

LONGRUN

ULTRASONIC FLOWMETER SAMPLE BOOK

TYPE:LRF-3000S
Concentrating on Flow
Measurement

LONGRUN
Industrial Instrument
Co., Ltd



Introduction



glued transducers

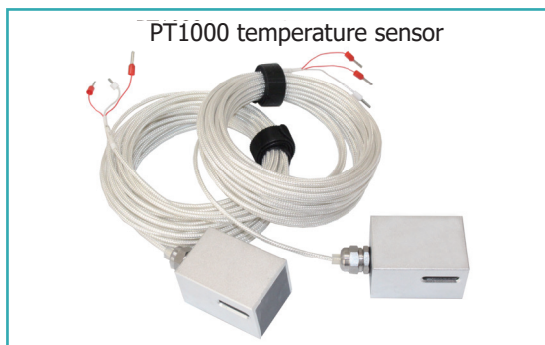


normal temp. transducer TT01

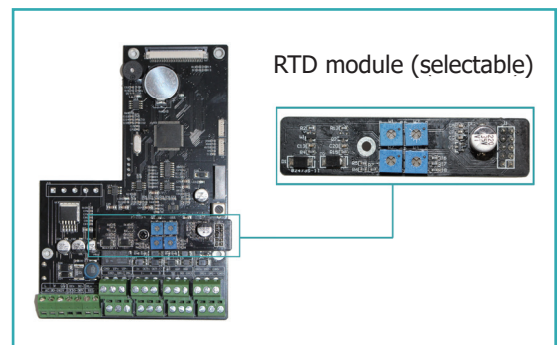


high temp. transducer TT03

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)

LRF-3000S 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.

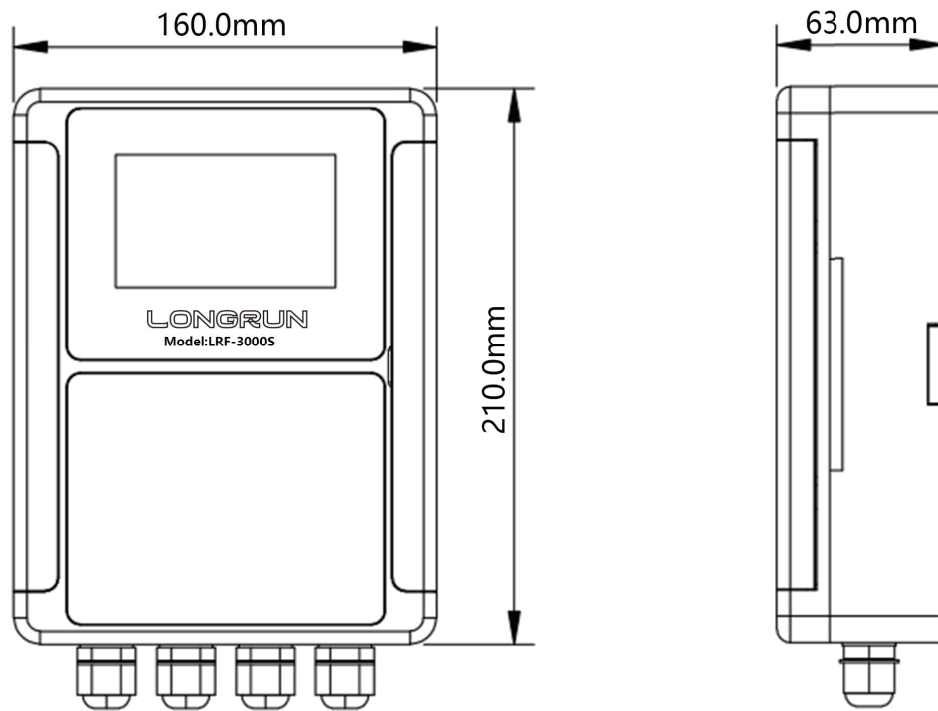
Specification

Performance	
Flow range	$\pm 0.09\text{ft/s} \sim \pm 39\text{ft/s}$ ($\pm 0.03\text{m/s} \sim \pm 12\text{m/s}$)
Accuracy	$\pm 1\%$ of measured value
Repeatability	0.2% of measured value
Linearity	$\pm 1\%$
Pipe size	DN25mm~DN1200mm(A pair of sensors)
Function	
Outputs	Analog output: 4~20mA, max load 750 Ω . Pulse output: 0~10KHz
Communication	RS232/RS485 Modbus
Power supply	10~36VDC/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) Transducer: -40°F~266°F(-40°C~130°C,TT03) Transducer: -40°F~356°F(-40°C~180°C,TT02H)
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)

