MAC®

# FLOW METER

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## COMPANY PROFILE

With 30+ years experience, Hunan MACSENSOR is a high tech company specialized in the design, manufacture and sales of sensors, flow meters, controllers and also provide one-stop solutions. As far as today we've provided products and services for 100,000+ users from 102 countries.

Long-term cooperation relationship is established between well-known companies including SIN-OPEC, PETROCHINA, DANFOSS, WIKA, DWYERL, MENGNIU, SANY, AUCMA, FOXCONN, Hunan University and other famous enterprises and schools.

## CERTIFICATES

CE Ex ISO SGS

# ELECTROMAGNETIC FLOW METER

MACSENSOR's hot sale electromagnetic flow meter is the most widely used flow meter, which are common in the flow measurement of sewage, waste water, corrosive liquid, mud and mixed solutions.

### LD300 Integrated Electromagnetic Flow Meter

Pipe Size: DN6-3000mm
Accuracy: 0.5%
Maximum Flow Speed: 0.5~10m/s
Output: 4~20mA,0~ 10mA,pulse,alarm,frequency,RS485/RS232
Power Supply: 85VAC~250VAC,20VDC~36VDC, 3.6V battery

### LD300-S Split Electromagnetic Flow Meter

Pipe Size: DN6-3000mm
Accuracy: 0.5%
Maximum Flow Speed: 0.5~10m/s
Output: 4~20mA,0~ 10mA,pulse,alarm,frequency,RS485/RS232
Power Supply: 85VAC~250VAC,20VDC~36VDC, 3.6V battery

### LD Sanitary Electromagnetic Flow Meter

Diameter: DN15-25mm
Accuracy: 0.5%
Maximum flow speed: 15m/s
Output: 4~20mA, 0~10mA, Pulse+4-20mA, RS485/RS232
Power supply: AC220V 50HZ/DC24V/DC12V/3.3V battery

### WLD Wireless Electromagnetic Flow Meter

Diameter: DN10-1600mm
Accuracy: 0.5%
Wireless network mode: GPRS/4G/NB-ioT/Lora
Communication mode: RS485 (modbus protocol), GPRS, CDMA
Power supply: 220V or battery

# ULTRASONIC FLOW METER

Ultrasonic flow meters have the characteristics of small size and light weight. We don't need to cut pipes for installation. They're widely used in sewage treatment, circulating water, urban piping system, food and pure water flow measurement.

## UF2000 Ultrasonic Clamp on Flow Meter

Diameter: DN32-1000mm
Accuracy: ±1%
Output: 4--20mA;OCT;RS232/RS485;Pulse
Power supply: DC8~36V or AC85~264V
Power Consumption: 1.5W

## UF2000-H Handheld Ultrasonic Flow Meter

Diameter: DN25-1000mm
Accuracy: ±1% of reading at rates>0.2 mps
Output: RS232
Power supply: 100V-240VAC or Ni-H battery
Velocity: ±10 m/s

## UF2000-F In-line Ultrasonic Flow Meter

Diameter: DN15-32mm, DN40-6000mm
Accuracy: ±0.5%
Output: 4-20mA/1 channel OCT pulse/1 channel relay output/RS485, MODBUS
Power supply: DC8-36V or AC85-264V
Working temp.: Host, -20~60℃; Flow sensor, -30~160℃

## UF1000 Ultrasonic Flow Meter

Pipe Size: DN15-40mm
Accuracy:±2%
Output: 4-20mA/RS485 Modbus/OCT(pulse output)/One relay alarm
Power Supply: 10~24VDC
Power Consumption: 3W

## MGUF Gas Ultrasonic Flow Meter

Diameter:DN25-300mm
Accuracy:1.0%
Output:4-20mA,RS485
Power supply:3.6V lithium battery,5~24VDC
Power Consumption:≤1.5mW for battery, ≤1W for external power

## MFL2000 Open Channel Ultrasonic Flow Meter

Range: 0.1l/s~99999.99m3/h
Accuracy:level,0.25%/0.5%; Flow,1% ~ 5%
Output: 4~20mA; RS485, RS232, MODBUS
Power supply: 220V AC+15%,
50Hz/24VDC 120mA

# VORTEX FLOW METER

Vortex flow meter is a general-purpose flowmeter for gas measurement, which can measure high-velocity gas such as steam, compressed air, coal gas, etc. It is widely used in light industry, power, heating and air compressor industries, and also for flow measurement of pipe water, oil and other liquids.

## MGVF Gas Vortex Flow Meter

Diameter: DN15-300mm
Accuracy: ±1.5%
Output: 4-20mA/RS485
Power supply: 24VDC±15% or 3.6V10AH lithium battery
Medium temperature: -40℃~+250℃,-40℃~+350℃

## MLF Liquid Vortex Flow Meter

Diameter: DN15-300mm
Accuracy: ±1.5%/±1%
Output: 4-20mA/Pulse/RS485
Power supply: 24V DC or battery
Process temperature: -20...+70°C/-20...+250°C/ -20...+350°C

# TURBINE FLOW METER

There are liquid (water, oil) and gas turbine flow meters. Liquid turbine flow meters measure liquids without impurities & corrosion, and low viscosity, widely used in kerosene processing filters, food, medicine, etc. Gas turbine flow meters measure low-velocity gases, such as natural gas, nitrogen and compressed air, widely used in chemical, boilers, kilns and other gas pressure regulating stations.

