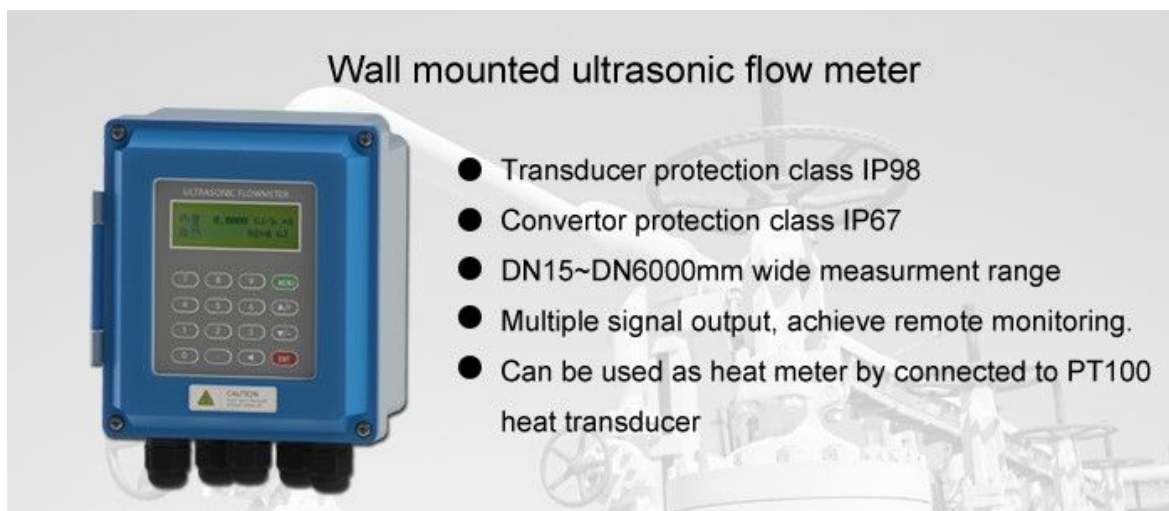


## TUF-2000B ULTRASONIC FLOW METER DN 50 MM - DN 700 MM WALL MOUNTED TYPE ULTRASONIC LIQUID FLOWMETER IP 67 PROTECTION



### Introduction of Ultrasonic flow meter:

TUF-2000B Flowmeter can be virtually applied to a wide range of long-term online measurement. The enclosure comes with protection class IP67 and transducer protection class IP98. Variety of liquid applications can be accommodated ultra-pure liquids, portable water, chemicals, raw sewerage, reclaimed water, cooling water, river water, plant etc.

## Performance and Parameters:

Items	Performance & Parameters	
Convertor	Principle	Transit-time ultrasonic flowmeter
	Accuracy	±1%
	Display	2x20 characters LCD with backlight, support the language of English
	Signal output	1-way 4-20 mA output, electric resistance 0-1 K, accuracy 0.1%
		1-way OCT pulse output (Pulse width-1000 ms, default is 200 ms) 1-way Relay output
	Signal input	3-way 4-20 mA input, accuracy 0.1%, acquisition signal such as temperature, press and liquid level
Connect the temperature transducer PT-100, can finish the heat/energy measurement.		
Data Interface	Insulate RS-485 serial interface, upgrade the flowmeter software by computer, support the MODBUS.	
Special Cable	Twisted-pair cable, generally, the length under 50 meters, select the RS-485, transmission distance can over 1000 m	
Pipe Installation Condition	Pipe material	Steel, stainless steel, cast iron, copper, cement pipe, PVC, Aluminum, glass steel product, liner is allowed
	Pipe diameter	25-6000 mm
Measuring Medium	Straight pipe	Transducer installation should be satisfied: upstream 10 D, downstream 5 D, 30 D from the pump.
	Type of liquid	Single liquid can transmit sound wave; such as water (hot water, chilled water, city water, sea water, waste water, etc.); sewage with small particle content, oil (crude oil, lubricating oil, diesel oil, fuel oil, etc.); chemicals (alcohol, etc.); plant effluent; beverage; Ultra-pure liquids, etc.
	Temperature	-30-160°C
	Turbidity	No more than 10,000 ppm and less bubble
	Flow rate	0-±7 m/s
Working Environment	Temperature	Convertor: -20-60°C; Flow Transducer: -30-160°C
	Humidity	Convertor: 85% RH; Flow Transducer: can measure under water, water depth ≤2 m
Power Supply	DC 8-36 V or AC 85-264 V (Optional)	
Power Consumption	1.5 W	
Dimensions	132*150*85 mm (convertor)	

## Standard Packing:

TUF-2000B Host

Steel Belt

TM-1 Ultrasonic Transducer

2 x 5 m flow signal cable optional transducers:



Please choose the suitable transducer, according to different liquid pipe condition and installation method, (please refer to the measuring diagram).

