Please refer to page 6 for selection details

Gas Mass Flowmeter FTM30

Overview

The FTM30 gas mass flowmeter is based on the principle of thermal measurement, which calculates the mass flow rate of the measured gas by measuring resistance changes. It has the advantages of accurate measurement, stability, high and low temperature resistance, good linearity, fast response time, high overall integration, and high cost-effectiveness.

Function Characteristics

Integrated quality flow and temperature measurement
Good repeatability
Support multiple gas measurements
Standard Modbus RTU communication
2 NPN collector open circuit outputs (for upper and lower limit alarms)
1-5V linear voltage output
LCD screen display
Powered by a 9~24V DC power supply
The flow control valve precisely regulates the flow rate.

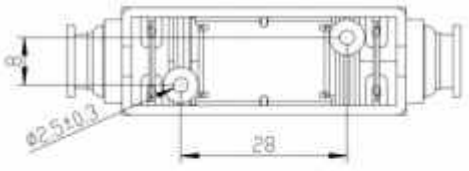
Application

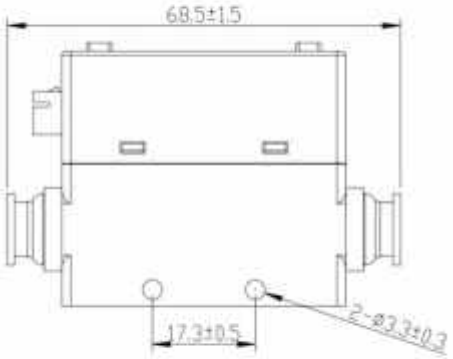
Suitable for mass flow monitoring of dry, clean, and non corrosive gases such as air, oxygen, nitrogen, argon, and carbon dioxide (excluding flammable and explosive gases), it has been widely used in industries such as university research, fire protection, environmental testing, tobacco, smart agriculture, food, and medicine.

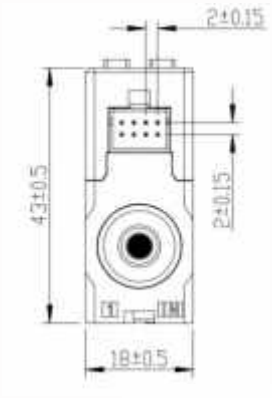
Technical Specifications

Range	0.04~2L/min，0.2~10L/min，0.5~25L/min，1~50L/min，2~100/min
Precision	±3%F.S.
Output Method	RS485, NPN collector open circuit output, 1-5V linear voltage output
Repetitiveness	±1%F.S.
Response Time	50ms
Power Supply Method	9~24VDC/9~28VDC
Display Mode	ABS
Display Unit	cumulative flow：L（$ft^3 \times 10^{-1}$） instantaneous flow rate：L/min（$CFM \times 10^{-2}$）
Maximum Work Pressure	0.8MPa
Standard Calibration Gas	Air (25 ℃, 1 standard atmospheric pressure)
Leader Line	PHB-2.0 double row terminal wire with buckle (2 * 4)
Operating Temperature	-10~60℃
Power Consumption	0.85W
Product Weight	56g
Housing Material	PBT
Air Duct Material	PBT，brass

