



## TUF-2000B Ultrasonic Flow Meter, Digital Wall Mounted Ultrasonic Water Liquid Flow Meter Flowmeter Heat Meter DN32-6000 TM-1 Ultrasonic Transducer IP67 Protection

### Product Description

#### Basic Parameters :

Accuracy :  $\leq 1\%$

Velocity range :  $0 \sim \pm 10 \text{m/s}$ , Bi-directional measurement

Pipe size : DN32~DN6000mm

Temperature :  $-30 \sim 160^\circ\text{C}$

Type of liquid : Single liquid can transmit ultrasound, such as water, sea water, sewage, oil, alcohol, etc.

Pipe material : Steel, stainless steel, cast iron, copper, PVC, aluminum, glass steel, etc. Liner is allowed.

#### Signal output :

1 way 4-20mA output

1 way OCT pulse output

1 way Relay output

Signal input : 3 way 4-20mA input, achieve to heat measurement by connecting PT100 platinum resistor.

Interface : RS485, support MODBUS

Data storage : SD card regularly store the pre-set results(optional)

Power supply : DC8~36V or AC85~264V

### Multiple Installation Methods:

Installation methods:Wall mounting and Two ways of Din-rail mounting

### Package including:

TUF-2000B Host











Steel Belt

TM-1 Ultrasonic Transducer

2 x 5 meters 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	DN25~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

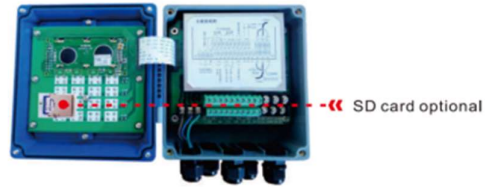
## | Optional Temperature Transducers |

Connect the temperature transducer can finish the heat/energy measurement

Picture	Specification	Model	Meas. Range	Temperature	Cut of water	Accuracy
	Clamp on temperature Transducer Pt100	CT-1	>DN50	-40~160℃	No	100℃ ± 0.8℃
	Insertion temperature Transducer Pt100	TCT-1	>DN50	-40~160℃	Yes	
	Insertion Pt100 Installation with pressure	PCT-1	>DN50	-40~160℃	No	
	Insertion Pt100 Small size pipe diameter	SCT-1	< DN50	-40~160℃	Yes	

## | Optional SD card memory |

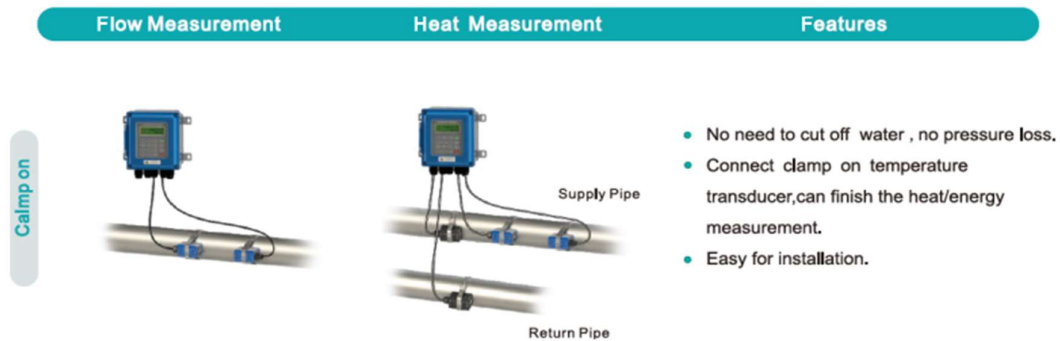
Convenience for long-term and large data storage. Available to do the data processing like tabulation, statistical, data analysis, printing reports and production flow curve by using data analysis software.



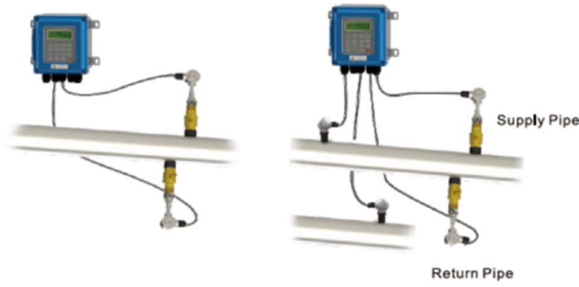
## | Introduction |

TUF-2000B flowmeter can be virtually applied to a wide range of in long-term online measurement. Converter protection class IP67, transducer protection class IP68. A variety of liquid applications can be accommodated: ultra-pure liquids, portable water, chemicals, raw sewage, reclaimed water, cooling water, river water, plant effluent.etc

## | Measuring Diagram |



Insertion



- No need to cut off water , no pressure loss.
- Stable and reliable for long term operation.
- Connect Pt100 temperature transducer, can finish the heat/energy measurement.

Pipe



- Need to cut off pipe
- With high accuracy and stability
- Connect Pt100 temperature transducer, can finish the heat/energy measurement

| Datasheet |

Items		Performance & Parameter
Converter	Principle	Transit-time ultrasonic flowmeter
	Accuracy	± 1%
	Display	2 × 20 character LCD with backlight, support the language of Chinese, English, Italy, Turkish
	Signal Output	1 way 4~20mA output, electric resistance 0~1K. accuracy 0. 1%
		1 way OCT pulse output (Pulse width ~1000ms, default is 200ms)
		1 way Relay output
	Signal Input	3 way 4~20mA input, accuracy 0. 1% , acquisition signal such as temperature, press and liquid level
Connect the temperature transducer Pt100, can finish the heat/energy measurement		
Data Interface	Insulate Rs485 serial interface, upgrade the flowmeter software by computer, support the MODBUS	
Special Cable	Twisted-pair cable, generally, the length under 50 meters; Select the RS485, transmission distance can over 1000m	
Pipe Installation Condition	Pipe Material	Steel, Stainless steel, Cast iron, Copper, Cement pipe, PVC, Aluminum, Glass steel product, liner is allowed
	Pipe Diameter	15~6000mm
	Straight Pipe	Transducer installation should be satisfied: upstream 10D, downstream 5D, 30D from the pump
Measuring Medium	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;
	Temperature	-30~160℃
	Turbidity	No more than 10000ppm and less bubble
	Flowrate	0~±7m/s
Working Environment	Temperature	Converter: -20~60℃; Flow Transducer: -30~160℃
	Humidity	Converter: 85% RH
Power Supply	Dc8~36V or Ac85~264V (optional)	
Power Consumption	1. 5W	
Dimension	132*150*85 mm(converter)	