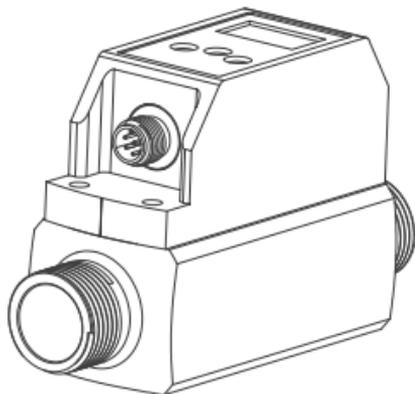


Sensors and controllers

■Flow ■pressure ■Temperature ■level ■position

KATU 卡图

Instructions
Gas Mass Flow Meter
FM340 series



01. Product principle

FM340 gas mass flow sensor is made of micro-electromechanical system (MEMS) flow sensor chip. It is suitable for clean and relatively dry gas flow measurement and process control for various purposes. The unique packaging technology enables the product to meet different ranges of flow measurement. Ensure high sensitivity, high reliability, high stability and low cost.

FM340 is composed of MEMS flow sensing unit and high-precision digital processing and calibration circuit (MCU). The integrated delta-sigma A/D converter, logic circuit with internal calibration function and MCU processor jointly ensure that the sensing signal is effective in real time. Collect, obtain accurate flow signal, and perform corresponding compensation algorithm processing internally, so no need to do any external calibration compensation, can ensure high-precision flow output; friendly digital output communication form, users can easily get Corresponding data information is obtained through communication; the product application range is very wide.

02. Product Features

- High accuracy (1.5% F.S accuracy)
- Linear output and no temperature compensation required
- Long term stability with minimal zero drift
- Fast response time (20 ms response time)
- Wide flow range 0-60m/s, impact resistance 100g
- Solid-state sensing core (no surface voids or brittle membranes), resistant to clogging and pressure shocks
- Analog output (1-5 V) (digital RS485 communication output available)
- Able to adapt to relative humidity gas measurement
- Operating temperature: -25°C to 85°C,
Storage temperature: -40°C to 90°C,
Humidity: 0~100%RH
- The sensor is resistant to condensation

2. Technical parameters

Feature	Performance parameters	Remark
Flow range	0~300/500/600/800/1000 slpm	customizable
Power supply	8-24VDC,50mA	optional
precision	±1.5%	FS
Response time	20ms	optional
greatest pressure	0.8MPa	customizable
form of communication	I2CRS485 (MODBUS)	
output form	Analog output 1-5VDC	
temperature	medium temperature (-10~65°C) ambient temperature (-25~85°C)	customizable
interface	R3/4	
Protection class	IP40	
Calibration form	Air, 0°C, 101.325KPa	
Overall material	Stainless steel (customized aluminum alloy)	

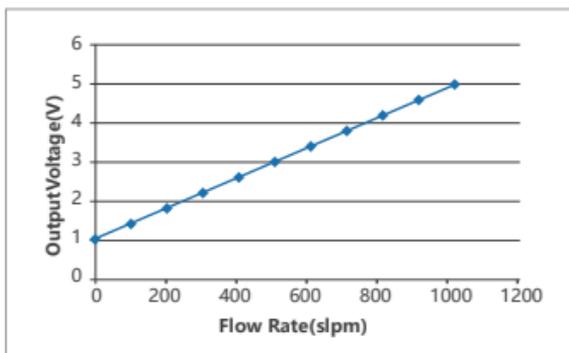
Linear output

Flow = $[(VOUT - 1V)/4V] \times \text{full-scale flow}$

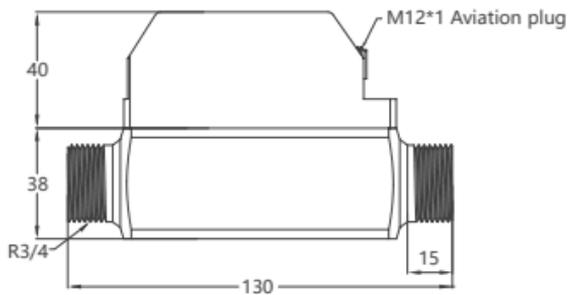
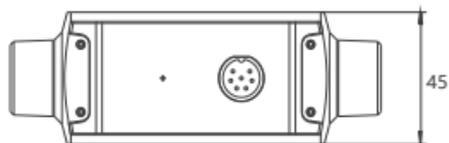
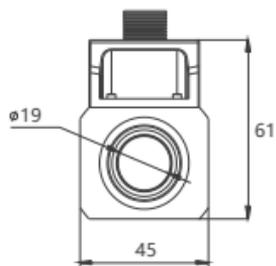
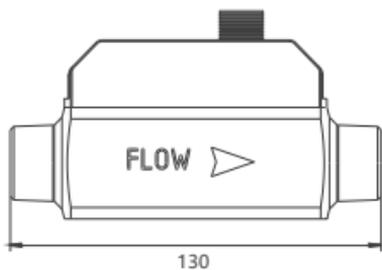
For example: FM340 V has a full scale flow of 1000slpm.

