



# User Manual

213/223E

Ultrasonic Water Meter

# 1 General Information

213/223E ultrasonic water meter is designed to measure the real flow rate and real water passing through the pipeline.

## Standards Compliance

ISO4064:2014/ OIML: R49-2013

## Feature

- Ultrasonic water meter, No move part design
- Low starting flow rate, more sensitive than mechanical water meter
- Horizontal and Vertical installation
- High accuracy level, digital display
- Reverse water flow could be measured
- Temperature grade: T30/T50/70
- With multi alarm functions
- IP68 water proof protection

# 2 Technical Specification

## General Information

| Diameter                           | DN15                                                                                                                        | DN20      | DN25          | DN32      | DN40      |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------|---------------|-----------|-----------|
| Length                             | 165mm                                                                                                                       | 190/195mm | 225/260mm     | 180/260mm | 200/300mm |
| Q <sub>3</sub> (m <sup>3</sup> /h) | 2.5                                                                                                                         | 4         | 6.3           | 10        | 16        |
| Start Flow(L/h)                    | 2                                                                                                                           | 2         | 3             | 5         | 7         |
| Meteorologic Class                 | Q <sub>3</sub> /Q <sub>1</sub> =100/125/160/200/250/400/500;                                                                |           |               |           |           |
| Accuracy Class                     | Class 2                                                                                                                     |           |               |           |           |
| Pressure Stage                     | MAP16                                                                                                                       |           | Pressure Loss |           | △p≤63     |
| Temperature                        | T30/T50/T70; Default T30                                                                                                    |           |               |           |           |
| Data Storage                       | 730 daily data storage , 48 months history data ;<br>( Customization data storage mode according to customer requirements ) |           |               |           |           |
| Interface & Communication          | Infrared、M-BUS、RS485、NB-IOT、LORAWAN、Pulse ( Optional )                                                                      |           |               |           |           |
| Power                              | DC3.6V Lithium Battery                                                                                                      |           |               |           |           |
| Protection                         | IP68                                                                                                                        |           |               |           |           |
| Temperature Requirements           | Medium Tempersture: 0.1°C-90°C                                                                                              |           |               |           |           |
|                                    | Ambient opersting Tempersture: 1°C- 70°C                                                                                    |           |               |           |           |
|                                    | Ambient storage Tempersture: -15°C- 70°C                                                                                    |           |               |           |           |
| Installation                       | Horizontal or Vertical                                                                                                      |           |               |           |           |
| Durability                         | Life Period ≥ 6+1 years                                                                                                     |           |               |           |           |

## Flow Parameter

| Diameter(mm) | Min. Flow(Q1) | Min. Flow(Q2) | Min. Flow(Q3)     | Min. Flow(Q4) |
|--------------|---------------|---------------|-------------------|---------------|
|              | L/h           |               | m <sup>3</sup> /h |               |
| DN15         | 10.0          | 16.0          | 2.5               | 3.125         |
| DN15         | 6.25          | 10.0          | 2.5               | 3.125         |
| DN15         | 15.625        | 25.0          | 2.5               | 3.125         |
| DN20         | 16.0          | 25.6          | 4.0               | 5.0           |
| DN20         | 10.0          | 16.0          | 4.0               | 5.0           |
| DN20         | 25.0          | 40.0          | 4.0               | 5.0           |
| DN25         | 15.75         | 25.2          | 6.3               | 7.875         |
| DN32         | 25.0          | 40.0          | 10.0              | 12.5          |
| DN40         | 40.0          | 64.0          | 16.0              | 20.0          |