



Kaifeng Oasis Instrument Co., Ltd.

Liquid Turbine Flowmeter

Kaifeng Oasis International Trading Co., Ltd.

Room 203, Free Trade Building,
Kaifeng City
Henan Province,
China

Phone: 18749888219
E-mail: info@oasis-instrument.com



Professional Flowmeter Manufacturer

OILWZ SERIES LIQUID TURBINE FLOWMETER

The OILWZ series Liquid turbine flowmeters are a highly efficient and accurate solution for measuring the flow rate of liquids across various industrial applications. Based on the principle of fluid dynamics, the flowmeters utilize a precision -engineered turbine that rotates as liquid passes through. The rotational speed of the turbine is directly proportional to the liquid's velocity, enabling accurate and consistent flow rate measurements.

Known for their superior accuracy and repeatability, OILWZ series liquid turbine flowmeters are widely used in industries such as water treatment, chemical processing, oil and gas, pharmaceuticals, and food and beverage production. They are ideal for measuring clean, low-viscosity liquids and perform exceptionally well under stable conditions of pressure and temperature. With their robust design, these flowmeters offer a low-pressure drop and minimal maintenance, ensuring long-term reliability and cost efficiency.

Designed for precision and ease of use, OILWZ series liquid turbine flowmeters are equipped with advanced electronics to provide real-time data monitoring and analysis. Their versatility and reliability make them a preferred choice for demanding applications where accurate liquid flow measurement is critical to operational success.

For industries requiring dependable and precise liquid flow measurement, OILWZ series liquid turbine flowmeters deliver optimal performance with proven durability and efficiency.





Main Features

- High accuracy, generally up to $\pm 1\%$ R, $\pm 0.5\%$ R, high precision type up to $\pm 0.2\%$ R
- Good repeatability, short-term repeatability can reach $0.05\% \sim 0.2\%$, the preferred flow meter in trade settlement.
- Using high-performance micro-processing technology, the whole instrument has powerful functions and high computing accuracy;
- The OILWZ Series flowmeter adopts a laminated structure, which is easy to disassemble and maintain. There is no mechanical and electrical adjustment and no need for debugging;
- LCD can display instantaneous flow and cumulative flow on-site, and the readings are intuitive and clear;
- Output pulse signal or $4 \sim 20\text{mA}$ analog signal;
- Friendly user interface, easy to use push buttons, and the operation is simple and convenient;
- 5-segment coefficient correction to ensure wide range measurement accuracy.
- Can be used in explosive environments.

Technical Specifications

Size	4mm(1/6")~500mm(20")	Local Display	LCD Display With Back Light, Displays Total, Instantaneous Flow, Power, Alarm
Measuring Medium	Various Clean, Low Viscosity Liquids	Output	4-20mA Pulse
Flow Range	See next page	Communication Protocol	RS485 HART
Protection Class	IP65, IP67	Ambient Temperature	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$
Accuracy	$\pm 0.2\%$ $\pm 0.5\%$ Standard $\pm 1.0\%$	Construction	Compact Remote
Material	Stainless steel Tungsten Carbide Aluminum alloy	Power Supply	$24 \pm 15\%$ VDC, Ripple $\leq \pm 5\%$ 3.6VDC lithium battery
Working Temperature	$-20 \sim +120^{\circ}\text{C}$ (Standard)	Relative Humidity	5%-90%
Process Connection	Flange, Thread, Clamp	Converter Housing	Aluminum Alloy, Stainless Steel
Working Pressure	Up to 10 MPa	Explosion Proof Class	Ex d II CT6 Gb

Model Selection

OILWZ Series Example: OILWZ-050216001R; DN50, 2.5%, PN16, SS304, None, 24VDC, RS485									
Liquid Turbine Flowmeter		XXX	X	X X	X	X	X	X	X
Size (mm)	Inside diameter code DN 4 = 004 DN 25 = 025 DN 50 = 050 DN 100 = 100								
Accuracy	0.2%		1						
	0.5%		2						
	1.0%		3						
Process Connection	16: Inline Type, PN16 Flange 20: Inline Type, ASME 150 LB Flange 25: Inline Type, PN25 Flange 40: Inline Type, PN40 Flange 50: Inline Type, ASME 300 LB Flange 63: Inline Type, PN63 Flange XX: Inline Type, Other								
Material	Stainless Steel 304				0				
	Stainless Steel 316L				1				
Explosion Proof Type	None					0			
	Ex d II CT6 Gb					1			
Power Supply	24 V D.C							1	
	Battery 3.6V							3	
Output Type	RS485								R
	HART								H

Nominal diameter (mm)	Flow range (m ³ /h medium: water)			Nominal pressure (MPa)	Average instrument coefficient K (1/L reference value)
	Level 0.2	Level 0.5	Level 1		
4			0.04~0.4	10 6.3	14000
6			0.06~0.6		3400
10		0.4~1.2	0.2~1.6	1.6	1600
15	1.2~4	0.6~4	0.4~4		1000
25	3~10	1.2~12	1.2~12		152
32	4 ~ 16	2 ~ 20	2 ~ 20	6.3 2.5 1.6	9 1
40	8~25	3~30	3~30		73
50	12~40	5~50	5~50		37
6 5	20 ~ 70	8 ~ 80	8 ~ 80		1 6
80	30~100	16~100	12~120		9
100	50~160	25~160	20~200		6
1 25	6 0~ 2 40	3 0~ 3 00	30~ 3 00		3
150	100~300	50~300	40~400		1.9
200	200~600	100~600	80~800		2.1
250		160~1000	120~1200		2.5 1.6
300		250~1600	200~2000	1.1	
400		400~2500		0.26	
500		600~4000		0.13	
Remark	When the turbine flowmeter outputs a 4mA ~ 20mA electrical signal, an error of ±0.5% FS is introduced. As the viscosity of non-aqueous media increases, the flow range decreases accordingly.				