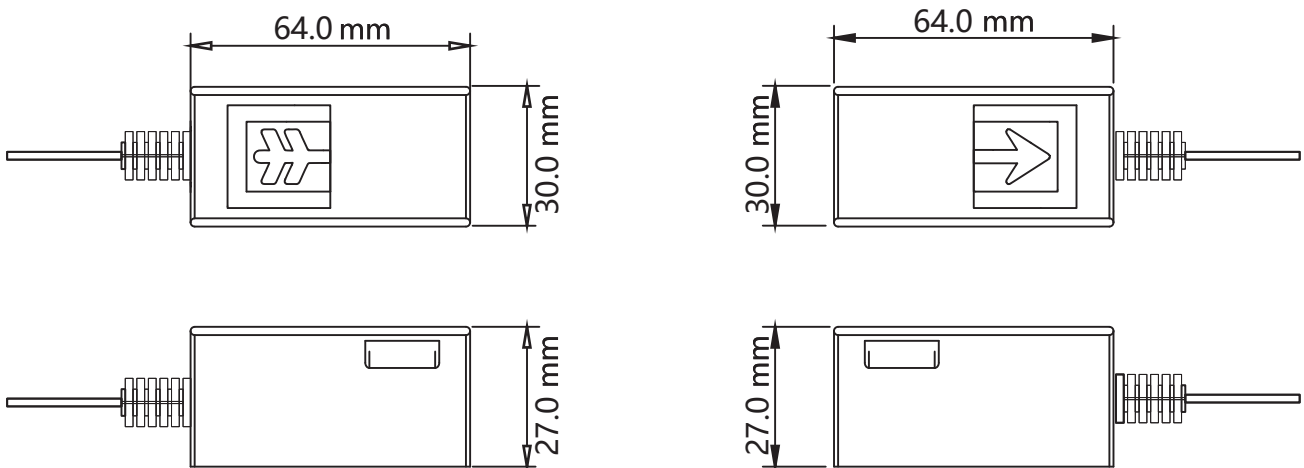
1.0 Clamp-on type

Product dimension

Transmitter dimension



Transducer dimension



1.0 Clamp-on type

LRF-3000S Ultrasonic Flowmeter

Configuration diagram



Product weight

1.0 Clamp-on type



Transmitter weight:
0.96kg



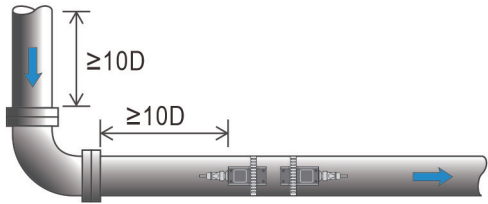
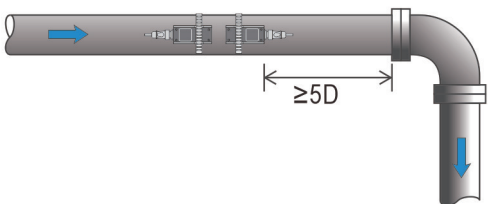
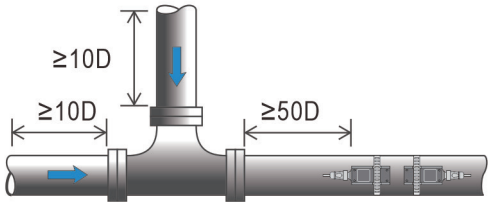
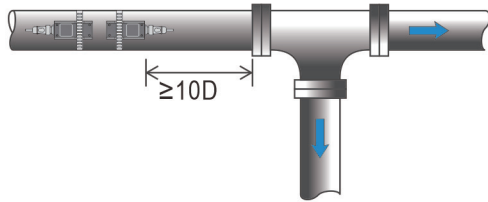
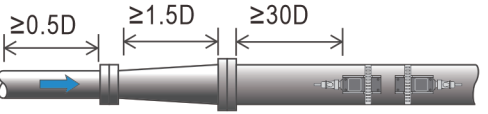
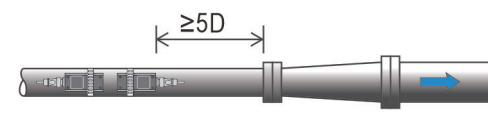
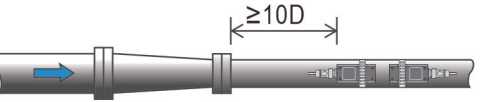
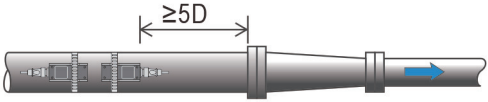
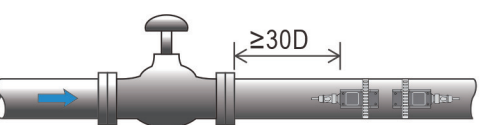
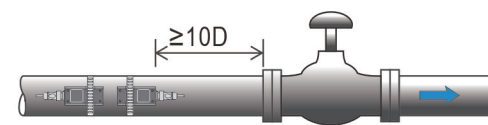
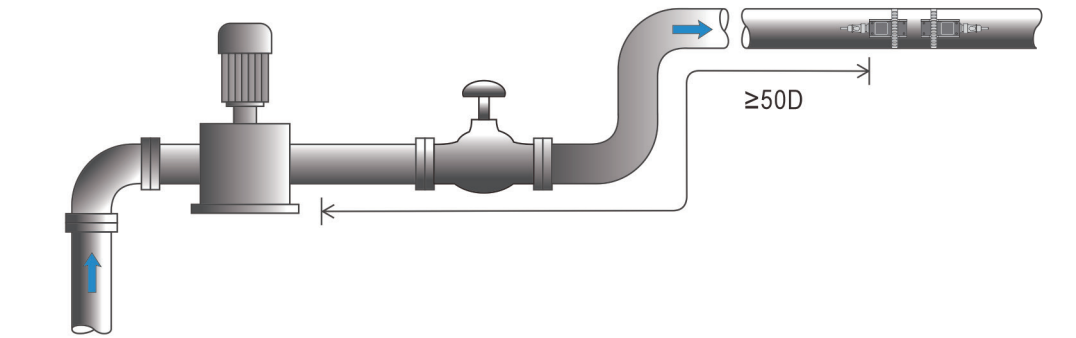
Transducer weight:
1.0kg



Gross weight:
3.11kg

Installation requirement

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		

1.0 Clamp-on type

Ordering confirmation

Model	Transmitter
