

## MFU-6300

### Wall Mounted Ultrasonic Flow meter Marmonix

#### Overview:







Wall Mounted Ultrasonic Flowmeter MFU-6300 widely used to measure different kinds of liquid. Transmitter and transducer install separately. Transmitter can install at indoor, Instrument cabinet, Dashboard. Transducer install on the pipes. Transmitter and Transducer connect by special cable. It can realize to measure flow. Connect with temperature sensor, it can measure heat flow. Widely used in Running water, Heating, Water conservation, Metallurgy, Chemical industry, Machinery, Energy etc. Used for production monitoring, water balance testing, thermal equilibrium network commissioning, energy monitoring.

#### Features:

- Accuracy: better than 1%
  - Measure Range: Select different model sensors, can achieve DN15-DN6000mm pipe flow measurement
  - Reliability: Adopt low voltage, multi-pulse radiating circuit. Accuracy, Lifetime and Reliability are better
  - Anti-interference: Adopt double balanced signal differential transmission, receiving circuit, effective resist the drive, tower, Strong power lines and other source of interference.
  - Memory Function: Automatic memory the cumulative flow of 512 days before, 128 months before, 10 years before. Automatic memory the power-on and off of 64times before and the flow. Automatic memory the meter working condition of 32days before
- Temperature Sensor: Connect with Temperature sensor, it can measure heat flow.
- SD card memory: Select SD card memory, it can realize mass storage by ultrasonic flowmeter
- 4 key tactile-feedback membrane keypad
  - IP57
  - Operate with clamp-on, insertion and flow-cell transducer
  - Pipe diameters from 15mm to 6000mm












## MEASUREMENT COMPOSITION





| Flow Measurement   | Heat/Cold Energy Measurement   | Feature   |
|--|--|---|
|  <p>Clamp On Type</p>   |  <p>water supply pipe<br/>water return pipe</p>   | <ul style="list-style-type: none"> <li>*Installation without drying up, no pressure loss</li> <li>*Easy installation and maintenance</li> <li>*Mating clamp temperature sensor that can measure the temperature of the outside of tube to achieve heat measure</li> </ul>                     |
|  <p>Insertion Type</p> |  <p>water supply pipe<br/>water return pipe</p>  | <ul style="list-style-type: none"> <li>*Installation without drying up, no pressure loss</li> <li>*Stable and reliable during long-term operation</li> <li>*Mating clamp temperature sensor that can measure the temperature of the outside of tube to achieve heat measure</li> </ul>        |
|  <p>Pipe Type</p>     |  <p>water supply pipe<br/>water return pipe</p> | <ul style="list-style-type: none"> <li>*Installation require drying off the pipe</li> <li>*High accuracy, Stable and reliable during long-term operation</li> <li>*Mating clamp temperature sensor that can measure the temperature of the outside of tube to achieve heat measure</li> </ul> |

## TRANSDUCER

Due to different liquid, pipeline condition installation circumstance, choose different transducer

| Type                           | Picture   | Specification | Model | Pipe Size     | Temperature | Dimension               |
|--------------------------------|---|---------------|-------|---------------|-------------|-------------------------|
| Standard Clamp On Type         |  | Small         | S2    | DN15 ~DN100   | -30~90℃     | 45×25×32mm              |
|                                |  | Medium        | M2    | DN50 ~DN700   | -30~90℃     | 64×39×44mm              |
|                                |  | Large         | L2    | DN300 ~DN6000 | -30~90℃     | 97×54×53mm              |
| High Temperature Clamp On Type |  | Small         | HS    | DN15 ~DN100   | -30~160℃    | 45×25×32mm              |
|                                |  | Medium        | HM    | DN50 ~DN700   | -30~160℃    | 64×39×44mm              |
|                                |  | Large         | HL    | DN300 ~DN6000 | -30~160℃    | 97×54×53mm              |
| Insertion Type                 |  | Standard      | TC-1  | DN80 ~DN6000  | -30~160℃    | 190×80×55mm             |
|                                |  | longer type   | TC-2  | DN80 ~DN6000  | -30~160℃    | 335×80×55mm             |
| Pipeline Type                  |  | π             | G3    | DN15 ~DN25    | -30~160℃    | SS304 Thread Connection |
|                                |  | Standard      | G2    | DN32 /DN40    | -30~160℃    | CS Thread Connection    |
|                                |  | Standard      | G1    | DN50 ~DN6000  | -30~160℃    | CS Flange Connection    |

## Temperature Sensor

| Picture   | Specification  | Model | Measurement Range | Temperature Range | Installation Requirement | Accuracy                                       |
|---|--|-------|-------------------|-------------------|--------------------------|--|
|  | Three Wire PT100<br>Clamp Temperature Sensor                     | CT-1  | ≥DN50             | -40~160°C         | No Need Cut              | 100°C ±0.8°C<br>Temperature Difference < 0.1°C |
|  | Three Wire PT001<br>Insertion Temperature Sensor                 | TCT-1 | ≥DN50             | -40~160°C         | No Need Flow             |  |
|  | Three Wire PT100 pressure<br>installation temperature sensor     | PCT-1 | ≥DN50             | -40~160°C         | No Need Cut              |  |
|  | Small Size Three Wire PT100<br>Insertion Type temperature sensor | SCT-1 | <DN50             | -40~160°C         | No Need Cut              |  |

## SPECIFICATION

| Type                         | Performance, Specification |  |
|------------------------------|----------------------------|--|
|                              | Principle                  | Ultrasonic transit-time principle, Four-byte IEEE754 floating-point arithmetic                 |
|                              | Accuracy                   | Better than ±1%  |
|                              | Display                    | LCD display with Chinese, English Display  |
|                              |                            | One 4-20mA Current output, Impedance 0-1K, Accuracy 0.1%                                       |
|                              | Output                     | One OCT Pulse output (Width 6-1000ms, Default 200ms)   |
| <b>Transmitter</b>           |                            | One Relays output  |
|                              | Input                      | Three 4-20mA Current input, accuracy 0.1%, can collect temperature, pressure, level signal etc |
|                              |                            | Can connect with three-wire PT100 Platinum resistance to measure heat flow                     |
|                              | Data Interface             | Isolated RS485 interface, can upgrade flowmeter through PC, support mudbug                     |
| <b>Cable</b>                 |                            | Normal below 50m; Select RS485 Communication, Transmission distance can over thousand meters.  |
|                              | material                   | Steel, Stainless steel, Cast iron, copper, PVC, aluminum, FRP etc. (linear allowed)            |
| <b>Pipe condition</b>        | Diameter                   | 15~6000mm  |
|                              | Installation               | Upstream 10D, downstream 5D, 30D away from the pump out let (D for diameter)                   |
| <b>Medium</b>                | Fluid                      | Water, sea water, acid liquid, beer, alcohol, oil and any other liquid that can spread sonic   |
|                              | Temperature                | -30~160 degree C   |
|                              | Turbidity                  | 10000ppm and with little bubbles   |
|                              | Velocity                   | 0~±10m/s   |
| <b>Operating Environment</b> | Temperature                | Transmitter: -20~60 degree C; Transducer: -30~160 degree C                                     |
|                              | Humidity                   | Transmitter: 85%RH; transmitter protection grade: IP68; Water Depth < 2m                       |
| <b>Power Supply</b>          | DC 8-36V or AC 85-264V     |  |
| <b>Consumption</b>           | 1.5W                       |  |