

**INDUSTIX PRECISE SOLUTIONS PRIVATE LIMITED** manufacture various digital flow meter used in industry as per fluid property. Turbine flow meter is used for measuring the instant flow rate of clean liquid as well as gas. It consists of turbine rotor mechanism, pickup coil, and an electronics module. the velocity of flow is directly proportional to the flow rate. Media it can measure is water, oil, diesel, solvent, chemical and any clear liquid. viscosity should be less than 20 CP.

## Working Principle

The mechanical part of turbine flow meter consists of turbine rotor assembly in which turbine rotor is made of magnetic material and of aerodynamic shape so as to convert the flow energy into rotational energy.

The shaft of the turbine rotor is made up of tungsten carbide which rolls on the bush bearing. The velocity of the fluid passing through line is directly proportional to that of the rotational speed of the turbine rotor.

The magnetic pickup sensor mounts externally in the same plane as that of the turbine rotor. The Magnetic pickup sensor consists of coil & magnet.

The magnetic pickup sensor is detachable to below turbine flow meter body.

As the fluid flows through mechanical rotor it causes the turbine aerodynamic shape rotor to rotate. The magnetic pickup sensor which is mount close to the turbine rotor without Piercing the meter body is able to sense cutting of magnetic field caused due to rotation of rotor blade.

Which in terms create the frequency signal output. This generated signal is use to represent the flow rate and total volume of fluid passing through the turbine flow meter.

Which can also be convert into different measuring units such as cubic meters, liters, kilograms, tons and cubic feet etc on the display of turbine flow meter.



## Features

- Available in Line Size Ranges: 4mm to 200mm
- Power Supply: Battery / 24VDC Power Supply
- Direct measurement of volume and flow rate
- Long meter life and reliability
- Measurement of low viscosity liquids
- Measurement of non-conductive liquids is possible(especially hydrocarbons)
- Direct measurement of volume and flow rate
- No Zero drift
- Low pressure loss

## Applications

- Process Industries
- Housing Complex
- Any suitable liquid for SS Metal
- Mineral Oils
- Crude Oils
- Alkaline fluids
- Acids
- Water
- Solvents

## Process Parameters

Fluid	Liquids
Specific Gravity	Up to 2.95
Viscosity	Up to 100 CP
Design Pressure	Up to 100 Kg/Cm <sup>2</sup>
Measuring Range	0.2 to 350M <sup>3</sup> /hr

## Mechanical Specifications

Line Size	15 NB to 150NB
Turbine Rotor	SS 410
Pipe MOC	SS304, SS316
Design Temperature	Up to 150° C
Connection	Flanged to ASA, BS, Screwed, TC

## Electronics Specifications

Programming	By Membrane Key
Power Supply	24 VDC Isolated, 230 VAC, 110VAC
Out Puts	4-20mA, 4wire, Pulse
Communication	RS 485 MODBUS
Accuracy	± 1% of FSD & ± 0.5% on request
Linearity	± 0.5 %
Repeatability	± 0.5 %

## Why use Turbine Flow Meter

Turbine flow meter is a cost effective option if you are looking for digital flow meter for measurement of fluid. It has an integral LCD display which indicates the flow rate & total consumption of fluid pass through the flow meter.

Fluids which have less conductivity you can't use Electromagnetic Flow Meter, then this is the best option.

It can also give the current output signal of 4-20 mA, which you can use to connect it to your DCS or BMS system. With the help of this, you will be able to check the flow rate & total consumption of flow meter in your DCS or BMS system which further can use for data logging.

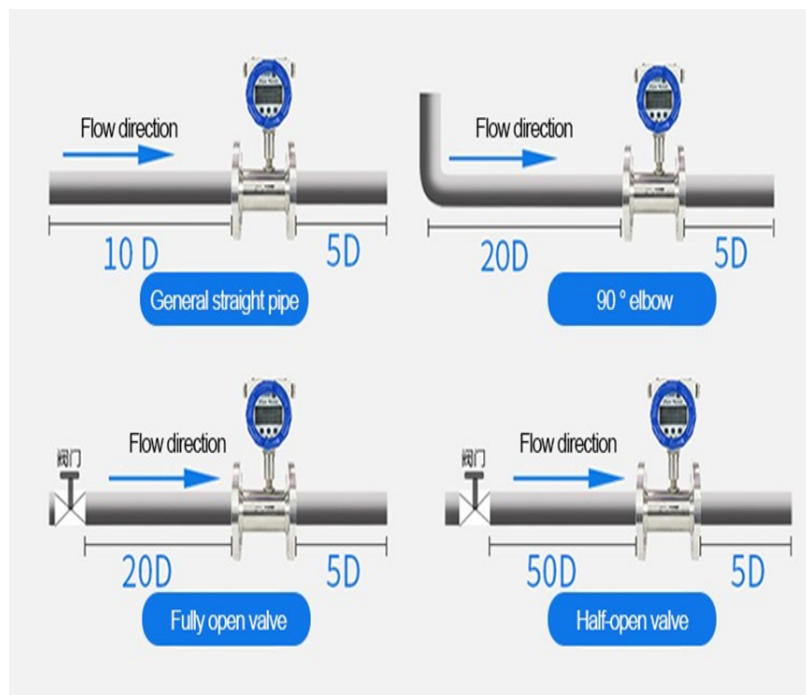
It has an advance feature of RS 485 communication port. Used to check the flow in your computer and automation systems with the help of USB interface and software. It is using in industrial applications where higher speeds and longer distances.

It also has an option of Batcher, which have one relay output and is dedicate to the batch amount and can activate for pre-warn or batch/grand total. You can Start, stop and reset the batch functions which can activate from integral display front panel key.

It has a Die-cast aluminum flameproof enclosure. And is design in such a manner that, If the explosion inside the enclosure occurs due to some short circuit. It will not send the flame or spark outside to hazardous atmosphere.

The availability flow meter in various line size results in the satisfactory of customers need. Time-saving, high accuracy, robust construction, less pressure drop, easy installations etc.

## Installation



Due to continuous development of our products technical information's are subject to change.

Please ensure the compatibility between the measured medium and the contacting part of the product when placing an order.

IPSPL reserves the right to make any change in this datasheet without notice. The information provided is believed to be accurate and reliable as of this product sheet.

Contact factory for custom configurations not shown



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