MLF-7100

MARMONIX LIQUID TURBINE FLOW METER

Overview:

The Marmonix Liquid Turbine Flow meter MLF-7100 is used for volumetric total flow and/or flow rate measurement and have relatively simple working principle. As fluid flows through the turbine meter, it impinges upon turbine blades that are free to rotate about an axis along the center line of the turbine housing.

The angular (rotational) velocity of the turbine rotor is directly proportional to the fluid velocity flowing through the turbine. The resulting output is taken by an electrical pick-off (s) mounted on the flow meter body.

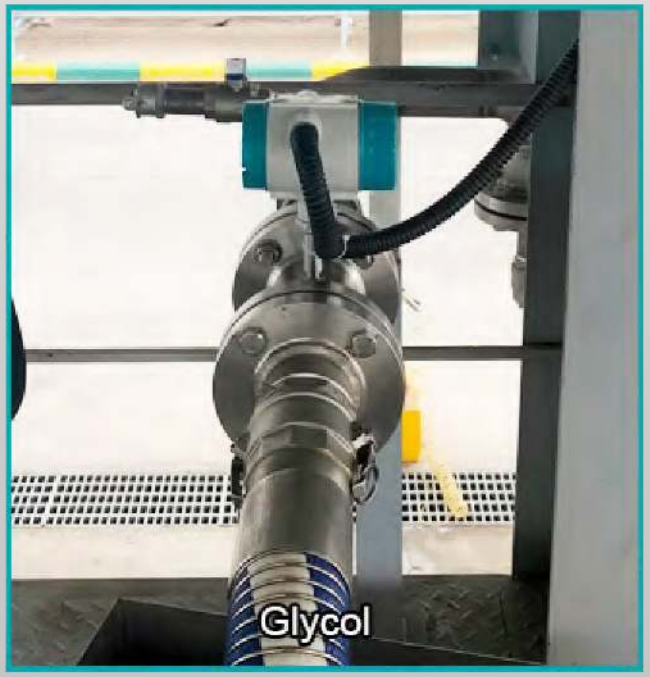
Features:

- Accurate measurement, cost-effective and minimal, maintenance Required.
- Pick-up Sensors and Pre-amplifier
- Ideal for Batching Applications
- Perform outstandingly in high pressure Applications
- Three line HD LCD display
- Intelligent transmitter
- Dual power supply (optional)

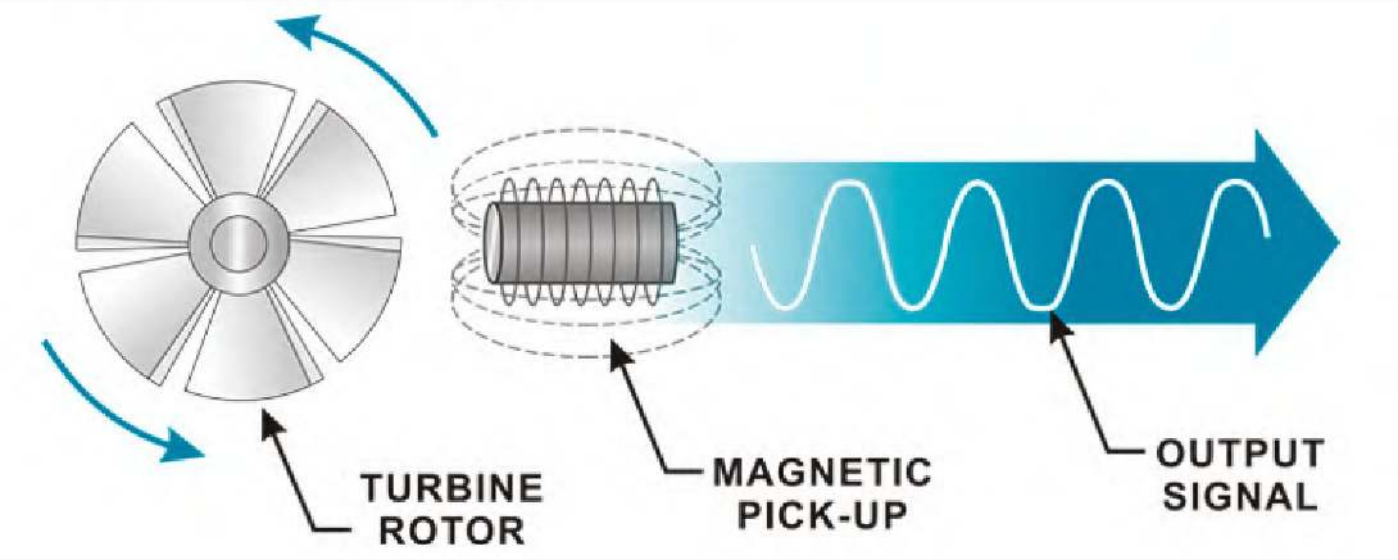
- **A Reliable, cost-effective Method**
- **for Achieving Accurate**
- **Flow measurement**

