

Instruction Book of House MT200TPP-70SW series Ultrasonic water flowmeter

TPP-70SW series ultrasonic water meter is based on the principle of ultrasonic time difference method, which is designed to achieve excellent performance of ultrasonic current measurement products.

The company has complete and independent intellectual property rights for TPP-70SW series ultrasonic water meters.

If you have any questions in the use process, please call and write.



Implementation criteria:

Production Standard: National Standard of the People's Republic of China GB/T778-2007 "Measurement of Water Flow in Closed Full Pipeline, Drinking Cold Water Meter and Hot Water Meter"

Verification Standard: National Metrology Verification Regulation of the People's Republic of China JJG162-2009 Cold Water Meter

Important tips:

1. Before use, please read the manual in detail and keep it for reference.
2. This product is a precise measuring instrument. During installation and use, it should be as far away from interference sources as possible, choose a reasonable installation location, and avoid serious impact and collision.
3. The product is strictly inspected before it leaves the factory. It is strictly forbidden to operate irregularly or dismantle it privately. Otherwise, the consequences will be borne by oneself.
4. Display patterns and prompts are window operation prompts, which can not be used as the basis for product verification.
5. For product verification, please select a formal flow verification device that meets the national measurement requirements and operates strictly in accordance with the specifications.
6. TPP-70SW will be upgraded from time to time. If the actual function of the product is inconsistent with this manual, please refer to the actual product or consult the manufacturer.
7. When there is an error, please contact the manufacturer or distributor in time, otherwise it will cause traffic loss.

一、 Product features:

- It is specially used for precise measurement of small-caliber water consumption in residential districts or other places.
- The minimum measurable flow rate is only 0.003m/s, which realizes drip measurement.
- Two-way measurement of positive and negative flow can be realized.

Double-line display on the same screen, complete prompt function, convenient for inquiry and diagnosis;

The fuselage can rotate freely about 360 degrees, which is convenient for users to consult.

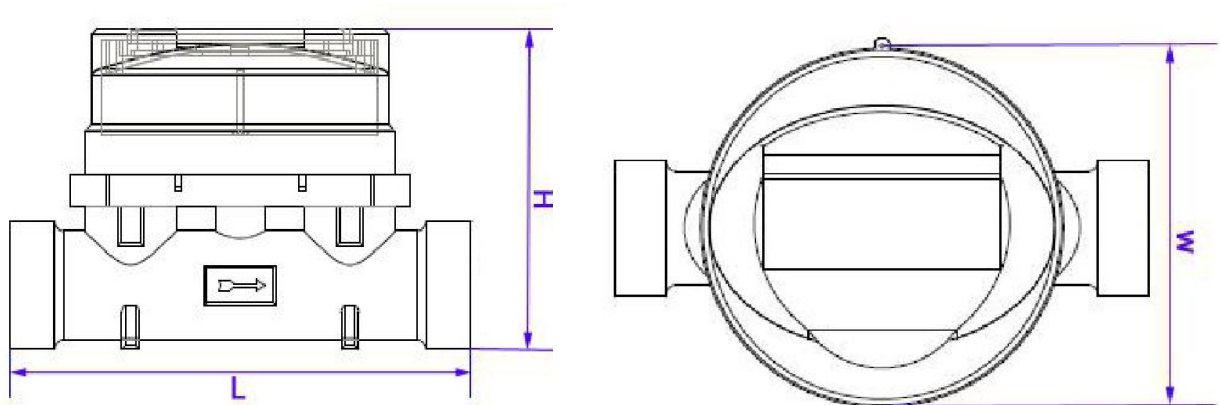
Small volume micro power design, actual service life of more than 10 years;

Excellent linearity, in the full range, the linearity is consistent, without multi-point correction;

Perfect software extension function can meet the customization requirements of different users.

A variety of measurement units can be selected to meet the needs of users in different countries.

二、 Overall diemensions



DN size (mm)	L (mm)	H (mm)	W (mm)	Thread Connection Specification
DN15	165/110	68.5	90.5	G3/4B
DN20	195/130	85	90.5	G1B
DN25	230/175	93.5	90.5	G1 1/4B

三、 Technical parameters:

