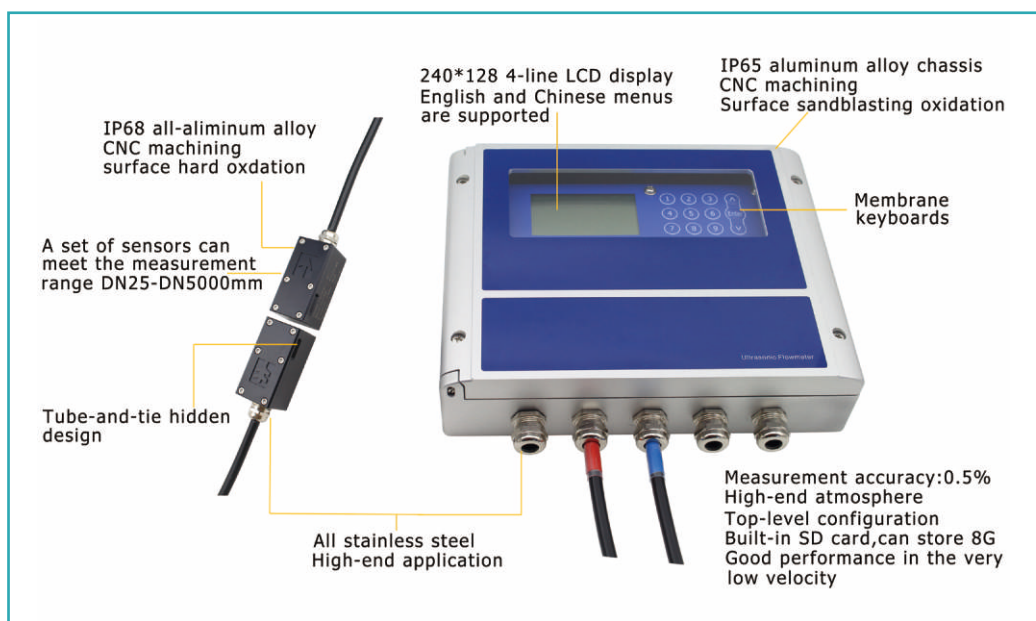# Introduction

It is a wall-mount, clamp- on type ultrasonic flowmeter which use the transfer time technology. Clamp on type ultrasonic flowmeter is easy to install and no need to cut off the pipe, that saves you lots of troubles and cost. At the same time It has our unique calculate software to ensure the high accuracy and low velocity response.

0.5 Clamp-on type

The flowmeter could add the RTD model and temperature sensor become an energy meter to monitoring the energy use, help to save the energy.


Illustrative

IP68 all-aliminum alloy CNC machining surface hard oxdation

A set of sensors can meet the measurement range DN25-DN5000mm

Tube-and-tie hidden design

All stainless steel High-end application

240*128 4-line LCD display English and Chinese menus are supported

IP65 aluminum alloy chassis CNC machining Surface sandblasting oxidation

Membrane keyboards

Measurement accuracy:0.5% High-end atmosphere Top-level configuration Built-in SD card,can store 8G Good performance in the very low velocity

Specification

0.5 Clamp-on type

| Performance	
Flow range	±0.09ft/s ~ ±40ft/s (±0.03m/s ~ ±12m/s)
Accuracy	±0.5% of reading (for ±1.5ft/s~±40ft/s)
Repeatability	0.1% of measured value
Linearity	±0.5%
Pipe size	DN25mm to DN5000mm(A pair of sensors)
Function	
Outputs	Analog output: 4~20mA, max load 750 Ω. Pulse output: 0~9999Hz, OCT, (min. and max. frequency is adjustable) Relay output: SPST, max 1Hz,(1A@125VAC or 2A@30VDC)
Communication	RS232&RS485
Memory	TF card (Max 8G)
Power supply	90 to 245 VAC, 48 to 63 Hz. Or 10 to 36VDC
Display	240*128 back lit LCD
Temperature	Transmitter: -40℃~140 ℃(-40℃~60 ℃) Transducer: -40℃~176℃(-40℃~80℃,standard) 32℃ ~ +356℃(0℃ ~ +180℃,High Temp type)
Humidity	Up to 99% RH,non-condensing
Physical	
Transmitter	IP65
Transducer	IP68 Encapsulated design Double-shielded transducer cable Standard/maximum cable length:30ft/1000ft(9m/305m)

