

Ultrasonic flow/heat module / RTU is suitable for system integrators supporting projects, water resources or heating systems and other network monitoring projects flow measurement, with a small size, low price, simple operation, complete output interface features



Features

- **High accuracy**
1%。
- **Measure range is big**
Choose different sensors for DN32-DN1000 pipe size
- **High reliability**
Low-voltage, multi-pulse circuits provide a significant increase in life and reliability
- **Powerful**
One 4-20mA output can be used as a flow heat transmitter, two OCT outputs can be used as a flow heat switch, three 4-20ma inputs can be used as a data collector, and two 3-wire PT100 resistance signal inputs can be used as a heat meter.
- **Transmission distance, network shortcut**
RS485 communication, ordinary cable can be networked, very convenient and fast

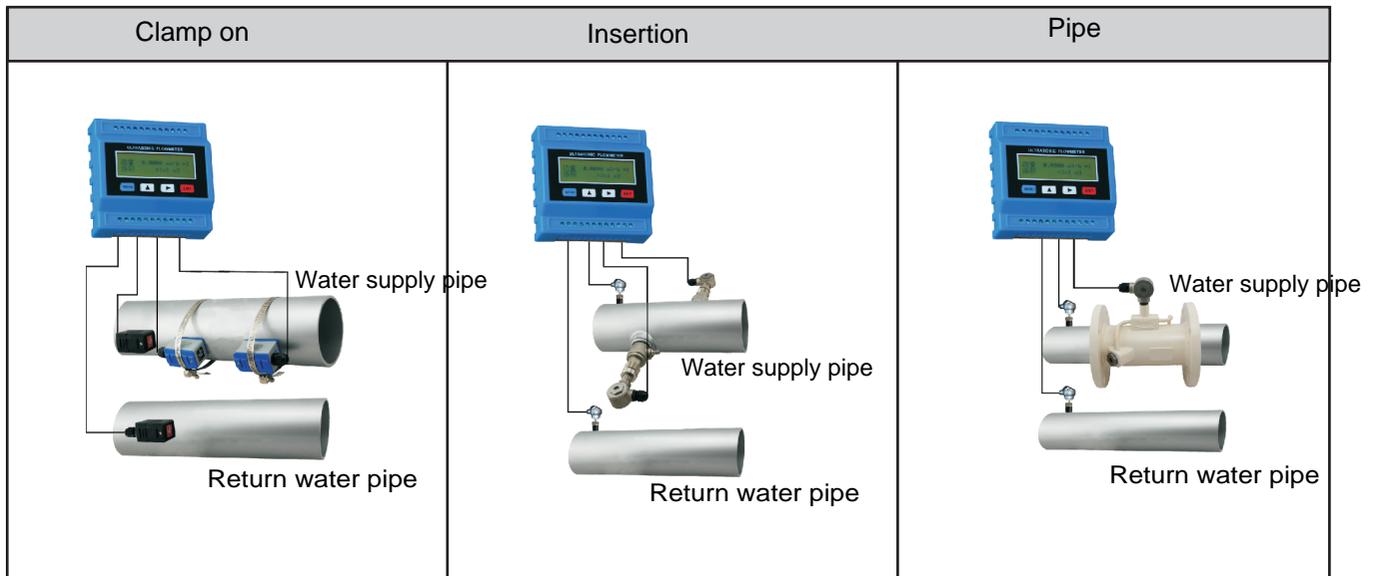
Flow measurement composition diagram

Clamp on	Insertion	Pipe
		
<ul style="list-style-type: none"> • No need cut the pipe • Accuracy $\pm 1\%$ • Simple installation • Can be used for different pipe size • Applicable to conditions with better working conditions 	<ul style="list-style-type: none"> • No need cut the pipe • Accuracy $\pm 1\%$ • Need hole opener for installation • Price is higher, can be used for different pipe size • Good signal, stable and reliable 	<ul style="list-style-type: none"> • Need cut the pipe • Accuracy $\pm 1\%$ • The bigger the pipe size, the higher the price • Good signal, stable and reliable

Optional sensor

	Picture	Specification	Model	Pipe size	Temperature	Dimension
Standard clamp on		small	TS-2	DN32-DN65	-40~90℃	45×25×28mm
		medium	TM-1	DN80-DN400	-40~90℃	64×39×44mm
		big	TL-1	DN450-DN1000	-40~90℃	97×54×53mm
High T clamp on		small	TS-2-HT	DN32-DN65	-40~160℃	45×25×28mm
		medium	TM-1-HT	DN80-DN400	-40~160℃	64×39×44mm
		big	TL-1-HT	DN450-DN1000	-40~160℃	97×54×53mm
Insertion		standard	TC-1	DN80-DN1000	-40~160℃	190×80×55mm
		Extended type	TC-2	DN80-DN1000	-40~160℃	335×80×55mm
Pipe		π type	G3	DN15~DN25	-40~160℃	
		standard	G2	DN32/DN40	-40~160℃	
		standard	G1	DN50-DN300	-40~160℃	

