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SCL-61HF Valve-Control Ultrasonic Water Meter

Scope of application

It is applied in prepayment and payment collection for water supply measurement, improving the collection rate of water charge.

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Features

- Low starting flowrate, as low as 0.0015m³/h.
- Ratio range is as large as R250 and R400 (measurement class is better than D).
- Integrated mechanical design with protection class of IP68, able to work in long-term water immersion.
- Automatic re-reporting to ensure the integrity of reported data.
- Micro-power consumption technology, battery powered.
- Real-time alarm can effectively monitor the running status of pipe sections and water meters.
- Innovative valve technology, break through traditional thinking in ball-valve.
- The valve spool and sealing element of the valve control water meter adopt the innovative processing and surface treatment technology to ensure that the valve parts work stably and normally for a long time under the occasions of corrosion, easy scaling and impurities.
- The water meter has remote and near end valve-control function, which can improve the management and control of water companies, effectively shorten the time of water bill payment, and can also achieve advanced-charge.
- With ultrasonic measuring technology, the meter can be installed in different angles without affecting its measuring accuracy. Moreover, the pressure loss of pipe flow can be reduced to a minimum.
- Ultrasonic flow measuring principle with no mechanical moving parts.
- The water meter is small in size, high in stability and strong in anti-interference.
- The water meter is universal with integrated design and built-in valve.

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Technical Parameters

Item		Parameter
Accuracy class		Class 2
Nominal diameter (mm)		DN15~DN25
Maximum working pressure		1.6MPa
Temperature range ambient		0℃~+55℃, ≤100%RH (If exceed this range, please specify when ordering)
Dynamic range		R250, R400
Water temperature class		T30, T50, T70, T90
Class of upstream flow field sensitivity		U0
Class of downstream flow field sensitivity		D0
Category of climate & mechanical environment conditions		Class O
Class of electromagnetic compatibility		E2
Valve forms		Butterfly valve
Material of valve and valve spool		304 stainless steel
Valve life		More than 10000 times
Type of connection		Ultrasonic water meter integrated structure
Operation		Photosensitive key
Display indication		LCD, 10 digits + prompting characters
Values displayed		Accumulated flow rate (L), Accumulated flow rate (m^3), Instantaneous flow rate (m^3/h), Water temperature (℃), Cumulative effective running time (h), Date (y/m/d), Time (h/m/s), Software version/ Meter ID, Display test
Display resolution		Accumulated flow rate: 0.001m^3(1L), Instantaneous flow rate 0.001 m^3/h, Water temperature: 0.01℃ (The decimal digits of accumulated flow rate and instantaneous flow rate can be customized up to 5 digits.)
Display range		Accumulated flow rate: 0m^3～1999999.999m^3
Data communication	Photoelectric interface	Baud rate 2400bps; Even parity; Protocol EN13757
	NB-IoT network	NB-IoT network, data report period once per day
	RF	470MHz/868MHz
Data Storage	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.
	RF	1. Current 24 months of monthly accumulated flowrate, cumulative running time. 2. Current 24 months of daily frozen cumulative quantity, cumulative running time and diagnostic code.
Power supply		Battery supply 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

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Flowrate Parameters(R250)

(m³/h)

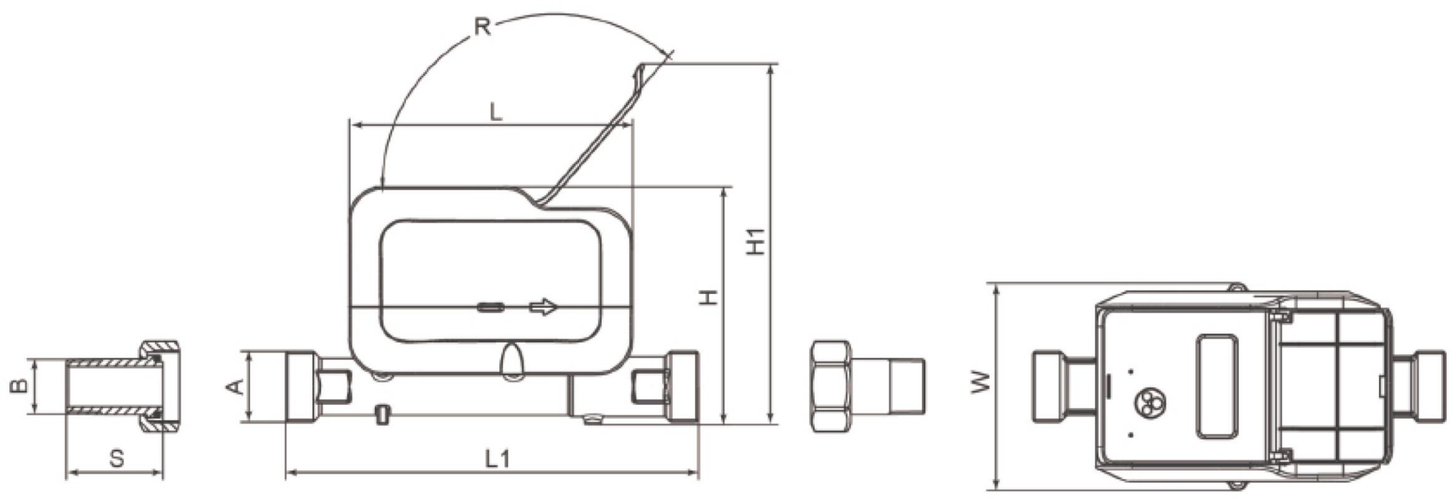
Nominal diameter (mm)	DN15		DN20		DN25	
Minimum Flowrate Q1	0.0064	0.010	0.010	0.016	0.016	0.025
Transitional Flowrate Q2	0.010	0.016	0.016	0.025	0.025	0.040
Permanent Flowrate Q3	1.6	2.5	2.5	4.0	4.0	6.3
Overload Flowrate Q4	2.0	3.125	3.125	5.0	5.0	7.875
Q3/Q1	250	250	250	250	250	250
Pressure Loss	Δp40	Δp63	Δp40	Δp63	Δp40	Δp63

Flowrate Parameters(R400)

(m³/h)

Nominal diameter (mm)	DN15	DN20	DN25
Minimum Flowrate Q1	0.00625	0.010	0.01575
Transitional Flowrate Q2	0.010	0.016	0.0252
Permanent Flowrate Q3	2.5	4.0	6.3
Overload Flowrate Q4	3.125	5.0	7.875
Q3/Q1	400	400	400
Pressure Loss	Δp63	Δp63	Δp63

Dimensions



Nominal Diameter (mm)	DN15	DN20	DN25
A without Connections	$G\frac{3}{4}B$	G1B	$G1\frac{1}{4}B$
B with Connections	$R\frac{1}{2}B$	$R\frac{3}{4}B$	R1B
L（mm）	134	134	134
L1（mm）	165	195	225
H（mm）	109	112	119
H1 (mm)	167	171	178
W (mm)	98	98	98
R (angle)	130	130	130
Connection Length S (mm)	45	50	59