

# TRANSIT TIME ULTRASONIC FLOW METER/CALORIMETER with Clamp-on Ultrasonic Transducers

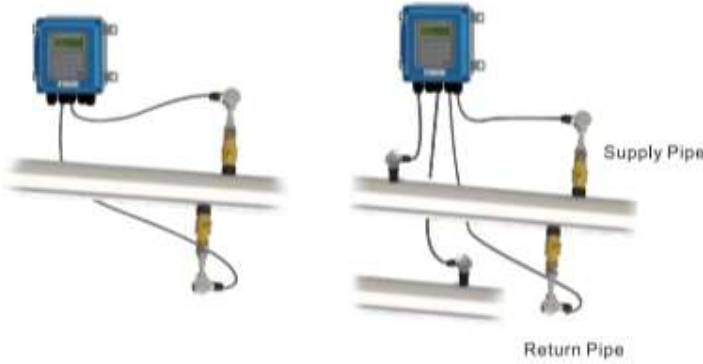
## TFM2000-NG

Clamp on



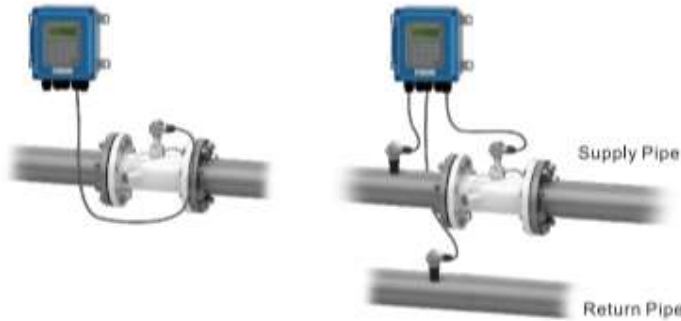
- No need to cut off water, no pressure loss.
- Connect clamp on temperature transducer, can finish the heat/energy measurement.
- Easy for installation.

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.





## 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°C	45X25X32mm	
		Medium Size	TM-1	DN50-DN700	-30-90°C	64x39x44mm	
		Large Size	TL-1	DN300-DN6000	-30-90°C	97x54x53mm	
High Temperature		Small Size	TS-2-HT	DN15-DN100	-30-160°C	45X25X32mm	
		Medium Size	TM-1HT	DN50-DN700	-30-160°C	64x39x44mm	
		Large Size	TL-1-HT	DN300-DN6000	-30-160°C	97x54x53mm	
Insertion		Standart	TC-1	DN80-DN6000	-30-160°C	190x80x55mm	
		Lengthen	TC-2	DN80-DN6000	-30-160°C	335x80x55mm	
Pipe		II type	G1	DN15-DN32	-30-160°C	SUS304 thread connection	Please refer to detailed pipe dimensions
		Standart	G2	DN40-DN1000	-30-160°C	Carbon steel thread connection	

## 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°C	No	100°C±0.8°C
	Insertion temperature Transducer Pt100	TCT-1	>DN50	-40 - 160°C	Yes	
	Insertion Pt100 Installation with pressure	PCT-1	>DN50	-40 - 160°C	No	
	Insertion Pt100 Small size pipe diameter	SCT-1	>DN50	-40 - 160°C	Yes	

## Data Sheet

Items		Performance & Parameter
Convertor	Principle	Transit time ultrasonic flowmeter
	Accuracy	±1%
	Display	2x20 character LCD with backlight, support the language of Chienese,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 4-20 Ma 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 softwareby computer, support MODBUS.	
Special Cable	Twisted-pair cable, generally, the lenght under 50 meters; select the RS485, transmission distance can over 1000m.	
Pipe Installation Condition	Pipe Material	Stell, Stainless stell, Cast iron, Copper, Cement pipe, PVC, Aluminum, Glass steel product, liner is allowed.
	Pipe Diameter	25-6000 mm
	Straight Pipe	Transducer installation should be satisfied: upstream10D,downstream 5D,30D from the pump.
Measuring Medium	Type of Liquid	Single liquid can transmit sound wave, such as water(hot water, chilled water,sea water,waste water, etc) : Sewage with small particle content;Oil(crude oil,lubricating oil,diesel oil,fuel oil, etc) Ultra-pure liquids, etc.
	Temperature	-30 - 160°C
	Turbidity	No more than 10000ppm and less bubble.
	Flowrate	0-±7m/s
Work Envirement	Temperature	Convertor: -20-60°C: Flow Transducer: -30-160°C
	Humidity	Convertor: %85RH: Flow Transducer: can measure under water, water dept≤2m(transducer sealed glue)
Power Supply	Dc8-36V or Ac85-264V(optional)	
Power Consumption	1.5W	
Dimension	132*150*85mm (convertor)	