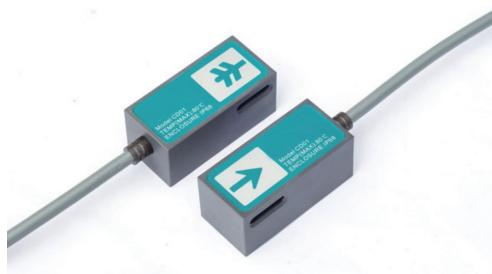


# Product Manual | Ultrasonic Flowmeter 201(Wall-mounted)



## Introduction

VAC201 is a wall-mount, clamp- on type ultrasonic flow meter which uses the transfer time technology. Designed using FPGA chip and low-voltage broadband pulse transmission. Both Clamp on type sensors and Insertion type sensors are available. 201 has a 240\*128 backlit LCD with 4 line menu display and also the clear, user-friendly menu selections make flow meter more simple and convenient to use. Daily, monthly and yearly totalized flow. Parallel operation of positive, negative and net flow totalizes with scale factor (span) and BTU Capacity. While the output of totalize pulse and frequency output are transmitted via relay and open collector.



VAC201 could add the RTD model and temperature sensor become an energy meter to monitoring the energy use, help to save the energy.

## Application

VAC201 ultrasonic flow meter widely application in HVAC, water treatment , irrigation.