# ROTAMETER

Rotameter features simple structure, easy to install and maintain. It is suitable for small flow rates and can also measure corrosive media. It is widely used in petrochemicals, food, laboratories, etc., and also for flow measurement and process control of various media in complex and harsh environment.

## MGTF Gas Turbine Flow Meter

Diameter: DN25-DN30
Accuracy: 1.5%;1%
Output :4-20mA/RS485, pulse,HART and GPRS
Power supply: +24VDC±15%/3.6V10AH lithium battery
Medium temperature: -30℃~+80℃

## MLZM Glass Tube Flow Meter

Measuring Range: 6-60 MI/min(Liquid) or customized/
0.16-1.6m³/h(Gas)or customized
Accuracy: ±4%
Basal body: Acrylic
Option: with or without valve

## TF Liquid Turbine Flow Meters

Diameter: DN4-200mm
Accuracy: 0.5%, 1%
Output: 4-20mA,pulse,RS485
Power supply: DC 12V±10%, current:≤10mA
Medium temperature: -20~+120℃

## MGRF Plastic Tube Rotor Flow Meter

Diameter: DN15,20,25,32,40,50,65,80mm
Measuring range: 5-3000 L/h (liquid)or 0.4-200 m3/h or customized
Accuracy: ±4%
Temperature: 0-60℃
Pressure: ≤0.6MPa

## Turbine Fuel Flow Meters

Diameter: DN1.0~ 10 mm
Flow range: 0.03L/min~30L/min
Accuracy: ±0.5%~1.0%F.S.
Output: 4 to 20 mA
Power supply: 12-36V DC

## MSF Electronic Fuel Flow Meter

Working pressure: 6bar
Accuracy: 1%
Flow range: MSF25,Flow range: 10L/min-100L/min;
MSF40, 40L/min-280L/min; MSF60,60L/min-500L/min
Working temperature: -20-60°C

## MTR Metal Tube Rotor Flow Meter

Diameter: DN15-150mm
Flow range: Liquid:1.0~150000l/h; Gas:0.05~3000m3/h
Accuracy: 0.5%, 1.0%
Output: 4~20mA/HART
Power supply: 12~36VDC

## MTWF Tri-rotor Flow Meter

Diameter: DN15,20,25,40,50,80,100,150,200,250,300,350,400,450,500mm
Output: 4~20mA, 1-5V, 4~20mA+HART protocol,
MODBUS, RS232, RS485
Temperature: -10℃~ 80℃
Pressure:1.6, 2.5, 4.0, 6.3,10MPa

## MDR Dual Rotor Flow Meter

Measuring range: 5-340 m3/h

Diameter: DN40-250mm

Accuracy: 0.5%/0.2%

Output: 4-20mA /Pulse/RS485

Power supply: 24VDC or 3.6V Lithium battery

## MVPF Swirl Flow Meter

Diameter: DN15-200mm

Accuracy: 1.5%/1.0%

Output: 4-20mA/RS485

Power supply: 24VDC±15%/3.6V lithium battery

Medium temperature: -20℃~+80℃

# OTHERS

Flow meters used for special applications include mass flow meter, gear wheel flow meters, volumetric flow meters, swirl flow meters, roots flow meters, target flow meters, mainly used for flow measurement in specific environments or in harsh environments or in special media such as medium of high corrosion, low flow rate or flammability. MACSENSOR provides solutions for a complete set of flow meters.

## HEG Oval Wheel Gear Flow Meter

Diameter: DN10-150mm

Accuracy: ±1%, ±0.5%

Power supply: DC 24V

Repeatability: ±0.03%

Max temperature: -10~80℃

## MTF Target Flow Meter

Diameter: DN15-2000mm

Accuracy: ±0.2%, ±0.5%, ±1.0%, ±1.5%, ±2.5%

Output: 4~20mA; RS485/RS232; HART

Power supply: lithium battery (3.6V); 24VDC

Medium temperature: -196℃~+450℃

## MQF Mass Flow Meter

Diameter: DN3-250mm

Accuracy: ±0.5%, ±0.2%,±0.1%

Output: 4~20mA, 485 (MODBUS-RTU),Hart

Power supply: 24V DC(220V AC or 24V DC and AC by customized )

Medium temperature: -50℃~+150℃ (-200℃~+350℃ by customized)

## VF-Volumetric Flow Meter

Diameter:DN40-150mm

Accuracy:±0.2%

Max pressure:10 bar/150PSI

Measure unit:Liter/Gallon

## MRF Roots Flow Meter

Diameter:DN25-150mm

Accuracy:0.5%, 0.2%

Temperature:-10~60℃

Pressure:0.6,1.0,1.6,2.5,4.0MPa

## MTMF Thermal Mass Flow Meter

Diameter:DN10~4000mm

Accuracy:±1~2.5%

Output:4-20mA/pulse/RS485/HART protocol

Power supply:All-in-one (DC24V or AC220V≤ 18W);Split type (AC220V≤19W)