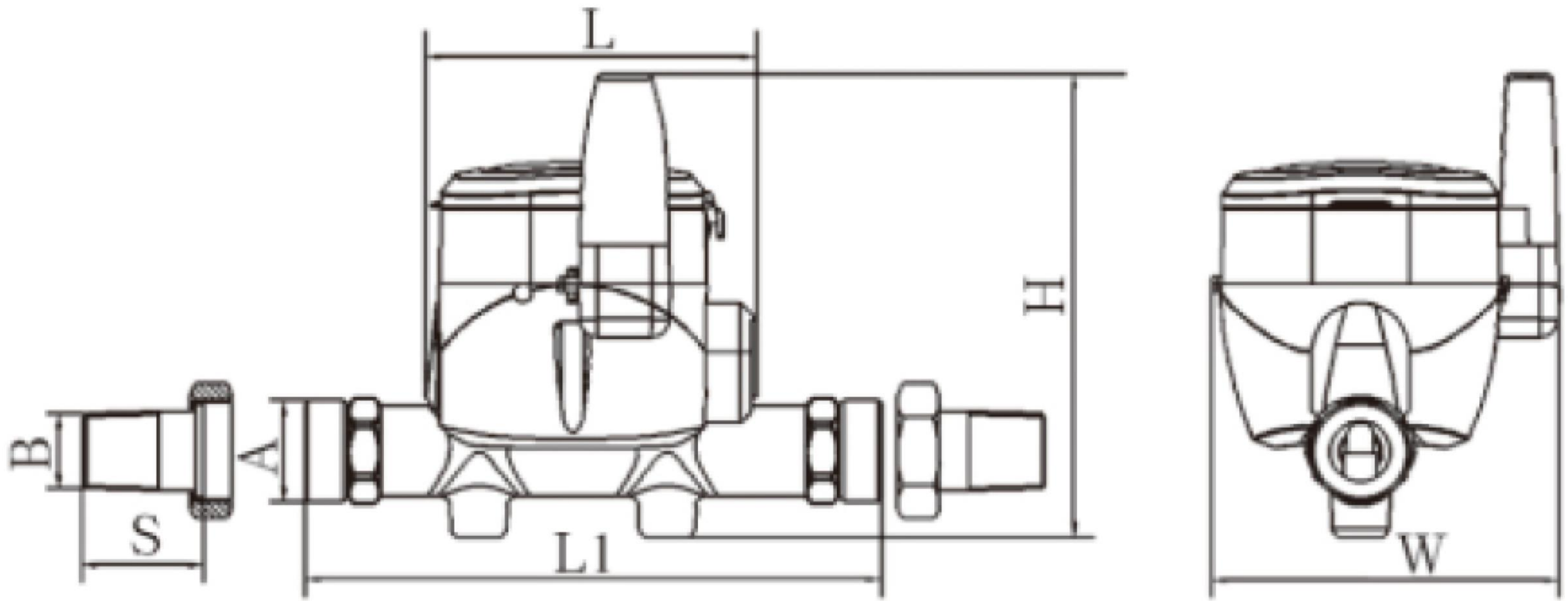
Dimensions

Flowrate Parameters

(m³/h)

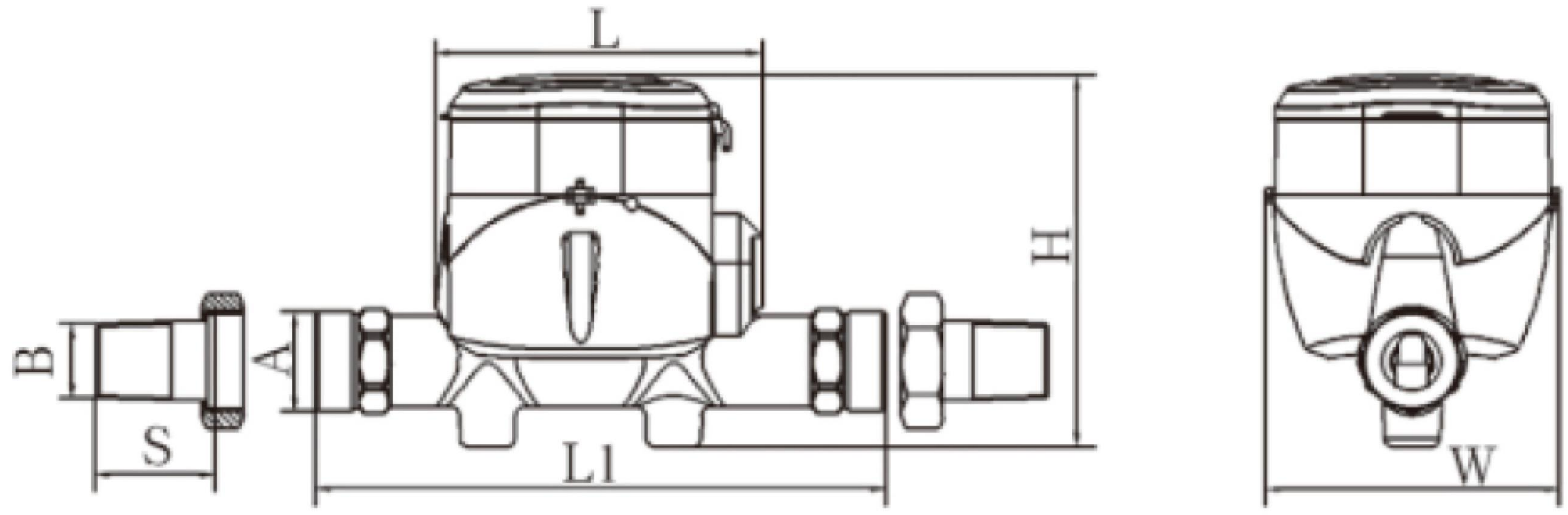
Nominal diameter (mm)	DN15	DN20	DN25
Minimum Flowrate Q1	0.016	0.025	0.039
Transitional Flowrate Q2	0.025	0.040	0.063
Permanent Flowrate Q3	2.5	4.0	6.3
Overload Flowrate Q4	3.125	5.0	7.875
Pressure Loss	Δp25	Δp25	Δp25

