MFU-6100

Modular Type Ultrasonic Flow meter Marmonix MFU-6100

Overview:

Modular ultrasonic flow meter is an inferential meter that uses ultrasonic transit-time technology to measure the velocity of an acoustically liquid moving through it.

Transit-time measures the time differential between signals sent upstream and downstream. The differential is directly proportional to the velocity of the water. Transit-time meters are the best used for measuring the flow of clean liquids, as a result, are the most popular type of ultrasonic meter.

Features:

- Accuracy: ±1 of reading at rates >0.2 mps
- Repeatability: 0.2%
- Velocity: transmit time
- Pipe size: DN 15mm-DN 6000mm
- Display: LCD with backlight, display accumulated flow/ heat, instantaneous flow/heat, velocity, time etc.
- Signal output: 1 way 4-20mA output, 1 way OCT pulse output, 1-way relay output
- Signal input: 3 way 4-20mA input achieve to heat measurement by connecting PT100 platinum resistor
- Pipe material: carbon steel, stainless steel, cast iron, cement pipe, copper, PVC, Aluminum, FRP etc.
- Liquid types: all kinds of clean and pure liquids.
- Power supply: DC24V
- Power consumption: less than 1.5W

Applications:

Widely used in city water supply, waste water treatment, chemical industry, etc.

Chemical Industry
Process Water

Waste Water Treatment
Treated Water

HVAC System
Air Conditioning Water,
Cooling or heating
energy measuring

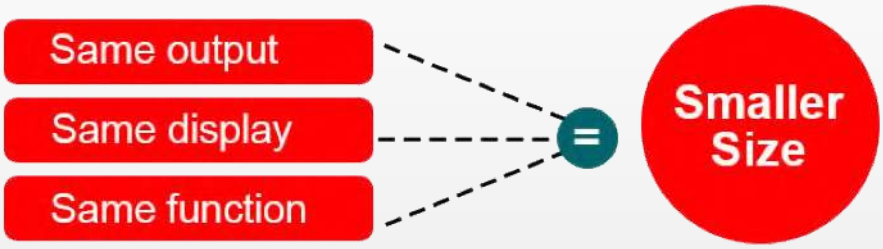
City Water Supply
Drinking Water

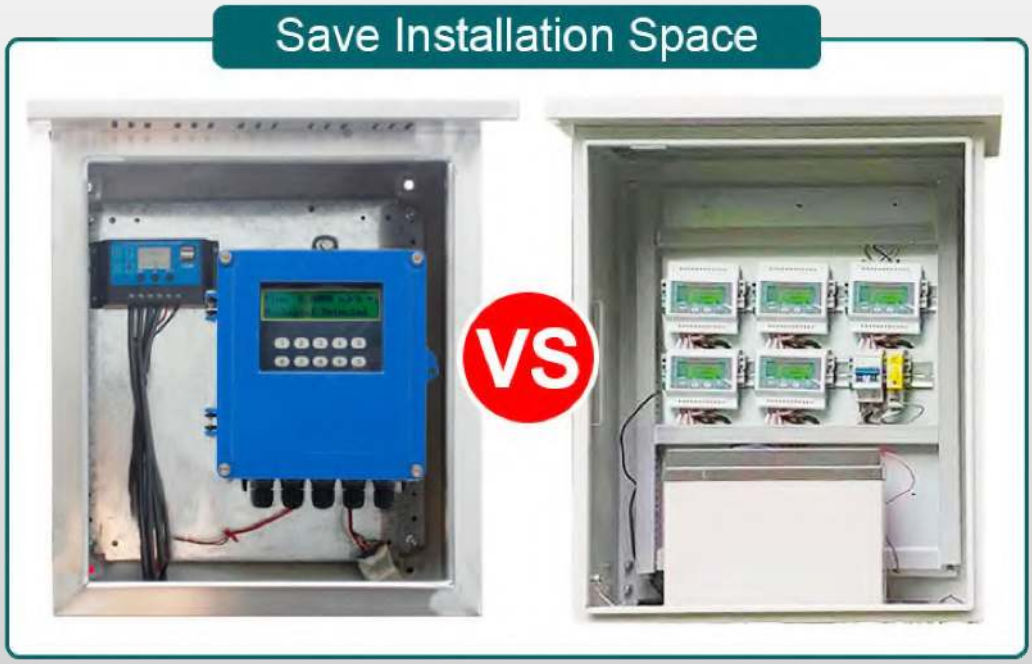
Working principle

- Modular ultrasonic flow meter is an inferential meter that uses ultrasonic transit-time technology to measure the velocity of an acoustically liquid moving through it.
- Transit-time measures the time differential between signals sent upstream and downstream. The differential is directly proportional to the velocity of the water. Transit-time meters are the best used for measuring the flow of clean liquids, as a result, are the most popular type of ultrasonic meter.

