Ultrasonic Flowmeter

SR6100S

Introduction

- Flow meter is a high-end, wall-mount ultrasonic flow meter adopting TGA transit-time difference technology. It was designed and implemented by using Intel's FPGA chip. Both clamp-on and insertion transducers are available.
- Innovative and patented design of covers hides all screws after installation. 4 lines LCD screen presents a clearer and broader vision. Membrane keyboard offers longer service life and more comfortable hand feeling.
- Flow meter has superiority of high measuring rate of more than 300 times a second, high accuracy of better than 1.0% and high tolerance rate to continuous bubbles or impurities up to 5 seconds.

glued transducers

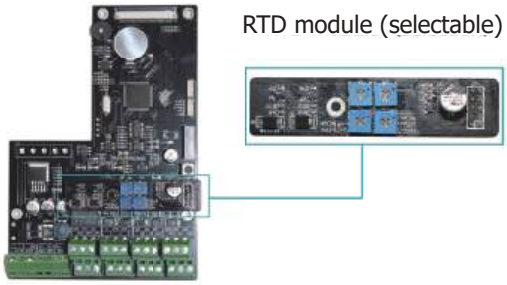
normal temp. transducer TT01

high temp. transducer TT03

Clamp-on flow transducers adopt imported sealant and sealed by glue inside.
Integrated production of transducer and signal cable makes it true IP68 waterproof rating.
Matching degree between each pair of transducers is ≤ 2 nanoseconds.
Innovative hidden design of clamp fixtures is attractive and practical.

PT1000 temperature sensor

RTD module (selectable)



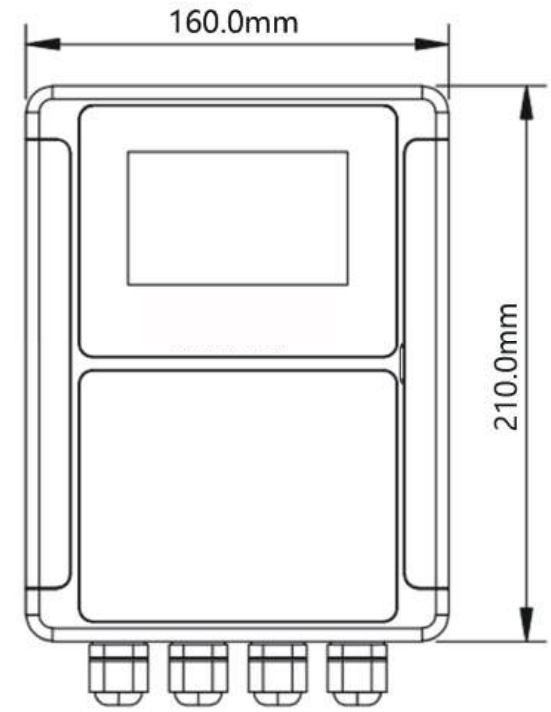
Flow meter can also be used in conjunction with the RTD module and the PT1000 temperature sensor to become an energy meter for measurement of heat and cold consumption of heating pipelines and air-conditioning refrigeration pipelines.
PT1000 uses high-temperature resistance cables. Sensitivity and durability are much higher than normal PT100.

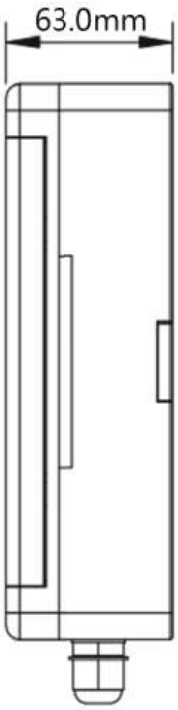
Specification

Performance	
Flow range	±0.09ft/s ~ ±39ft/s (±0.03m/s ~ ±12m/s)
Accuracy	±1% of measured value
Repeatability	0.2% of measured value
Linearity	±1%
Pipe size	DN25mm~DN1200mm DN15~DN40mm (A pair of sensors)
Function	
Outputs	Analog output: 4~20mA, max load 750Ω. Pulse output: 0~10KHz
Communication	RS232/RS485 Modbus. (M-BUS or HART optional)
Power supply	DC10~36V/AC90~245V
Display	240*128 backlit LCD
Temperature	Transmitter: -14°F~140°F(-20°C~60°C) Transducer: -40°F~176°F(-40°C~80°C,TT01、TT02) Transducer: -40°F~266°F(-40°C~130°C,TT03、TT05) Transducer: -40°F~356°F(-40°C~180°C,TT02H) Transducer: 32°F~149°F(0°C~65°C,TT02S) Transducer: 32°F~239°F(0°C~115°C,TT03S)
Humidity	Up to 99% RH,non-condensing
Physical	
Transmitter	PC+ABS,IP65
Transducer	Encapsulated design,IP68 Double-shielded transducer cable Standard/maximum cable length:30ft/1000ft(9m/300m)

