# HUI ZHONG

SCL-61H
Residential
Ultrasonic Water Meter

Scope of Application

Designed for residential area with household metering and billing system, reached the demand of precise measurement and settlement on End-User for water utilities.

✅ Low starting flowrate   ✅ Low pressure loss

✅ IP68   ✅ Micro-power consumption

✅ No abrasion   ✅ Water temperature alarm

✅ Anti-interference
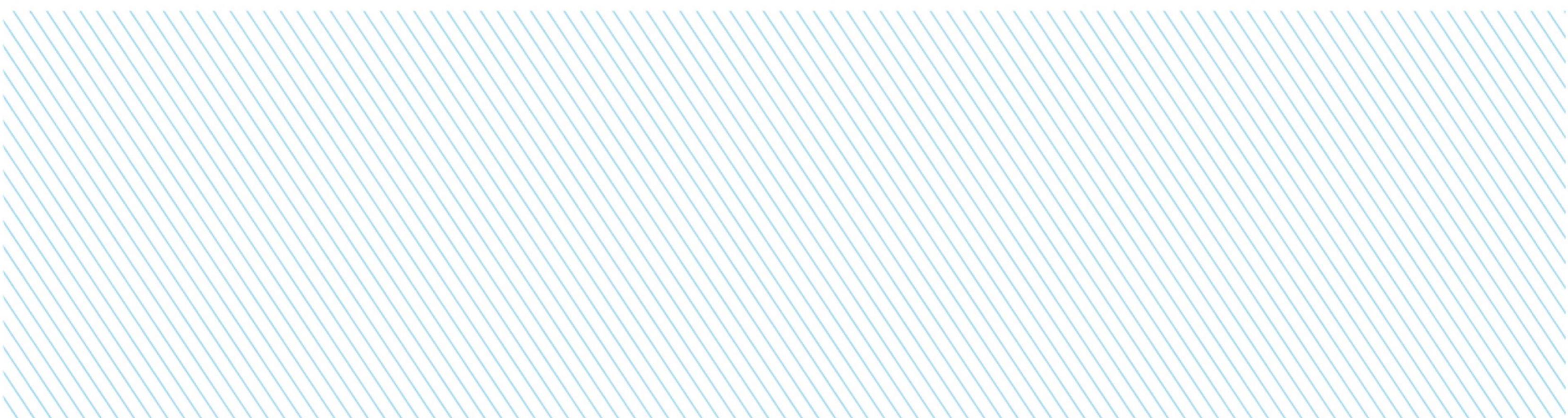
Features

✅ Large dynamic range to 400:1.

✅ Integrated mechanical design with protection class of IP68, able to work in long-term water immersion.

✅ Ultrasonic measuring technology with no mechanical moving parts and pressure loss, improves device serving time.

✅ Micro-power consumption technology,battery-powered with lifetime over 10 years.

✅ Low starting flowrate(as low as 0.0015m³/h)

✅ Multiple transmission methods, photoelectric interface, NB-IoT, RS-485, M-Bus and RF, which achieves lower consumption, stronger inter-linkage, wider coverage and more realible usage.

✅ Utilize data analysis platform built with self-developed system comprehensively integrated with smart platform, seamless connected, apply Big Data and Cloud computing technology to further discover water supply information and resources.

Technical Parameters:

Item		Parameter	
		NB-IoT	RS-485/M-Bus/RF
Accuracy		Class 2	
Nominal Diameter		DN15～DN40	
Dynamic Range		R250, R400	
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		U0	
Class of Downstream Flow Field Sensitivity		D0	
Category of Climate & Mechenical Environment Conditions		Class O	
Class of Electromagnetic Compatibility		E2	
Operation		Photosensitive key	
Display Indication		LCD, 10-digital+prompting character	
Values Displayed		Accumulated flow rate（m³）, Instantaneous flow rate（m³/h）, Water temperature（℃）, Accumulated effective running time（h）, Date（YY/MM/DD）, Time（hh/mm/ss）, Software version / Meter ID, Screen test	
Display Resolution		Accumulated flow rate 0.01m³, Instantaneous flow rate 0.01m³/h, Water temperature 0.01℃. (The decimal digits of accumulated flow rate and instantaneous flow rate can be customized up to 5 digits.	Accumulated flow rate 0.001m³ Instantaneous flow rate 0.0001m³/h Water temperature 0.01℃
Display Range		Accumulated flow rate：0m³～1999999.999 m³	
Data Communication	Photoelectric Interface	Baud rate: 2400bps, even parity, Protocol: EN13757	
	RS-485/M-Bus	Baud rate: 2400bps, 4800bps, 9600bps, default: 2400bps, transmission distance≤1200m; Support CJ/T 188 protocol, Modbus-RTU protocol, EN13757 protocol, default: EN13757 protocol	
	RF	470MHz/868MHz	
	NB-IoT	Data report period once per day (If the range is exceeded, please specify on ordering)	
Power Supply		Battery DC3.6V (Continuous working years: more than 7 years/8 years/ 10 years optional)	Battery DC3.6V (One battery can continuously work for over 10 years)
Protection Class		IP68	
Storage Temperature		-25℃～+55℃	
Installation Position		Water supply pipe	

