

Stock Name: Flow Metek Share  
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## Intelligent Measurement Management Systemns & Overall Problem Solution Supplier



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Flowmetek(Shanghai)Automation Instrument Co.,Ltd.



## Company profile

Flowmetek (Shanghai) Automation Instrument Co., LTD . was founded in August 2011 . The amount of registered capital of the enterprise is 5606 ten thousand RMB, which is high technology enterprise specializing in Internet Plus Lean manufacturing , whose main products including : Metering equipment like , Roots flowmeters, Turbine flowmeters, Regulator , Gas Meter etc. and Internet of Things module , Gas monitoring and Meter reading systems, etc. . The company has about 168 employees and 36 thousand square meters of factory buildings, which is one of main suppliers of intelligent gas metering equipment manufacturing in China.

The company is the front runner of the industry in lean manufacturing, R&D, Marketing and customer service.

In the manufacturing, we have invested the largest constant temperature workshop in the industry, the most advanced high temperature on line simulation aging room, and the integrated (assembly and inspection) intelligent workshop line, which can produce 60 thousand flowmeters each year and 1.5 millions gas meters. In quality control, we have also invested the largest testing center in the industry.

In the research and development, we already integrated machinery, electronics and systems into one unit control center. Currently, the small diameter G10 roots flow meter, only the mechanical aspect of the range ratio can reach 1:100, which is already up to leading international world level.

In the customer service, we have built a stable marketing, technical support and after sales service team .We also have offices in all major markets over the country and can providing qualified products and timely technical service.

Our products have been widely applied in following field , like Xi'an Qinhuang Natural Gas , Shenzhen Gas , Shanghai Gas , China City Natural Gas Investment Group(Xining) , China City KunLun Energy (Lanzhou), Chongqi Gas , Hangzhou Gas , Shanghai Disney Resort , COMAC.

We are adhering to the concept of the enterprise development, United; we are strong as fortress, having great virtue; we can carry good and evil. Persevere in the excellent enterprise objectives to create talent, with a profound corporate culture to create a harmoni ous atmosphere, and establishing the modern enterprise with scientific method.



CMM



Diameter DN500 calibrating testing equipment



High temperature simulation aging room



Constant temperature workshop



Automatic workshop



Advantageous Condition



Gas meter workshop



Gas meter constant temperature testing workshop



Finished goods warehouse

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## G Series Roots flowmeter (Type M)



### Product Introduction

The G Series Roots Flowmeter (Type M) is mainly applicable to the measurement of gas consumption by small and medium business user, which integrates the functions of machinery, temperature and pressure correction, remote transmission, recharge, valve control and other functions. It has an exclusive invention patent; and the product is exquisite and beautiful in appearance, whose performance is leading position in the industry, with a variety of specification.

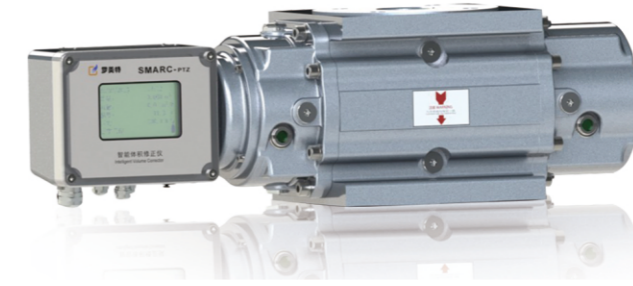
### Functional

The product's mechanical performance is stable. Range ratio can reach 1:100. Initial flow rate is 0.01m<sup>3</sup>/h. Intergrated mechanical counting, temperature and pressure correction, remote transmission, recharge, valve control into one assembly. Integrated circuit and low efficiency design. The battery life can last more than 3 years, and the memery can store data for 27 months ( a set of data per hour).

### Technical Parameter

Description	Unit	G6	G10	G16	G25
Flow Range	m <sup>3</sup> /h	0.1-10	0.16-16	0.25-25	0.4-40
Accuracy	Level	1.0/1.5	1.0/1.5	1.0/1.5	1.0/1.5
Diameter (thread)	mm	DN20/25/32	DN20/25/32	DN20/25/32	DN20/25/32
Working Pressure	MPa	1.2	1.2	1.2	1.2
Max Working Presssure	kPa	50kPa	50kPa	50kPa	50kPa
Pressure Loss	kPa	0.12kPa	0.12kPa	0.12kPa	0.28kPa
Distance (In& out )	mm	104	104	104	104
Length	mm	223	223	251	279
Highth	mm	150	150	150	150

## G Series Roots flowmeter (Type Y)



### Product Introduction

G series Roots Flowmeter (Y type) guarantees the machanical quality campared with imported products, and applies a large number of imported components. Electronic componets incorport domestic application habits and integrate temperature and pressure correction, romote transmission, recharge, valve control into one assembly. The product is mainly used in gas metering for industrial and commercial users. It has an exclusive invention patent; the product is exquisite and beautiful in appearance, whose performance is leading position in the industry, with a variety of specification.

