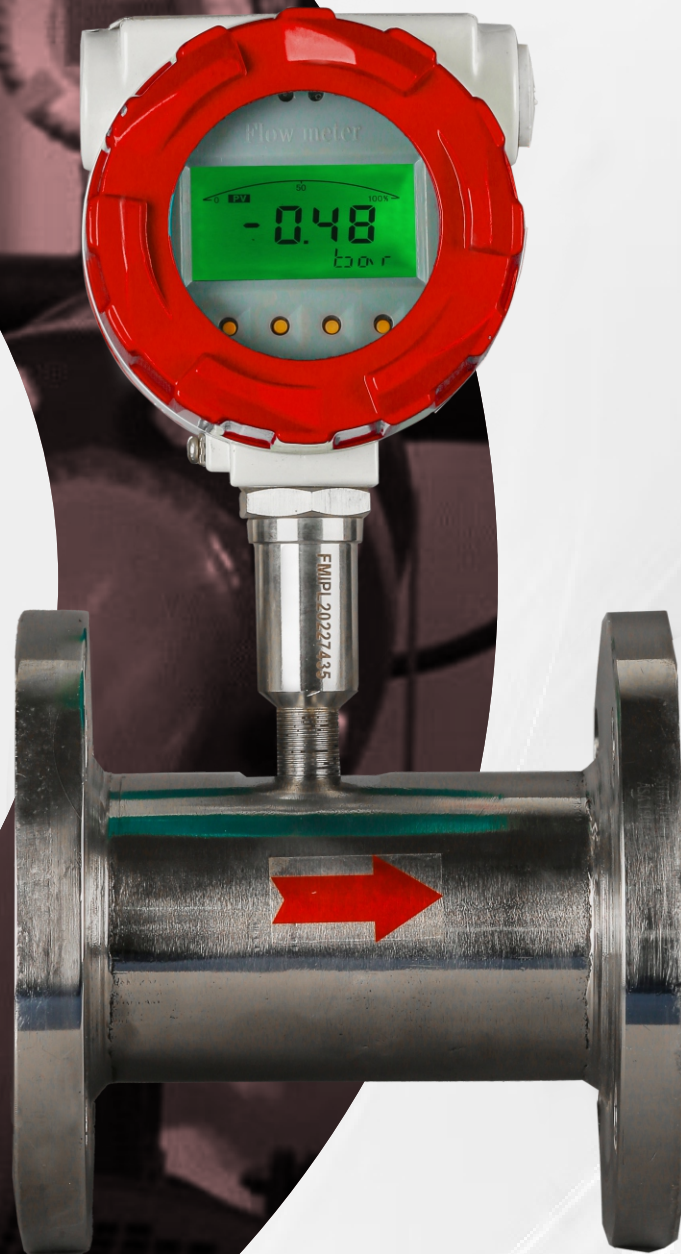


TURBINE FLOWMETER

TFM Series



CE

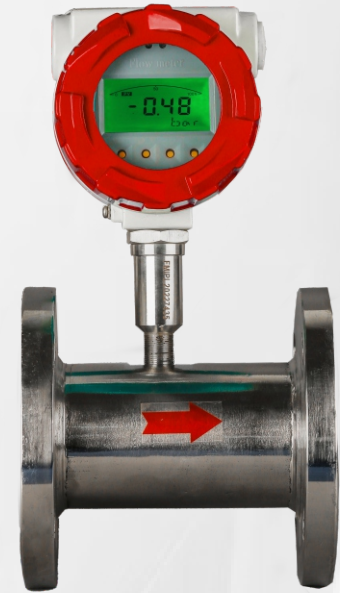




Product Description :

A turbine flow meter is used for volumetric total flow and/or flow rate measurement and has a 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 centre 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 pickoff(s) mounted on the flow meter body.



Integral Type Turbine Flowmeter

Features:

1. Highly sensitive to low flow rates
2. Very accurate over its entire flow range
3. Works in all kinds of liquids



Remote Type Turbine Flowmeter

Product Description :

Material of Construction

Enclosure	: S.S-304/S.S-316/S.S-316L
Rotor	: S.S-341
Shaft	: Hard Stainless Steel-316/316L with carbon bush Accuracy (standard installation position): +/- 0.5 OR 1% FSD
Repeatability	: 0.1%
Maximum working Pressure	: 6 Mpa
Fluid & Ambient Temperature	: -20° C to 120° C
Connection	: Threaded (M/F) OR Flanged

Pulse Output Sensor

Power Voltage	: 12 V DC
Output Signal	: NPN open connector
High Electric Level	: Higher than 8 V DC (input voltage 12 VDC)
Low Electric Level	: Lower than 0.8 V DC (input voltage 12 VDC)

