

TGF200 Micro Flow Meter

1. Brief Introduction

TGF200 series micro flow meter measure dry air and nitrogen and other non-corrosive gas base on thermal mass flow measurement technology. It is designed to measure the mass and standard flow in small pipe lines in general industry and laboratory

Beside mass/standard flow, TGF200 can also measure temperature and pressure. User can choose 4~20mA output or Modbus@RS485 to upload data to their system. TGF200 also support blue tooth communication, so users can read and set the meter on cellphone with COMATE APP.



TGF200 Micro Flow Meter

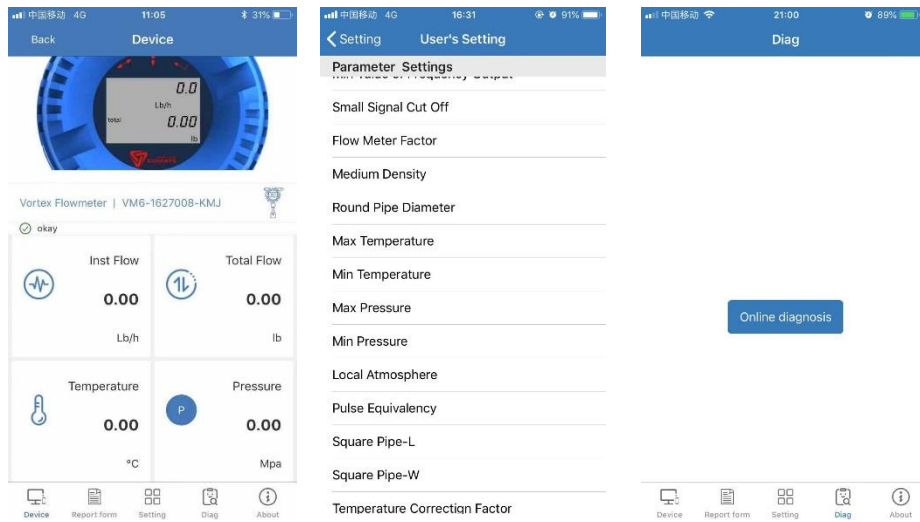
2. Application

For air and N₂ and other non-corrosive applications in small pipe from 1/4" to 2"

3. Product features

- 1) Thermal mass measuring technology, direct mass/standard flow measurement
- 2) Temperature and pressure measurement as option
- 3) 6-digit dual line LED screen
- 4) Low cost economical model.
- 5) Blue tooth for operating on cellphone
- 6) 1.5% reading + 0.3% full scale accuracy in 100:1 measurement range
- 7) 1/2"~1" (8mm~25mm) small pipe line measurement, G or MNPT thread connection optional
- 8) On-line diagnose available
- 9) Require only 3D upstream and 2D downstream straight pipe ru

Comate Intelligent Sensor Micro Flow Meter Datasheet

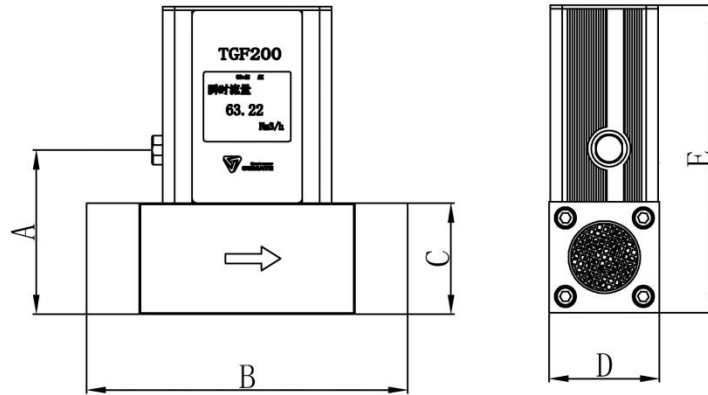


COMATE APP interface on cellphone

4. Specification

Media Compatibility	Air, Nitrogen and other non-corrosive fluid
Pipe diameter	8mm~25mm (1/4"~1")
Flow velocity range	0.3~30Nm/s or 0.6~60Nm/s or 0.9~90Nm/s
Accuracy	1.5% of reading+ 0.3% of full scale
Repeatability	0.3% of reading
Storage Temperature	-20~+50°C
Transportation Temperature	-30~60°C
Temperature of medium	-20~100°C
Pressure of medium	1.6 MPa
Power supply	10~35 VDC / 200 mA
Response time	160 milliseconds
Output	Frequency, 4~20mA(optional)
Communication	RS-485, Bluetooth
Date displayed	Mass flow, Volume flow in normal or standard condition
	Total flow and Velocity
Housing material	Aluminum alloy
Wet part material	Aluminum alloy (304SS and 316SS optional)
Ingress protection grade	IP54

5. Size and dimension



Pipe size	A	B	C	D	E
8 mm	60	144	38	38	119.5
10 mm	60	144	38	38	119.5
15 mm	60	179	38	38	119.5
20 mm	68	230	46	46	127.5
25 mm	68	230	46	46	127.5

Unit in mm

9. Model Selection

Model	Basic Model	TGF200-	2	A	F	A	G	1	1
Flow range	0.3~30 Nm/s		1						Optional
	0.6~60 Nm/s		2						Standard
	0.9~90 Nm/s		3						Optional
Wet part material	Aluminum			A					Standard
	304SS			4					Optional
	3016SS			6					Optional
Parameter	Flow, total flow, velocity				F				Standard
Output	frequency, RS485, Bluetooth					A			Standard
	frequency, 4~20mA (4-wire) RS485, Bluetooth					B			Optional
Process connection	G female thread						G		Standard
Pipe size	DN8 (1/4")							08	
	DN10 (3/8")							10	
	DN15 (1/2")							15	
	DN20 (3/4")							20	
	DN25 (1")							25	

Appendix, Standard flow rate for air and Nitrogen(unit in Nm³/min)

Pipe size (mm)	Pipe size (inch)	Standard (Nm ³ /hr) 0.3~30Nm/s,		Standard (Nm ³ /hr) 0.6~60Nm/s,		Option hr (Nm ³ /hr) 0.9~00Nm/s,		Option hr (Nm ³ /hr) 1.2~120Nm/s,	
		Min	Max	Min	Max	Min	Max	Min	Max
DN8	1/4"	0.05	5.4	0.1	10.8	0.2	16.3		
DN10	3/8"	0.08	8.5	0.2	16.9	0.3	25.4		
DN15	1/2"	0.19	19.1	0.4	38.1	0.6	57.2		
DN20	3/4"	0.3	33.9	0.7	67.8	1	101.7	1.4	135.6
DN25	1"	0.5	52.9	1.1	105.9	1.6	158.9	2.1	211.9

(unit in NL/min)

Pipe size (mm)	Pipe size (inch)	Standard (NL/min) 0.3~30Nm/s,		Standard (NL/min) 0.6~60Nm/s,		Option (NL/min) 0.9~00Nm/s,		Option (NL/min) 1.2~120Nm/s,	
		Min	Max	Min	Max	Min	Max	Min	Max
DN8	1/4"	0.9	90.4	1.8	180.8	2.7	271.2		
DN10	3/8"	1.4	141.2	2.8	282.5	4.2	423.7		
DN15	1/2"	3.2	317.8	6.4	635.6	9.5	953.4		
DN20	3/4"	5.6	564.9	11.2	1129.9	16.9	1694.9	22.6	2259.9
DN25	1"	8.8	882.8	17.6	1765.5	26.5	2648.3	35.2	3531.1