### Functional Characteristic

The product's mechanical performance is stable. Range ratio can reach 1:300. Initial flow rate is 0.04m<sup>3</sup>/h. Intergrated Mechanica counting, Temperature and Pressure correction, Remote transmission, Recharge, Valve control into one assembly. Integrated circuit and low efficiency design. The battery life can last more than 3 years, and the memery can store data for 12 months ( a set of data per hour).

### Technical Parameter

Specification	Flow Range	Flange OD	Pressure Loss	Flange Distance	Length
	m <sup>3</sup> /h	mm	kPa	mm	mm
G10	0.32-16	DN40	0.1	171	205
G16	0.5-25	DN40	0.1	171	205
G25	0.5-40	DN40	0.1	171	224
G40	0.65-65	DN50	0.15	171	348
G65	0.67-100	DN50	0.24	171	398
G100	0.8-160	DN80	0.26	171	497
G160	1.25-250	DN100	0.32	241	500
G250	2-400	DN100	0.53	241	688
G400	3.25-650	DN100	0.75	271	699
G400	3.5-700	DN150	0.76	406	580
G650	8-1600	DN150	0.71	406	717
G1000	8-1600	DN200	0.78	406	786

Remarks: 1. DN40, 50, 80 domestic assembly, working pressure 12Mpa.  
 2. DN100 and above are imported from overseas, working pressure 1.2Mpa.  
 3. Accuracy grade: 1.0.

## MTRM Series Roots flowmeter



### Product Introduction

The MTRM Series Roots Flowmeter is a wide range and high precision flowmeter, which designed and developed by ourselves on the basis of absorbing the advantages of imported products. The product integrates the functions of machinery, temperature and pressure correction, remote transmission, recharge, valve control into one assembly. The product is mainly used in gas metering for industrial and commercial users. The product is exquisite and beautiful in appearance, whose performance is leading position in the industry, with a variety of specification.

### Functional Characteristic

The product's mechanical performance is stable. Range ratio can reach 1:300. Initial flow rate is 0.04m<sup>3</sup>/h. Intergrated Mechanica counting, Temperature and Pressure correction, Remote transmission, Recharge, Valve control into one assembly. Integrated circuit and low efficiency design. The battery life can last more than 3 years, and the memery can store data for 12 months ( a set of data per hour). The meter head can rotate freely and easy to reading data.

Specificati	Flow Rang	Flange OD	Pressure Loss	Flange Distance	Length
	m <sup>3</sup> /h	mm	kPa	mm	mm
MTRM40A(Z)	0.32 -16	DN40	0.1	171	438
MTRM40B(Z)	0.5 -25	DN40	0.1	171	438
MTRM40C(Z)	0.5 -40	DN40	0.1	171	463
MTRM50A(Z)	0.65 -65	DN50	0.15	171	489
MTRM50B(Z)	0.67 -100	DN50	0.24	171	545
MTRM80A(Z)	0.8 -160	DN80	0.26	171	582
MTRM100A(Z)	1.25 -250	DN100	0.32	241	575
MTRM100B(Z)	2 -400	DN100	0.53	241	653
MTRM100C(Z)	3.25 -650	DN100	0.75	271	744
MTRM150A(Z)	3.5 -700	DN150	0.76	406	804
MTRM150B(Z)	5 -1000	DN150	0.77	406	920
MTRM200A(Z)	8 -1600	DN200	0.78	406	1020

Remarks 1. Nominal pressure:PN1.6Mpa, standard pressure sensor 0.5Mpa, any special requireme nt need to send new request when send orders.  
2. All products are according to the requirement of grade 1.5, 1.0.  
3. Smart roots flowmeter's specification has the lettle "Z" and Mechanical flowmeter has no lettle "Z".

