

## MFU-6000 Handheld Ultrasonic Flow Meter



**Package includes:**

- Main unit
- RS232
- User's manual
- M2 Transducers
- 5m Chains
- 5m Signal wires
- Battery charger
- Ruler
- Intermediate Gel
- Hard carrying case

**Overview:**

MFU-6000 is designed to measure the fluid velocity of liquid flowing within a closed conduit. The transducers are clamp-on type, which will provide benefits of non-destructive operation and easy installation. The flow meter operates by frequently transmitting and receiving a frequency modulated burst of sound (ultrasonic) wave between the two transducers and by measuring the differential time of send and receive of the ultrasonic pulses determines velocity of liquid in the pipe.

The light weight, user friendly operation, high accuracy and outstanding reliability, quick response time, flexibility of usage, data-logger and being PC compatible makes MFU-6000 an ideal device for petrochemical plants, water pipelines, etc.

Marmonix MFU-6000 employs a patent balanced lower voltage multi-pulse igniting circuit which increases the anti-interference ability magnificently so that the flow meter will work properly even in demanding industrial environments such as those with power frequency transverter working nearby.

**Features:**

- Easy to install and no need to cut off the flow, no pressure loss
- 32K BIT built-in data storage
- LCD displays the instant flow, total flow, flow velocity and working conditions
- Measurement range from DN15~DN6000mm
- 4 flow totalizers (0.5 second totalizing period)
- 100 Picosecond resolution of time measurement
- Buzzer and OCT alarm
- Different flow rate units available
- self-adapting signal receiving circuits to avoid any especial adjustments
- Indicating the flow direction
- Zero point adjustment
- Self-diagnosis function can indicate the current working statuses
- Suitable for wide variety of pipe materials and liquids



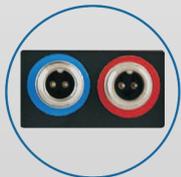
| Parameter                         | Values   |
|-----------------------------------|--|
| Velocity range                    | ±32 m/s  |
| Accuracy                          | ±1% of reading at rates>0.2 mps  |
| Repeatability                     | 0.2%   |
| Linearity                         | 0.5%   |
| Response Time                     | 0~999 seconds, user-configurable   |
| Pipe Size                         | DN15~DN6000  |
| Rate Units                        | Meter, Feet, Cubic Meter, Liter, Cubic Feet, USA Gallon, Imperial Gallon, Oil Barrel, USA Liquid Barrel, Imperial Liquid Barrel, Million USA Gallons. User configurable                          |
| Totalizer                         | 7-digit totals for net, positive and negative flow respectively  |
| Liquid                            | Virtually all liquids that can spread sonic (without solid suspensions). Including: Water, Sea water, Oil, Acids, Alcohol, Gasoline, Propane at -54℃, Butane at -0.5℃, Crude oil, Kerosene, etc. |
| Suspension concentration          | <10000 ppm, (may contain very small amount of air bubbles)   |
| Pipe material                     | All fine conductors of ultrasonic waves. Including: Iron, Steel, PVC, Carbon steel, Stainless steel, Cast iron, Ductile iron, Copper, Aluminum, Fiberglass, etc.                                 |
| Security                          | Setup values Modification Lockout. Access code needs for unlocking   |
| Display                           | 4x16 English letters   |
| Communication Interface           | RS-232C (FUJI extended protocol)   |
| Data Logger                       | Built-in data logger can store over 2000 lines of data   |
| Manual Totalizer                  | 7-digit press-key-to-go totalizer for calibration  |
| Housing Material                  | Flame retardant ABS  |
| Working environment (Transmitter) | -20~60℃, 85%RH, IP65   |
| Working environment (Transducers) | -30~160℃, IP65   |
| Power supply                      | 3 AAA Ni-H built-in batteries. When fully recharged it will last over 10 hours of operation (input 100-240 VAC)  |
| Weight                            | 514g (1.2 lbs) with batteries  |
| Dimensions                        | 200x92x32mm  |

### Optional parts

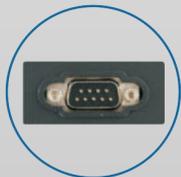
| Type                           | Picture   | Size   | Model No. | Measuring range | Temperature | Dimensions   |
|--------------------------------|---|--------|-----------|-----------------|-------------|--------------|
| Standard Clamp on transducers  |  | Small  | S2        | DN15~DN100      | -30~90℃     | 45×25×32mm   |
|                                |  | Medium | M2        | DN50~DN700      | -30~90℃     | 64×39×44mm   |
|                                |  | Large  | L2        | DN300~DN6000    | -30~90℃     | 97×54×53mm   |
| High temp Clamp on transducers |  | Small  | S2H       | DN15~DN100      | -30~160℃    | 45×25×32mm   |
|                                |  | Medium | M2H       | DN50~DN700      | -30~160℃    | 64×39×44mm   |
|                                |  | Large  | L2H       | DN300~DN6000    | -30~160℃    | 97×54×53mm   |
| Standard Bracket type          |  | Small  | S2B       | DN15~DN100      | -30~90℃     | 318×59×85mm  |
|                                |  | Medium | M2B       | DN100~DN300     | -30~90℃     | 568×59×85mm  |
|                                |  | Large  | L2B       | DN300~DN700     | -30~90℃     | 188×59×49mm  |
| High temp Bracket type         |  | Small  | S2BH      | DN15~DN100      | -30~160℃    | 318×59×110mm |
|                                |  | Medium | M2BH      | DN100~DN300     | -30~160℃    | 568×59×110mm |
|                                |  | Large  | L2BH      | DN300~DN700     | -30~160℃    | 188×59×49mm  |



**The main components features:**



Transducer interface



Communication interface

• 32Kbit data storage



LCD display

Sight size: 85\*19mm  
LCD display  
2\*20 english English letter



High strength protective case

Easy to carry,  
dust proof, water proof,  
impact resistance



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• Optional accessories