# Portable Ultrasonic Flow Meter

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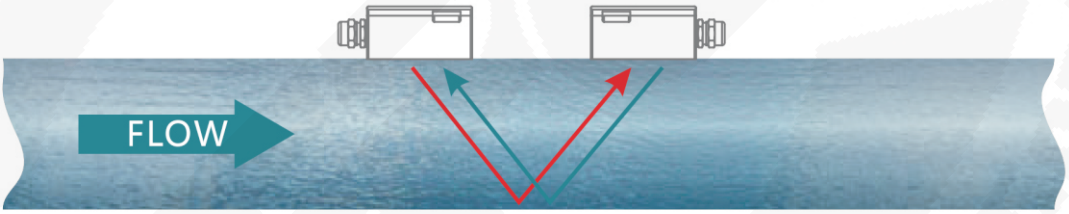
## Introduction

Portable Ultrasonic Flow Meter is a full function portable transit-time ultrasonic flow meter. No matter you want to quickly verify the flow reading of another meter or to data log flow system values over an extended time period, the QT621 meter is the suitable tool. The innovative design includes matched precision transducers and signal processing circuitry to accurately measure the flow of most liquids over a wide range of velocities. Clamp-on transducers create no wear, zero pressure loss, and do not require process interruptions to install them since they are attached to the outside of the pipe. The meter can be easily moved and installed in different pipes and convenient to carry site to site. Its portability makes it an excellent choice for measuring flows throughout the plumbing infrastructure to verify sensor pump and valve performance.

## Measuring Principle

Transit time technology utilizes ultrasonic waves transmitted and received through moving liquid. The difference between upstream and downstream transit time can be used to calculate flow and velocity.




An ultrasonic meter equipped with heat flow capabilities measures the rateand quantity of heat delivered or removed from devices such as heat exchangers. By measuring the volumetric flow rate of the heat exchanger liquid, the temperature at the inlet pipe and the temperature at the outlet pipe, the energy usage can be calculated.

## Feature

1. Easy to install, reduced installation time and cost.
2. No pressure head loss, No moving parts to maintain or replace.
3. BTU function is an option. QT621 could be used as a portable ultrasonic energy meter.
4. Powerful data storage and also support the data sheet analysis software.

## Application

Portable Ultrasonic Flow Meter is widely applied in oil industry, water treatment, pure water, chemical and etc.





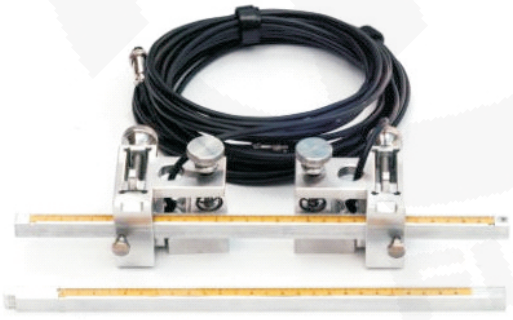

# Specification

| Performance Specifications | |
|---|---|
| Flow range | ±0.03 ft/s ~ ±40 ft/s (±0.01 m/s~ ±12 m/s) |
| Accuracy | ±1% of measured value |
| Pipe size | Clamp-on: 1"~48"(25mm~1200mm) |
| Fluid | Single medium liquid |
| Pipe material | Carbon steel, stainless steel, PVC and other compact material pipe |
| **Function specifications** | |
| Outputs | Analog output: 4~20mA, Max 750 Ω. |
| | RS485 Modbus |
| SD card | 32G |
| Interval | 1~99999seconds |
| Key broad | Digital keys |
| Display | 240*128 back lit LCD |
| Power supply | Rechargeable Lithium Battery Power, 3000mAh<br>(Continuous operation of main battery 16 hours). |
| Temperature | Transmitter: -40℃~60℃ |
| | Transducer: -40℃~80℃ (-40℃~80℃ is standard; -40℃~130℃ is an option) |
| Humidity | Up to 99% RH,non-condensing |
| **Physical specifications** | |
| Transmitter | NEMA13, IP54. |
| Transducer | Encapsulated design, IP68 |
| Transducer cable | Standard cable length: 5m (16ft). |

## Product Photo


### Accessories

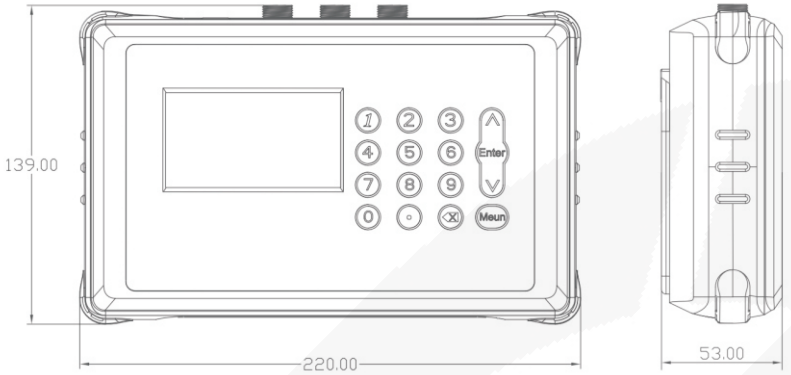
1. Carrying Case*1pc.
2. Transmitter (Electronic)*1pc.
3. Transducer (Sensor) *1 pair.
4. Mounting track*1 set, ST or DT
5. Pipe straps *2 pairs.
6. Coupling compound (Grease)*1 pc, Battery charge*1pc, Output cable*1pc and Tapeline*1