When the output voltage is read at 2.5V,

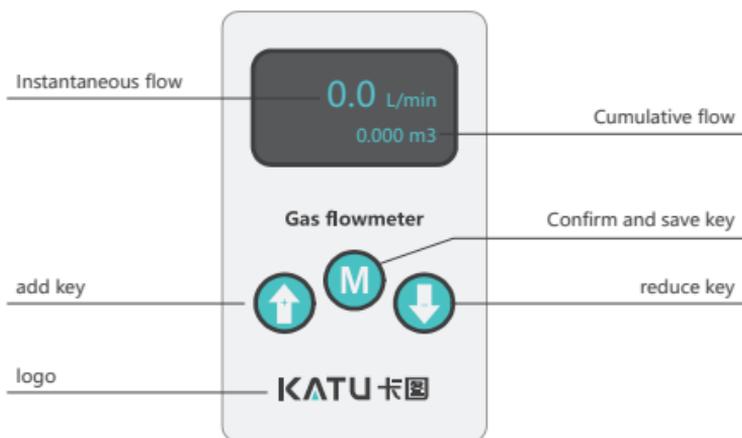
the instantaneous flow is $[(2.5V-1V)/4V \times 1000\text{slpm}] = 375 \text{ slpm}$



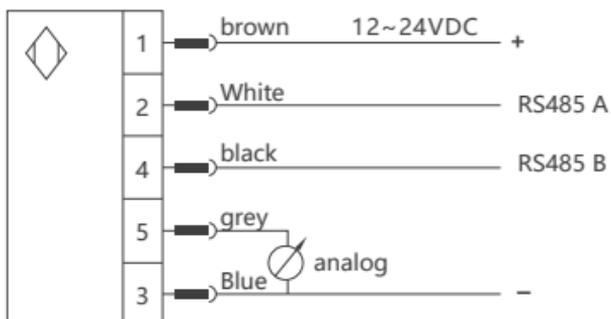
3. Dimensions (mm)



4. Schematic diagram of the panel

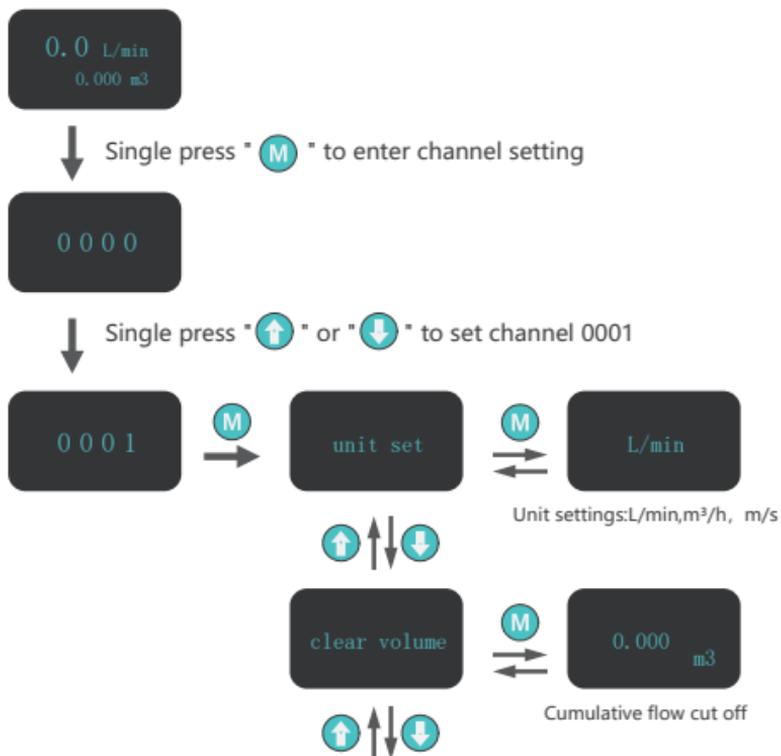


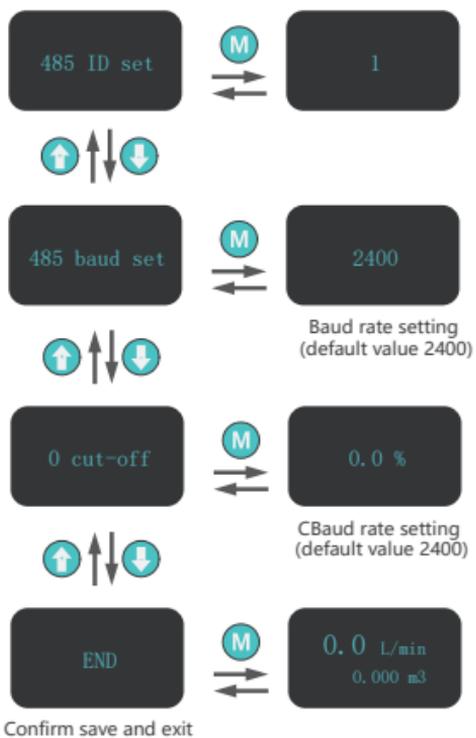
5, wiring diagram



6, use adjustment

0001 Channel setting menu	
unit set	Unit setting (L/min, m3/h, m/s)
clear volume	Cumulative flow cut off
485 ID set	Set sensor address
485 baud set	Baud rate setting (default value 2400)
0 cut - off	low flow cut off
END	Confirm and save and exit





mailing address

40001: value x 0.1=actual flow rate

(40002 (high) value x 65536 + 40003 (low) value) x 0.001 = cumulative difference

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