

## **FXGRF Type Gas Roots Flow Meter**



# 1. Product introduction

Gas roots flow meter is a kind of gas monitoring and measuring instrument with high precision, high reliability and wide range.

Intelligent gas roots flow meter is a new type of flow meter which integrates flow, temperature, pressure sensors and intelligent instrument on the basis of roots flow meter.

Intelligent gas roots flow meter is an ideal instrument for measuring non-corrosive gases such as natural gas, city gas, propane, nitrogen, industrial inert gas, etc.

# 2. Main features

- Wide range:

According to different specifications, the highest range can reach 1: 216

- Low initial flow:

According to different specifications, the minimum starting flow can reach 0.04m<sup>3</sup>/h.

- High precision and repeatability:

The long-term accuracy is not affected by the medium, and the long-term operation is stable.

- Low pressure loss:

According to different specifications, the pressure loss is 0.08kPa-0.58kPa.

- High integration and low power consumption

Adopting advanced microcomputer technology and high-performance integrated chip. The whole machine has powerful functions and superior performance.

- Compact structure:

Pressure sensor, temperature sensor and flow sensor are all built in, making the structure more compact.

- Digital pressure temperature sensor

Digital temperature sensor and digital pressure sensor are configured, calibrated and verified separately, and are convenient to replace, maintain and use.

- Segment correction

According to the flow frequency signal, the instrument coefficient can be automatically linearly corrected in six segments to improve the wide range accuracy of the instrument.

- Complete data storage function,

E2PROM data storage chip is used to store user parameters, manufacturer parameters and timely data storage function to prevent data loss in case of sudden power failure. In case of power failure, internal parameters can be stored permanently.

- The basic output is complete.

The intelligent flowmeter has a base meter pulse output, a working condition or standard temperature and pressure pulse signal output, and a calibration pulse output. RS485 interface can also output 4 ~ 20mA standard analog signals according to user's requirements.


- Data traceability management

Real-time database can be queried and analyzed through RS-485 communication interface.

- GPRS real-time management system

In this series, Type B meter has GPRS transmission function. It can realize transmission function online, with long timing and fixed point. It is extremely easy to set up GPRS wireless network system.

### 3. Technical Specification Table

<b>FXGRF gas Roots Flow Meter</b>	
<b>Material</b>	Aluminum alloy
<b>Accuracy</b>	1.5%
<b>Measuring Range</b>	1-450 m3/h
<b>Diameter (MM)</b>	DN25-DN100
<b>Output</b>	4-20mA / Pulse / RS485
<b>Press</b>	1.6Mpa
<b>Power</b>	24VDC or 3.6V Lithium battery
<b>Connection</b>	Flange (DN25-DN100)
<b>Conditions of Use</b>	A. ambient temperature:-25 ~+80 °C B. medium temperature:-20 ~+60 °C C. relative humidity: 5-95% D. atmospheric pressure: 86 kpa-106 kpa
<b>Protection Level</b>	IP65

## 4. Technology Parameter

Specificati ons	Diameter DN (mm)	Flow range (m3/h)	Initial flow (m3/h)	Max working pressure (MPa)	Nominal press (MPa)	Material
FXGRF-16	25	1-16	0.04	<0.6	1.6	Aluminum alloy
FXGRF-25	40	1-25	0.07	<1.2		
FXGRF-40	40	1-40	0.07			
FXGRF-60	50	2-60	0.1			
FXGRF-85	50	2-85	0.1			
FXGRF-100	80	3-100	0.1			
FXGRF-150	80	3-150	0.12			
FXGRF-200	80	4-200	0.15			
FXGRF-300	100	5-300	0.11			
FXGRF-450	100	5-450	0.1			

## 5. Selection codes of flow meter

Selection codes of Flow meter				
FXGRF			Description	
Meter Style	A		24VDC power, Temp. And press compensation	
	B		Dual power (24VDC and 3.6V lithium battery) Temp. and press compensation	
Meter diameter		-XXX		DN25.40.50.80.100.
Material		L		Aluminum alloy
Single output			0	Pulse output
			1	4-20mA
			2	RS485
			3	Pulse, 4-20mA, RS485
Nominal Pressure			-016	1.6MPa