

pFlow

F3 Ultrasonic Flowmeter For Small Pipe Size Series



About F3

F3 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.

RS-485

Wi-Fi

4-20
mA

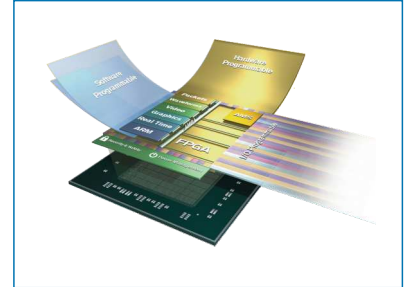
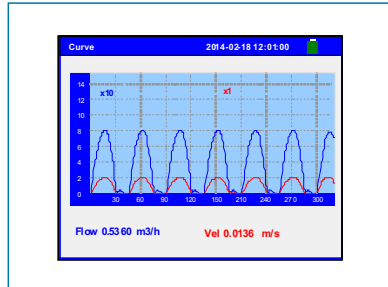
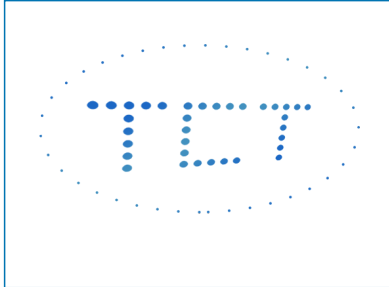
LCD

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. F3 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 managem

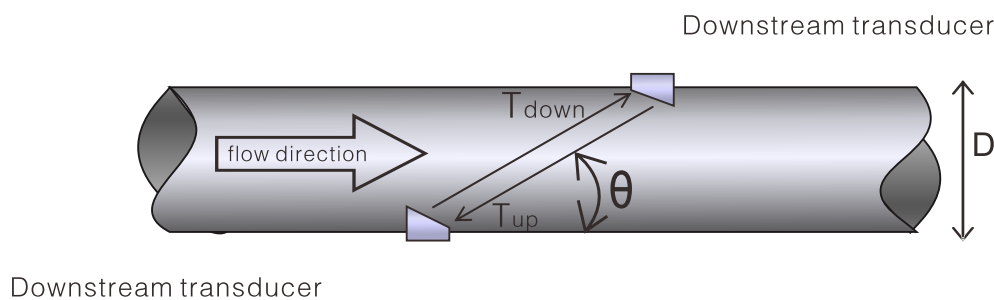
TCT Technology

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.



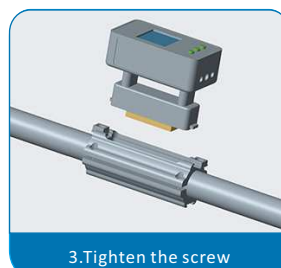
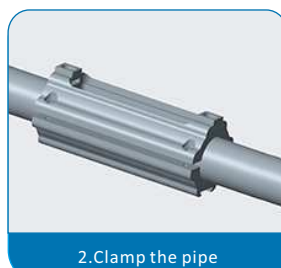
Working Principle

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.



Installation Steps

The F3 clip on meter is measured with an integrated design. The installation is very simple. F3 is directly clipped on the pipe section, and tightened the screw to turn on the power flow measurement.