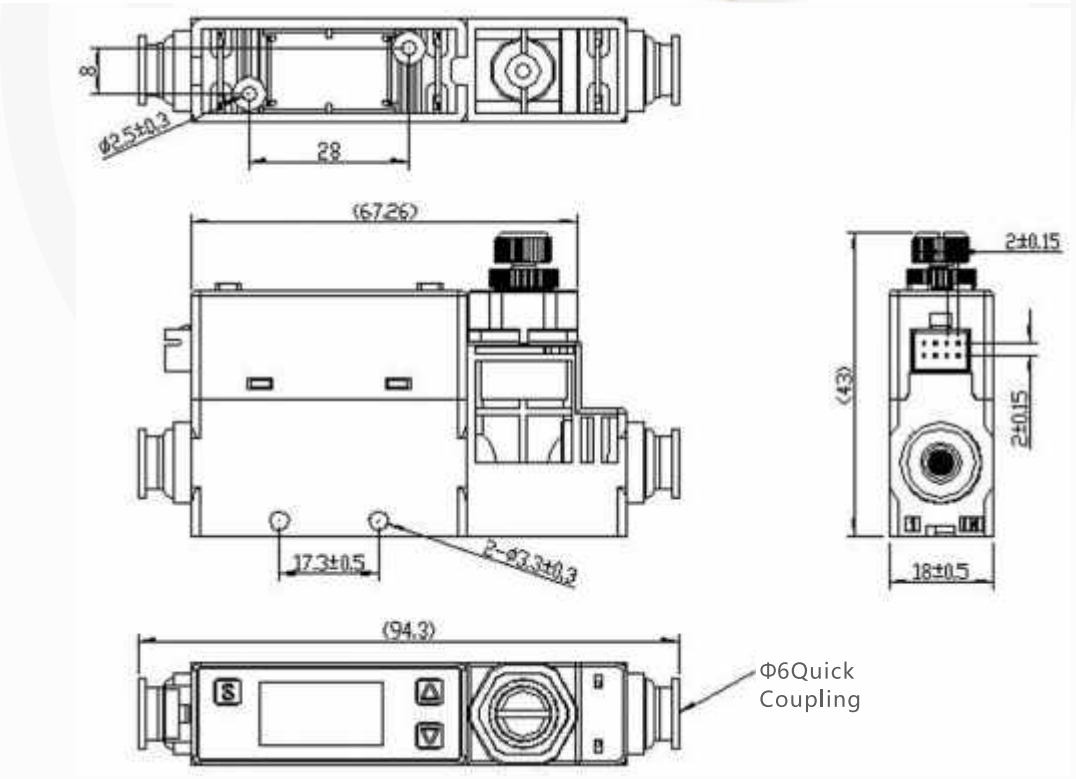
Product Structure And Dimensional Diagram





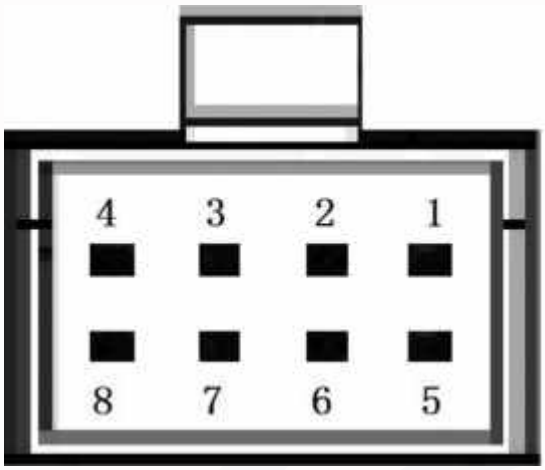


The appearance structure of FTM30-L1 includes sensor air ducts and working interfaces. The work interface includes an LCD display screen and operation buttons. The LCD displays the Modbus communication address of the flow meter, gas temperature, cumulative flow rate, and instantaneous flow rate. The buttons include three keys: up key, down key, and set key. Lamp 1 and Lamp 2 are respectively the upper limit alarm lamp and the lower limit alarm lamp. The sensor air duct is located below the working interface, including the air inlet and outlet.



The appearance structure of FTM30-L2 includes sensor air ducts, needle valves, and working interfaces. The work interface includes a TFT display screen and operation buttons. The TFT displays the Modbus communication address of the flow meter, gas type, cumulative flow rate, and instantaneous flow rate. The buttons include three keys: up key, down key, and set key. The sensor air duct and needle valve are located below and to the right of the working interface, including the inlet, outlet, flow control valve, and stabilizing ring.