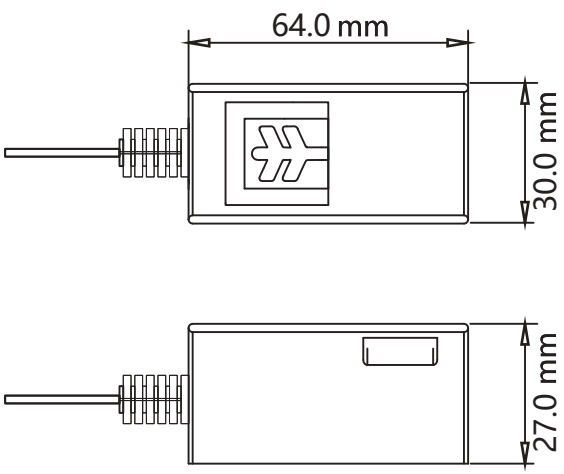
Product dimension

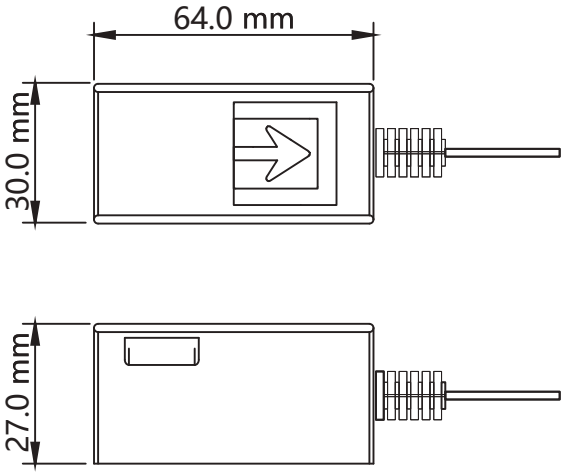
Transmitter dimension





Transducer dimension





Configuration diagram

Standard configuration weight

Transmitter weight: 0.96kg

Transducer weight: 1.0kg

Gross weight: 3.11kg

Transducer weight

Transducer weight
TT01:1.0kg

Transducer weight
TT02:1.69kg

Transducer weight
TT03:1.66kg

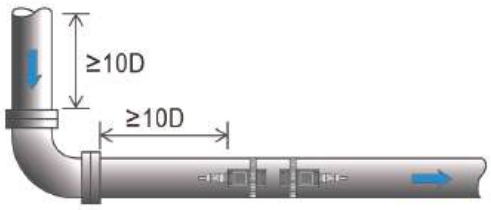
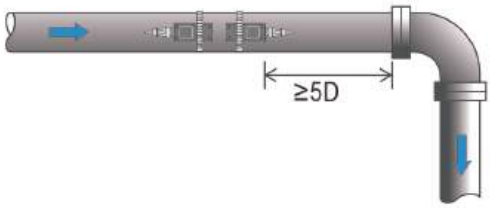
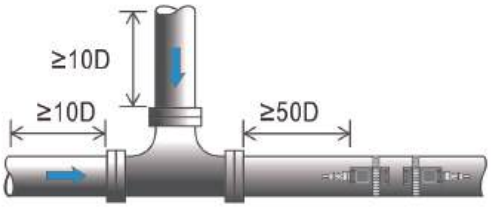
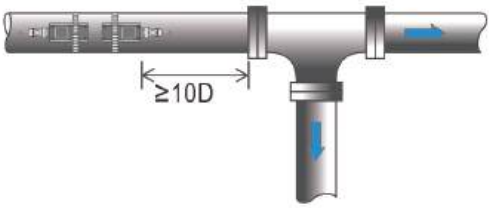
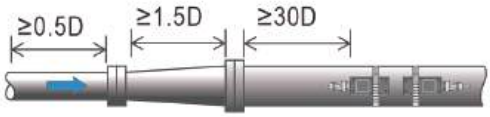
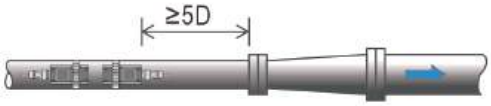
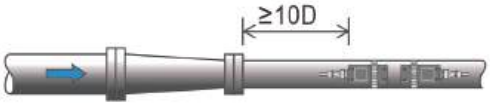
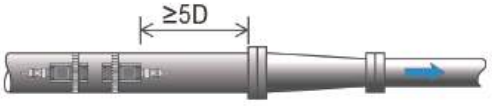
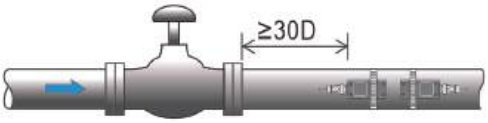
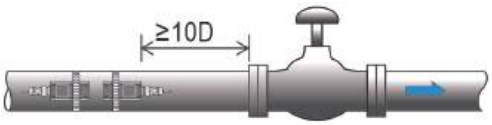
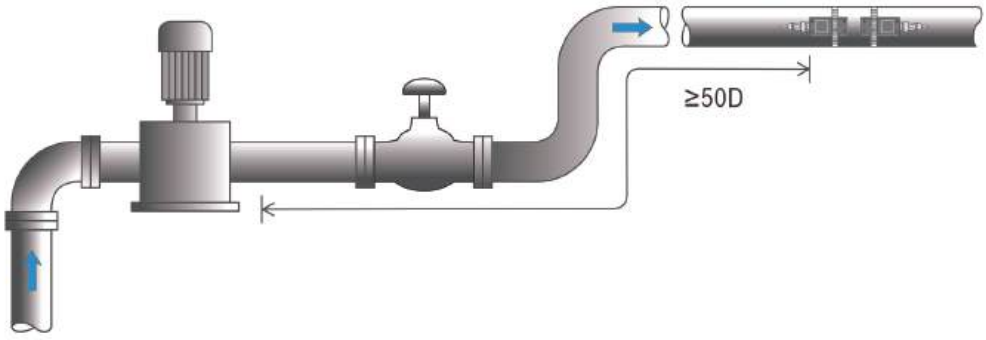
Transducer weight
TT02H:1.66kg