LRF-3000S	Ultrasonic flowmeter wall-mount type Flow range: $\pm 0.09\text{ft/s} \sim \pm 39\text{ft/s}$ ($\pm 0.03\text{m/s} \sim \pm 12\text{m/s}$) Accuracy : $\pm 1\%$ of the measure value Repeatability: 0.2% of the measure value Display: 240*128 backlit LCD Power supply: 10~36VDC/AC90~245V Transmitter enclosure: IP65, PC+ABS (Temperature: -20°C~50°C) Output: OCT pulse output 0-10KHz, Relay output, 4-20mA optional Communication: RS232/RS485, Modbus Protocol
Code	Output
1	OCT, Relay, RS232/RS485, 4-20mA
2	OCT, Relay, RS232/RS485, 4-20mA, RTD
Code	Transducer
TT01	Clamp-on, IP68. Operating temperature: -40 °F ~ +176 °F (-40°C ~ +80 °C)
TT03	Clamp-on, IP68. Operating temperature: -40 °F ~ +266°F (-40°C ~ +130 °C)
TT02H	Clamp-on, IP68. Operating temperature: -40 °F ~ +356 °F (-40°C ~ +180 °C)
XXX	Transducer cable length
030	Standard length 30ft (9m)
XXX	Max length to 1000ft (300m)
Code	Temperature sensor
PT1000	Pt1000 temperature sensor+RTD module(selectable)
Code	Memory
SD	SD card(8G)+ SD card module(selectable)

Standard model: LRF-3000S - 1 - TT01 - 030

Description: Standard ensure clamp-on type ultrasonic flowmeter, OCT, Relay, RS485, 4-20mA, 30ft cable.

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