BICCNS®
佰控传感

Clamp-On Ultrasonic Flowmeters

FM

Clamp-on
pipe measurement

800H Series

TRADITIONAL COSTS	Maintenance: Shutdown Disassembly Cleaning Calibration Installation Fastening Sealing Start-up	Maintenance, sensor cleaning, seal replacement, and calibration
	Start-up	Start-up operation, resume production
	Sealing	Implement sealing measures to prevent leakage
	Fastening	Use flanges, threads, etc., to ensure the flowmeter is securely fastened to the pipeline.
	Installation	Install the flowmeter in the designated position.
	Pipe cutting	On-site construction involving pipe cutting, requiring complex safety certifications.
	Shutdown	Shut down the fluid supply in the pipeline, halting production.
	Flowmeter	Product and material costs

FM800H

FM800 H
Cost Saving

COSTS	Maintenance: Calibration Installation	Maintenance, sensor cleaning, seal replacement, and calibration.
	Installation	Install the flowmeter in the designated position.
	Flowmeter	Product and material costs

Clamp-on Measurement

No need for pipe cutting or shutdown

No pressure loss or contamination

No risk of leakage or contamination

Adaptable to various pipes

Compatible with metal pipes

Compatible with plastic pipes

Compatible with hoses

Easy installation and setup

Quick manual installation

Simple setup

No training required, ready to use

±2.5%

Reading accuracy

20:1

Turn Down ratio

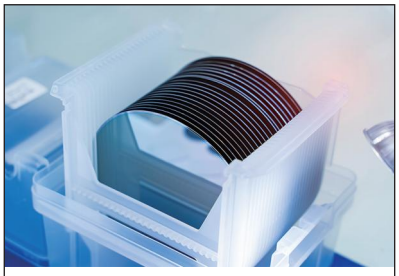
±0.5%

Repeatability

High-precision flow measurement

01 Application Scenarios

CLEAN



Non-contact with the fluid

Capable of measuring various fluids

Ultrapure water

Hydrofluoric acid (HF)

Hydrogen chloride (HCl)

Sodium hydroxide (NaOH)

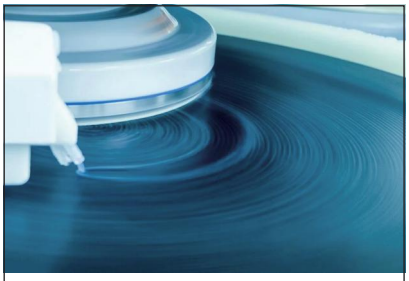
Hydrogen peroxide (H2O2)

Ammonium hydroxide (NH4OH)

Fluorinated cleaning agents

Hydrofluoroether (HFE) series

CMP



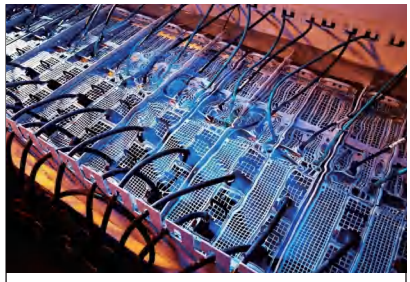
Ultrasonic technology

Capable of measuring non-conductive fluids

Ultrapure Water

Polishing solution

Cooling



No need for pipe cutting

No risk of fluid leakage

Cooling water

Ultrapure water

Heavy water

Glycerin

Ethylene glycol

Fluorinated liquid

Silicone oil

Mineral oil

Esters

Lubrication

Clamp-on installation

Saves equipment space

Hydraulic oil

Machine oil

Refrigeration oil

Seal oil

Cutting oil

Compressor oil

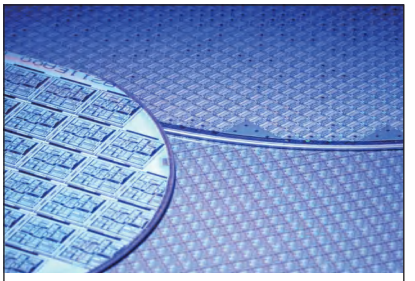
Cylinder oil

Marine oil

Gear oil

Vacuum pump oil

Fabrication



Non-contact with the fluid

Calibration and maintenance without shutdown

Ultrapure water

Etching solution

Stripping solution

High-purity reagents

Highly corrosive liquids

Sanitation Industries

Non-destructive installation

Does not introduce contamination

Ultrapure water

Milk

Fruit juice

Syrup

Ethanol

Propylene glycol

Buffer solution

Culture medium

Cleaning solution

Disinfectant

Technical Features

V-method Measurement

The sensor transmits and receives on the same side, with reflections occurring on the inner wall of the pipe, increasing the sound path, which helps to improve time resolution.

AGC+VGA Technology

AGC + VGA dual gain technology, adapted to more challenging operating conditions.

Screen Rotation

The screen is rotatable, allowing operators to obtain the best reading angle on-site, whether the pipe is horizontal or vertical.

Filtering Algorithm

BICCNS employs a unique filtering and fusion algorithm that effectively overcomes pulse interference, enhances signal stability, and improves measurement accuracy.

Solid Coupling Technology

Solid coupling technology replaces the traditional silicone oil coupling method, achieving truly maintenance-free operation over the long term.

ACS technology: Automatic sound speed correction

With BICCNS's automatic sound speed adaptation solution, real-time on-site sound speed calculation and correction can be achieved, compensating for sound speed variations and improving the accuracy of flow measurement.

Extremely Low Output Discharge Volume

Achieves an extremely low flow output with a minimum instantaneous flow rate of 0.1 mL/min and a minimum discharge volume of 0.001 mL

IO-Link Communication

As an IO-Link manufacturer and community member, we support IO-Link communication technology, which can provide process data, diagnostic data, and device information. These data and information can be read or written via the IO-Link protocol. In certain cases, parameters can be changed during operation through a stacked PLC.

Technical Specifications

Model	FM800H - 8		FM800H - 10		FM800H - 15		FM800H - 20		FM800H - 25
Pipe Outer Diameter (mm)	12.7	13.8	15.88	17.3	19.05	21.7	25.4	27.1	32~34
Pipe Specifications	1/2″	8A	5/8″	10A	3/4″	15A	1″	20A	25A
Flow Range	20L/min		30L/min		60L/min		100L/min		200L/min
Accuracy	±2.5% R.D.								
Turn Down	20 : 1								
Repeatability	0.5%								
Pipe Compatibility	Plastic, PFA, Metal, Hose etc.								
Fluids Compatibility	Ultra pure water, Water, Chemicals, Various oils, etc								
Response Time	0.5s / 1.0s / 2.5s / 5s / 10s / 30s								
Voltage Supply	20 to 30 VDC, 10% maximum fluctuation (P-P), Class 2/LPS								
Output	4~20mA + PNP/NPN, RS485, IO Link (optional)								
Input	Flow reset/Zero point adjustment input/original adjustment, short-circuit current Max below 1.5 mA,≥20 ms								
Fluids Temperature	0~85℃ (No Freeze)								
IP Grade	IP65 / IP67								
Environment Temp	-10~65℃ (No Condensation)								
Relative Humidity	10~90%RH (No Condensation)								
Material	PPS/PEEK/PET/PC/Special Rubber/SUS304								

Contact Us

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