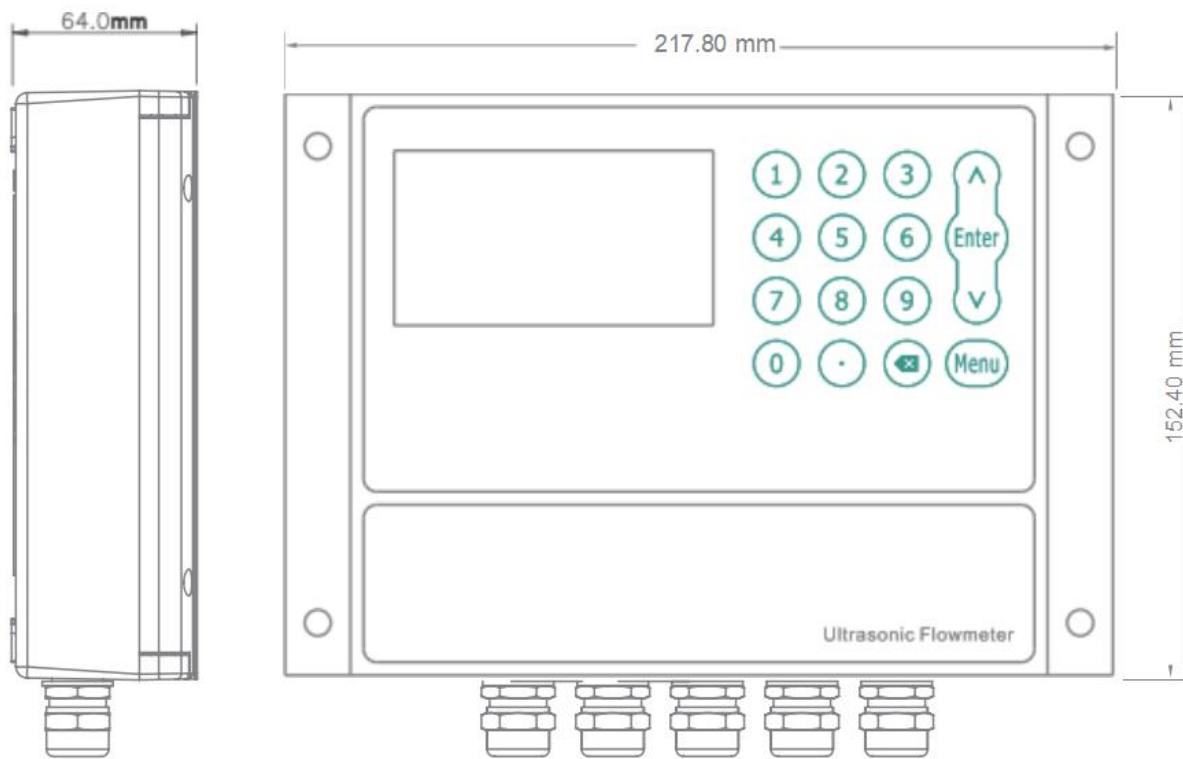


## Technical parameters:

| Performance   |  |
|---------------|--|
| Flow range    | ±0.09ft/s ~ ±16ft/s (±0.03m/s ~ ±5m/s)   |
| Accuracy      | ±1% of measured value  |
| Repeatability | 0.2% of measured value   |
| Linearity     | ±1%  |
| Pipe size     | 1"to 48" (25mm to 1200mm). Pipe size under 1" is an option   |
| Fluid         | Water  |
| Function      |  |
| Outputs       | Analog output: 4~20mA, max load 750Ω .<br>Pulse output: 0~10KHz  |
| Communication | RS232/RS485 Modbus   |
| Power supply  | 10~36VDC/1A  |
| Display       | 240*128 backlit LCD  |
| Temperature   | Transmitter: -14°F ~140°F (-20°C ~60°C)<br>Transducer:-40°F ~176°F (-40°C ~80°C,standard)                                |
| Humidity      | Up to 99% RH,non-condensing  |
| Physical      |  |
| Transmitter   | PC/ABS,IP65  |
| Transducer    | ABS,IP68<br>Encapsulated design<br>Double-shielded transducer cable<br>Standard/maximum cable length:30ft/900ft(9m/274m) |

## Product Size

### Transmitter size

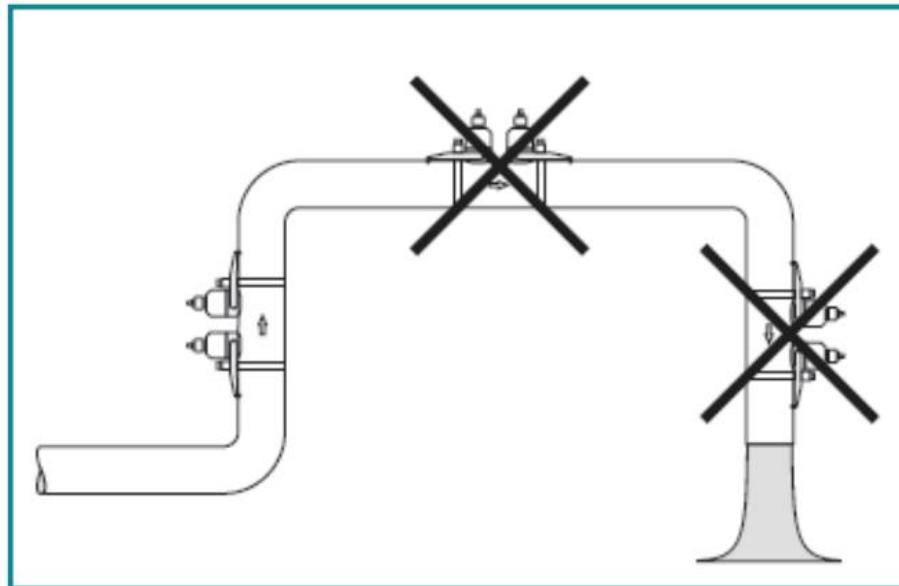


### Transducer Size

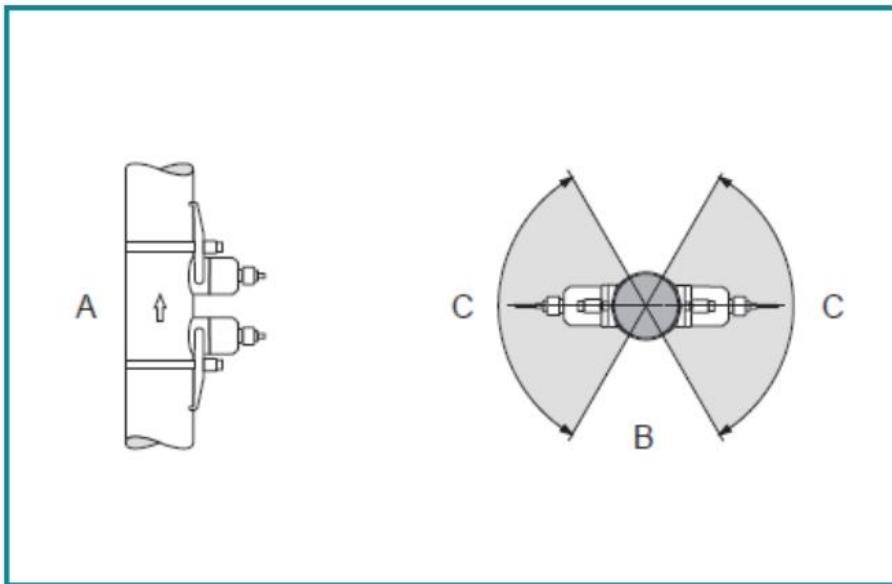


## Installation site selection

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  $120^\circ$  .



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