



Measuring & Beyond



MIAL INSTRUMENTS PVT. LTD.

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MUF 1000
HANDHELD CLAMP ON ULTRASONIC FLOW METER





Portable Transit-Time Ultrasonic Flow Meter

MUF1000 Portable Transit Time Ultrasonic Flowmeter works on the transit-time method (battery powered). The clamp-on ultrasonic transducers (sensors) are mounted on the external surface of the pipe for non-invasive and non-intrusive flow measurement of liquid in fully filled pipe. One pair of transducers sufficient to cover the most common pipe diameter ranges. This flexible and easy to use flow meter is the ideal tool for the support of service and maintenance activities. It can also be used for the control or even for the temporary replacement of permanently installed meters.



Features:

1. Clamp on transducers are easy to install, cost effective, and require no pipe cutting or shut down of the running system.
2. Wide liquid temperature range: -40°C~ 80°C.
3. Data logger function with data analysis software.
4. Commonly used in different pipe materials and diameters from 25mm to 1200mm.

Applications

General

- Service and maintenance**
- HVAC applications**
- Replacement of defective devices**
- Support of commissioning process and installation**
- Performance and efficiency measurement**
- Evaluation and assessments
- Capacity measurement of pumps
- Monitoring of regulating valves
- Energy efficiency audits**

Water and waste water industry - hot water, cooling water, potable water, sea water etc.)

Petrochemical industry

Chemical industry -chlorine, alcohol, acids, thermal oils.etc

Refrigeration and air conditioning systems

Food , beverage and pharmaceutical industry

Power supply- nuclear power plants, thermal & hydropower plants), heat energy boiler feed water.etc

Metallurgy and mining applications

Mechanical engineering and plant engineering-pipeline leak detection, inspection, tracking and collection.



Specifications:

Performance

Flow range: ± 0.03 ft/s ~ ± 40 ft/s (± 0.01 m/s ~ ± 12 m/s)

Accuracy: $\pm 1\%$ of measured value

Pipe size: 1" to 48" (25mm to 1200mm).

Fluid: Single medium liquid

Pipe material: Carbon steel, stainless steel, PVC and other compact material pipe

Function

Outputs: Analog output: 4~20mA, max load 750 Ω .

RS485

SD Card: 16 GB

Power supply: Rechargeable Lithium Battery, 3000mAh (Continuous operation of main battery 16 hours).

Display: 240*128 back lit LCD

Interval: 1 ~ 99999seconds

Transducer: -40 Deg C~80 Deg C

Humidity: Up to 99% RH, non-condensing

Physical

Transmitter: NEMA13, IP54.

Transducer: Encapsulated design, IP68 Standard

Transducer cable: cable length: 5m (16ft)

Key board : Digital keys



Product Accessories:

1. Carrying Case*1pc.
2. Transmitter (Electronic)*1pc.
3. Transducer (Sensor) *1 pair.
4. Mounting track*1 set, ST
5. Pipe straps *2 pairs.
6. Coupling compound (Grease)*1 pc, Battery charge*1pc, Output cable*1pc and Tapeline*1

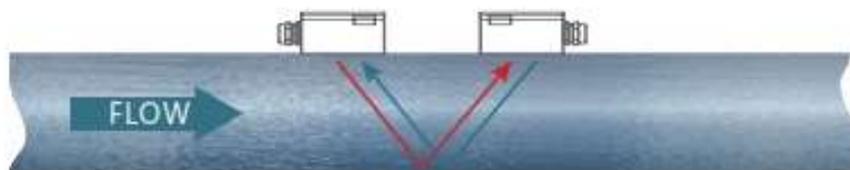


Single guide mounting type bracket



Measuring Principle:

Ultrasonic transit time technology means the ultrasonic signal from the transducer is transmitted and received through the moving liquid (fully filled pipe), there will be a difference between the upstream and downstream transit time, which can be used to calculate flow and velocity.





Configuration Code: MUF 1000

MUF 1000 - Clamp on ultrasonic flow meter -Portable

Code

1 **Ultrasonic Flow meter**

Code

Transducer

D1

Clamp-on, IP68. Operating temperature: -40°C ~ +80°C

XXX

Transducer cable length

P5

D series type of cable Standard 5m (16ft) with mounting track.

Code

Type of mounting track)

ST

Single guide mounting type bracket

Standard model: MUF 1000-1-D1-P5 -ST

Description: Portable Ultrasonic Flow Meter MUF1000, transducer with 5m cables and single guide mounting track.

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