

# SCL-61D

## Ultrasonic Water Meter

### Scope of application

Suitable for accurate measurement and trade settlement of urban water supply pipeline and household metering, and also suitable for DMA district metering management.





## Features

- ✓ Online self-verification function for the accuracy of online running products.
- ✓ Large dynamic range.
- ✓ Low starting flowrate, high accuracy level.
- ✓ 4-channel design, dual-fracture surface measuring method, improve the accuracy under complex flow regime.
- ✓ Integrated mechanical design with protection class of IP68, able to work in long-term water immersion.
- ✓ Micro-power consumption technology, battery powered with lifetime over 10 years.
- ✓ No mechanical moving parts and low pressure loss, reducing the power loss of the pump and the cost of water supply for enterprises.
- ✓ High reliability, the product can work on any flow point for a long time, strong anti-electromagnetic interference ability.
- ✓ High quality seamless stainless steel pipe, energy saving and environmental protection, recyclable.



## Technical Parameters

Function		Technical Parameters
Fluid		Full pipe of Water, sewage, or homogeneous fluids
Accuracy Class		Class 2
Dynamic Range		R400, R500
Nominal Diameter		DN50~DN300
Maximum Allowable Working Pressure		1.0MPa/1.6MPa/2.5MPa Default is 1.6MPa (only DN200 is default in 1.0MPa)
Pressure Loss		$\Delta p$ 10
Working Environment		-25°C ~55°C , $\leq 100\%RH$
Temperature		T30, T50
Upstream Sensitivity Class		U0
Downstream Sensitivity Class		D0
Climate Environment		Class O
Electromagnetic Compatibility		E2
Botton		Magnetic Induction Button
LCD Display		The upper LCD has 9 digits and a word height of 11.05mm; the lower LCD has 6 digits and a word height of 8.53mm; prompt
Display Content		Cumulative flow (m <sup>3</sup> ), Instantaneous flow (m <sup>3</sup> /h), Cumulative operating time (h), Date (Year/Month/Day), Time (Hour/Minute/Second), Software version, Water temperature (°C ), Fault code
Display Range		Cumulative flow: -9999999.9 m <sup>3</sup> ~9999999.9 m <sup>3</sup> Instantaneous flow: -99999.9 m <sup>3</sup> /h~99999.9 m <sup>3</sup> /h
Communication	Photoelectric Interface	Baud Rate 2400bps, use EN13757 protocol
	RS-485/M-Bus	Baud Rate 2400bps, 4800bps, 9600bps (selectable), default is 2400bps, transmission distance $\leq 1200m$ , EN13757 protocol
Data Storage		EEPROM applied for cumulative volume and time, automatically storage daily historical data and latest 24 months data, stored for 100years in power failure
Measuring Cycle		1 time/second
Power		Lithium battery powered DC3.6V, the battery works continuously over 10 years
		DC10V~DC36V, $\geq 20mA$ (specific requirement prior to order)
Protection Class		IP68
Temperature of Storage		-25°C ~55°C
Installation Position		Install in water supply pipeline
The length of the cable from the split display unit to the meter is 1.5m as standard, and the special length should be proposed at the time of order.		