Why choose ?

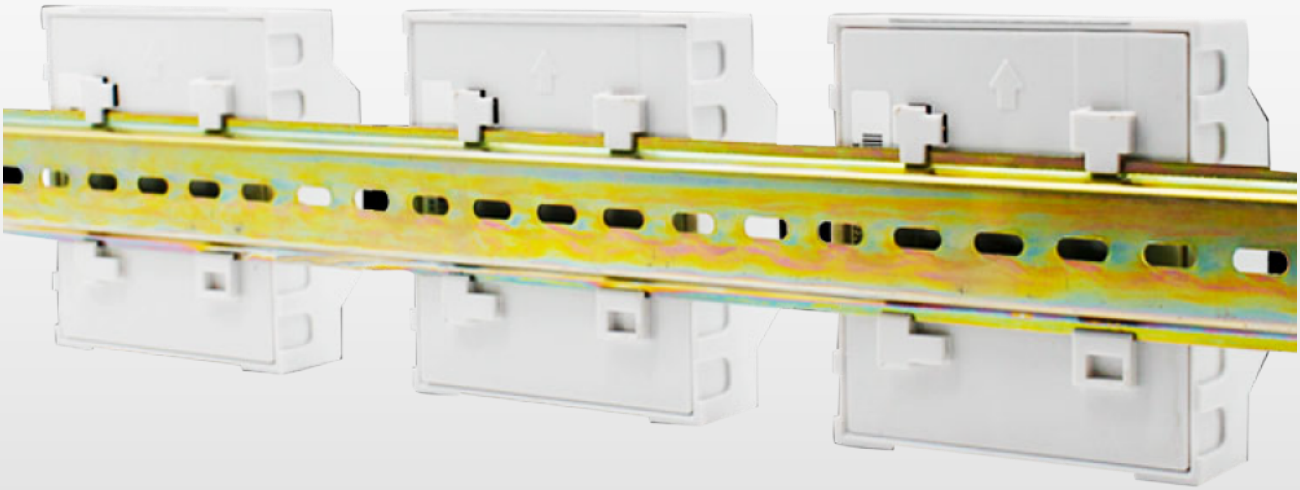
modular type ultrasonic flowmeter?





Easy Installation

Install into different instrument boxes via DIN rails.



Suitable for Inventory and Distribution

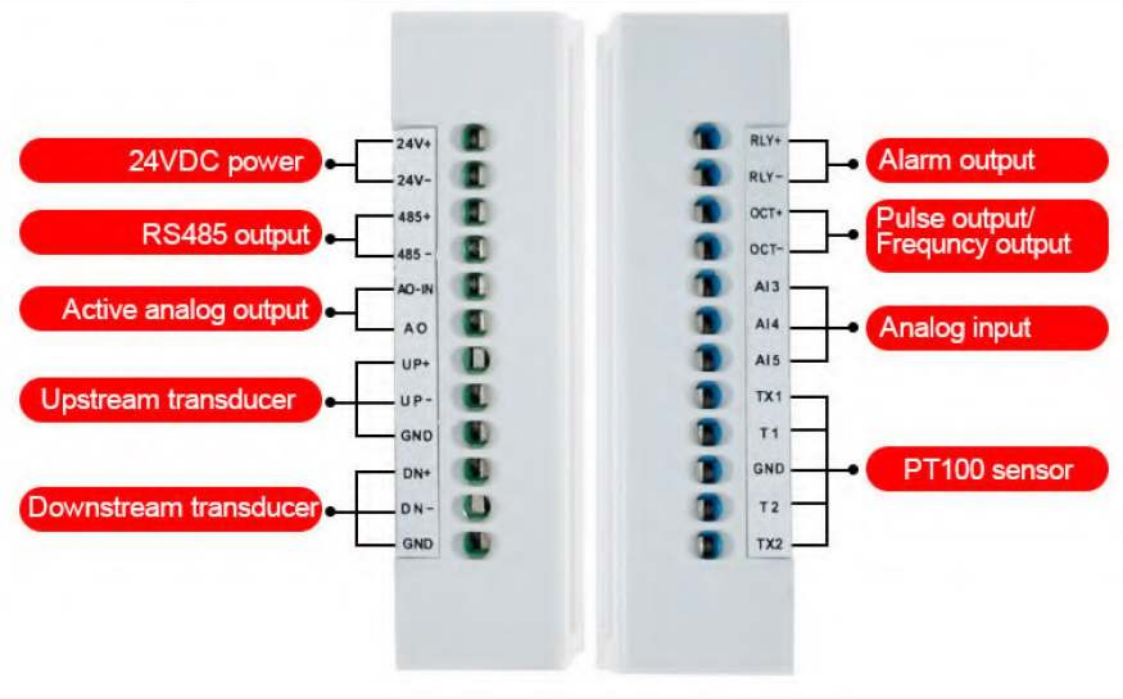
Ultrasonic Flow meter could work on different pipes and diameters. So it's convenient for distributor and customer to keep stock.