Flow Parameters (R250)

Nominal Diameter(mm)	DN15		DN20		DN25		DN32	DN40	
Minimum Q_1	0.006	0.010	0.010	0.016	0.016	0.025	0.040	0.040	0.064
Transitional Q_2	0.010	0.016	0.016	0.026	0.026	0.040	0.064	0.064	0.100
Permanent Q_3	1.6	2.5	2.5	4.0	4.0	6.3	10.0	10.0	16.0
Overload Q_4	2.0	3.125	3.125	5.0	5.0	7.875	12.5	12.5	20.0
Pressure Loss	Δp25	Δp63	Δp25	Δp63	Δp25	Δp63	Δp40	Δp25	Δp40

Flow Parameters (R400)

Nominal Diameter(mm)	DN15	DN20	DN25	DN32	DN40
Minimum Q_1	0.006	0.010	0.016	0.025	0.040
Transitional Q_2	0.010	0.016	0.025	0.040	0.064
Permanent Q_3	2.5	4	6.3	10	16
Overload Q_4	3.125	5	7.875	12.5	20
Pressure Loss	Δp63	Δp63	Δp63	Δp63	Δp63

Dimension
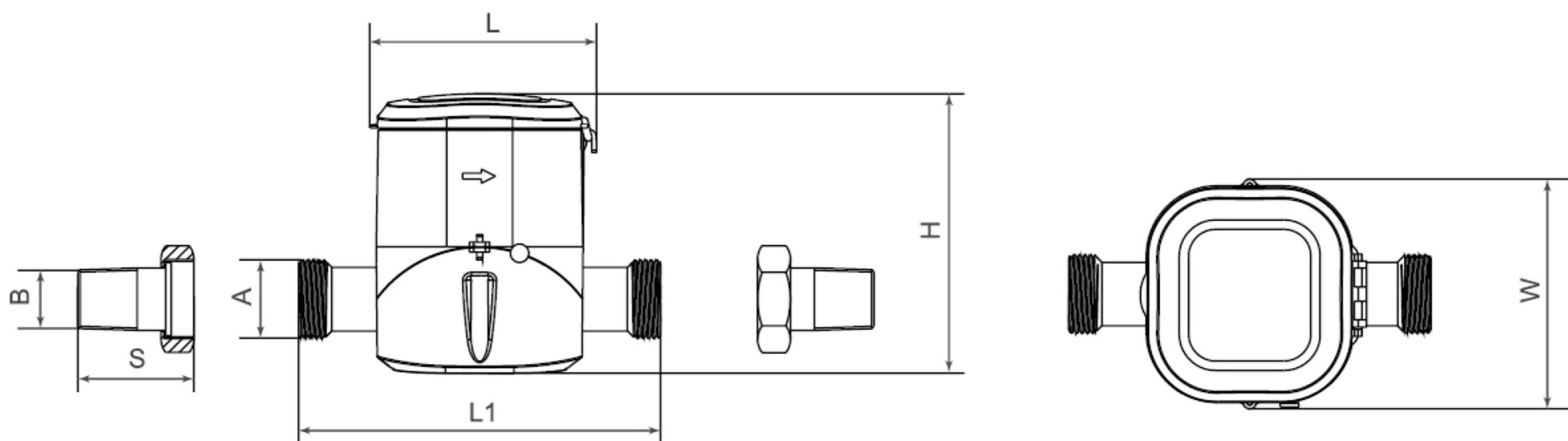
SCL-61H Residential Ultrasonic Water Meter (NB-IoT)

