SC7 Series
Bulk Ultrasonic Water Meters
- Dual Communication (2-wire Pulse + Mbus)

PRODUCT DATA

Stainless Steel DN50-DN100

Stainless steel body + carbon steel flange
DN125-DN600

Application

- Any application that requires high accuracy across all flow rates for revenue billing
- Municipal water and water distribution network
- Waste water, irrigation water, reclaim water and storm water
- Commercial buildings: Malls, campus, hospitals, industrial parks, airports, facilities
- Industrial water: Steel, heavy manufacturing plants, power plants, food & beverage
- Leak and tamper detection, DMA (District Metered Area) leakage detection system
- AMR projects which require flow accuracy with low life cycle costs

Overview

Ploumeter SC7 series Ultrasonic Water Meter is specially designed for municipal, commercial and industrial water metering applications where the demand is challenging and traditional mechanical water meters fail.

Ploumeter SC7 series Ultrasonic Water Meter stands out among the competition due to its rugged design, multi-path technology, wide dynamic range, long last battery with field replaceable feature and extensive AMR functions. The SC7 series is even able to perform reliably when the water has high particulate or the environment is harsh. Both commercial and industrial installations can profit from the advantages of precision, wear-free water flow measurement, operational security and long service life.

Features

- Excellent long-term stability and reliability
- Rugged mechanical design - Submersible (IP68)
- Bi-directional
- Flexible data formats including flow directions, flow rates and volumes
- Temperature inspection and low temperature alarm
- Pressure inspection
- Large LCD, 8 digits display
- 10 years battery lifetime with battery life indication (6 years for meter size above DN300)
- Special body design with Patent to improve R value
- Data Logger with 480 Daily data
- MID / ISO 4064:2014
- Wide communication possibilities
- Variety of alarm functions for low battery and system error

Technical Specifications

Table 1. Flow rate

Nominal Size	DN50	DN65	DN80
Body Material	SS body and SS flanges		
Overload flow rate Q4 (m^3/h)	31.25	50	78.75
Nominal flow rate Q3 (m3/h)	25	40	63
Transitional flow rate Q2 (m3/h)	0.16	0.256	0.4032
Min flow rate Q1 (m3/h)	0.1	0.16	0.252

Table 2. Flow rate

Nominal Size	DN100	DN125	DN150
Body Material	SS body and SS flanges	SS body + CS flanges or SS flanges	
Overload flow rate Q4 (m^3/h)	125	200	312.5
Nominal flow rate Q3 (m3/h)	100	160	250
Transitional flow rate Q2 (m3/h)	0.64	1,024	1,6
Min flow rate Q1 (m3/h)	0.4	0.64	1

Table 3. Flow rate

Nominal Size	DN200	DN250	DN300	DN350	DN400	DN500	DN600
Body Material	SS body + CS flanges or SS flanges						
Overload flow rate Q4 (m^3/h)	500	787.5	1250	1250	2000	3125	5000
Nominal flow rate Q3 (m3/h)	400	630	1000	1000	1600	2500	4000
Transitional flow rate Q2 (m3/h)	2.56	4.032	6.4	6.4	10.24	16	25.6
Min flow rate Q1 (m3/h)	1.6	2.52	4	4	6.4	10	16

Notes:

SS: Stainless steel 304

CS: Carbon steel

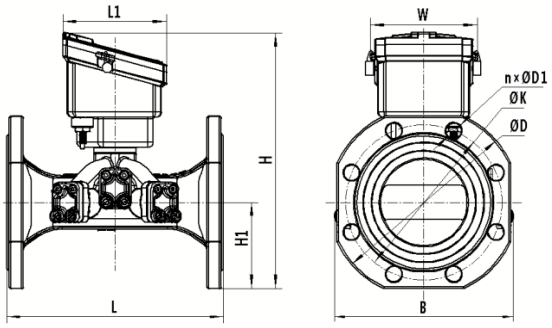
Q3/Q1 (R): 250 (400 /500/800 can be customized)