## MTTM Series Turbine flowmeter



### Product Introduction

The MTTM Series Turbine Flowmeter is a high precision flowmeter, which designed and developed by ourselves on the basis of absorbing the advantages of imported products. The product integrates the functions of machinery, temperature and pressure correction, remote transmission, recharge, valve control into one assembly. The product is mainly used in gas metering for industrial and commercial users. The product is exquisite and beautiful in appearance, whose performance is leading position in the industry, with a variety of specification.

### Functional Characteristic

Specification	Flow Range	Flange OD	Pressure Loss	Flange Distance	Length
	m <sup>3</sup> /h	mm	kPa	mm	mm
MTTM-50A(Z)	5~65	DN50	0.6	150	411
MTTM-50B(Z)	8~100		0.9		
MTTM-50C(Z)	10~160		2.0		
MTTM-80A(Z)	8~160	DN80	0.7	240	439
MTTM-80B(Z)	13~250		1.2		
MTTM-80C(Z)	20~400		2.2		
MTTM-100A(Z)	13~250	DN100	0.7	300	468
MTTM-100B(Z)	20~400		1.0		
MTTM-100C(Z)	32~650		2.3		
MTTM-150A(Z)	32~650	DN150	0.7	450	528
MTTM-150B(Z)	50~1000		1.0		
MTTM-150C(Z)	80~1600		2.3		
MTTM-200A(Z)	50~1000	DN200	0.7	600	595
MTTM-200B(Z)	80~1600		0.9		
MTTM-200C(Z)	130~2500		1.7		
MTTM-250A(Z)	80~1600	DN250	0.6	750	660
MTTM-250B(Z)	130~2500		1.0		
MTTM-250C(Z)	200~4000		2.0		
MTTM-300A(Z)	130~2500	DN300	0.7	900	722
MTTM-300B(Z)	200~4000		1.0		
MTTM-300C(Z)	320~6500		2.0		

Remarks 1. Nominal pressure:PN1.6Mpa, standard pressure sensor 0.5Mpa, any special requireme nt need to send new request when send orders.  
2. All products are according to the requirement of grade 1.5, 1.0.  
3. Smart roots flowmeter's specification has the lettle "Z" and Mechanical flowmeter has no lettle "Z".

## Household Gas meter meter



## IC card Gas meter

### Product Introduction

The MTMB series IC card gas meter is a kind of household gas meter with dual synchronous display of mechanical counter and electrical counter. The product has beautiful shape, accurate measurement, easy to reading, can achieve prepayment management. It is the most ideal household gas meter.

### Functional

The use of intelligent metering control device has the advantages of anti demolition, diamagnetic interference and so on. According to the customer's payment and gas consumption, real time deduction, automatically control valve's open and close. Mechanical counter and electrical counter can double display gas usage. Voice alarm alert function, when low voltage and few gas left, buzzing alarm to remind users when needed. Can directly connect with the gas leakage alarm, and use the built-in motor valve to cut off the gas supply.

## Wireless Gas meter

### Product Introduction

The MTMB series wireless gas meter is a kind of household gas meter with dual synchronous display of mechanical counter and electrical counter. The product can be equipped with IC card valve module to achieve the intelligent gas meter with IC card. The wireless gas meter has beautiful shape, accurate measurement, easy to reading, can achieve prepayment management. It is the most ideal household gas meter. This product is also the main instrument to realize the automation and scientific management of gas supply for City Gas Company.

### Product Characteristic

The product can achieve the reading gas usage by in-hand wireless meter instrument without indoor. (Single or Multi gas meters). The product can form a wireless network with the GPRS concentrator, and achieve the functions of remote reading gas volume, closing valve, recharge, and price adjustment, etc. The intelligent control device has the advantages of anti dismantling and diamagnetic interference. Mechanical counter and electrical counter can double display gas usage. Voice alarm alert function, when low voltage and few gas left, buzzing alarm to remind users when needed. Can directly connect with the gas leakage alarm, and use the built-in motor valve to cut off the gas supply.

## Internet of things

### Product Introduction

MTMB type of Internet of things is a new gas meter designed to overcome the last generation of wireless remote gas meter, whose networking requires the installation of a concentrator in a residential area, resulting in construction problems, wireless network maintenance troubles and other shortcomings. With the help of the Internet, the gas meter can be controlled by telemetering communication, which can achieve automatically reading meter gas usage, monitoring operation situation, network recharge, safety alarm and valve control, etc. It is an intelligent network measurement mode to make gas management decisions through gas analysis.

