

TURBINE FLOW METER

Features:

Medium Temperature	: -20~ +120°C
Ambient Temperature	: -20~ +55°C
Power Supply	: Battery / 24VDC Power Supply
Output	: 4-20mA
Distance of Output	: <1000m
Accuracy	: ±1%
Material of Construction	: SS304 / SS316



Measuring principle

The turbine meter is an indirect volumetric meter. Its main component is an axial turbine wheel turning freely in the flowing liquid. The turbine wheel is set in rotation by the fluid at a speed which is directly proportional to the average velocity of the fluid in the free cross-section of the turbine meter. The speed of the turbine wheel is therefore directly proportional to the volumetric rate of flow, with the number of revolutions proportional to the volume that has passed through the meter. The rotation will be transmitted through the housing wall by means of a non-interacting magnetic-inductive sensor to the electronic converter. From there a flow-proportional 4-20 mA signal, in addition to the integral display (with e.g. actual flow rate, total volume or resettable totalizer), is available. Major applications are process control or flow control loops in any branch of industry.

Applications

The turbine meter is used for flow and volume measurement of liquid media such as:

- Crude oils
- Mineral oils
- Acids
- Alkaline solutions
- Solvents
- Water

Turbine Flow Meters are built with nominal size of 4 to 200 mm.



Advantages

- Direct measurement of volume and flow rate
- Long meter life and reliability
- Measurement of low viscosities
- Measurement of non-conductive liquids possible (especially hydrocarbons)
- Highest accuracy/repeatability
- Minimized influence of flow profile and viscosity due to optimized design
- No zero drift
- Low pressure loss

Dimensions

Model	DN (mm)	L (mm)	H (mm)	G	L' (mm)	D (mm)	d (mm)	Hole No.
TM-4	4	275	145	G1/2	215			
TM-6	6	275	145	G1/2	215			
TM-10	10	450	165	G1/2	350			
TM-15	15	75	173	G1				
TM-25	25	100	180	G5/4				
TM-40	40	140	178	G2				
TM-50	50	150	252			Φ125	Φ18	4
TM-80	80	200	287			Φ160	Φ18	8
TM-100	100	220	322			Φ180	Φ1	8
TM-150	150	300	367			Φ250	Φ25	8
TM-200	200	360	415			Φ295	Φ23	12

Flow Ranges and Meter Sizes

Meter Size		Flow Range			
DN					
mm	Inch	m ³ /h			
4	1/8	0.04	to	0.25	m ³ /h
6	1/4	0.1	to	0.6	m ³ /h
10	3/8	0.2	to	1.2	m ³ /h
15	1/2	0.6	to	6	m ³ /h
20	3/4	0.7	to	7	m ³ /h
25	1	1	to	10	m ³ /h
40	1 1/2	2	to	20	m ³ /h
50	2	4	to	40	m ³ /h
80	3	10	to	100	m ³ /h
100	4	20	to	200	m ³ /h
150	6	30	to	300	m ³ /h
200	8	80	to	800	m ³ /h

Connection: 4-40mm Thread connection

40-200mm Flange connection

For further details please contact:

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