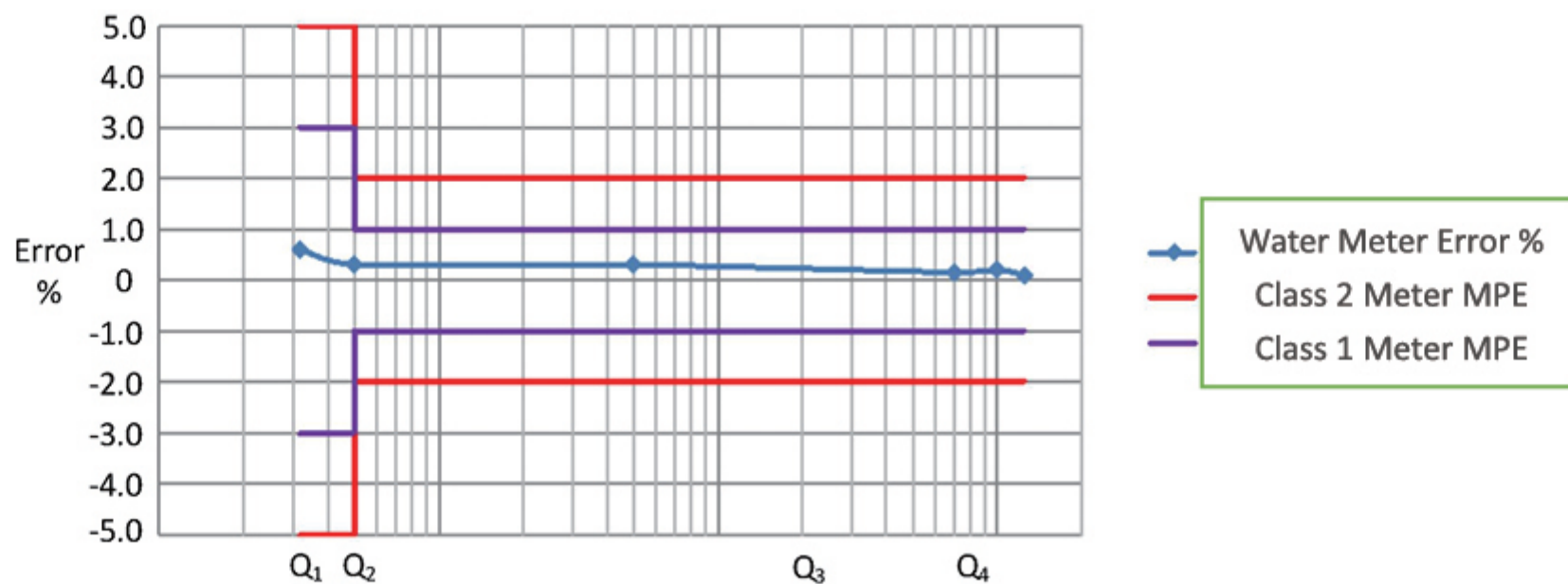
## Flow Parameters: R400

Nominal Diameter (mm)	50	65	80	100	125	150	200	250	300
Starting Flow rate (m <sup>3</sup> /h)	0.009	0.014	0.024	0.036	0.057	0.088	0.127	0.227	0.353
$Q_2/Q_1$	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Minimum Flowrate $Q_1$ (m <sup>3</sup> /h)	0.100	0.158	0.250	0.400	0.625	1.000	1.580	2.500	4.000
Transitional Flowrate $Q_2$ (m <sup>3</sup> /h)	0.160	0.252	0.400	0.640	1.000	1.600	2.520	4.000	6.400
Permanent Flowrate $Q_3$ (m <sup>3</sup> /h)	40	63	100	160	250	400	630	1000	1600
Overload Flowrate $Q_4$ (m <sup>3</sup> /h)	50	78.75	125	200	312.5	500	787.5	1250	2000

