About F2
F2 ultrasonic flowmeter is designed for catering to the small pipe size of PVC, carbon steel, stainless steel, copper which can be widely used in HVAC chilled water system, building automation system, farming irrigation system, residential water supply system, cleaning system, recirculating aquaculture system (RAS), etc. It is very easy to install, the installation only needs 30s at fast. The compact structure, is suitable for various narrow working environments.

Main characters:
The product is an integrated structure design, which is easy to install through four screws, and has special insulation on the outside. The jacket reduces the hassle of field installation. It is unnecessary to cut the pipe, stop flow for installation and there is no pressure loss. F2 also has rich network functions, supporting Wi-Fi, 4-20mA output, etc, with Cloud data storage and analysis management system. You can have access to "Gentos iCloud", or customize the version that connects to your own cloud system/intelligent management system, realized unattended and unified administration.
TCT Technology

The TCT (Time Comb Technology) is a kind of technology used to measure signal flight time. The technology is invented by Gentos Measurement & Control Co., Ltd. in 2019. Since the technology was invented, it has achieved the time measurement accuracy of 50ps (TVT is 130ps), and has outstanding characteristics of high accuracy, high stability and low cost.

Working Principle

When the ultrasonic signal 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.

![Image of TCT Technology]

Installation Steps

The F2 clip on meter is measured with an integrated design. The installation is very simple. F2 is directly clipped on the pipe section, and tightened the screw to turn on the power flow measurement.

1. Take out the product
2. Clamp the pipe
3. Tighten the screw
4. Power on to start
Temperature
Humidity
Physical specifications
Transmitter: 14°F ~ 122°F (-10°C ~ 50°C)
Transducer measurement medium: 32°F ~ 140°F (0°C ~ 60°C)
Up to 99% RH, non-condensing

Keyboard: 3 touch Keys
Display: 1.44” LCD
Protection Rate: IP54
Cable Length: Power cable: standard length 2m

Performance specifications
Flow range: ±0.098 ft/s ~ ±16 ft/s (±0.03 m/s ~ ±5 m/s)
Accuracy: ±2.0%
Pipe size: DN20, DN25, DN32, DN40, DN50, DN65, DN80
Fluid: Water
Pipe material: PVC, Carbon Steel, Stainless Steel, Copper

Function specifications
Outputs: Analog output: 4~20 mA, max load 750 Ω.
Communication interface: WIFI (standard), TTF/RS485 (optional), Cannot be used at the same time; Support FUJI protocol and MODBUS protocol
Power supply: 10~36 VDC/500 mA
Temperature: Transmitter: 14°F ~ 122°F (-10°C ~ 50°C)
Transducer measurement medium: 32°F ~ 140°F (0°C ~ 60°C)
Humidity: Up to 99% RH, non-condensing

Physical specifications
Transmitter: PC/ABS
Keyboard: 3 touch Keys
Display: 1.44” LCD
Protection Rate: IP54
Cable Length: Power cable: standard length 2m

Dimensions Unit:mm Pipe material (PVC, Carbon Steel, Stainless Steel)

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<th>Ø</th>
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<th>L</th>
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### F2 Ultrasonic Flowmeter For Small Pipe Size Series

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### Building Energy Saving

- HVAC system
- Building automation system
- Farming irrigation system
- Residential water supply system
- Cleaning system
- Recirculating aquaculture system (RAS)

### Applications

It can be widely used in HVAC system, building automation system, farming irrigation system, residential water supply system, cleaning system, recirculating aquaculture system (RAS), etc.
Clamp-on type ultrasonic flow meter is for the difficulty of installing a conventional model in an old building. It features with clamp-on measurement, no need to cut pipes and to shut down machines. Easy operation menu Displaying Instantaneous Flow and Selecting Flow Units Optional unit, m3/h, l/m, gpm(UK), cfm, gpm(USA)
Gentos icloud data storage and analysis Management functions. Data collection can meet different working conditions. Scan the QR code and experience the system!

Experience Account ID: gentos Password: gentos0755
Ordering Information

**Description**

| F2 | Digital Correlation Transit Time Flowmeter  
|    | Installation method: Clamp-on  
|    | Flow Range: ±0.098ft/s ~ ±16ft/s (±0.03m/s ~ ±5m/s)  
|    | Accuracy: ±2.0% (±1.6ft/s~±16ft/s) (±0.5m/s~±5m/s)  
|    | Pipe Size Range: DN20 DN25 DN32 DN40 DN50 DN65 DN80  
|    | Keyboard: 3 touch Keys  
|    | Display: 1.44” LCD  
|    | Power supply: 10~36VDC/500mA  
|    | Protection Rate: IP54  
|    | Output: WIFI, 4~20mA, OCT pulse output, relay output  
|    | Communication: RS-485 terminal Modbus Protocol  

**Output**

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| 1 | WIFI (Standard)  
| 2 | 4-20mA (optional)  
| 3 | RS-485 (optional)  
| 4 | TTL (optional)  

**Transmitter enclosure area classification**

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| 1 | IP54, PC/ABS enclosure  

**Type of transducers**

| CP | Clamp on transducer, Operating temperature: 32°F~140°F (0°C~60°C)  
|    | Transducer Cable Length  
|    | Standard 7ft (2m)  

**Pipe Size**

| DN | DN20 DN25 DN32 DN40 DN50 DN65 DN80  

Standard Model: F2-1-1-CP-07-DN (pipe size)  
Description: Standard enclosure with Clamp-on transducers, WIFI, 2m cable.