

XYTFL Type Turbine Flowmeter

Overview

XYTFL turbine flowmeter is a speed type instrument, which has the advantages of high accuracy, good repeatability, no zero drift, and high range ratio. Turbine flow meters have high-quality bearings and specially designed flow deflectors, which greatly reduce wear, are insensitive to peak values, and can provide reliable measurement variables even under harsh conditions. The output signal of the turbine flowmeter is pulse, which is easy to digitize. Turbine flowmeter has low pressure loss and blades (dual phase) Steel can resist corrosion and measure low viscosity and low corrosiveness liquid media.

Product Appearance



Product Features

- High precision, generally up to $\pm 0.5\%$ R and $\pm 1.0\%$ R (R refers to reading error);
- Good repeatability, short-term repeatability can reach 0.2% to 0.05%, and high accuracy can be achieved through regular calibration or online calibration;
- Output pulse frequency signal, suitable for total measurement and computer connection, no zero drift, strong anti-interference ability;
- The original pulse frequency range (10.0Hz ~1.5kHz) has strong signal resolution;
- Wide range ratio, generally 1:10, up to 1:15;
- Compact and lightweight structure, easy in installation and maintenance, and high circulation capacity;
- Suitable for high voltage measurement, the sensor body does not need to be perforated and is easy to make into a high voltage type instrument;
- Strong resistance to electromagnetic interference and vibration;
- Low pressure loss, saving power consumption.



Flange installation type



Threaded installation type



Flange clamp type

Application Area

The application of turbine flowmeter flow measurement technology and instruments can be roughly divided into the following fields: petroleum, chemical, metallurgical, organic liquids, inorganic liquids, liquefied gas, urban gas pipeline network, pharmaceutical, food, paper and other industries.

Performance Index

Measured media	no impurities, low viscosity, no highly corrosive liquids			
Execution standards	Turbine Flow Sensor (JB/T 9246-2016)			
Verification regulations	Turbine Flow Sensor (JJG 1037-2008)			
Instrument caliber and Connection method	Flange type	DN15 ~ DN200		
	Threaded type	DN4 ~ DN50		
	Clamp type	DN15 ~ DN50		
	Clamp on type	DN4 ~ DN200		
Flange standard	Conventional standards	HG/T 20592-2009		
	Other standards	International pipe flange standard	Such as German standard DIN,(customization required)	
		Domestic pipe flange standards	As per the standards of the Ministry of Chemical Industry and the Ministry of Machinery (to be specified)	
Thread specification	Regular size	British pipe thread (external thread)		
	Other size	Internal thread, spherical thread, NPT thread, etc. (customization required)		
Accuracy	±1%R		±0.5%R	
Repeatability	≤ ±0.15%		≤ ±0.1%	
Range ratio	1 : 10			
Verification conditions	verification device	Standard table method liquid flow verification device; Static mass method liquid flow verification device		
	environmental	ambient temperature	20℃	
		relative humidity	65%	
Conditions of Use	medium temperature	T ₁ (Room temperature type, standard configuration)	-20℃~ 80℃	
		T ₂ (High temperature type, customized)	-20℃~ 120℃	
	ambient temperature	-20℃~ 60℃	relative humidity	5% ~ 90%
	atmospheric pressure	86kPa ~ 106kPa		

Comparison Table of Voltage Resistance Levels

Connection method	Caliber range	Conventional voltage withstand level	High voltage withstand level
Flange type	DN15 ~ DN50	4.0MPa	$4.0\text{MPa} \leq P \leq 10.0\text{MPa}$
	DN65 ~ DN100	1.6MPa	$1.6\text{MPa} \leq P \leq 6.3\text{MPa}$
	DN125 ~ DN200		$1.6\text{MPa} \leq P \leq 2.5\text{MPa}$
Threaded type	DN4 ~ DN40	6.3MPa	$6.3\text{MPa} \leq P \leq 32\text{MPa}$
	DN50 ~ DN80	1.6MPa	
Clamp on type	DN4 ~ DN40	1.6MPa	42MPa and following
	DN50 ~ DN80		26MPa and following
	DN100 ~ DN150		15MPa and following
	DN200		11MPa and following

Caliber Flow Range Pressure Loss Comparison Table

Instrument caliber mm	Normal flow range m ³ /h	Pressure loss MPa
DN4	0.04 ~ 0.25	0.12
DN6	0.1 ~ 0.6	0.08
DN10	0.2 ~ 1.2	0.05
DN15	0.6 ~ 6	0.035
DN20	0.8 ~ 8	
DN25	1 ~ 10	
DN32	1.5 ~ 15	
DN40	2 ~ 20	0.025
DN50	4 ~ 40	
DN65	7 ~ 70	
DN80	10 ~ 100	
DN100	20 ~ 200	
DN125	25 ~ 250	
DN150	30 ~ 300	
DN200	80 ~ 800	