Battery Operated Meter

Power Voltage	: 3.3 V10AH lithium batteries can be used more than 5 years in a row.
Display Mode	: Double row Liquid Crystal Display (LCD), as follows: L XXX. X four instantaneous flow (M ³ /Hr) or L/h XX. XXXXXX eight cumulative flow (M ³)

- Cumulative flow automatically expands the display precision
- The cumulative flow values can be reset
- Power-fail protection instrument coefficient
- The Total flow values are not lost for ten years when power supply drop

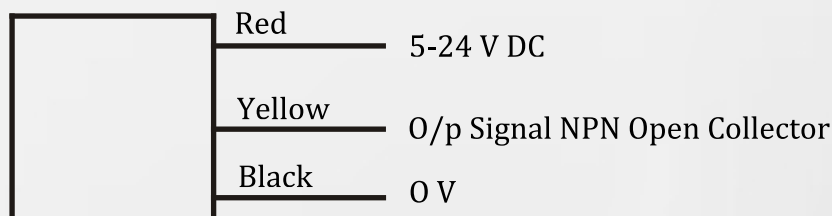
Display With 4 To 20 Ma Output

Power Voltage	: 24 V DC
Output Signal	: 4-20 mA/ 4-20 mA with HART Protocol

Capacity Table :

Line Size	Range
04 mm (¼")	40 – 400 LPH
09 mm (½")	200-2000 LPH
15 mm (½")	500 – 5000 LPH
25 mm (1")	1000 – 10000 LPH
40 mm (1½")	2000 – 20000 LPH
50 mm (2")	4000 – 40000 LPH
80 mm (3")	10000 – 100000 LPH
100 mm (4")	20000 – 200000 LPH
150 mm (6")	30000 – 300000 LPH
200 mm (8")	80000 – 800000 LPH

Electrical Connection:



Calibration Process:

1. Calibrated each flow sensor with three pressure point: 0.5, 4 and 25 Bar
2. All pressure calculates pulse / litter at: 25%, 50%, 75% and 100% flow rate
3. Calibrated with pure water at 25° C

Application:

Turbine flow meters are used to measure clean, dry gases and liquids such as hydrocarbons, chemicals, gases and vapours, fuels and other types of liquids with lower viscosity, and for **applications** requiring highly accurate and precise measurements. They are applicable in S.S. body and rotor flow measurements of Pharmaceutical, Drug, Food, Oil, Water and all other applications.

A. Oil and Gas

- Water injection
- Test and production separators
- Disposal wells
- Hydraulic fracturing
- Chemical injection
- Natural gas pipelines

B. Aerospace and Defence

- Engine Testing
- Fuel flow measurement
- Shipboard reverse osmosis systems
- Monitor fuel supply to ship engines

