



**MIAL**®  
**INSTRUMENTS PVT.LTD**  
*Measuring & Beyond*

[www.mialinstruments.com](http://www.mialinstruments.com)

# Measure and Go Beyond

*Mial Instruments Pvt. Ltd. is a globally recognized manufacturer of high-quality flow and energy measurement solutions, all meticulously engineered with International expertise. Our extensive product range encompasses flow meter technologies from Electromagnetic, Ultrasonic, Turbine, Vortex, Thermal mass, Oval gear , Level sensors, Room pressure monitors & more*

With a strong commitment to quality, our ISO-certified factory in India adheres to the most stringent international standards, ensuring that our instruments consistently meet the highest criteria. Our primary focus is on innovation. We are committed to bringing innovative and advanced solutions to the market, constantly redefining the possibilities in flow and energy measurement.

## *Our Vision*

*"Empowering precision, innovation, and excellence in measurement technology, fostering trust for a sustainable future."*

## *Our Values*

*"Our core value is a commitment to precision, relentless innovation, and unwavering excellence, fostering trust through integrity and prioritizing sustainability for a responsible future."*

## *Our Mission*

*"Our mission is to advance the science of metrology with exceptional products and services that build trust among consumers and contribute to environmental sustainability."*

# *Our Products*



Redefine Precision with Measurement

# Electromagnetic Meters

## INLINE ELECTROMAGNETIC FLOW | BTU METER

Meet our MEF 2100 series Inline Electromagnetic flow and BTU meters, designed for accurate measurement of fluid flow and energy measurements in a variety of applications. Our products are versatile, suitable for use in sectors including HVAC, water management, and industrial processes. Each BTU meter comes with highly accurate PT1000 temperature sensors and is calibrated to ensure precision for your specific application needs. Ideal for ensuring efficiency and reliability in your operations, our meters are backed by detailed calibration certificates.

### Features

- Non-intrusive measurement
- Wide flow range
- Accurate and reliable measurements
- Bi-directional flow measurement
- Wide fluid compatibility
- Digital communication capabilities
- Low maintenance requirements



*MEF 2100 C Inline Electromagnetic  
Flow Meter*



*MEF 2100 Inline Electromagnetic  
Flow / BTU Meter*



# Ultrasonic Meters

## INLINE ULTRASONIC FLOW | BTU METER

Introducing our Mial MUF 1200 Inline Ultrasonic Flow & BTU meter, engineered for unparalleled precision in measuring water flow and energy. Perfect for a variety of applications, from HVAC to industrial processes, these meters incorporate advanced ultrasonic technology for consistent, accurate data. Each unit is rigorously calibrated, ensuring reliability and efficiency in your operations. Our commitment to excellence is reflected in every meter, certified to meet your specific needs.

### Features

- Consistent without any Moving-Parts Design
- Precision Maintained Across a Broad Flow Spectrum
- Dual-Intuitive Backlit Screen and User-Friendly Interface
- Integrated Interval Data Logging Capability
- Versatile Communication Options and Multiple Outputs
- Low Maintenance



*MUF 1200 Inline  
Ultrasonic Flow/BTU Meter*

## PORTABLE CLAMP ON ULTRASONIC FLOW METER

Meet the MUF 1000 Transit Time Ultrasonic Flowmeter, a revolutionary tool for non-invasive flow measurement. Engineered for versatility, this portable meter leverages ultrasonic technology to accurately assess liquid flow without altering your pipes. Perfect for industries ranging from manufacturing to power generation, and essential for HVAC efficiency, the MUF 1000 simplifies maintenance and system evaluations with its clamp-on design, offering fast, precise monitoring in any Application.

### Features

- Easy Installation
- Non-Intrusive Measurement
- Flexible and Versatile
- Wide Liquid Temperature Range
- Data Logger Functionality
- Battery Operated flow meter



*MUF 1000 Portable Clamp  
On Ultrasonic Flow Meter*

# Ultrasonic Meters

# Thermal Mass flow meters

## CLAMP ON ULTRASONIC FLOW | BTU METER (1 % & 0.5%)

## INLINE | INSERTION THERMAL MASS FLOW METER

Explore the capabilities of the MUF 1200/MUF (B) 1200, a versatile Clamp - on - Wall Mount Transit Time Ultrasonic Flow/BTU Meter designed for accurate, non-invasive monitoring of fluid flow and energy. This advanced meter utilizes transit-time technology for precision measurements, offering a solution that enhances facility management without the need for complex installations. Ideal for HVAC systems, replacing defective units, aiding installation processes, and evaluating system performance, its ease of use and reliable data make it a top choice for optimizing operations and maintenance decisions.

Introducing the MTF 500/600 Thermal Mass Flow Meter, precise gas flow measurement for various sectors. Advanced thermal dispersion technology ensures accuracy and durability. Ideal for optimizing industrial, HVAC, and ensuring environmental compliance, its compact design simplifies installation. Perfect for chemical production, environmental monitoring, or aerospace testing, it provides reliable data for all gas monitoring needs.

### Features

- Wide Liquid Temperature
- Data Logger Function
- Energy Measurement Capability
- Versatility Across Pipe Materials and Diameters

### Features

- Measuring the Mass Flow or Volume Flow of Gas
- Gas Leak Detection
- Good Vibration Resistance and Long Service Life
- No Moving Parts or Pressure Sensor in Transducer
- Digital Design, High Accuracy, and Stability



MUF 1200 Clamp On Ultrasonic  
Flow /Btu Meter (0.5% & 1 %)



MTF 500 / 600  
Inline / Insertion Thermal  
Mass Flow meter

# Turbine Flow meter

# Gear Flow meter

## INLINE TURBINE FLOW METER

## INLINE OVAL GEAR FLOW METER

Introducing the MBF 700 Turbine Flow Meter, your go-to instrument for precision liquid flow measurement in a broad range of industries. With its innovative design, this meter offers unmatched accuracy and durability, ideal for sectors such as oil, chemicals, water management, paper production, environmental protection, and food processing. Crafted from materials resistant to corrosion and impurities, it ensures reliable operation and easy maintenance. Enhance your processes with the MBF 700, designed for efficiency and peace of mind in every application.

