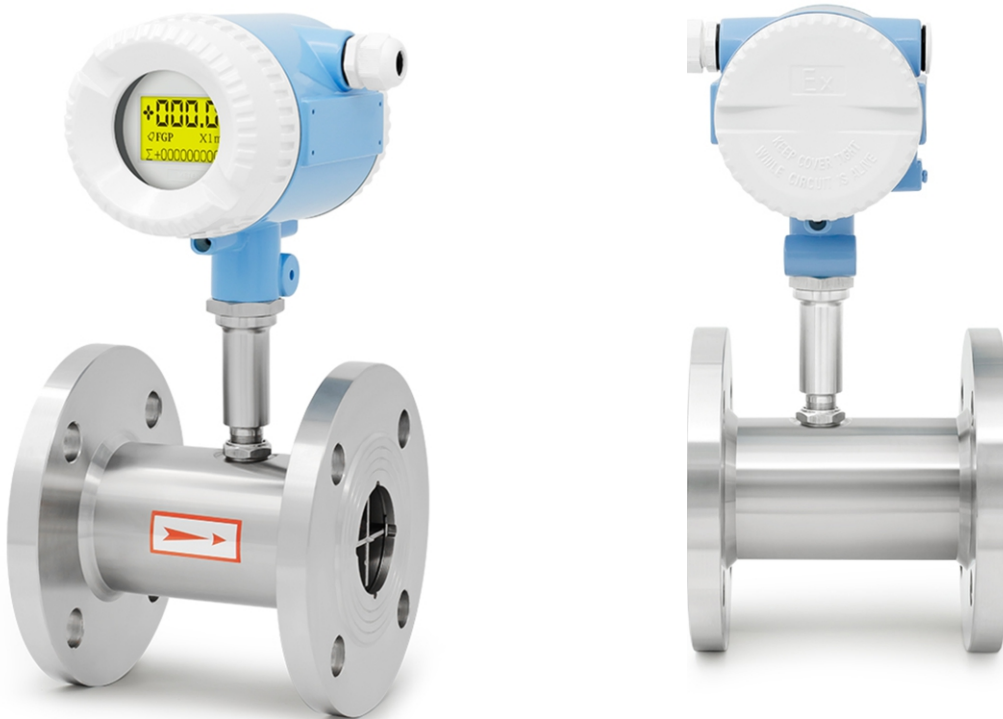


# TURBINE FLOWMETER MODEL TFM81



The working principle of turbine flowmeter is mainly based on the action of fluid inertia force. When the measured flow volume flows through the turbine, the inertia force of the fluid causes the turbine blades to be subjected to a torque, thus making the turbine spin. As the flow rate increases, the turbine spins faster, and by measuring the speed of the turbine, the flow rate of the fluid can be calculated.

Turbine flowmeters usually consist of a turbine, bearing, sensor and display device. When the fluid flows through the turbine, the turbine blade is rotated by the thrust of the

fluid. The sensor detects the turbine speed and converts it into an electrical signal, and finally displays the flow value through the display device.

## Features

- High precision linear stability
- Good reliability and anti-interference performance
- No zero drift, strong anti-interference ability

**Technical parameter**

**General**

**Basic information**

Path	10-500mm
Maximum flow rate	10m/s
Comprehensive accuracy	1.0
Nominal pressure	10MPa,6.3MPa,2.5MPa,1.6MPa
Connection flange material	stainless steel (304, 316,316L)

**Operating conditions**

Ambient temperature -25...+60°C[-13...+140°F]

IP grade IP67

**Electrical overview**

Output signal 4...20mA,HART,RS485

Power supply 220VAC,24VDC

Electrical connection Terminal

Fluid conductivity  $\geq 50\mu\text{S/cm}$

Consumed power  $\leq 20\text{W}$

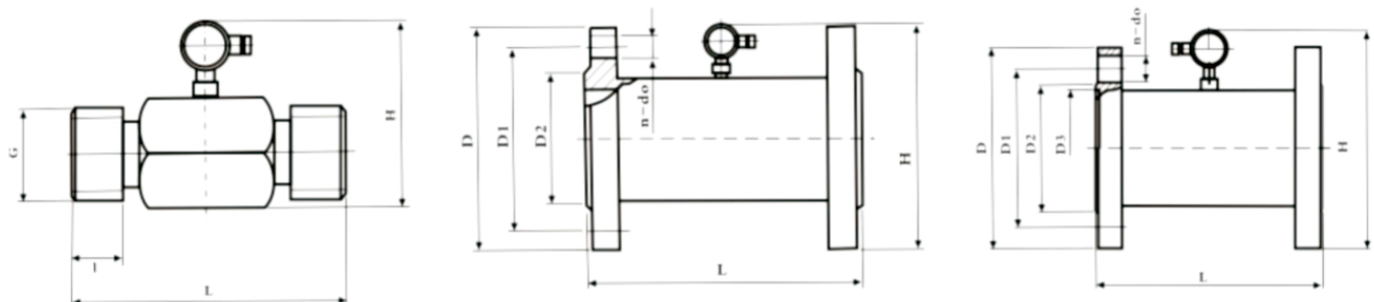
**Diameter parameter gas**

**Diameter parameter liquid**

Path (mm)	Flow range (m3/h)			Fluid Temperature Range (°C)		Nominal Pressure (Mpa)	
	0.2	0.5	1.00	One-piece	Explosion-proof		
10		0.4-1.2	0.2-1.2	-20...+50 -20...+100	-20...70	6.3	
15	12-4	0.6-6	0.4-6			2.5	
25	3-10	1.2-12	1.2-12			6.3	
40	8-25	3-30	3-30			16	
50	12-40	5-50	5-50			6.3	
80	20-100	16-100	12-120				
100	50-160	25-160	20-200				2.5
150	100-300	50-300	40-400				2.5
200	200-600	100-600	80-800				
250	300-1000	160-1000	120-1200				
300		250-1600		2.5			
400		400-2500					
500		600-4000					

Path (mm)	Flow range (m3/h)	Fluid Temperature Range (°C)		Minimum Allowable Fluid Density (kg/m³)	Nominal Pressure (Mpa)	Accuracy
		One-piece	Explosion-proof			
15	4-16	-20...+55	-20...+70	0.6	1.6	±1.5%
25	8-20				2.5	
40	20-100				6.3	
50	30-200	-20...+100				

**Dimensions in mm(in)**



TFM81 turbine flowmeter 11/2024

## Ordering information

### Example part number: TFM81-1531261182

Model TFM81 turbine flowmeter, Diameter Dn15, Nominal Pressure 1.6, Pipe Connection Method Flange connection, Output Signal 4...20mA Two wire, Power Supply +24VDC, Fluid Temperature (°C) -20...55, Shell Material Stainless steel, Structure Type Plug-in, Explosion-proof Registration d II Bt3.

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1	5	3	1	2	6	1	1	8	2
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①	③	④	⑥	⑦	⑨																						
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Please make separate remarks for special requirements.