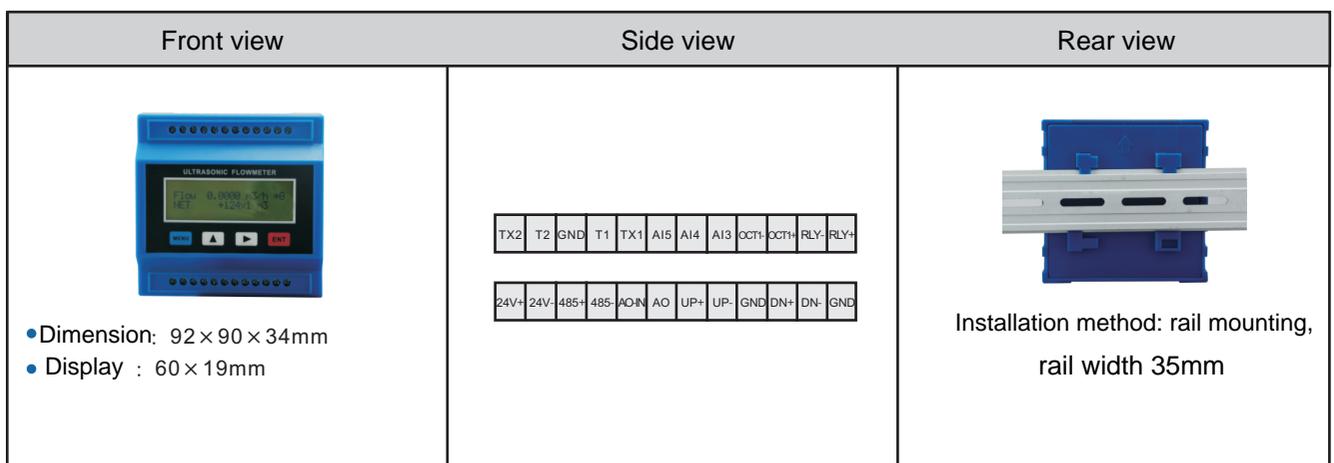
Heat measurement composition diagram



Optional temperature sensor

Picture	Specification	Model	Range	Temperature	Installation	Accuracy
	three wire PT100 clamp on temperature sensor	CT-1	≥DN50	-40-160℃	No need cut	100℃ ± 0.8℃ Temperature difference after exact match < 0.1℃
	three wire PT100 insertion temperature sensor	TCT-1	≥DN50	-40-160℃	Need cut	
	three wire PT100 insertion temperature sensor with pressure	PCT-1	≥DN50	-40-160℃	No need cut	
	small pipe three wire PT100 insertion temperature sensor	SCT-1	<DN50	-40-160℃	Need cut	

Parts Description



Technical parameters

Category		Performance parameters
Host	principle	Principle of ultrasonic time difference,
	Accuracy	Flow : $\pm 1\%$, Thermal $\pm 2\%$, Repeatability 0.2%, Linearity : 0.5%
	Operating	4 key touch keyboard
	Signal output	one 4-20mA current output
		one OCT pulse output
		one relay output
	Signal input	three 4-20ma current input
Three-wire PT100 platinum resistance can be connected for thermal measurement		
Data interface	RS485 interface, modbus protocol	
Cable	Twisted pair , Under normal circumstances 50 meters, 485 communication up to kilometers	
Pipe	Pipe material	Steel, stainless steel, cast iron, copper, PVC, aluminum and all other dense pipes
	Pipe size	32-1000mm
	straight pipe	sensor installation: before sensor:10D, after sensor:5D,30D from the pump outlet
Medium	Medium	Water, water, seawater, alcohol, etc. can conduct ultrasound single uniform liquid
	Temperature	40~160℃
	Turbidity	10000ppm Small bubble content
	Velocity	0~ ± 10 m/s
Working environment	Temperature	host : -20~60℃ ; flow sensor : -40~160℃
	Humidity	host : 85%RH; flow sensor : Soaking work, deep <2m Sensor after gluing
Power supply	DC8-36V or AC10~30V	
Power consumption	1.5W	