Transducer weight
TT02S/TT03S:0.21kg

Transducer weight
TT05:3.63kg

Installation requiremt

The first condition for using ultrasonic flow meter is the pipe must be full of liquid. Bubbles in pipe will greatly influence the accuracy of the measurement. Please avoid the following installation position:

mounting point	straight pipe length before upstream transducer	straight pipe length after downstream transducer
90° bend		
Tee		
Expanding pipe		
Reducing pipe		
Valve		
Pump		

Ordering confirmation

Model	Transmitter
Flow meter	Flow range: ±0.09ft/s ~ ±39ft/s (±0.03m/s ~ ±12m/s) Accuracy : ±1% of the measure value Repeatability: 0.2% of the measure value Display: 240*128 backlit LCD Power supply: DC10~36V/AC90~245V Transmitter enclosure: IP65, PC+ABS (Temperature: -20°C~50°C) Output: OCT pulse output 0-10KHz, Relay output, 4-20mA Communication: RS232/RS485, Modbus Protocol. (M-BUS or HART optional)
Code	**Output**
1	OCT, Relay, RS232/RS485, 4-20mA
2	OCT, Relay, RS232/RS485, 4-20mA, RTD
Code	**Transducer**
TT01	Clamp-on. Material:engineering plastics.For -40~+80°C liquids,DN25~DN1200 pipes.
TT02	Clamp-on. Material:aluminium alloy.For -40~+80°C liquids,DN25~DN1200 pipes.
TT03	Clamp-on. Material:aluminium alloy.For -40~+130°C liquids,DN25~DN1200 pipes.
TT02H	Clamp-on. Material:aluminium alloy.For -40~+180°C liquids,DN25~DN1200 pipes.
TT02S	Clamp-on. Material:aluminium alloy.For 0~+65°C liquids,DN15~DN40 pipes.
TT03S	Clamp-on. Material:aluminium alloy.For 0~+115°C liquids,DN15~DN40 pipes.
TT05	Insertion. Material:aluminium alloy.For -40~+130°C liquids,DN100~DN1200 pipes.
XXX	**Transducer cable length**
030	Standard length 30ft (9m)
XXX	Max length to 1000ft (300m)
Code	**Temperature sensor**
PT1000	Pt1000 temperature sensor (selectable)
Code	**Memory**
SD	32G SD card module (selectable)

Standard configuration : Flow meter - 1 - TT01 - 030

Description : Flow meter transmiter with TT01 clamp-on transducers , OCT,Relay,RS485, and 4-20mA output ,30ft cable.