C. Pharma-Bio Tech, Food & Beverage

- Sanitary measurement
- Pill coating

D. Power Generation

- Custody transfer

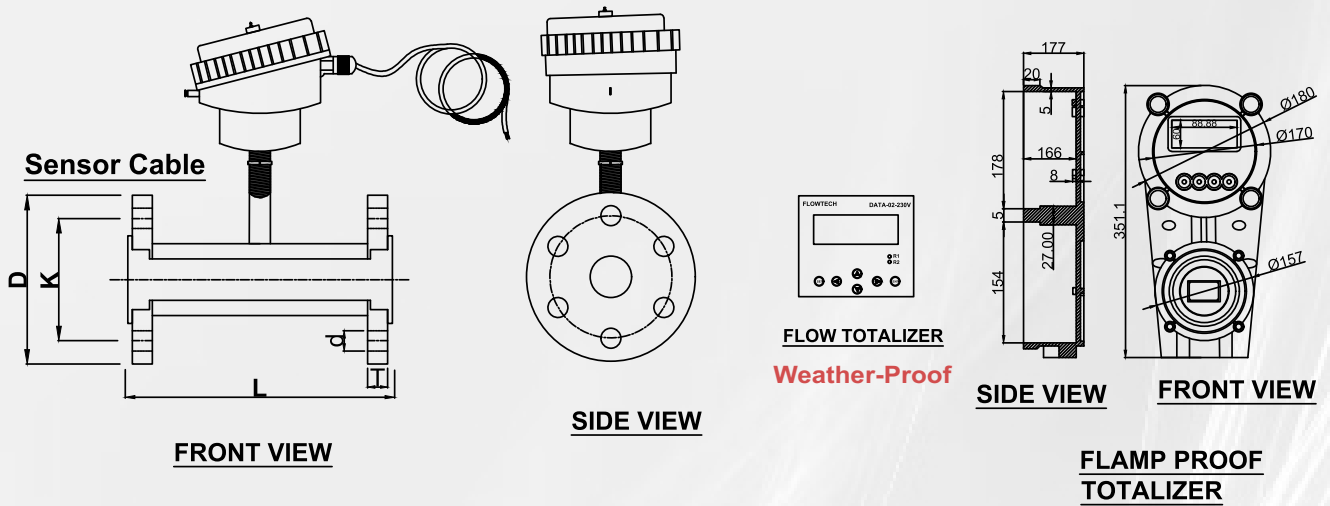
E. Industrial & Municipal

- Building automation
- HVAC
- Water metering

F. Cryogenics

- Liquids measurement for plant applications and truck deliveries

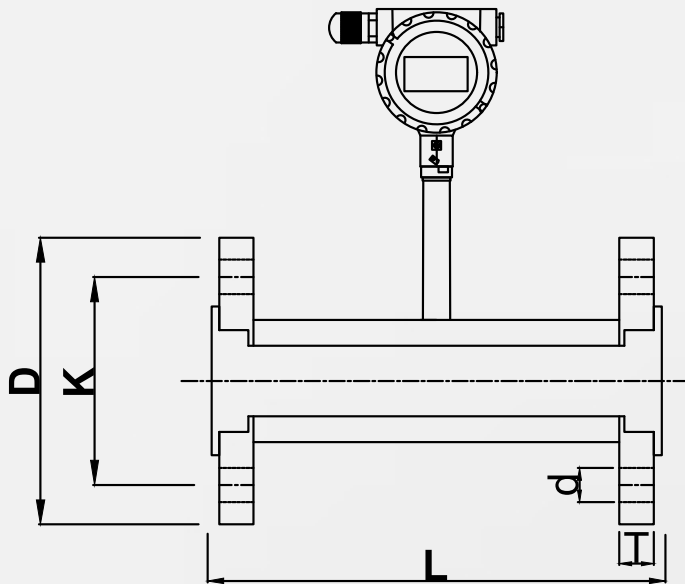
Dimensional Drawing for Flange End :



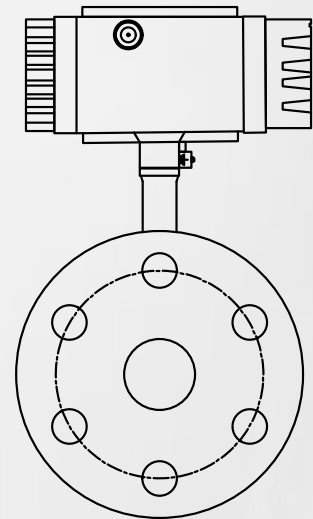
Size	L1	D1	D2	D3	H1	H2
15* NB	340	–	–	–	–	–
20 NB	100	98.42	20	–	106	114
25 (1") NB	106	108	25	45	106	114
32 (1½") NB	140	117.5	32	60	106	114
40 (1½") NB	140	127	40	62	106	114
50 NB	150	152	50	72	106	114
80 NB	200	190.5	80	100	106	114
100 NB	220	228.6	100	133	106	114
125 NB	247	254	125	133	106	114
150 NB	318	279.4	150	170	106	114

15 NB is Provided only in threaded connection

INTEGRAL TYPE



FRONT VIEW



SIDE VIEW

FLANGE STANDARD : ASA 150 # RF

LINE SIZE	TOTAL LENGTH (L)	OD (D)	PCD (K)	FLANGE THK.(T)	NO. OF HOLES & DIA.(d)
15	80	90	60	13	4 X Ø 16 MM
25	106	108	79	15	4 X Ø 16 MM
32	140	118	89	16	4 X Ø 16 MM
40	140	127	98	18	4 X Ø 16 MM
50	150	151	121	18	4 X Ø 19 MM
80	200	178	152	20	4 X Ø 19 MM
100	220	228	190	24	8 X Ø 19 MM
125	247	254	216	24	8 X Ø 22 MM
150	318	279	241	25	8 X Ø 22 MM



Product Ordering Information

Order Code for Turbine Flowmeter Decodification

Rotor Type	Description	Code
	Regular	R
	Helical	H

Output	Description	Code
	4-20mA	O 1
	4-20mA + HART	O 2

Transmitter	Description	Code
	Integral	I
	Remote	R

Communication Output	Description	Code
	RS 485	R 1
	Customised	C 1

Connection Type	Description	Code
	Flange	1
	Wafrer	2
	TC Joint	3
	Screwed	4

Power Supply	Description	Code
	24 VDC	P 1
	230 VAC	P 2
	Battery Operated	P 3
	Customised	Cust

Housing Type	Description	Code
	Weatherproof	WP
	Flameproof	FLP

FLOWTECH

Scan QR to Connect



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