Pin Definition And Description



Pin Diagram

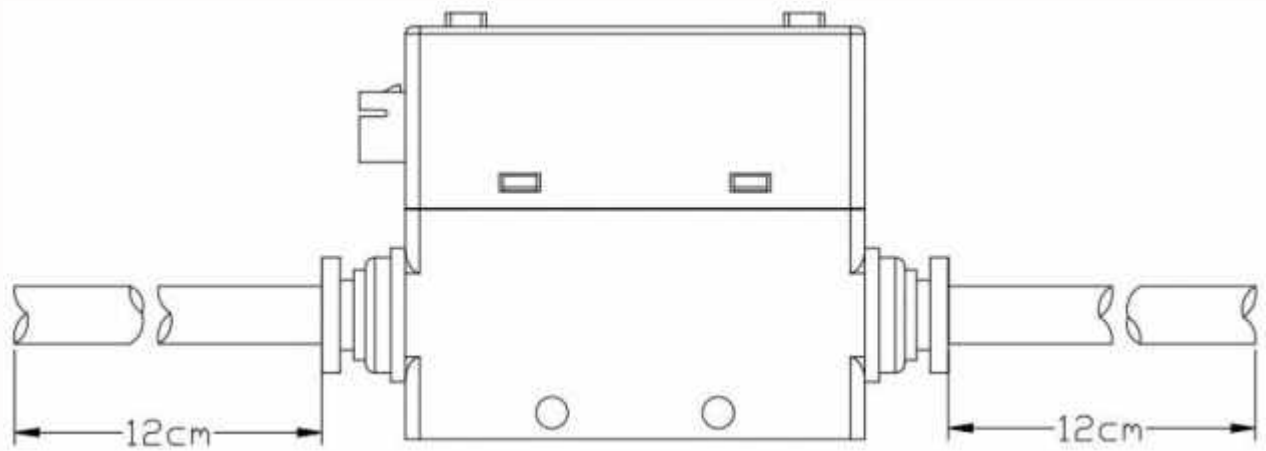
Physical Picture Of Lead Out Line

Pin Definition

Stitch	Definition
1	Power supply (9-28V)
2	Power Ground GND
3	Analog voltage output (1-5V)
4	RS485A
5	NPN external output 1 (upper limit)
6	NPN external output 2 (lower limit)
7	Power Ground GND
8	RS485B

Product Installation

Please reserve a straight pipe section with a length of 12cm or more for the piping of the product inlet/outlet, and the inner diameter of the straight pipe should be 4mm or more (including 4mm), otherwise the accuracy may be affected by ± 2% F.S. deviation or greater.



Installation Diagram

FTM30- Selection Composition

Example Of Selection FTM30-

1	2	3	4	5	6	7	8
L1	H	E	N	R	X	A	E

1. Instrument Type (required)	L1	LCD display
	L2	TFT display with flow control valve
2. Material Of Air Duct	H	brass
	I	PBT
	T( )	other materials
3. Shell Material	E	PBT
	T()	other materials
4. Output Signal	N	RS485 normally closed
	O	NPN collector open circuit output
	P	1-5V linear voltage output
	T()	other outputs
5. Accuracy	R	±3%F.S.
	T()	other accuracies
6. Power Supply	X	24VDC
	T()	other power sources
7. Connection Interface	A	Quick plug with a diameter of 4mm
	B	Quick plug with a diameter of 6mm
	C	Quick plug with a diameter of 8mm
	T()	other interfaces
8. Range	E	0.2~2L/min
	F	1.0~10L/min
	G	2.5~25L/min
	H	5.0~50L/min
	J	11~100L/min
	K	21~200L/min
	T()	other ranges

Explanation:

The FTM30-LI gas mass flowmeter is equipped with an LCD display, brass air duct material, PBT outer shell, RS485 output, accuracy of ± 3%, 24VDC power supply, and a quick plug connection interface with a diameter of 4mm, with a range of 0.2~2L/min.

Product Certification

Compliance and approval; The Ludwig water quality analyzer meets key standards and certifications for process measurement technology; To ensure the highest reliability in such settings;