■ RF output interface



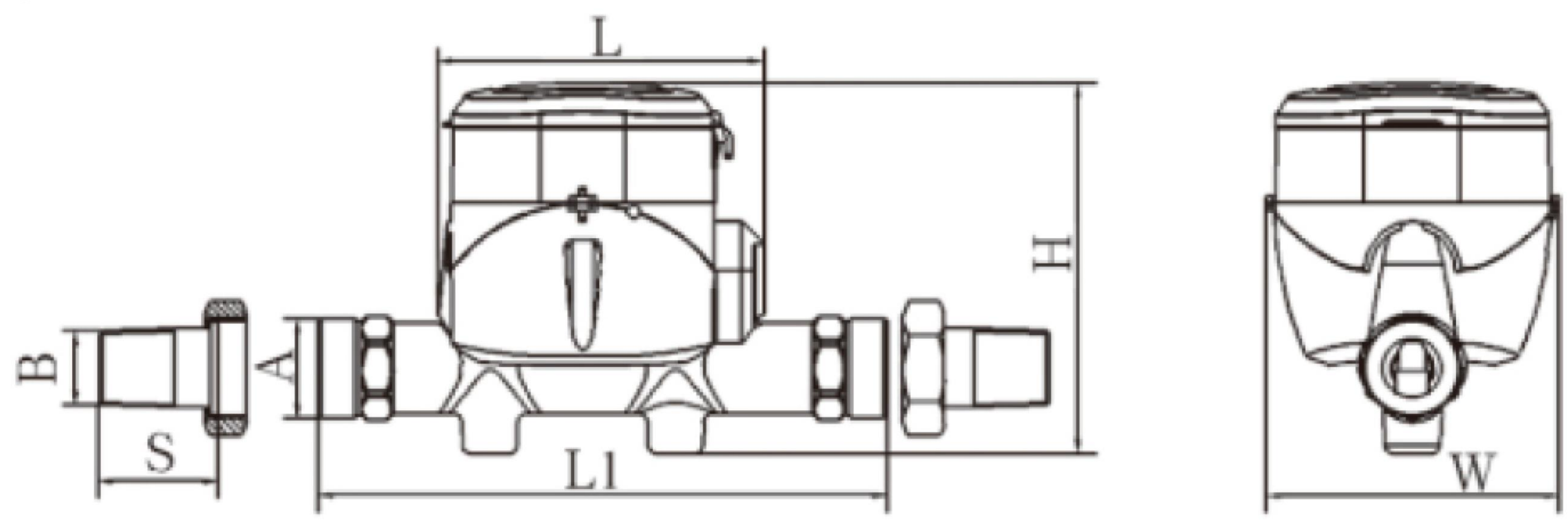
Nominal Diameter (mm)	DN15	DN20	DN25
A without Connections	$G\frac{3}{4}B$	G1B	$G1\frac{1}{4}B$
B with Connections	$R\frac{1}{2}$	$R\frac{3}{4}$	R1
L (mm)	109	109	109
L1 (mm)	165	190	160
H (mm)	149	153	156
W (mm)	115	115	115
Connection Length S (mm)	45	51	59

■ M-Bus/RS-485 output interface



Nominal Diameter (mm)	DN15	DN20	DN25
A without Connections	G$\frac{3}{4}$B	G1B	G1$\frac{1}{4}$B
B with Connections	R$\frac{1}{2}$	R$\frac{3}{4}$	R1
L（mm）	109	109	109
L1（mm）	165	190/195	160
H（mm）	120	124	127
W (mm)	98	98	98
Connection Length S (mm)	45	51	59

■ NB-IoT output interface



Nominal Diameter (mm)	DN15	DN20	DN25
A without Connections	G$\frac{3}{4}$B	G1B	G1$\frac{1}{4}$B
B with Connections	R$\frac{1}{2}$	R$\frac{3}{4}$	R1
L（mm）	109	109	109
L1（mm）	165	190/195	160
H（mm）	145	149	152
W (mm)	98	98	98
Connection Length S (mm)	45	51	59