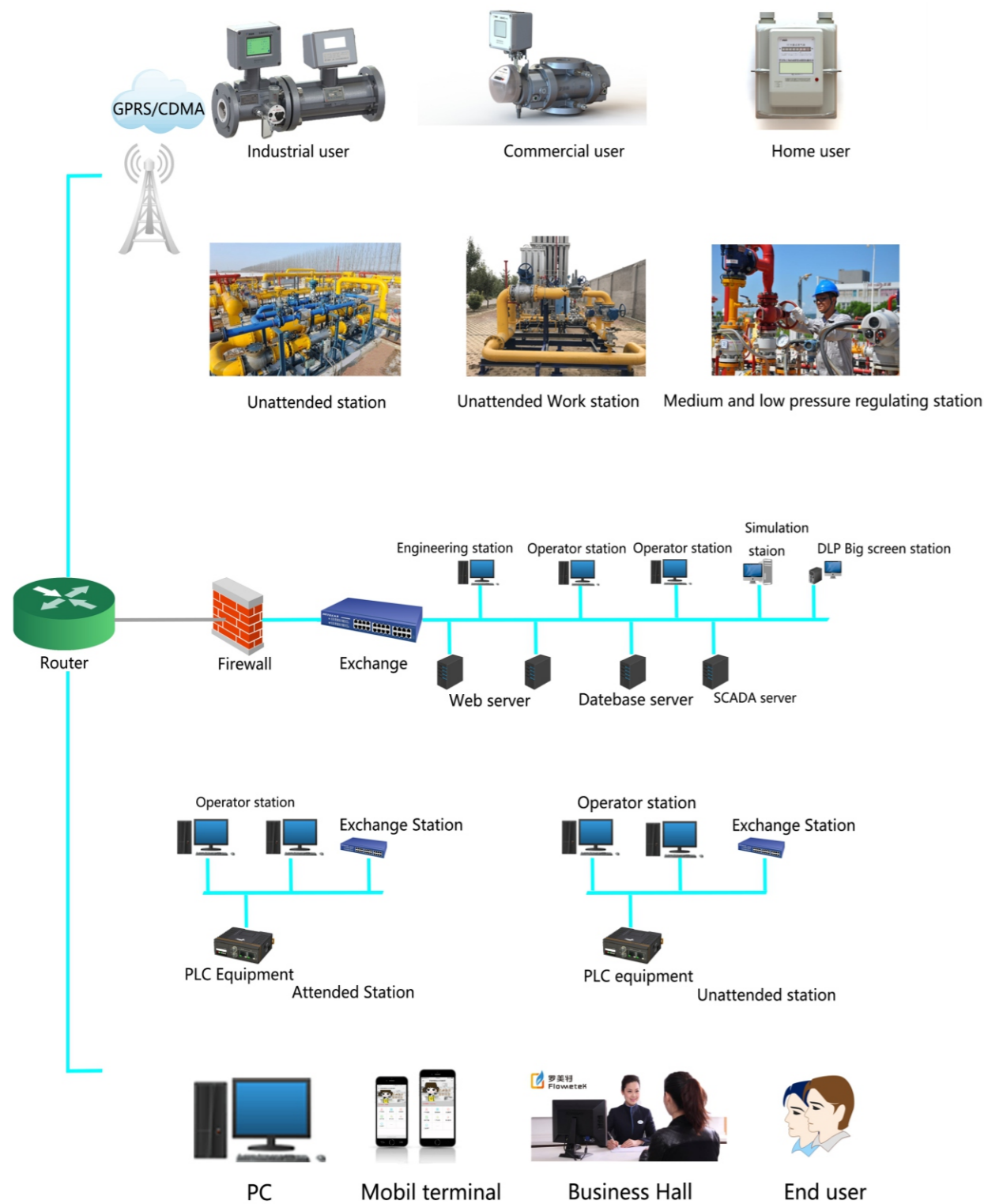
### Functional Characteristic

The grid structure is simple, and the gas meter can be implemented directly through NB, GPRS and other channels. Through the computer, mobile phone APP to achieve remote meter reading, closing valve, recharge, price adjustment and other functions. The intelligent control device has the advantages of anti dismantling and diamagnetic interference. Mechanical counter and electrical counter can double display gas usage. Voice alarm alert function, when low voltage and few gas left, buzzing alarm to remind users when needed. Can directly connect with the gas leakage alarm, and use the built-in motor valve to cut off the gas supply.

