SC7 Series
Ultrasonic Water Meters

PRODUCT DATA

Application

- Revenue metering
- Residential submetering
- Commercial buildings
- Leakage detection
- AMR and billing
- Walk-by/Drive-by metering

Features

- Residential potable water consumption metering
- Temperature compensation for cold water as well as hot water up to 50°C
- No moving parts. Wear-free ultrasonic technology
- Durable, proven BRASS sensor body. Solves the challenges in harsh environments
- Excellent long-term stability with consistent performance Accuracy does not degrade over time
- Leakage detection can be customized
- Temperature inspection and low temperature alarm
- Does not measure entrained air in pipe
- Bi-directional flow
- Low pressure drop
- Free positioning for installation
- Large LCD display
- More than 10 year battery life
- IP 68 water-proof
- MID / ISO 4064:2014
- Data Logger with 480 daily totals, 36 monthly totals and 16 years totals
- Wide communication possibilities
- Variety of alarm functions for low battery and system error

Company: Weihai Ploumeter Co.,Ltd Web: www.ploumeter.com Email: cindy@plou.cn

Technical Specifications

Table 1. Dimensions

Nominal diameter	15mm	20mm	25mm	32mm	40mm
L(mm)	165/110 *	190/130/195 *	260/225 *	260/230 *	300/245 *
L1(mm)	97	97	97	97	97
L2(mm)	259/204	294/234/299	380/345	380/350	428/373
H(mm)	91	91	91	128	139
H1(mm)	31	28	25	29	36
W(mm)	90	90	90	90	90
Threads meter	G3/4B	G1B	G1 1/4B	G1 1/2B	G2B
Threaded tailpiece	R1/2	R3/4	R1	R1 1/4	R1 1/2

Note: * for the default length

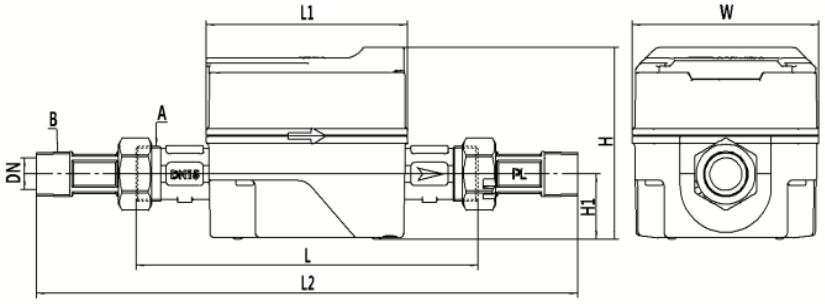

Table 2. Flow rate

Nominal diameter	15mm	20mm	25mm	32mm	40mm
Overload flow rate (Q4) m³/h	3.125	5	7.875	12.5	20
Nominal flow rate (Q3) m³/h	2.5	4	6.3	10	16
Transitional flow rate (Q2) m³/h	0.008	0.0128	0.0201	0.032	0.051
Minimum flow rate (Q1) m³/h	0.005	0.008	0.0126	0.02	0.032
Q3/Q1 (R)	500				
Q2/Q1	1.6				
Q4/Q3	1.25				

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Approvals

ISO4064: 2014, MID B+D

Material

Meter body:	CW617N
Housing :	Abs+Pc
Measuring Tube:	Bracket: ppo (food grade)
	Mirrors: polished stainless steel 304

Electrical Data

Power Supply:	Battery, 3.6V, Lithium (24VDC option)
Communication Interface:	Infra-red, M-Bus, RS485
Wireless Interface:	Wireless M-bus (T1 868MHz), LoRa, NB-IoT
Output:	Pulse
Electromagnetic Class:	Class E1(class E2 optional)
Volume Display Options:	Net (Forward less reverse), Forward only, Forward & reverse alternating
Max.Flow Reading (m^3):	Forward: 99999.99999, Reverse:-99999.99999
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: 500 (For others please contact Ploumeter)

Mechanical Data

Metrological Class:	2 (according to ISO 4064: 2014 / OIML R49: 2013)
Environmental Class:	C (B optional)
Environmental Temp:	-25 ~ 55°C
Permissible Flow Temp:	0.1 ~ 50°C (T50, T30, T70 can be customized)
Enclosure Protection:	IP68
Integrator Detachable:	No
Pressure:	PN16

Pressure Loss

Pressure Loss:	Δp40 Kpa

Installation

Installation Method:	Arbitrary angle
Straight pipe requirement:	U10, D5
Others:	During measurement meter must be completely filled with water

Order Specifications

Base Unit

SC7- DN□ - □ - □

Meter Size

DN15 / ½”	15
DN20 / ¾”	20
DN25 / 1”	25
DN32 / 1 ¼”	32
DN40 / 1 ½”	40

Process Connection

A	Threads meter
B	With threaded tailpiece

Output Interface Module

MB	M-Bus Module (wired)
485	RS485 / Modbus Module
wMB	M-Bus Module (wireless)
NB	NB-Iot
LR	LoRa
PU	Pulse

Example

• SC7-DN15-MB-A stands for the SC7 Series Residential Water Meter base unit of R500 for pipe DN15mm $G^{3}/_{4}B$ screw.

• M-Bus module (wired) is standard output interface module.

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