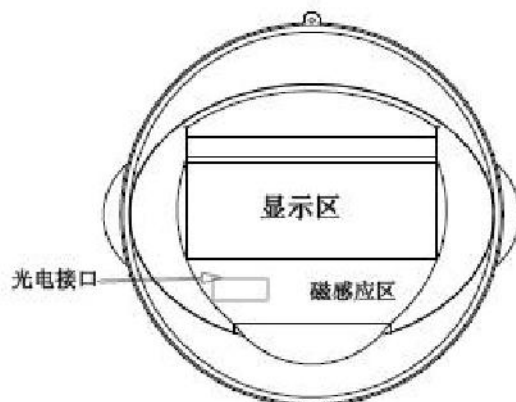
Features	Parameters
Measurable medium	Water and other homogeneous liquids filled with the tested section
Accuracy	Better than grade 1 (1%)
Max working pressure	1.6Mpa
DN size	DN15-DN25
work environment	temperature: -15 ~ 55℃; humidity≤100% (RH)
Temperature grade	T30/T50, The default is T30
Sensitivity Level of Upstream Flow Field	U10
Sensitivity Level of Downstream Flow Field	D5
CLIMATE AND MECHANICAL ENVIRONMENTAL SAFETY GRADES	C sort
Electromagnetic Compatibility Level	E1
Data storage	EEPROM/FLASH storage type
Data communication	RS485/Infra-red
Working power	3.6V Lion battery, life 10 years (220Vac optional)
Protection grade	IP68

Local display	Two-line display of 9-bit cumulant, 4-bit instantaneous flow and Flow unit, status prompt
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四、Measure range:

DN size (mm)	Range ratio Q3/Q1 R	Starting flow rate (L/H)	Minimum flow rate Q1 (L/H)	Boundary flow Q2 (L/H)	Common discharge Q3 (m ³ /H)	Overload discharge Q4 (m ³ /H)
DN15	400		6.25	10	2.5	3.125
DN20	400		10	16	4	5
DN25	400		15.75	25.2	6.3	7.875
DN32	400		25	40	10	12.5
DN40	400		40	64	16	20

五、Window operation:



The switch and cycle of display window can be realized by touching magnetic induction area with magnetic rod.

六、 Window display

36.1366 m³
0.0000 m³/h

01 window: net accumulating+instant flow, unit optional
usual unit is: m³和 m³/h

36.1366 m³
0.000 m³/h

02 window: display net accumulate+velocity, accumulate unit optional , usual unit set as : m³。

-0.0440 m³
0.000 m³/h

03 window : display accumulate flow (-) and instant flow (-)
unit optional, usual unit set as: m³和 m³/h。

04 window: Calibration window

2015.01.01
01:00

05 window: display time+date, up is date , down is hour+min

642.90
594.9

06 window: up is validity working time, down is fault time.

0.00
0.0









07 window: transmitting time+ time difference

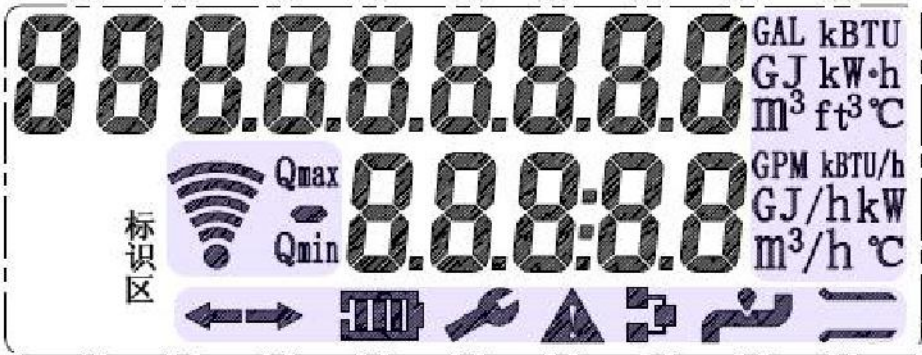
15051801
03.04

08 window : product series code+ product version.

If other settings are needed, our company can provide customized system software according to the actual needs of customers, so as to achieve a variety of customized settings and display.

七、 Self-diagnosis and Fault Analysis

Identifier	Definition	Breakdown analysis
	Symbol of signal strength,	
Qmax	Flow exceed overload flow (Q4)	
Qmin	Flow lower than min flow (Q1)	
	Remind of flow direction	
	Battery remind (220vac not)	
	Non-repairable fault prompt	contact sales
	Repairable fault prompt	
	Normal communication symbol	
	Drip metering or leak marking	
	Empty pipe	



八、 Calibration

1. The verification method follows the national metrological verification regulation JJG162-2009 - "Cold Water Meter"
2. When calibrating, please select a formal flow calibration device certified by Metrology Department and operated by professionals.
3. This series of products (DN15-DN25) are more suitable for "start-stop" calibration.
4. This series of products can be used immediately without additional operation, so that the verification accuracy is consistent with the actual use accuracy. (Additional operation in verification often implies cat's grease in measurement accuracy;
5. The display resolution can be customized by users, and the factory setting is 0.1 liter.
6. In order to display the results more conveniently, the "04" window can be selected for calibration.

Definitions are as follows:

Keyboard down window to "04" window

Keyboard long press, LCD upper left corner shows P word. When P flickers, it can be calibrated.

Keyboard press short, start calibration;

Keyboard press again, end calibration, read data;

Press the button again to show zero.

Keyboard long press, calibration completed

FOB prices,

1/2inch Screw --- 55USD/unit,

3/4inch screw --- 58USD/unit ,

1inch screw --- 61USD/unit,



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