Application

- Flow measurement of tap water, demineralized water and chemicals.
- Fuels, marine engine fuel monitoring, vegetable oil, thermal oil and solvents.
- Special models for refrigerants, pharmaceutical fluids, cryogenic fluids, liquefied gases and high-pressure applications.



Working principle



Adhere to International Standards Quality Assurance

New High-tech Enterpris

CE

Ex-proof

ISO

Accurate measurement, cost-effective and minimal, maintenance Required

- 0.5% accuracy (0.2% optional)
- Excellent repeatability 0.05%~0.2%; the repeatability of the meters ensures the quality measurement over a wide range of flow rates, temperatures and compositions.

Pick-up Sensors and Pre-amplifier

Two Wire DC4-20mA

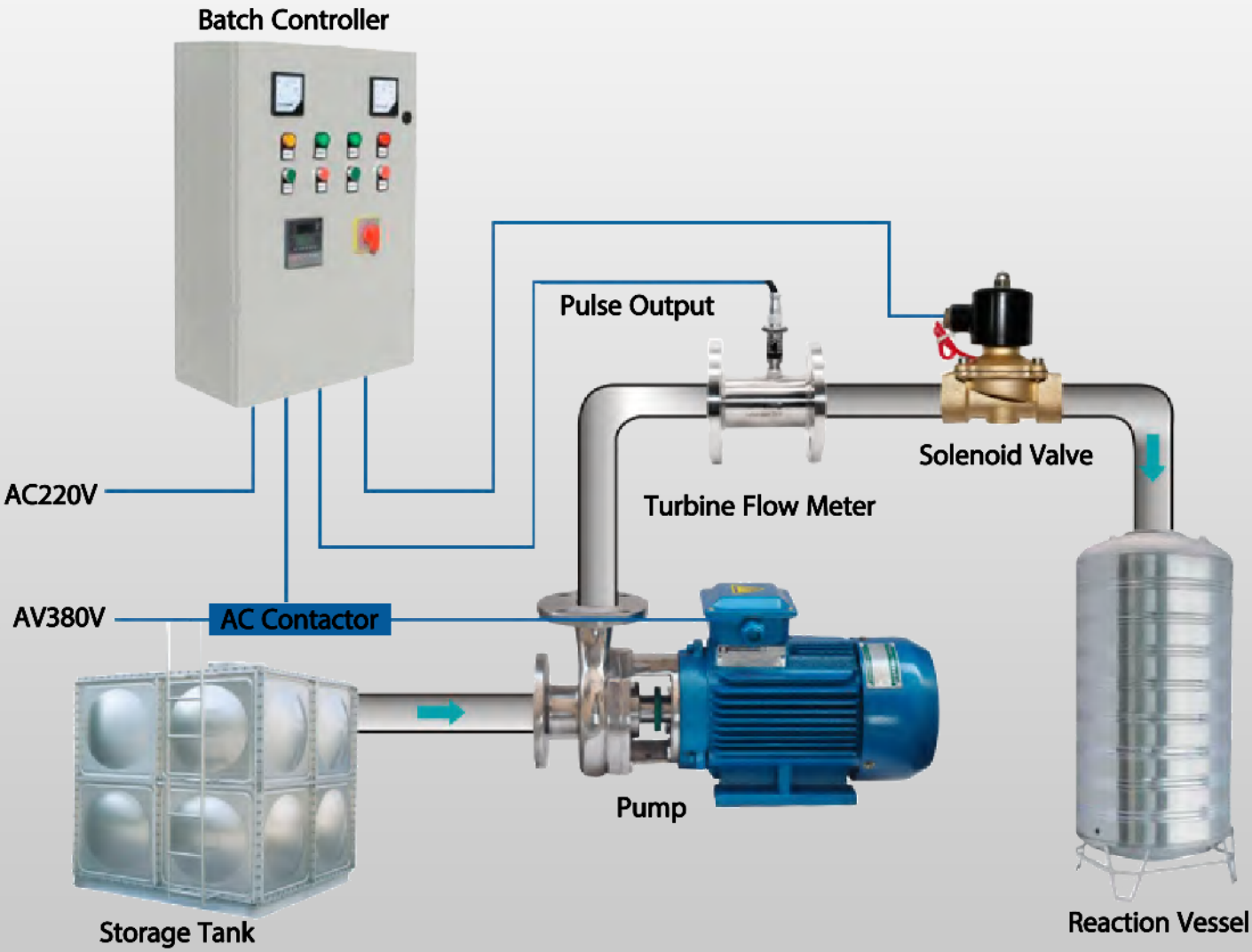
Three Wire Pluse

FLOWMETER
Pickup coil gnerates frequency proportional to flow rate

PULSE COUNTER or **BATCHING SYSTEM**
Counts pulses and indicates total flow
Gives electrical ouput for batching operation

Ideal for Batching Applications

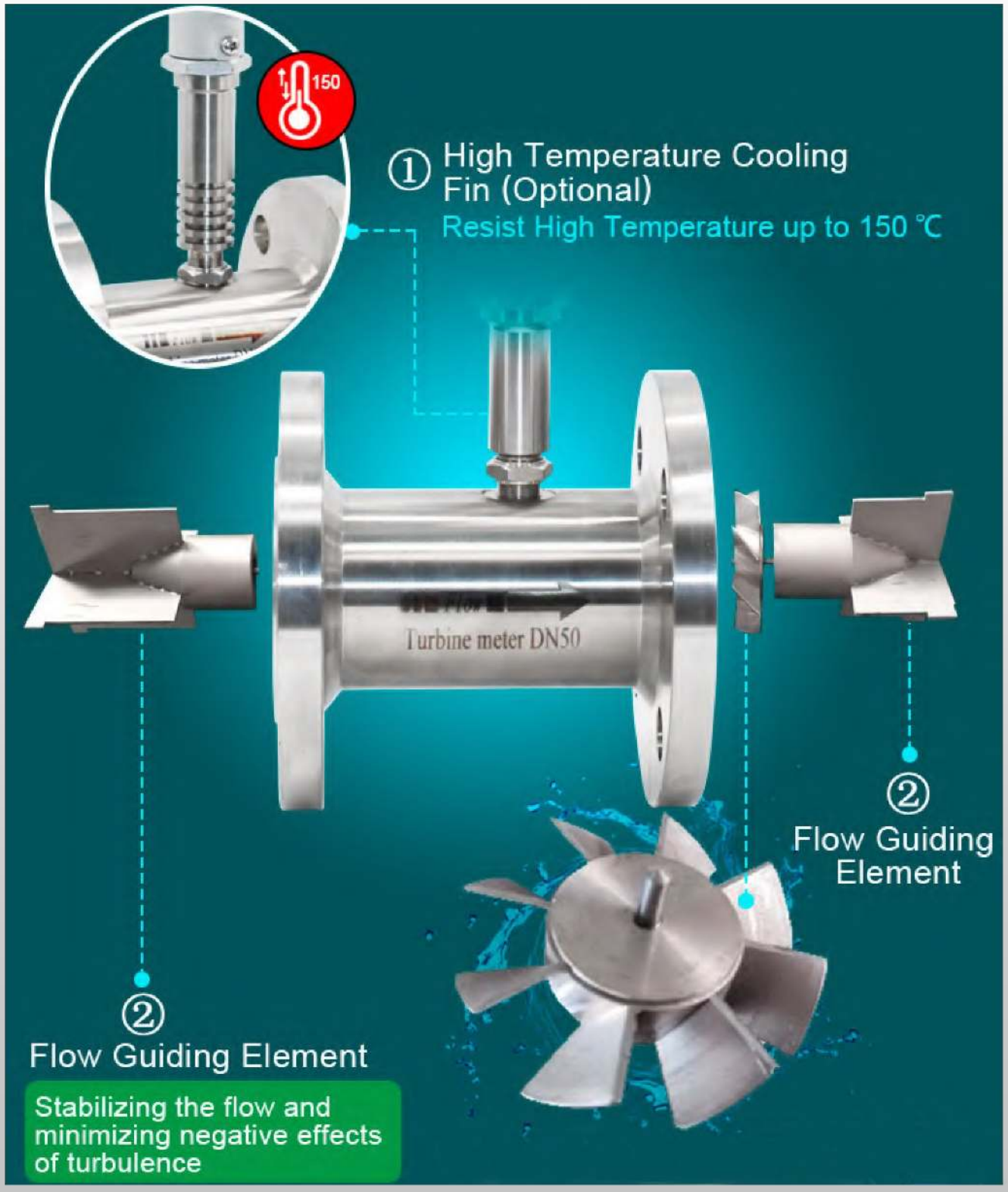
Good to use for application of blending/batching as well as storage and off-loading etc.