## Flow Parameters: R500

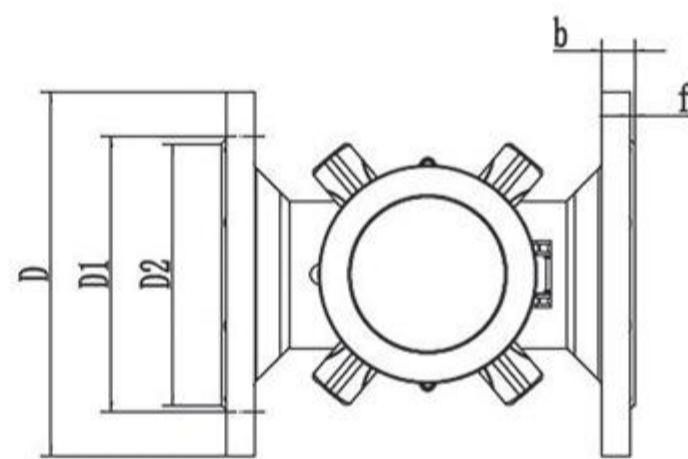
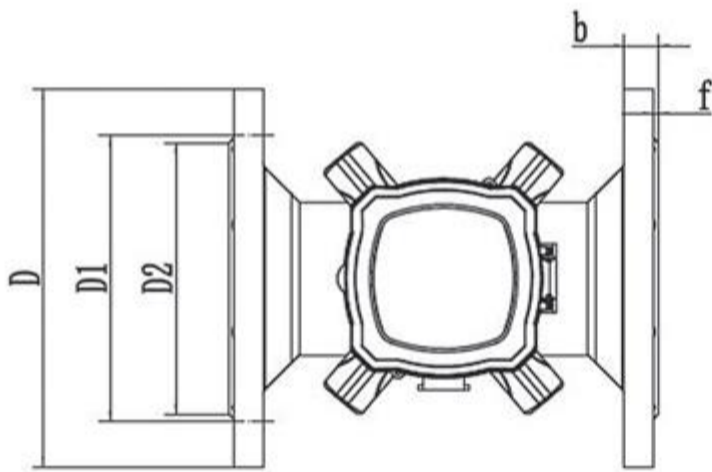
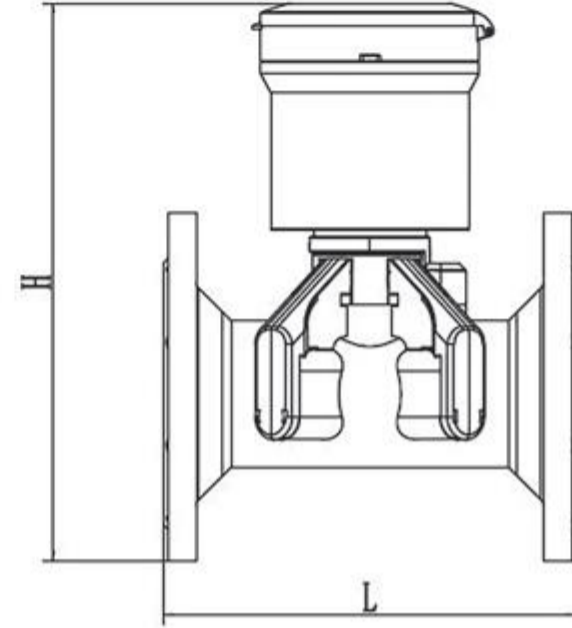
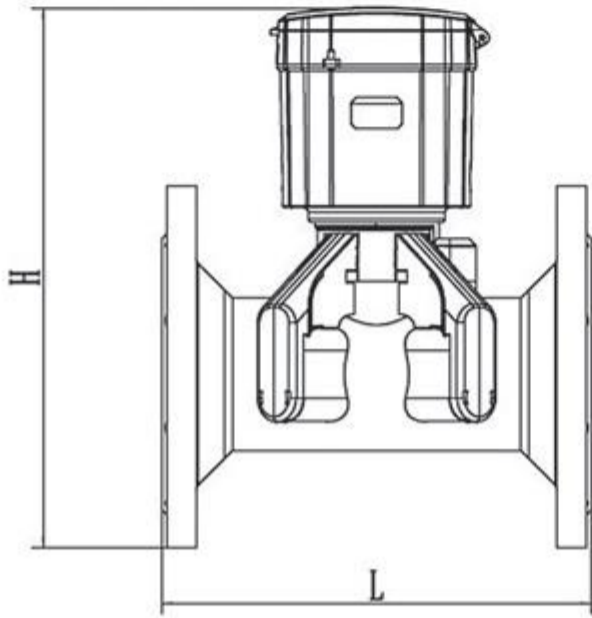
Nominal Diameter (mm)	50	65	80	100	125	150	200	250	300
Starting Flow rate (m <sup>3</sup> /h)	0.009	0.014	0.024	0.036	0.057	0.088	0.127	0.227	0.353
$Q_2/Q_1$	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Minimum Flowrate $Q_1$ (m <sup>3</sup> /h)	0.080	0.126	0.200	0.320	0.500	0.800	1.260	2.000	3.200
Transitional Flowrate $Q_2$ (m <sup>3</sup> /h)	0.128	0.202	0.320	0.512	0.800	1.280	2.020	3.200	5.120
Permanent Flowrate $Q_3$ (m <sup>3</sup> /h)	40	63	100	160	250	400	630	1000	1600
Overload Flowrate $Q_4$ (m <sup>3</sup> /h)	50	78.75	125	200	312.5	500	787.5	1250	2000