Optional Transducers(DN25-DN1200mm)

Clamp-on ： Flow meter-TT01
（Operating temperature： -40℃ ~ +80℃）

Clamp-on ： Flow meter-TT02
（Operating temperature： -40℃ ~ +80℃）

Clamp-on ： Flow meter-TT03
（Operating temperature： -40℃ ~ +130℃）

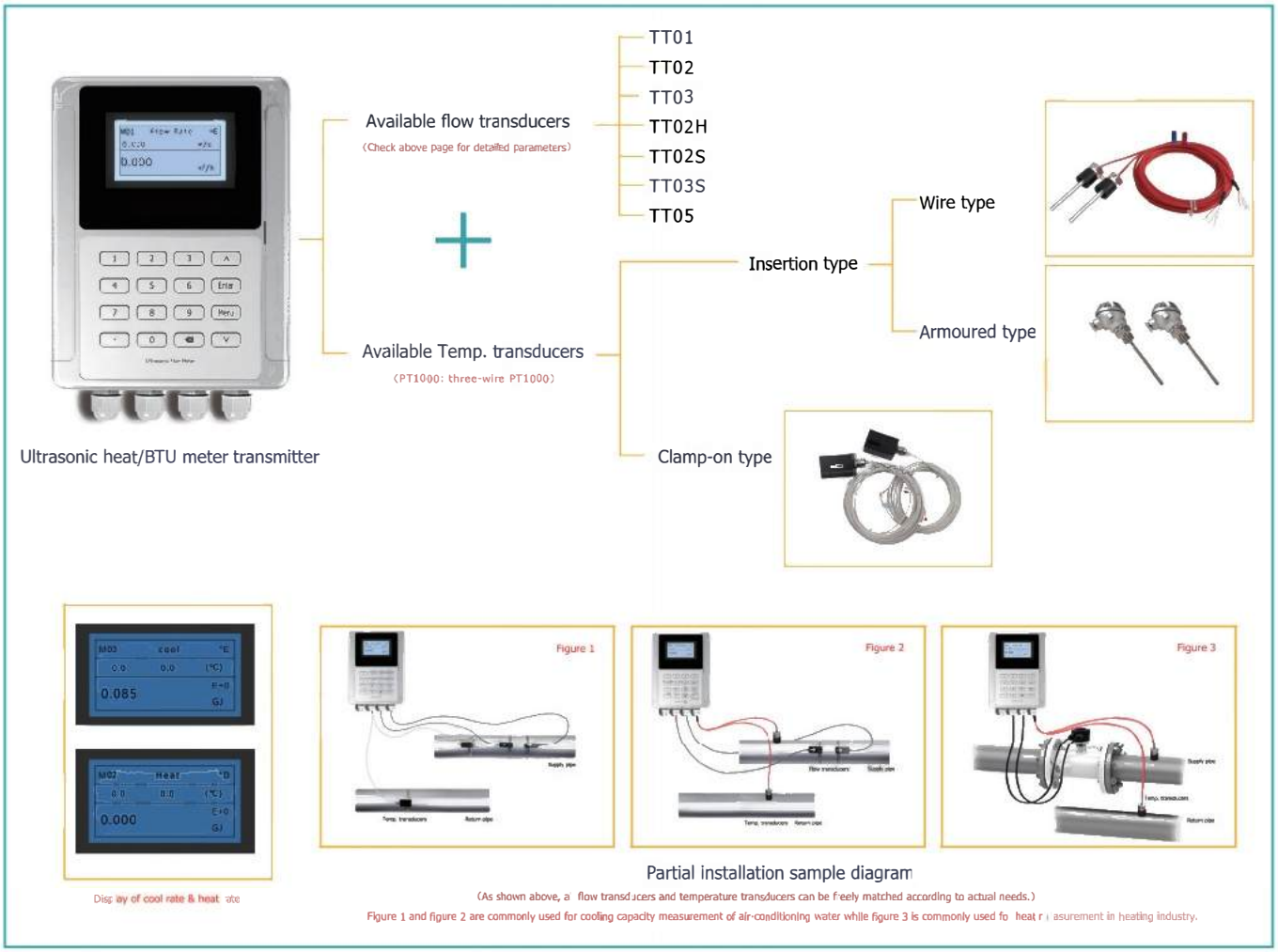
Clamp-on ： Flow meter-TT02H
（Operating temperature： -40℃ ~ +180℃）

Insertion-type：Flow meter-TT05 （Operating temperature： -40℃ ~ +130℃）

Optional Transducers（DN15-DN40mm）

Clamp-on ： Flow meter-TT02S （Operating temperature：0℃ ~ +65℃）
Clamp-on ： Flow meter-TT03S （Operating temperature：0℃ ~ +115℃）

Optional Transducers+PT1000



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