Display and performance

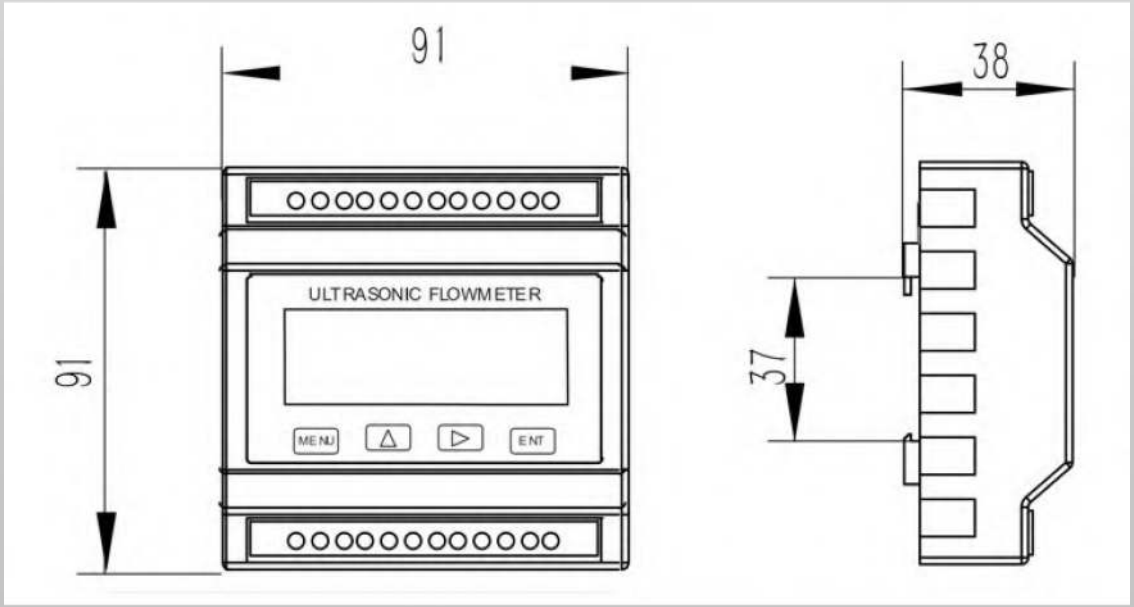
Display instantaneous flow rate and positive, negative, net total flow, etc.

- High accuracy ±1%.
- Combination buttons, easy to operate.
- 1M RAM, could stock 3000 lines measure data.
- Industrial grade ABS material. Resist corrosion and air-slake.