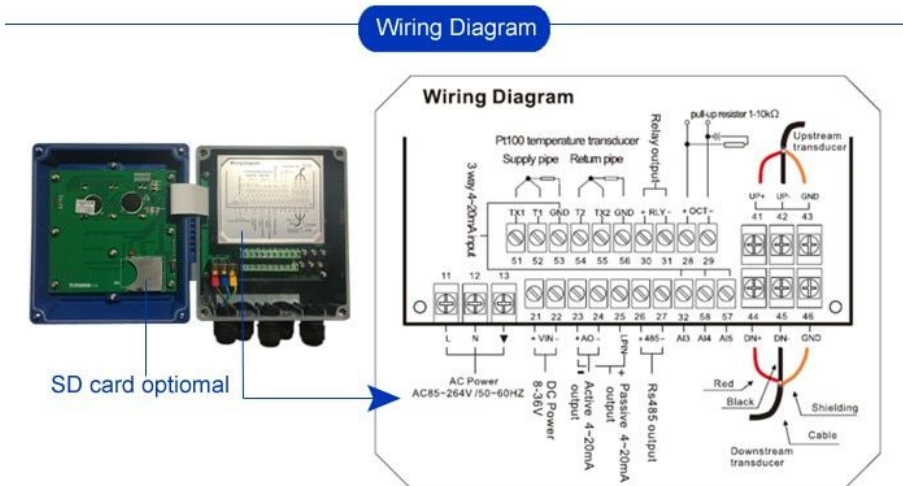
Types	Picture	Spec.	Model	Measurement Range	Temperature	Dimension
Clamp on		Small Size	TS-2	DN25~DN100	-30~90℃	45×25×32mm
		Medium Size	TM-1	DN50~DN700	-30~90℃	64×39×44mm
		Large Size	TL-1	DN300~DN6000	-30~90℃	97×54×53mm
High temp clamp on		Small Size	TS-2-HT	DN15~DN100	-30~160℃	45×25×32mm
		Medium Size	TM-1-HT	DN50~DN700	-30~160℃	64×39×44mm
		Large Size	TL-1-HT	DN300~DN6000	-30~160℃	97×54×53mm
Insertion		Standard	TC-1	DN80~DN6000	-30~160℃	190×80×55mm
		Lengthen	TC-2	DN80~DN6000	-30~160℃	335×80×55mm
Pipe		π type	G1	DN15~DN32	-30~160℃	SUS304 thread connection
		Standard	G2	DN40~DN1000	-30~160℃	carbon steel thread connection

Please refer to detailed pipe dimensions

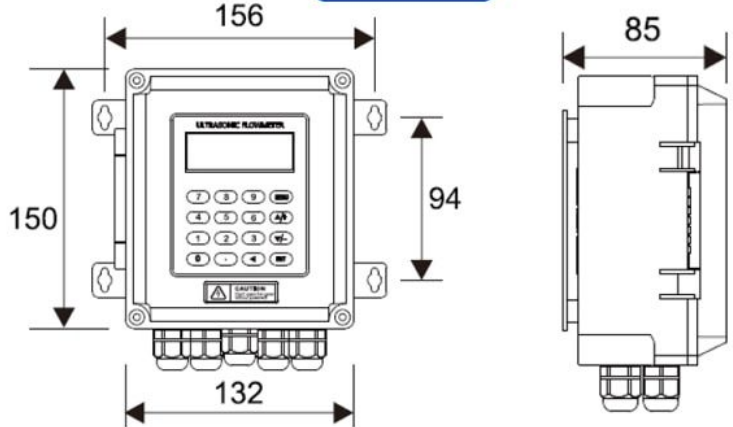


Optional temperature transducers PT-100:

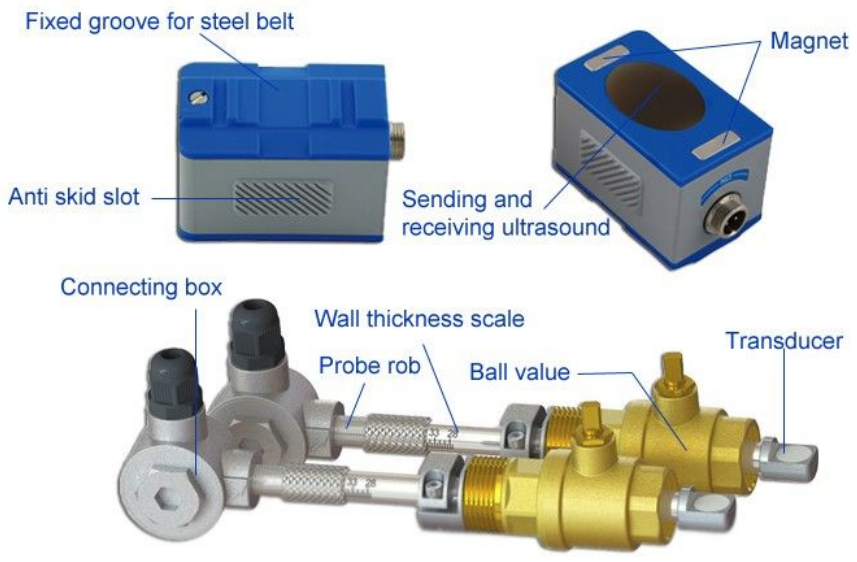
PT100	Picture	Model	Accuracy	Cut off water	Measuring Range	Temperature
Clamp on		CT-1	±1%	No	DN50-6000mm	-40°C-160°C
Insertion Type		TCT-2	±1%	Yes	DN50-6000mm	-40°C-160°C
Insertion Type Installation with pressure		PCT-1	±1%	NO	DN50-6000mm	-40°C-160°C
Insertion Type for small pipe diameter		SCT-1	±1%	Yes	DN15-50mm	-40°C-160°C



### Dimension



### Sensor Detail

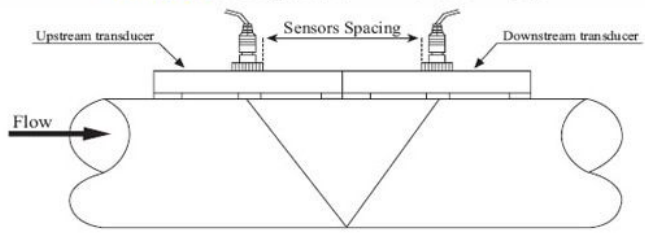


### Installation

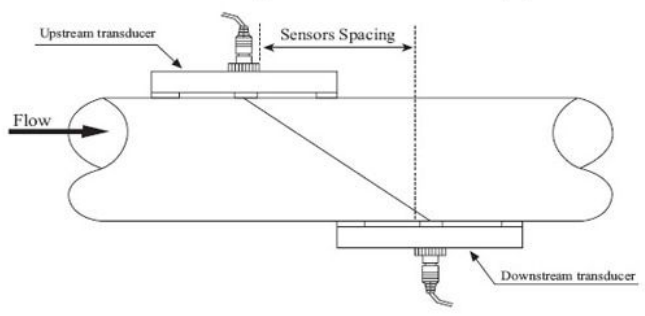


### Installation Method

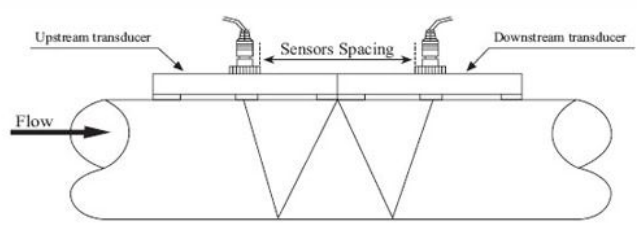
**V method** usually used on DN20~300mm pipe







**Z method** usually used on DN300~500mm pipe



**W method** usually used on DN10~100mm pipe



Top View	Bottom View	Side View	Wiring Diagram
 <ol style="list-style-type: none"> <li>1 Fastening groove of puller strap</li> <li>2 Fastening groove of wire rope</li> <li>3 Fastening groove of steel belt</li> <li>4 Fastening screw</li> <li>5 Indicating arrow of signal direction</li> </ol>	 <ol style="list-style-type: none"> <li>6 Acoustic wedge</li> <li>7 Powerful magnet</li> <li>8 Antiskid groove</li> <li>9 Signs of upstream and downstream</li> <li>10 Cable interface</li> </ol>	 <ol style="list-style-type: none"> <li>11 Starting point of installation distance</li> <li>12 Product information label</li> </ol>	 <ol style="list-style-type: none"> <li>13 Positive terminal</li> <li>14 Negative terminal</li> <li>15 Earth terminal</li> <li>16 Junction box</li> </ol>





