

LIQUID TURBINE FLOWMETER

Standard Liquid Turbine Flow Meter DWGS



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.: $-20...+150^{\circ}\text{C}$;
Housing Material: SS304/SS316;
Rotor Material: 2Cr13/CD4MCu;
Bearing Material: Tungsten Carbide.

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.

Flow Range

Diameter (mm)	Standard Range (m3/h)	Extended Range (m3/h)
4	0.04 ~ 0.25	0.04 ~ 0.4
6	0.1 ~ 0.6	0.06 ~ 0.6
10	0.2 ~ 1.2	0.15 ~ 1.5
15	0.6 ~ 6	0.4 ~ 8
20	0.8 ~ 8	0.45 ~ 9
25	1 ~ 10	0.5 ~ 10
32	1.5 ~ 15	0.8 ~ 15
40	2 ~ 20	1 ~ 20
50	4 ~ 40	2 ~ 40
65	7 ~ 70	4 ~ 70
80	10 ~ 100	5 ~ 100
100	20 ~ 200	10 ~ 200
125	25 ~ 250	13 ~ 250
150	30 ~ 300	15 ~ 300
200	80 ~ 800	40 ~ 800



DATA INSTRUMENTS

 **DATA INSTRUMENTS**

Reg. Address :
16, DHARMADEVNAGAR,
Opp. SAMARATNAGAR,
ISANPUR, Ahmedabad - 382443.

FACTORY :
100, NILKANTH INDUSTRIAL PARK,
AMBIKA TUBE COMPOUND,
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Vatva, Ahmedabad - 382445.

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Standard Liquid Turbine Flow Meter DWGS

Model Selection

Model	DWGY						Description
Diameter	XXX						DN4-DN200
	N1						24V DC; Pulse output; No display
	N2						24V DC; Pulse output; No display; Ex
	A						24V DC; 4-20 mA output; No display; Ex
	E1						Battery power supply; No output; Ex; Digital Display
	E2						24V DC; 2-wire 4-20mA output; Ex; Digital Display
	E3						24V DC; Pulse output; Ex; Display
	E4						24V DC; 0-20mA output; EX; Digital display
	E5						24V DC; 3-wire 4-20mA / Pulse output; EX; Digital display
	M						220Vac; 4-20mA output; EX; Digital display
	FE						FE: Fluidwell E series converter
	FF						FF: Fluidwell F series converter
Converter Type	Notice:						1) Modbus RS485 is optional for E2, E3, E4, E5 and M type 2) Dual Power (24VDC + Battery) is optional for E2, E3, E4, E5, M
		10					±1.0% of Rate
Accuracy		5					±0.5% of Rate
		2					±0.2% of Rate
Flow Range			S				Standard Range
			E				Extended Range
Body Material				S4			SS304
				S6			SS316
				PL			Plastic (DN15-DN50)
Rotor Material				Cr			2Cr13
				CD			CD4MCu
Explosion Proof					BT		Exd II BT6
					NA		No explosion proof
Connection					THM		Male thread; Available from DN4 ... DN50
					THF		Female thread; Available from DN4 ... DN50
					WAF		Wafer connection
					DXX		D16: DIN PN16 flange; D25: DIN PN25...
					AXX		A15: ANSI 150# flange; A30: ANSI 300#...
					JXX		J10: JIS 10K flange; J20: JIS 20K...
Temperature					T1		-20...+80 °C
					T2		-20...+120 °C
					T3		-20...+150 °C



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Sanitary Liquid Turbine Flow Meter DWS



Technical Data

DN4-DN100;

Pressure resistant to 10 bar;

Communication: Modbus RS485; HART.

Description

The sanitary liquid turbine flow meter is specifically designed for measurement of food liquids like milk, cream, juice of various fruits, pharma liquids etc. It is available with compact or remote version of transmitter can be installed either horizontally or vertically with a variety of optional end-fittings to meet your requirements.

Model Selection

Model	DWS				Description
Diameter	XXX				DN4-DN200
	N1				24V DC; Pulse output; No display
	N2				24V DC; Pulse output; No display; Ex
	A				24V DC; 4-20 mA output; No display; Ex
	E1				Battery power supply; No output; Ex; Digital display
	E2				24V DC; 2-wire 4-20mA output; Ex; Digital display
	E3				24V DC; Pulse output; Ex; display
	E4				24V DC; 0-20mA output; EX; Digital display
	E5				24V DC; 3-wire 4-20mA / Pulse output; EX; Digital display
	M				110-240V AC; 4-20mA output; EX; Digital display
	FE				Fluidwell E series converter
	FF				Fluidwell F series converter
Converter Type	Notice:				1) Modbus RS485 is optional for E2,E3,E4,E5 and M type 2) Dual Power(24VDC+Battery) is optional for E2,E3,E4,E5,M
Accuracy		10			±1.0% of Rate
		5			±0.5% of Rate
		2			±0.2% of Rate
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		No explosion proof
Connection				TRC	Tri-clamp for sanitary connection
Temperature				T1	-20...+80 °C
				T2	-20...+120 °C
				T3	-20...+150 °C



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Mini Turbine Flow Meter NUER



Specification

55*40*47 mm dimension;

About 300g;

NSF, CE authentication;

Coffee machine application; HART.

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 1% accuracy and 0.2% repeatability. Because of smart structure design, no debris can store in the working process and it's clear after work.

Model Selection

Items	Diameter	Range	K-Factor
	mm	(L/min)	(ML/imp)
	1.15	0.01-1.86	0.5
	1.3	3.06-108	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 20.0bar		
Temperature	-10°C to 100°C		
Accuracy Level	±2%		
Repeatability Accuracy	±0.25%		
Connection	G1/4 female thread		
	(ordered to meet need from customers)		
Material Turbine	Shell: Green Brass(lead-free brass)		
	Bearing: INO*18/8(1.4305) stainless steel		
	PVDF (polyvinylidene fluoride)		
	Magnets: SrFeO ceramics		



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