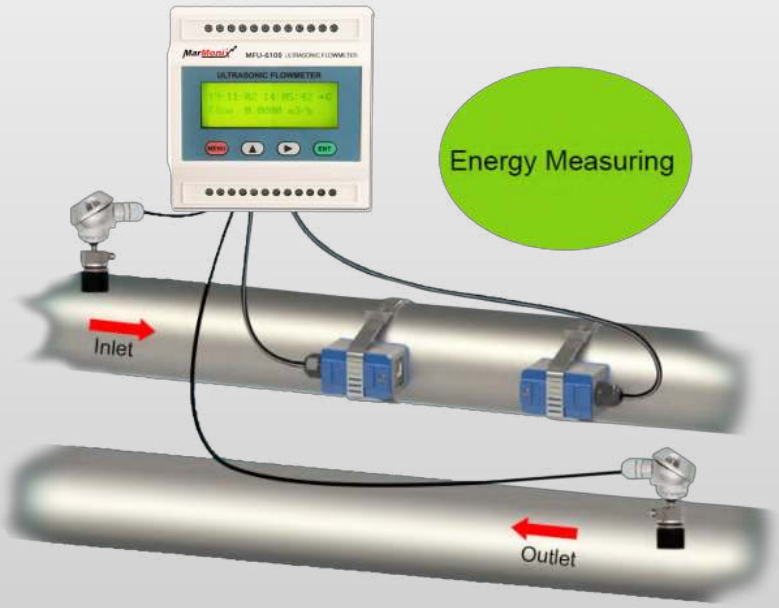
Various Outputs, Multiple function



Size Chart



Measure Flow Rate and energy



Different Installation Methods

Clamp type installation

Easy to install and maintain

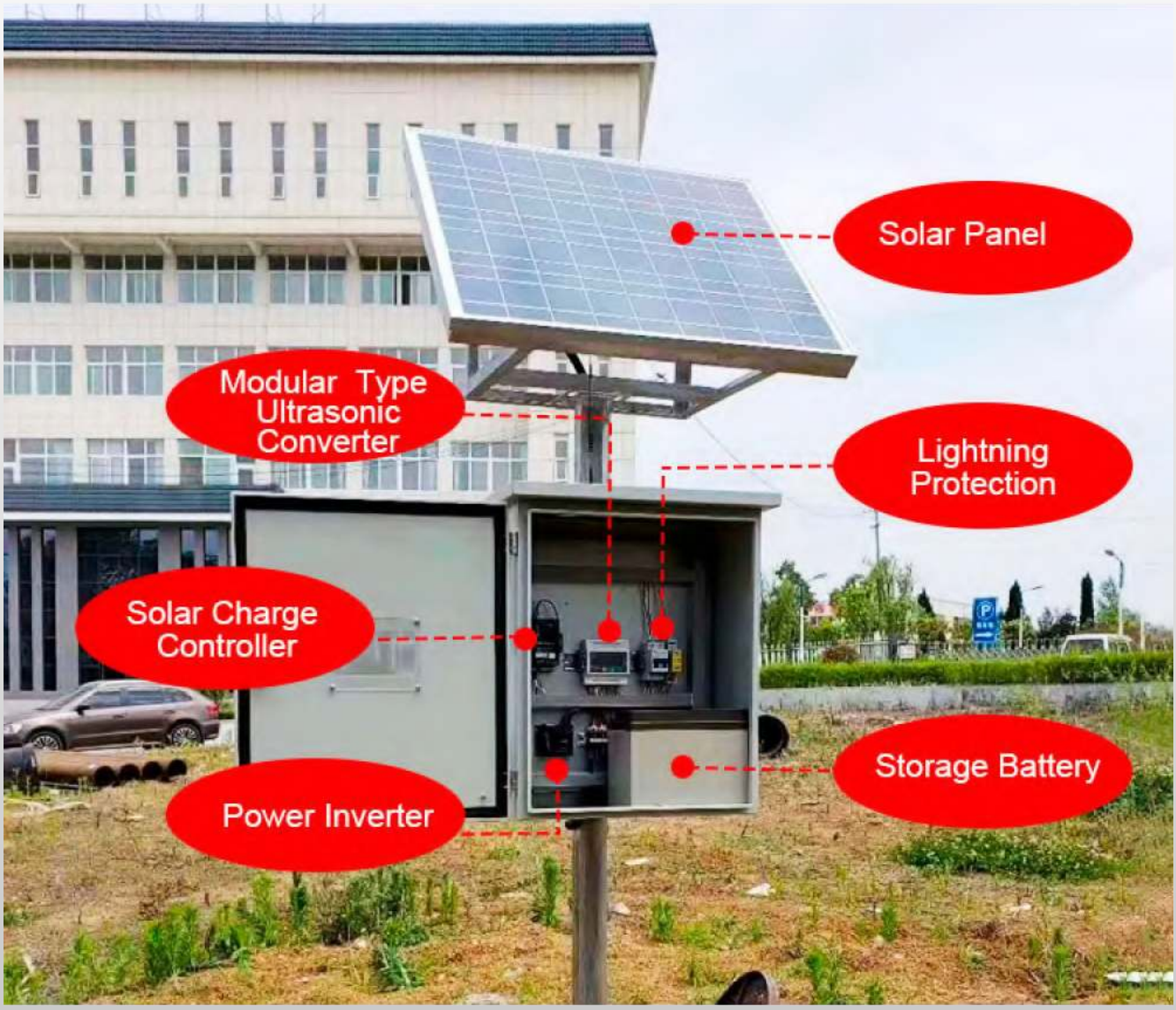
Insert type installation

Long working life stable and reliable

Inline type installation

High accuracy measurement

Solar Power system for Ultrasonic Flow Meter (optional)



Specification

Items	Specification
Accuracy	±1% of reading at rates >0.2 mps
Repeatability	0.2%
Principle	Transit time
Velocity	±32m/s
Pipe size	DN15mm-DN6000mm
Display	LCD with backlight, display accumulated flow/heat, instantaneous flow/ heat, velocity, time etc.
Signal Output	1 way 4-20mA output
	1 way OCT pulse output
	1 way relay output
Signal Input	3 way 4-20mA input achieve to heat measurement by connecting PT100platinum resistor
Other functions	Automatically record the positive, negative, net totalizer flow rate and heat. Automatically record the time of power on/off and flow rate of the last 30 times. Replenish by hand or read the data through Modbus communication Protocol.
Pipe material	Carbon steel, Stainless steel, cast iron, cement pipe, copper, PVC, aluminum, FRP etc. Liner is allowed.
Straight pipe section	Upstream: 10D; Downstream: 5D; From the pump: 30D (D means outer diameter)
Liquid Types	All kinds of clean and pure liquids
Liquid Temperature	Standard: -30°C~90°C, High-temperature: -30°C~160°C
Liquid Turbidity	Less than 10000ppm,with a little bubble