Because of its structure, rotor will immediately rotate as soon as the media induces a forward force. As the rotor cannot through the media on its own, it will stop as soon as the media stops. This ensures an extremely fast response time, making the turbine flow meter ideal for batching applications.

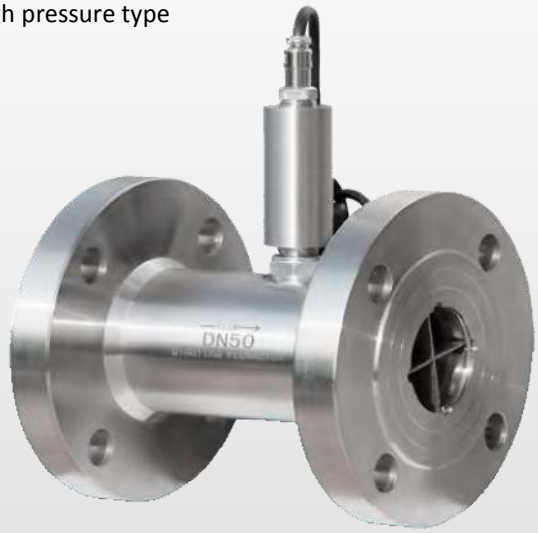
Flow sensor

Excellent forging process; wear resistance; durable SS304 body (optional SS316)



Perform outstandingly in high pressure Applications

- Resist high pressure up to 42Mpa
- No need hole tapping on the body, so its easy to make high pressure type