### Technical Parameter

Description		G1.6	G2.5	G4.0
Base Characteristics	Max flow m <sup>3</sup> /h	2.5	4.0	6.0
	Degree	1.5		
	Max working pressure	10kPa(50kPa Housing Pressure)		
	Pressure Loss	≤0.25kPa		
	Max Value	99999.999m <sup>3</sup>		
	Min Value	0.1dm <sup>3</sup>		
	Temperature Range	-10 C~+40 C		
	OD(Inlet &Outlet)	M30×2		
Di(Inlet &Outlet)	130			
Communication Characteristics	Wireless Center frequency(494-998)MHz	Transmitting Power <50mW		
	Range of Wireless frequency(492-494)MHz	Communication Distance>7500m		
	Modulation mode(FSK/GFSK)	Channel Number≥6		
	Emission current	<100mA		
	Modulation mode	FSK/GFSK		
Receive current	<25mA			

## Monitoring and reading systems



## Monitoring and reading systems



### Product Introduction

Flowmetek Gas Monitoring & Reading system is made up of the terminal RTU or the Internet of things module equipment and system platform, which has the traditional functions of billing, alarm, control, price adjustment, recharge, low power prompts and so on. It can also set up based on the characteristic of the gas meter or the requirement by the Gas company. If the pressure, temperature, flow and other parameters are found to be abnormal in the past, a warning will be issued from the center of the platform. The system can realize the analysis and application of large data, which provides strong support for the information management of natural gas companies.

### Product Characteristic

Power supply mode: battery power supply and external power supply. Through the computer, mobile phone APP to achieve remote meter reading, closing valve, recharge, price adjustment and other functions. This system can realize the application analysis function of multiple reports, and realize the availability of data. This system can realize information push function, such as alarm information, arrears information, and send to mobile phone users in real time. The system also has intelligent maintenance function, according to the equipment online time, automatically remind customer maintenance needs. Intelligent anti dropping line, support online measurement, online row, drop line automatic recharge, ensure that equipment is always online. Support a variety of protocols: TCP/IP, UDP and so on.

### Technical Parameter

Description	Unit	Internet of things module	RTU
Power mode	V	3.6V	220V
Supply life	month	36	Long term
Battery life (Spare)	h	N/A	24
Transmission frequency	Times/day	1	Time transfer and easy set
Power	W	<0.003	<5
Communication module		NB/GPRS	NB/GPRS
Dimension	mm	170×126×40	400×220×400

### Supporting facilities

#### Gas filtration modle, specification and main technical parameter



Modle & Specification	GQ-40	GQ-50	GQ-80	GQ-100	GQ-150	GQ-200	GQ-250	GQ-300
Max flow (m³/h)	100	160	400	650	1600	2500	4000	6500
Max Pressure Loass(K pa)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Filtration Accuracv	50um (180 Mesh/Inch²)							
Nominal Pressure	1.6; 2.5, 4.0							
Material of filter screen	Stainless steel screen							
Material of housing	1020 #				Q235B、16MnR			
Working Temp (°C)	(-30°C ~+80°C)							



#### Contol valve modle, specification and main technical parameter

Specification	MTKZ-40	MTKZ-50	MTKZ-80	MTKZ-100	MTKZ-150	MTKZ-200
OD(MM)	DN40	DN50	DN80	DN100	DN150	DN200
Flange distance	248	318	318	352	400	416
Working pressure	Open valve pressure less than 100KP			Open valve pressure less than 50KP		
Housing working pressure	1.6MPa					
Valve structure	Check valve with two stage					
Remark	Close valves are not affected by pressure, On high-pressure pipes, need shut off the front and back valve, then open the valves .					

### Ground type intelligent metering device, Bracket type intelligent metering device

#### Wall type intelligent metering device



#### Intelligent metering device

Modle	Specification	Max flow	Flange OD	Tank Structure	Flow Direction
		m³/h	mm		
Normal metering device	G10	16	DN40	Bracket Type Wall Type	Down Enter Down Out
Normal metering device	G16	25	DN40		
Normal metering device	G25	40	DN40		
Normal metering device	G40	65	DN50		
Normal metering device	G65	100	DN50		
Normal metering device	G100	160	DN80	Ground Type	Left Enter Right Out
Single way metering device	G160	250	DN100		
Single way metering device	G250	400	DN100		
Single way metering device	G400	650	DN100		
Single way metering device	G650	1000	DN150		
Single way metering device	G1000	1600	DN200		
Double path metering device	G100	320	DN100		
Double path metering device	G160	500	DN150		
Double path metering device	G250	800	DN150		
Double path metering device	G400	1300	DN150		
Double path metering device	G650	2000	DN200		
Double path metering device	G1000	3200	DN200		