The MOF 200 Oval Gear Flow-meter, a positive displacement flow meter, comprises a meter shell, oval gear rotor, and converter. It facilitates continuous or intermittent measurement and regulation of liquid flow in pipelines. Known for its wide metering range, high accuracy, minimal pressure loss, and adaptability to high-viscous liquids, it excels in measuring fluids at elevated temperatures. It finds application in diverse industries including crude oil, chemicals transportation, food processing, pharmaceuticals, healthcare, research, and military operations.

### Features

- Hard Alloy Thrust-Type Sensor
- Simple and Sturdy Structure
- Low Pressure Loss and High Precision
- Resilience to Interference and Vibration

### Features

- Wide metering range
- Adaptability to High Viscosity
- Exceptional Accuracy
- Integrated Calibration Capabilities



*MBF 700 Turbine  
Flow Meter*



*MOF 200 Oval Gear  
Flow Meter*



# Pressure Monitor

## MIRM MULTIFUNCTION ROOM PRESSURE MONITOR

Our room pressure monitor provides real-time monitoring of differential pressure within enclosed spaces. It ensures optimal air quality and safety by detecting and maintaining desired pressure differentials, crucial in cleanrooms, hospitals, laboratories, and pharmaceutical facilities. With its precise measurements and configurable alarm thresholds, it safeguards against contamination and ensures compliance with regulatory standards.

### Features

- Flush Mount Design
- Environmental Monitoring
- Durable Construction
- Versatile Display Options
- Multiple Inputs and Outputs
- High Accuracy Sensor



MIRM Multifunction  
Room Pressure Monitor



# Vortex Flow meter

## INLINE VORTEX FLOW METER

The Vortex flow meter, a velocity-type flow meter, operates based on the principles of Karman vortex theory. It utilizes piezoelectric crystals to ascertain the frequency of vortices in the steam flow caused by passing through a triangular prism within the pipeline. This data enables the mass flow measurement of steam. Its applications span across industries including petroleum, chemicals and power generation for heating purposes.

### Features

- Integrated pressure and temperature compensation
- Selectable output options: 4-20mA, pulse with RS485
- Wide temperature range, up to 250°C
- Embedded Sensor with Piezoelectric Crystals



MVF 300 Inline Vortex  
Flow Meter



# Level Sensors

## MULR ULTRASONIC LEVEL SENSOR

Unveiling the MULR Ultrasonic Level Sensors: your ultimate choice for accurate liquid level detection without direct contact. These compact, versatile sensors are adept at monitoring a wide array of liquids, including oil and diesel, making them indispensable in sectors like oil production, Data centers, and beyond. With their robust construction, the MULR sensors combine durability with effortless installation, setting the standard for reliability and cost efficiency in precise liquid level measurement tasks.

### Features

- Integrated Design, Convenient Installation
- Large LCD Display Window for Easy Debugging and Observation
- Advanced Clamp Type Terminal to Ensure Secure Wiring
- Over-Voltage, Over-Current, and Lightning Protection
- Intellectual Signal Treatment Technology for Versatile Operation



*MULR Series  
Ultrasonic Level Sensors*



## MRL RADAR LEVEL METER

The Mial Radar Level Meter operates using Frequency Modulated Continuous Wave (FMCW) technology, where the antenna transmits a high-frequency radar signal with a linearly increasing frequency. The signal reflects off the dielectric material and returns to the antenna, and the frequency difference between the transmitted and received signals is directly proportional to the distance. This difference is digitized and processed using Fast Fourier Transform (FFT) to accurately calculate the measured distance.

### Features

- High-Frequency Antenna
- Robust Construction
- Exceptional Process Stability
- Extended Measurement Range



*MRL Ultrasonic Radar  
Level Meter*



# Our Manufacturing Facilities

To support our growing customer base and deliver consistently high-quality products, we operate two advanced manufacturing facilities. These factories form the backbone of our operations and reflect our commitment to engineering excellence and innovation. Each unit is equipped with state-of-the-art machinery, including advanced assembly lines, and in-house wet calibration Labs traceable to international standards. This allows us to produce a wide range of flow and BTU meters with unmatched accuracy and repeatability.



**FACTORY - I**

Our first facility specializes in standard product lines and high-volume production, ensuring we meet bulk requirements with fast turnaround times. The second facility is dedicated to customized solutions and R&D, enabling us to serve clients with unique application needs across diverse industries such as HVAC, STP,ETP,Potable water, energy, and process Applications.



**FACTORY - II**

Both factories follow ISO-certified processes and adhere to global quality benchmarks. Our skilled engineering teams and stringent quality control systems ensure that every product undergoes thorough testing and validation before dispatch.

By consolidating design, manufacturing, and calibration under one roof, we ensure reduced lead times, better control over quality, and the flexibility to adapt quickly to market demands.

With these robust manufacturing capabilities, we are well-positioned to deliver reliable, accurate, and efficient instrumentation solutions for projects of any scale.



**CALIBRATION LAB**



Service support



Unmatched Warranty



On - Time Delivery



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