## Performance Error Curve



## Dimensions

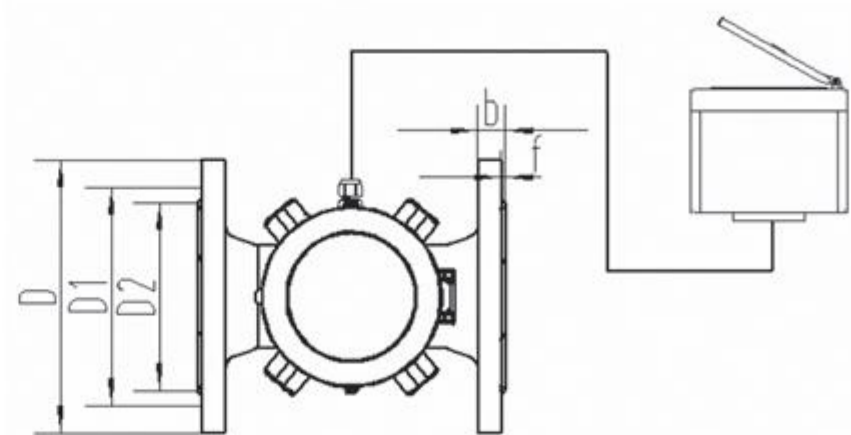
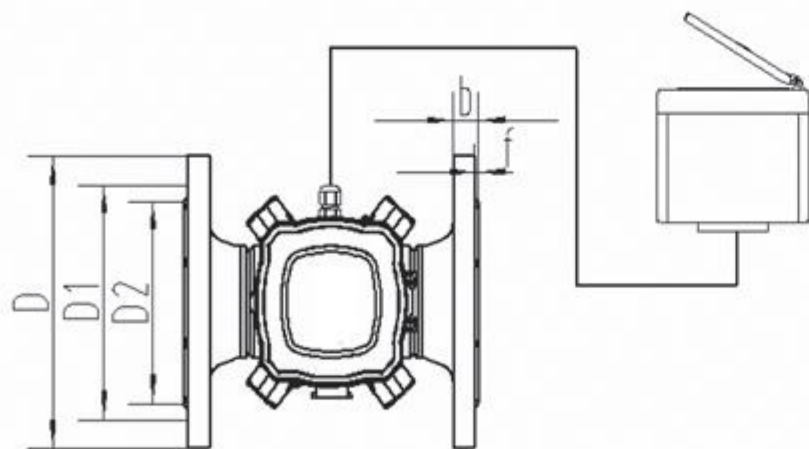
### Combined



SCL-61D Ultrasonic Water Meter  
(Plastic Casing) (DN50~DN300)

SCL-61D Ultrasonic Water Meter  
(Metal Casing) (DN50~DN300)

### Separated



SCL-61D Ultrasonic Water Meter  
(Plastic Casing) (DN50~DN300)

SCL-61D Ultrasonic Water Meter  
(Metal Casing) (DN50~DN300)



(Unit: mm)

Nominal Diameter	Pressure MPa	Outside Diameter D	Flange Hole D1	Sealing Surface D2	Sealing Surface f	Flange Thickness b	No. of Flange Hole n	Diameter of Flange d	Length L	Height for Plastic Casing H	Height for Metal Casing H	Weight (kg)
DN50	1.0	φ165	φ125	φ102	3	18	4	φ18	200	250	266	11
	1.6											
	2.5											
DN65	1.0	φ185	φ145	φ122	3	18	8	φ18	200	282	303	11.8
	1.6											
	2.5					22						
DN80	1.0	φ200	φ160	φ138	3	20	8	φ18	225	299	320	13.3
	1.6											
	2.5					24						
DN100	1.0	φ220	φ180	φ158	3	20	8	φ18	250	315	336	16.0
	1.6											
	2.5					24						
DN125	1.0	φ250	φ210	φ188	3	22	8	φ18	250	340	361	19.3
	1.6											
	2.5					26						
DN150	1.0	φ285	φ240	φ212	3	22	8	φ22	300	370	391	26.5
	1.6											
	2.5					28						
DN200	1.0	φ340	φ295	φ268	3	24	8	φ22	350	412	433	35.4
	1.6											
	2.5					30						
DN250	1.0	φ395	φ350	φ320	3	26	12	φ22	450	476	497	57.2
	1.6											
	2.5					32						
DN300	1.0	φ445	φ400	φ370	4	26	12	φ22	500	544.5	559.5	81.6
	1.6											
	2.5					34						

Note: 1. The weight in the table is a reference, which based on the normal plastic casing, 1.6MPa meter.

2. The length of L can be customized.