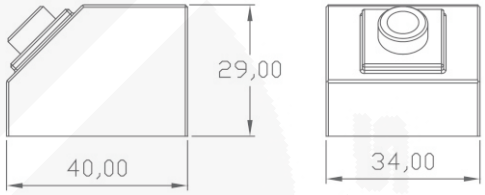
Single guide mounting type bracket （Code ST）

Dual guides mounting type bracket （Code DT）

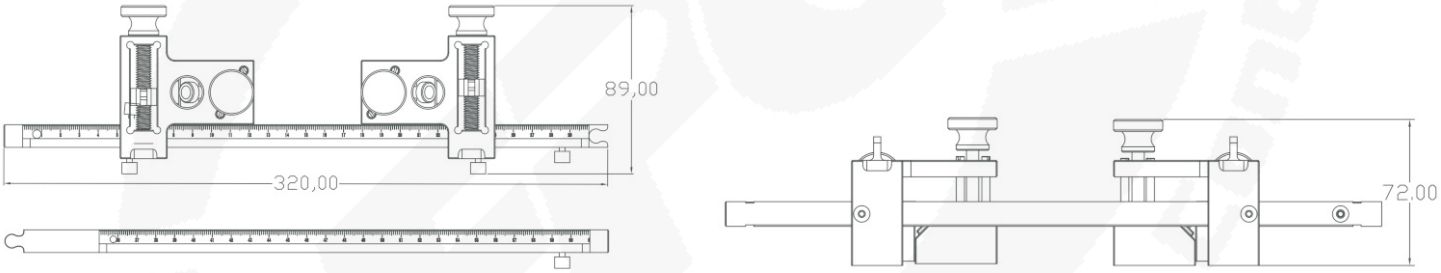
## Size



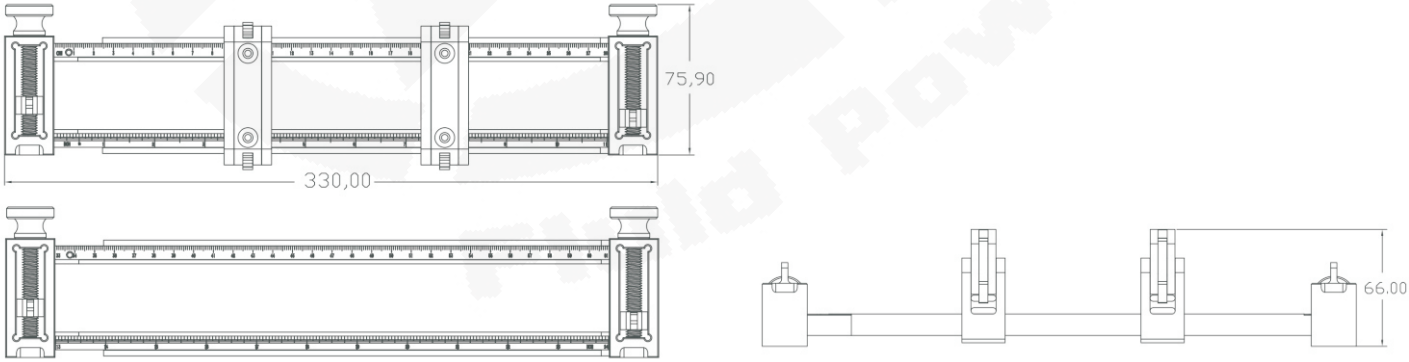

Transmitter size




Transducer size




ST mounting kit size




DT mounting kit size

## Measuring Principle

| Code | | X | X | X | X | X |
|---|---|---|---|---|---|---|
| | Portable Ultrasonic Flow Meter<br>Installation method: Handheld<br>Flow Range:±0.03ft/s ~ ±40ft/s (±0.01m/s~ ±12m/s)<br>Accuracy: ±1% of measured value<br>Repeatability: 0.2% Output: 4-20mA, RS485<br>Internal lithium power supply: 3000mAh Pipe size range: 1″~48″(25mm~1200mm)<br>Transducer: IP68, D series transducer, 5m cable with mounting kits. | | | | | |
| Type of Transmitter | Ultrasonic Flow Meter | 1 | | | | |
| | Ultrasonic Energy/Btu Meter function( RTD) | 2 | | | | |
| Type of transducers | Clamp-on, IP68.<br>Operating temperature: -40℉~+176℉(-40℃~+80℃) | | D1 | | | |
| | Clamp-on, IP68.<br>Operating temperature: -40℉~+266℉(-40℃~+130℃) | | D1U | | | |
| Type of mounting track | Single guide mounting type bracket | | | ST | | |
| | Dual guides mounting type bracket | | | DT | | |
| Transducers cable length | D series type of cable Standard 5m (16ft) with mounting track | | | | P5 | |
| | XX is the length you need for cables, Maximum lengthen to 30m | | | | PXX | |
| Temperature sensor | A pair of clamp on PT1000 sensor 9m | | | | | PT1000 |