Three line HD LCD display

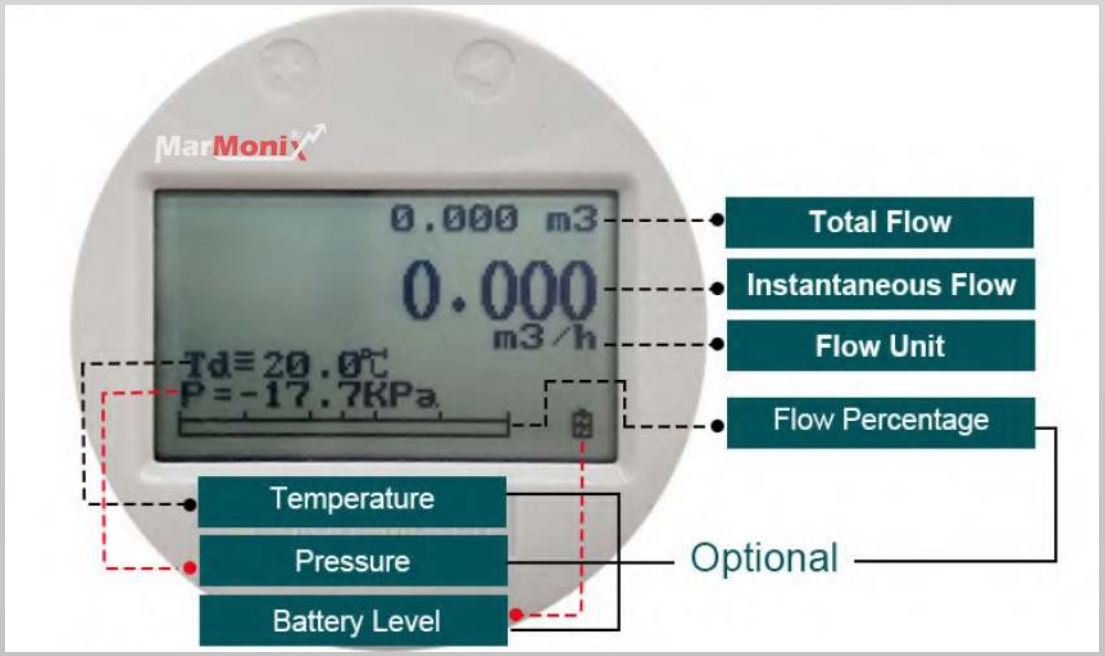
Temperature and pressure display also available

1-low-power design LCD

2-multi-unit free switching, one site display and analysis

Flow unit: L, gallon, m3, kg, pound, ton, etc.

Time unit: hour and minute



Intelligent Transmitter

Dual power supply (optional)

Embedded 3.6v lithium battery, sustain more than 2 years

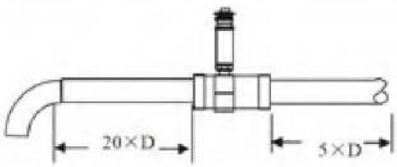
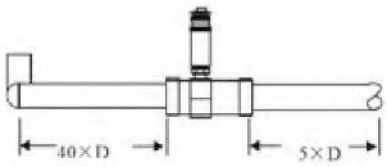
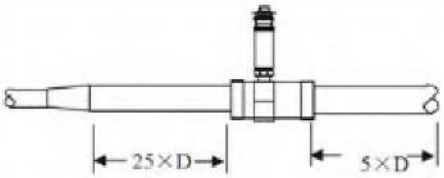
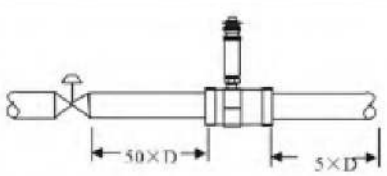
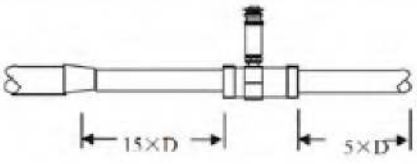
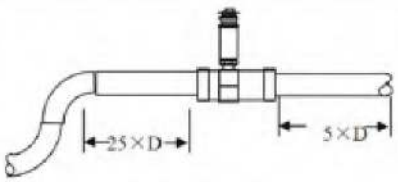
Compact or Remote Type

MORE PRODUCT SHOW

SPECIFICATION

Size & Process Connection	Thread onnection : DN4,6,10,15,20,32,40,50,65,80,100 Flange connection : DN15,20,32,40,50,65,80,100,125,200 Clamp connection:DN4,6,10,15,20,32,40,50,65,80,100
Accuracy	±0.5%, ±0.2% Optional
Sensor Material	SS304. SS316L Optional
Ambient Conditions	Mediom temperature:-20°c~+150°c Atmospheric pressure :86Kpa~106Kpa Ambient temperature :-20°c~+60°c Relative humidity:5%~90%
Signal Output	PULSE, 4-20mA, Alarm(optional)
Digital Communiation	RS485, MODBUS: HART
Power Supply	24V DC/3.6V Lithium Battery
Cable Entry	M20*1.5; 1/2"NPT
Explosion-proof class	Ex d IIC T6 Gb
Protecion class	IP65; IP67 Optional