Q4/Q3: 1.25

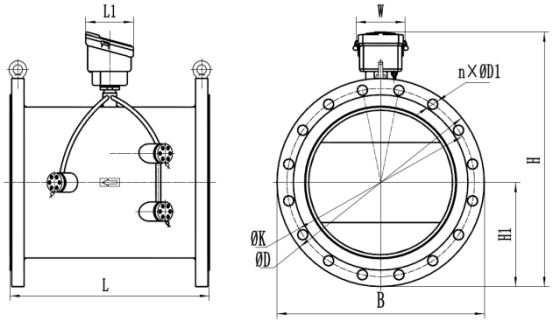
Q2/Q1: 1.6

DN50-DN100 have Ductile iron material option for both flow body and flanges

Company: Flow Meter (Weihai) International Trade Co,.LTD Web: www.ploumeter.com Email: steven@plou.cn
Sole exclusive distributor of Ploumeter for overseas market



DN50-DN125



DN125-DN600

Table 4. Dimensions

Rated Pressure	DN (mm)	L	L1	H	H1	W	B	n×ΦD1
PN10/PN16	**50**	200	120	240	60	123	172	4×Φ18
	65	200	120	260	70	123	190	4×Φ18
	80	225	120	280	90	123	205	8×Φ18
	100	250	120	300	100	123	230	8×Φ18
	125	250	120	380	125	123	250	8×Φ18
	150	300	120	400	130	123	285	8×Φ22
PN10	**200**	350	120	470	170	123	340	8×Φ22
	250	450	120	525	198	123	395	12×Φ22
	300	500	120	575	223	123	445	12×Φ22
	350	500	120	635	253	123	505	16×Φ22
	400	600	120	690	283	123	565	16×Φ26
	500	600	120	790	335	123	670	20×Φ26
	600	800	120	895	390	123	780	20×Φ30

Notes:

Dimension for reference only, please contact us for exact measure.

PN16/PN25 can be customized.

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Approvals

ISO4064, MID B

Electrical Data

Power Supply:	Battery, 3.6V Lithium (230VAC, 24VDC optional)
Communication Interface:	Dual Communication (2-wire Pulse + Mbus), Cable 3 meters long
Electromagnetic Class:	Class E1(class E2 optional)
Volume Display Options:	Net (Forward less reverse), Forward only, Forward & reverse alternating
Max.Flow Reading (m^3):	99999999.99999
Alarm:	Low battery, Empty pipe, Low water temp, Transducer fault

Accuracy / MPE (Maximum Permissible Error)

MPE according to ISO 4064: 2014 and OIML R49: 2013

±2% in the range Q2 ≤ Q ≤ Q4 [T ≤ 30ºC]

±3% in the range Q2 ≤ Q ≤ Q4 [T > 30ºC]

±5% in the range Q1 ≤ Q < Q2 [regardless of the temperature range]

Dynamic Range: 400 (standard), 500 (option), (For others please contact Ploumeter)

Mechanical Data

Metrological Class:	2 (according to ISO 4064: 2014 / OIML R49: 2013)
Environmental Class:	Class C (B optional)
Environmental Temp:	-25 ~ 55°C
Permissible Flow Temp:	0.1 ~ 50°C (T50, T30)
Enclosure Protection:	IP68
Integrator Detachable:	No
Pressure:	PN16 for DN50-DN150, PN10 for DN200-DN600
Channel:	Double channels for DN50…DN300, Three channels for DN350…DN600

Pressure Loss

Pressure Loss:	DN50-DN300: Δp25 Kpa, DN350-DN600: Δp10 Kpa

Installation

Installation Method:	Arbitrary angle
Straight Pipe Requirement:	U3, D0
Others:	During measurement meter must be completely filled with water

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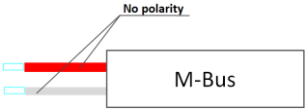
Communication interface connecting illustration

Terminal diagram(M-Bus)



Terminal diagram(2 Wire Pulse)

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