▌Product size ▌

● Transmitter size

64.0mm   254.0mm   230.0mm
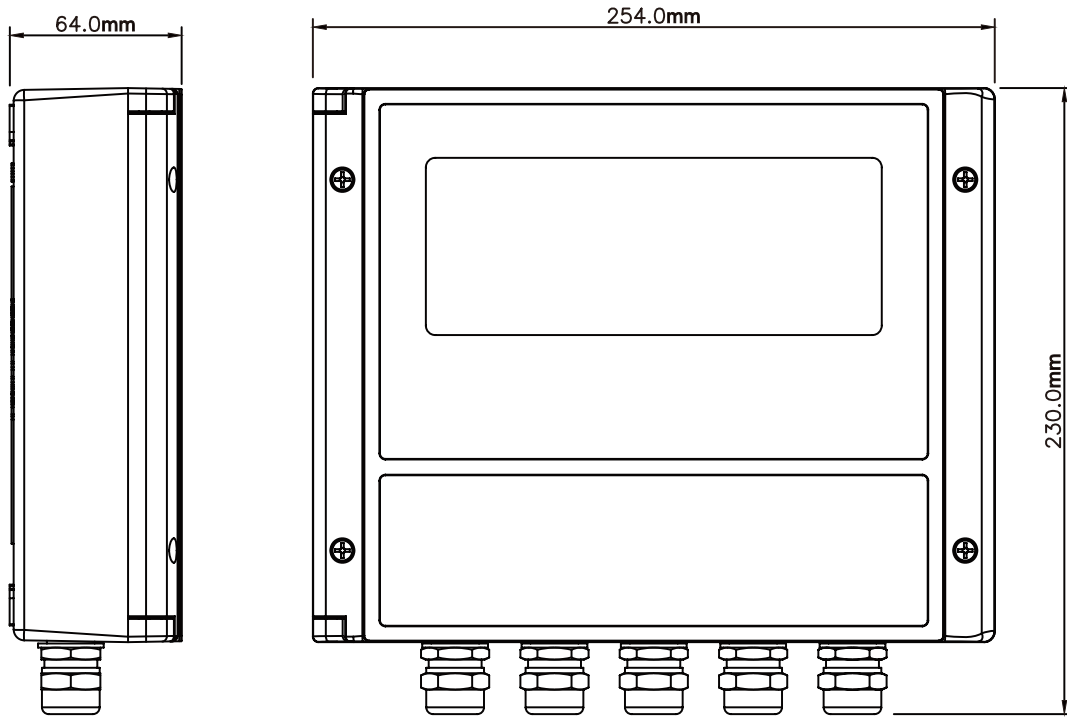
0.5 Clamp-on type