Installation Notice

One 90° elbow		Two 90° elbows for two planes	
Concentric expander		Control valve half-open	
Concentric shrinkage wide open valve		Two 90° elbows for one plane	

Suggest all control valves be installed downstream of the flowmeter

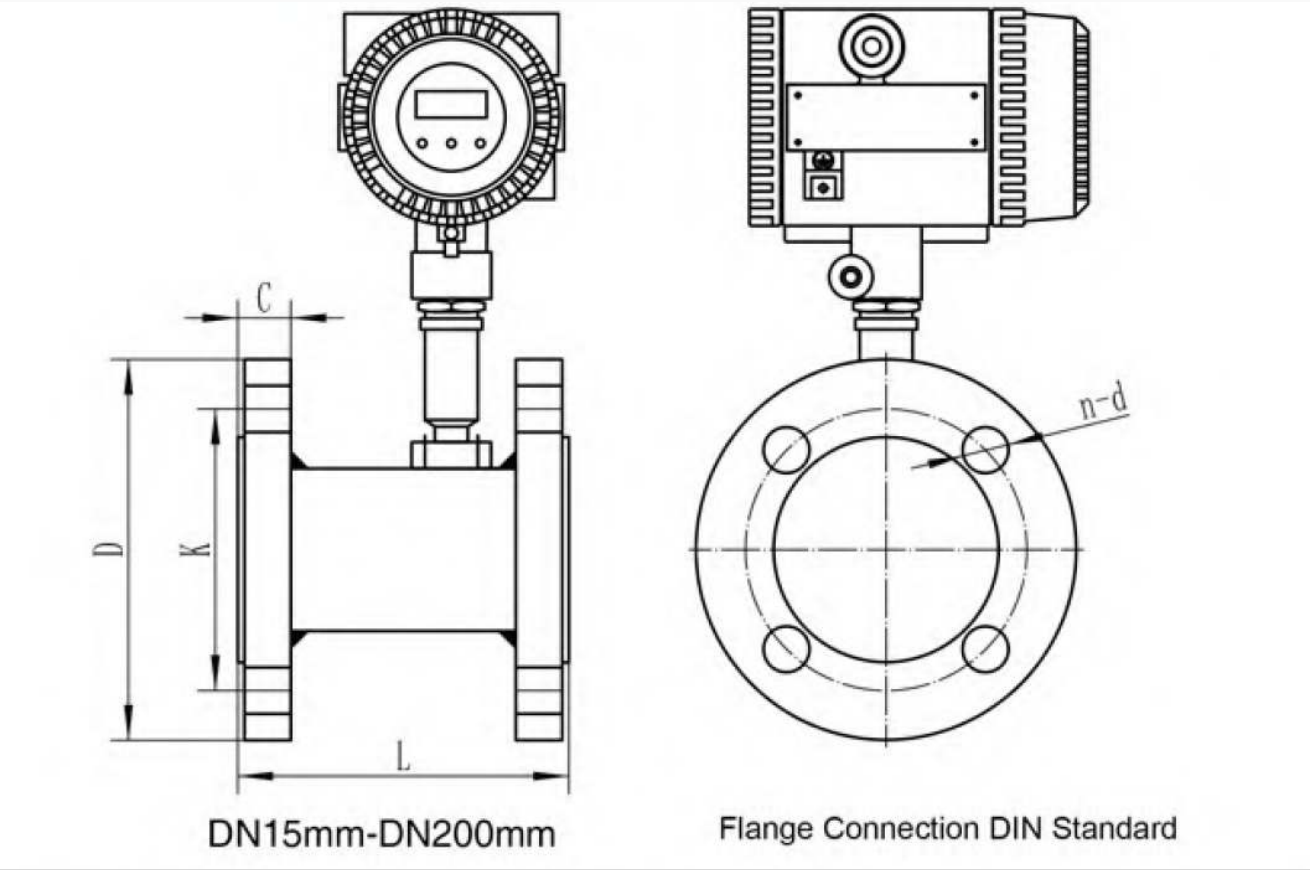
FLOW RANGE

Diameter (mm)	Standard Range (m3/h)	Extended Range (m3/h)	Connection Standard (Optional)	Standard Pressure (Mpa)	Customized Pressure Rating (Mpa)
DN4	0.04~0.25	0.04~0.4	Thread	6.3	12,16,25,…42
DN6	0.1~0.6	0.06~0.6	Thread	6.3	12,16,25,…42
DN10	0.2~1.2	0.15~1.5	Thread	6.3	12,16,25,…42
DN15	0.6~6	0.4~8	Thread (Flange)	6.3,2.5 (Flange)	4.0,6.3,12,16,25…42
DN20	0.8~8	0.45~9	Thread (Flange)	6.3,2.5 (Flange)	4.0,6.3,12,16,25…42
DN25	1~10	0.5~10	Thread (Flange)	6.3,2.5 (Flange)	4.0,6.3,12,16,25…42
DN32	1.5~15	0.8~15	Thread (Flange)	6.3,2.5 (Flange)	4.0,6.3,12,16,25…42
DN40	2~20	1~20	Thread (Flange)	6.3,2.5 (Flange)	4.0,6.3,12,16,25…42
DN50	4~40	2~40	Thread (Flange)	2.5	4.0,6.3,12,16,25…42
DN65	7~70	4~70	Flange	2.5	4.0,6.3,12,16,25…42
DN80	10~100	5~100	Flange	2.5	4.0,6.3,12,16,25…42
DN100	20~200	10~200	Flange	1.6	4.0,6.3,12,16,25…42
DN125	25~2500	13~250	Flange	1.6	2.5,4.0,6.3,12,16…42
DN150	30~300	15~300	Flange	1.6	2.5,4.0,6.3,12,16…42
DN200	80~800	40~800	Flange	1.6	2.5,4.0,6.3,12,16…42

MODEL SELECTION

Model Suffix Code									Description
LWGY-									
Diameter									Three Digitals; for example: 010: 10 mm; 015: 15 mm; 080: 80 mm; 100: 100 mm
Converter	N								No display; 24V DC; Pulse Output
