

Liquid Turbine Flow Meter

LWG-N1 series



LWG-N2&A series



LWG-E series



Operating Principle

Fluid entering the meter first passes through an inlet flow straightener that reduces its turbulent flow pattern. Fluid then passes through the turbine, causing the turbine to rotate at a speed proportional to fluid velocity. As each turbine blade passes through the magnetic field generated by the meter's magnetic pickup, an AC voltage pulse is generated. These pulses provide an output frequency that is proportional to volumetric flow.

Technical Data

- Output: Pulse/4-20mA
- Accuracy: ± 1.0 of Rate / $\pm 0.5\%$ of Rate
- Operating Temp.: -20 $+60^{\circ}\text{C}$
- Fluid Temp.: -20 $+150^{\circ}\text{C}$
- Body Material: SS304/SS316
- Rotor Material: 2Cr13/CD4MCu
- Bearing Material: Turgsten Carbide

Description

The liquid turbine flow meter in the series LWG are specially designed for usage in water, diesel, gasoline and other fluid measurement and control systems. They operate according to the turbine principle, i.e. the speed of an impeller turning in the fluid flow is measured and converted into pulse or 4-20mA signals.

	0 2							±0.2% of rate
Flow Range	S							Standard Range
	E							Extended Range
Body Material	S 4							SS304
	S 6							SS316
	P L							Plastic(DN15-DN50)
Rotor Material	C r							2Cr13
	C D							CD4MCu
Explosion Proof	B T							Exd II BT6
	N A							None
Connection	T H M							Male Thread; Available from DN4...DN50
	T H F							Female Thread; Available from DN4...DN50
	W A F							Wafer connection
	D X X							D16:DIN PN16 Flange:D25:DIN PN25 Flange..
	A X X							A15:ANSI 150# Flange:A30:ANSI 300# Flange...
	JX X							J10:JIS 10K Flange:J20:JIS 20K Flange..
Temperature	T 1							-20...+80°C
	T 2							-20...+120°C
	T 3							-20...+150°C

Example: 1 2 3 4 5 6 7 8 9
LWG 050 E5 10 S S4 Cr BT D16 T2
1 050:DN50
2 E5:3-wire 4-20mA/Pulse output:24V DC power supply
3 10:1.0% of rate accuracy
4 S:0.2-1.2m³/h
5 S4:SS304 body material
6 Cr:2Cr13 rotor
7 BT:Exd II BT6
8 D16:Flange DIN PN16
9 T2:-20...120°C

Dimensions

(1) Thread Connection

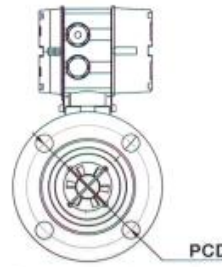
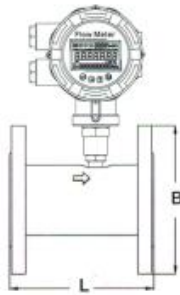
Diameter(mm)	L(mm)	Thread Criteria
4	270	G 1/2"
6	270	G 1/2"
10	390	G 1/2"
15	75	G 1"
20	80	G 1"
25	100	G 1-1/4"
32	140	G 2"
40	140	G 2"
50	150	G 2-1/2"



Notice: Other thread criteria is available on request.(Female/Male thread is optional for G,NPT,BSP)

(2) Flange Connection

Notice:The standard flange is DIN P16;but ANSI and JIS Flange are available on request.

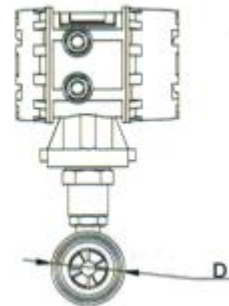
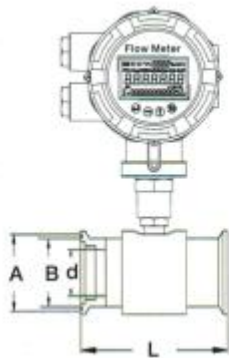


Diameter		L (mm)	B Flange Diameter (mm)	PCD Bolt Circle Diameter (mm)	Bolt Hole Quantity
(Inch)	(mm)				
1/2"	15	75	95	60	4
3/4"	20	80	105	70	4
1"	25	100	115	79	4
1-1/4"	32	140	140	89	4
1-1/2"	40	140	150	99	4
2"	50	150	165	121	4
2-1/2"	65	170	185	140	4
3"	80	200	200	152	4
4"	100	220	220	191	8
5"	125	250	250	216	8
6"	150	300	285	241	8
8"	200	360	340	298	8

Notice:Dimension above is for DIN PN16 Flange

Flow Range	S				Standard Range
	E				Extended Range
Body Material	S4				SS304
	S6				SS316
Rotor Material	Cr				2Cr13
	CD				CD4MCu
Explosion Proof	BT				Exd II BT6
	NA				None
Connection				TRC	Tri-clamp for sanitaryConnection
Temperature				T1	-20...+80°C
				T2	-20...+120°C
				T3	-20...+150°C

Dimensions



Diameter (mm)	L (mm)	A (mm)	B (mm)	d (mm)	D (mm)
4	50	Φ46	Φ40.5	4	Φ50
6	50	Φ46	Φ40.5	6	Φ50
10	50	Φ46	Φ40.5	10	Φ50
15	100	Φ46	Φ40.5	15	Φ50
20	100	Φ46	Φ40.5	20	Φ50
25	100	Φ46	Φ40.5	25	Φ50
32	120	Φ46	Φ40.5	32	Φ50
40	140	Φ59	Φ53.5	40	Φ64
50	150	Φ73.5	Φ68	50	Φ78
65	170	Φ86	Φ80.5	65	Φ91
80	200	Φ100.5	Φ94	80	Φ106
100	220	Φ113	Φ106	100	Φ119

Mini Turbine Flow Meter

Description



Mini flow meter is based on turbine theory and designed for measuring micro-flow. This meter has extremely high accuracy especially under the condition of high temperature and high pressure. The Electronic pulse transmitter is also integrated in this min flow meter. It can maintain the 2% accuracy and 0.25 repeatability. Because of smart structure design, no debris can store in the working process and it's clear after work.

- 55*40*47mm dimension
- About 300g
- NSF.CE authentication
- Coffee machine application

Technical Data

Items	Diameter	Measuring Range	K-Factor
	(mm)	(L/mm)	(Ml/imp)
Measure Range	1.15	0.035-1.6	0.5
	1.3	0.01-1.86	0.6
	1.5	0.045-2.08	0.67
	2	0.085-2.32	1.02
	2.5	0.12-2.4	1.44
	3.7	0.15-3.0	2.28
Pressure	Maximum 20.2bar		
Temperature	-10°C to 100°C		
Accuracy Level	±2%		
Repetitive	±0.25%		
Connection	G 1/4 female thread (ordered to meet need from customers)		
Material	Shell:Green Brass(lead-free brass)		
	Bearing:INO*18/8(1.4305) stainless steel		
	Turbine:PVDF(polyvinylidene fluoride)		
	Magnets:SrFeO ceramics		

	N A		None
Connection		TH M	Male Thread; Available from DN4...DN50
		TH F	Female Thread; Available from DN4...DN50
		DX X	DN16: DIN PN16 Flange; D25: DIN PN25 Flange...
		AX X	A15: ANS1150# Flange; A30: ANSI 300# Flange...
		JX X	J10: JIS 10K Flange; J20: JIS 20K Flange...