● Transducer size

68.0mm   68.0mm

34.0mm   34.0mm

34.0mm   34.0mm
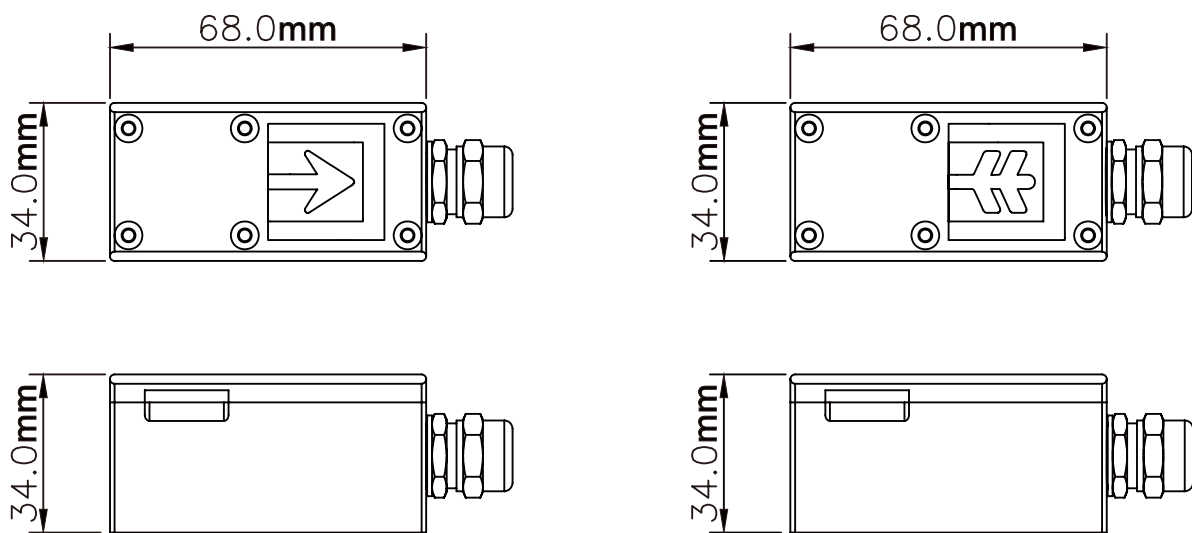
Product weight
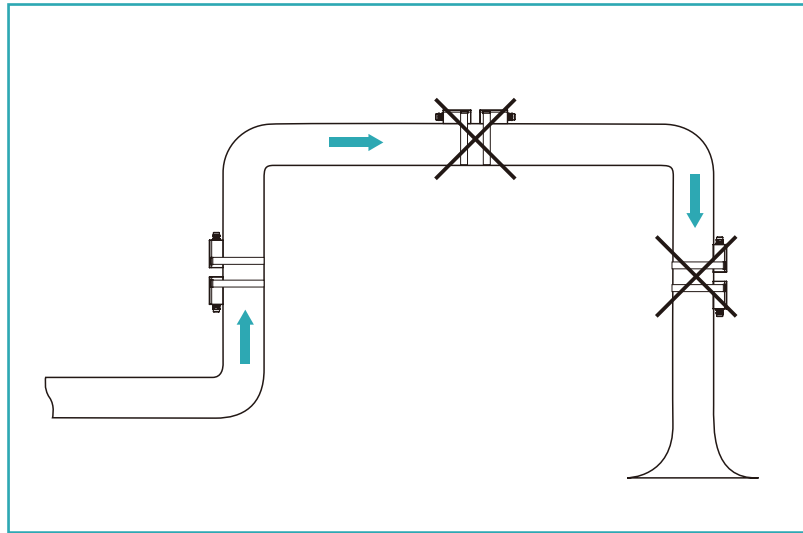
● Transmitter weight

Transmitter weight：
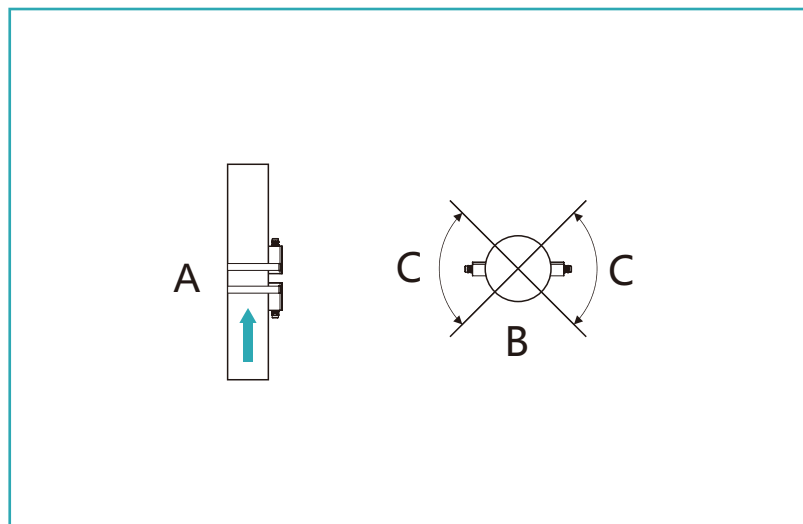3.62kg

● Transducer weight

Transducer weight：
1.69kg

Installation site selection

The first condition for ultrasonic flow meter is the pipe must be full of liquid, the bubbles will greatly influence the accuracy of the measurement, please avoid the follow installation position:


The suggestion installation area is as following:

- A is for upright pipeline, please notice the water direction is from the bottom to top.
- B is for horizontal pipeline, the transducers need to be installed inside the C area, angle for area C, max 120°.
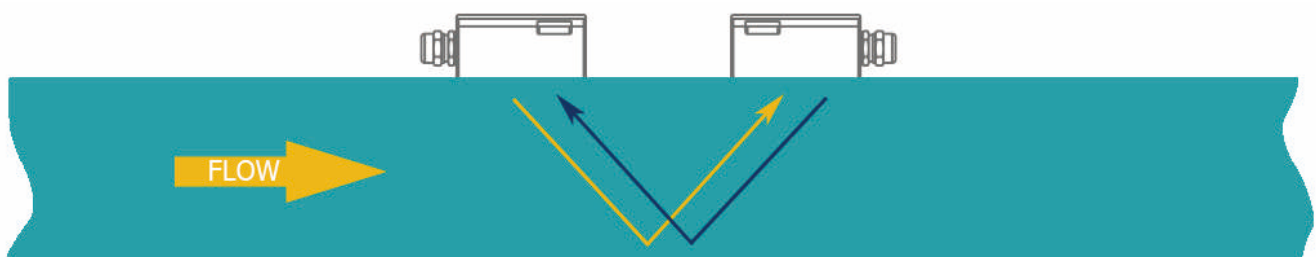
Straight pipe demand

We suggest avoiding the valve, T-branchpipe and elbows if the condition allow. Please satisfied the hardest positioninstallation requirements when you face more than one interfering resource.
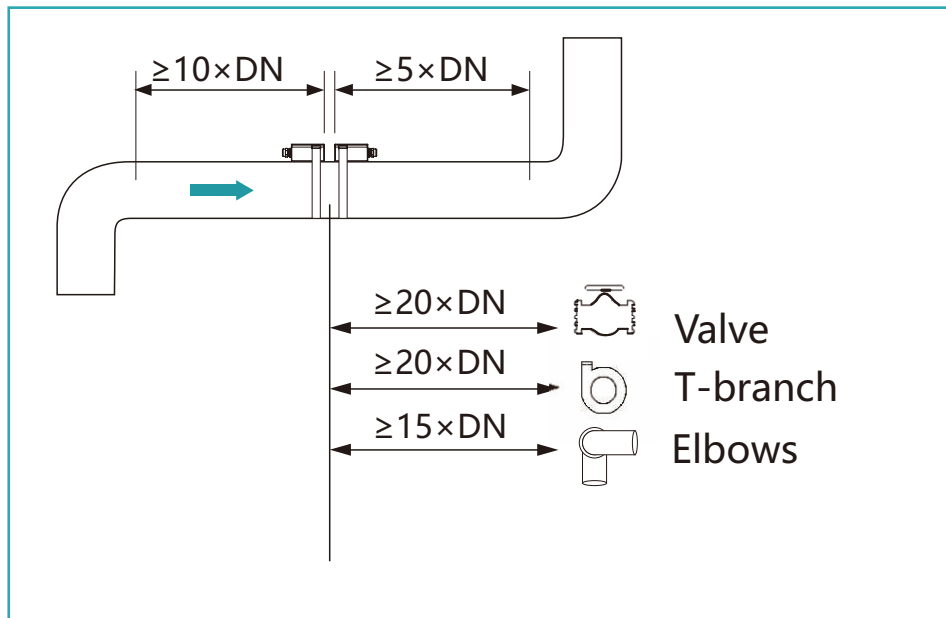
Measuring principle

Transfer time technical means the ultrasonic signal from the transducer is transmitted and received through the moving liquid, there will be a difference between the upstream and downstream transit time, which can be used to calculate flow and velocity.

Ordering confirmation

Model	Transmitter
	Ultrasonic flowmeter Wall mount Flow range：±0.01m/s ~ ±12m/s Accuracy：±0.5% of the measure value Repeatability：0.1% of the measure value Display：240*128 backlit LCD Power supply：90-250VAC，48-63Hz or 10-36VDC Output：4-20Ma，OCT，Relay Communication：RS232/RS485，Modbus
Code	**Output**
1	OCT，Relay，RS232/485，4-20mA，
2	OCT，Relay，RS232/485，4-20mA RTD
Code	**Transducer**
TT02	Clamp-on, IP68. Operating temperature: -40 ℃ ~ +176 ℃(-40℃ ~ +80 ℃)
TT03	Clamp-on, IP68. Operating temperature: 32 ℃ ~ +266℃(0℃ ~ +130℃)
TT05	Insertion, IP68. Operating temperature: -40 ℃ ~ +266 ℃(-40℃ ~ +130 ℃)
XXX	**Transducer cable length**
030	Standard length 30ft (9m)
XXX	Max length to 1000ft (305m)
Code	**Temperature sensor**
PT1000	Pt1000 temperature sensor

0.5 Clamp-on type

Standard model: Ultrasonic flowmeter - 2 - TT02 - 030

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