	A								No display; 24V DC; 4-20mA Output
	B								Local display; Lithium Battery Power; No output
	C								Local display; 24V DC Power; 4-20mA Output;
	C1								Local display; 24V DC Power; 4-20mA Output; Modbus RS485 Communication
	C2								Local display; 24V DC Power; 4-20mA Output; HART Communication
Accuracy		05							0.5% of Rate
		02							0.2% of Rate
Flow Range			S						Standard Range: refer to flow range table
			W						Wide Range: refer to flow range table
Body Material				S					SS304
				L					SS316
Explosion Rating					N				Safety Field without Explosion
					E				ExdIIBT6
Pressuring Rating						E			Per Standard
						H(X)			Customized Pressure Rating
Connection							-DXX		DXX: D06, D10, D16, D25, D40 D06: DIN PN6; D10: DIN PN10 D16: DIN PN16; D25: DIN PN25 D40: DIN PN40
							-AX		AX: A1, A3, A6 A1: ANSI 150#; A3: ANSI 300# A6: ANSI 600#
							-JX		JX: J1, J2, J4 J1: JIS 10K; J2: JIS 20K; J4: JIS 40K
							-TH		Thread; DN4...DN50
Fluid Temperature								-T1	-20...+80°C
								-T2	-20...+120°C
								-T3	-20...+150°C

DIMENSION



Diameter (mm)	Flange Connection					
	L (mm)	D (mm)	K (mm)	d (mm)	n (Holes)	Flange Thickness C (mm)
10	345	90	60	14	4	16
15	75	95	65	14	4	16
20	80	105	75	14	4	18
25	100	115	85	14	4	18
32	120	140	100	18	4	18
40	140	150	110	18	4	19
50	150	165	125	18	4	21
65	175	185	145	18	4	21
80	200	200	160	18	8	23
100	220	220	180	18	8	23
125	250	250	210	18	8	25
150	300	285	240	22	8	25
200	360	340	295	22	12	27