

## LWGY Turbine Flowmeter



### Overview

LWGY Series Liquid Intelligent Turbine Flowmeter is composed of turbine flow sensor and intelligent display instrument which receives electrical pulse signal. It was used to measure the volume flow and total flow of the low viscosity liquids in closed conduits, and it was widely used in petroleum, chemical industry, metallurgy, aviation, scientific research and other departments.

### Operating Principle

When the measured fluid flows through the sensors, the impeller in the sensor will be rotated by the kinetic energy of the liquid. At this point, the impeller blades make the magnetic resistance of the detection device change periodically, thus the electric pulse signal that the frequency is proportional to the flow will be inducted at the both ends of coil, it will be amplified by the amplifier then output by remote transmission. Within the measuring range, the flow pulse frequency of the sensor is proportional to the volume flow; this ratio is the meter coefficient, represented by K.

$$K=3600X \frac{f}{Q} \text{ 或 } K=\frac{N}{V}$$

In the formula: f-the frequency of the flow signal (Hz)

Q-number of pulses

V-total volume (m<sup>3</sup> or L)

### Main Technical Parameters

Nominal	Flow Range m <sup>3</sup> /h	Working	Method of	Accuracy	Material
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Diameter DN (mm)		Pressure MPa	Installation		
4	0.04~0.25	1.6 2.5 4.0 6.3 10.0 16.0 26.0 42.0	Thread	0.5 1	304 316
6	0.1~0.6		Thread	0.5	
10	0.2~1.2		Thread	1	
15	0.6~6		Thread, Flange	0.5	
20	0.8~8		Thread, Flange	1	
25	1~10		Thread, Flange	0.5	
40	2~20		Thread, Flange	1	
50	4~40		Thread, Flange	0.5	
80	10~100		1.6 2.5 4.0 6.3	Flange	
100	20~200	Flange		0.5	
150	30~300	Flange		1	
200	80~800	Flange		0.5	

**Installing Boundary and Dimension**

Inside Nominal Diameter (mm)	4	6	10	15	20	25	32	40	50	65	80	100	125	150	200
L (mm)	50	50	50	75	85	100	120	140	150	175	200	220	250	300	360
H (mm)	145	145	165	170	175	180	220	178	252	270	287	332	340	367	415
G	R3/8	R3/8	R3/8	G1	G1	G1	G1	G2							

LWGY	Turbine Flowmeter	
Output Signal	No mark	Basic type (voltage pulse signal output)
	A	4-20mA Frequency output, remote transmitting transmitter
	B	Battery power supply, field display
	C	Field display, 4-20mA Two-wire current output, remote transmitting type
Nominal Diameter	D4~200	D4~200mm
Operating Environment	B	Explosion-proof type
	P	Ordinary type