Flow Direction	Bi-directional measuring, net flow/heat measuring
Environment Temperature	Main unit: -30°C~80°C
	Transducer: -30°C~160°C, Temperature transducer: select on enquiry
Environment Humidity	Main unit: 85% RH
	Transducer: Standard is IP65, IP68 (optional)
Cable	Twisted Pair Line, standard length of 5m, can be extended to 500m (not recommended); contact the manufacturer for longer cable requirement. RS -485 interface, transmission distance up to 1000m
Power supply	DC24V
Power consumption	Less than 1.5W
Communication	MODBUS RTU RS485

Transducer Selection

Type	Picture	Specification	Measuring range	Temperature range
Clamp on type		Small-size	DN15mm~DN100mm	-30℃~90℃
		Middle-size	DN50mm~DN700mm	-30℃~90℃
		Large-size	DN300mm~DN6000mm	-30℃~90℃
High temperature clamp on type		Small-size	DN15mm~DN100mm	-30℃~160℃
		Middle-size	DN50mm~DN700mm	-30℃~160℃
		Large-size	DN300mm~DN6000mm	-30℃~160℃
Insertion type		Standard	DN80mm~DN6000mm	-30℃~160℃
		Lengthened	DN80mm~DN6000mm	-30℃~160℃
Tube type		π Shape tube	DN15mm~DN32mm	-30℃~160℃
		Standard tube	DN40mm~DN1000mm	-30℃~160℃

Temperature Sensors Model

Type	Picture	Measuring range	Temperature range
Three wires PT1000 clamp type temperature sensor		≥DN50mm	-40℃~160℃
Three wires PT1000 insertion type temperature sensor		≥DN50mm	-40℃~160℃
Three wires PT1000 on-line installation insertion type temperature sensor		≥DN50mm	-40℃~160℃
Small size three wires PT1000 insertion type temperature sensor		DN15mm~DN50mm	-40℃~160℃