Nominal Diameter(mm)	DN15	DN20	DN25	DN32	DN40
A without Connections	G¾B	G1B	G1¼B	G1½B	G2B
B with Connections	R½	R¾	R1	R1¼	R1½
L(mm)	97	97	97	97	97
L1(mm)	110/165	190/195	160	180	200/245
H(mm)	119	119	119	145	153
W(mm)	98	98	98	98	98
S Connection Length(mm)	45	51	59	74	78
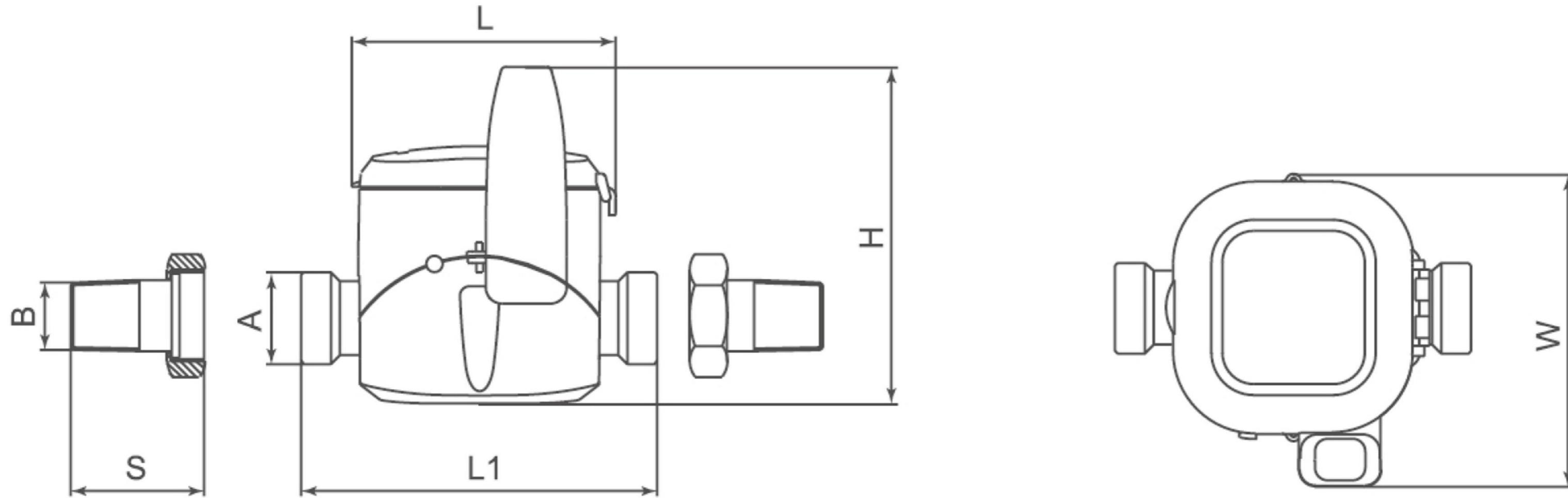
SCL-61H Residential Ultrasonic Water Meter (RF)

Nominal Diameter(mm)	DN15	DN20	DN25	DN32	DN40
A without Connections	G¾B	G1B	G1¼B	G1½B	G2B
B with Connections	R½	R¾	R1	R1¼	R1½
L(mm)	97	97	97	97	97
L1(mm)	110/165	190/195	160	180	200/245
H(mm)	123	123	123	146	153
W(mm)	115	115	115	115	115
S Connection Length(mm)	45	51	59	74	78
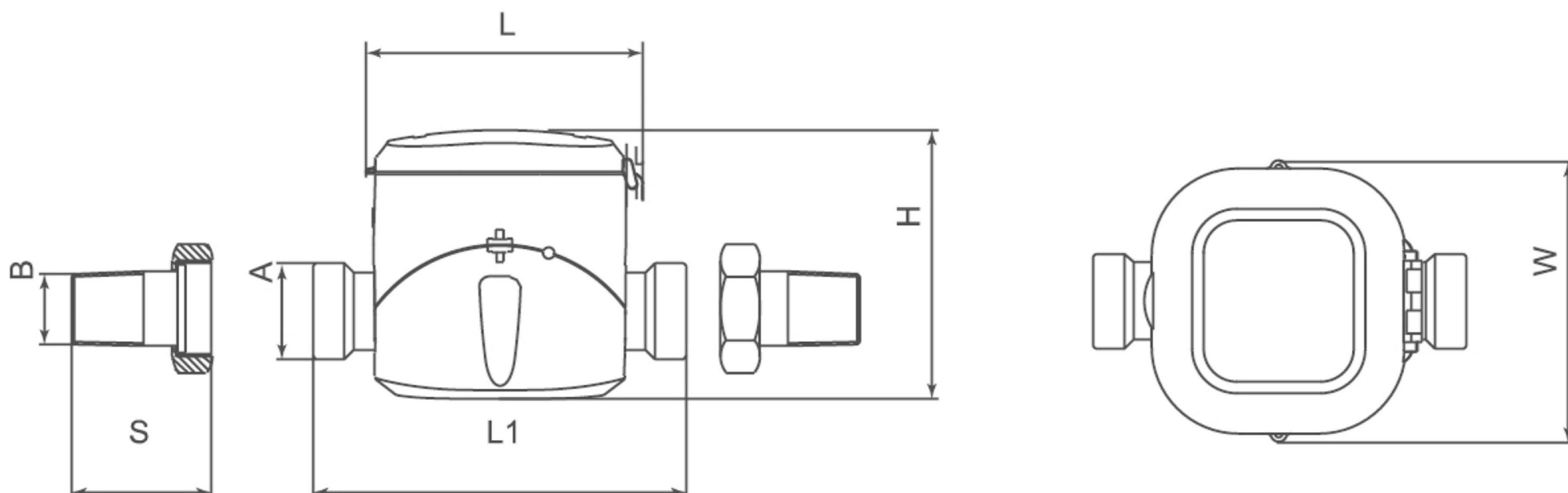
SCL-61H Residential Ultrasonic Water Meter (M-Bus / RS-485)

Nominal Diameter(mm)	DN15	DN20	DN25	DN32	DN40
A without Connections	G¾B	G1B	G1¼B	G1½B	G2B
B with Connections	R½	R¾	R1	R1¼	R1½
L(mm)	97	97	97	97	97
L1(mm)	110/165	190/195	160	180	200
H(mm)	94	94	94	117	124
W(mm)	98	98	98	98	98
S Connection Length(mm)	45	51	59	74	78