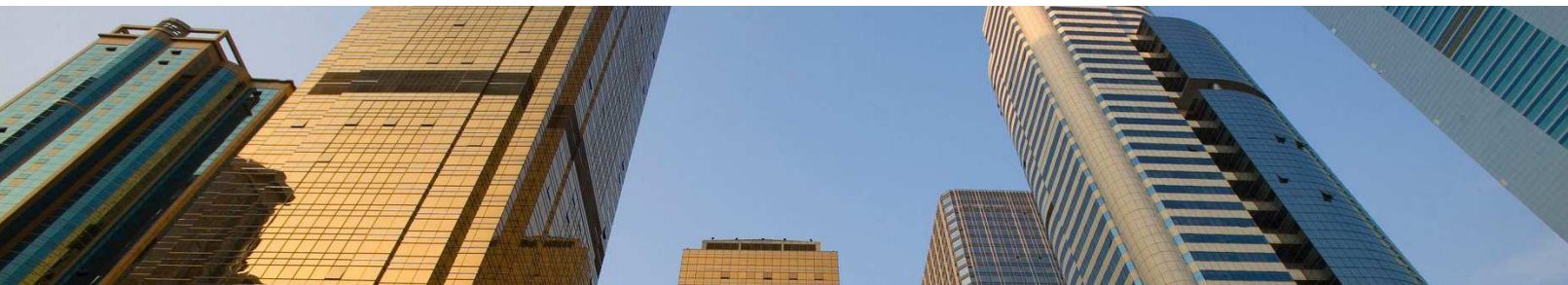


| Performance specifications | |
|----------------------------|--|
| Flow range | ±0.098ft/s ~ ±16ft/s (±0.03m/s ~ ±5m/s) |
| Accuracy | ±2.0% |
| Pipe size | DN20 DN25 DN32 DN40 DN50 DN65 DN80 |
| Fluid | Water |
| Pipe material | PVC, Carbon Steel, Stainless Steel, Copper |
| Function specifications | |
| Outputs | Analog output:4~20mA, max load 750Ω. |
| Communication interface | WIFI(standard), TTF/RS485(optional), Cannot be used at the same time ; Support FUJI protocol and MODBUS protocol |
| Power supply | 10~36VDC/500mA |
| 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) | | | | | | | | |
|--|-------|----|-----|-----|-----|-----|---------------------------------|------------|
| Model | ∅ | W | W1 | L | L1 | H | Flow Range m ³ /h | Weight(kg) |
| DN20 | 25~29 | 60 | 51 | 105 | 115 | 121 | 0.4~6 | 0.68 |
| | 21~25 | 60 | 51 | 105 | 115 | 121 | | |
| DN25 | 32~36 | 60 | 56 | 105 | 115 | 128 | 0.5~9 | 0.71 |
| | 28~32 | 60 | 56 | 105 | 115 | 128 | | |
| DN32 | 39~43 | 60 | 63 | 105 | 115 | 135 | 0.9~15 | 0.82 |
| | 35~39 | 60 | 63 | 105 | 115 | 135 | | |
| DN40 | 50~54 | 60 | 74 | 105 | 115 | 146 | 1.3~23 | 0.96 |
| | 46~50 | 60 | 74 | 105 | 115 | 146 | | |
| DN50 | 63~67 | 60 | 89 | 105 | 115 | 159 | 2~35 | 1.1 |
| | 59~63 | 60 | 89 | 105 | 115 | 159 | | |
| DN65 | 76~80 | 60 | 102 | 105 | 115 | 172 | 3.5~60 | 1.6 |
| | 72~76 | 60 | 102 | 105 | 115 | 172 | | |
| DN80 | 87~91 | 60 | 113 | 105 | 115 | 183 | 5.5~90 | 2.0 |
| | 83~87 | 60 | 113 | 105 | 115 | 183 | | |

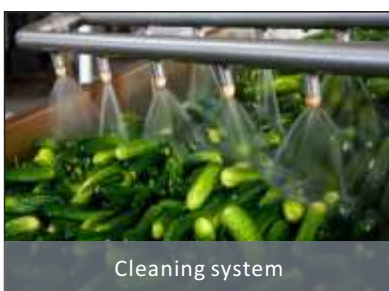
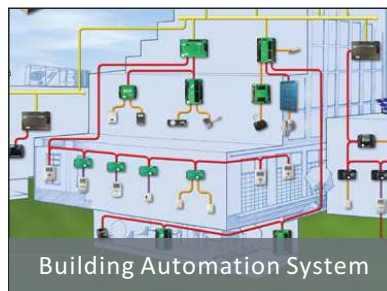
| Dimensions Unit:mm Pipe material(Copper) | | | | | | | | |
|--|-------|----|-----|-----|-----|-----|---------------------------------|------------|
| Model | ∅ | W | W1 | L | L1 | H | Flow Range m ³ /h | Weight(kg) |
| DN20 | 25~29 | 60 | 51 | 105 | 115 | 121 | 0.4~6 | 0.68 |
| | 21~25 | 60 | 51 | 105 | 115 | 121 | | |
| DN25 | 25~29 | 60 | 56 | 105 | 115 | 128 | 0.5~9 | 0.71 |
| | 21~25 | 60 | 56 | 105 | 115 | 128 | | |
| DN32 | 32~36 | 60 | 63 | 105 | 115 | 135 | 0.9~15 | 0.82 |
| | 28~32 | 60 | 63 | 105 | 115 | 135 | | |
| DN40 | 39~43 | 60 | 74 | 105 | 115 | 146 | 1.3~23 | 0.96 |
| | 35~39 | 60 | 74 | 105 | 115 | 146 | | |
| DN50 | 50~54 | 60 | 89 | 105 | 115 | 159 | 2~35 | 1.1 |
| | 46~50 | 60 | 89 | 105 | 115 | 159 | | |
| DN65 | 63~67 | 60 | 102 | 105 | 115 | 172 | 3.5~60 | 1.6 |
| | 59~63 | 60 | 102 | 105 | 115 | 172 | | |
| DN80 | 76~80 | 60 | 113 | 105 | 115 | 183 | 5.5~90 | 2.0 |
| | 72~76 | 60 | 113 | 105 | 115 | 183 | | |

Building Energy Saving



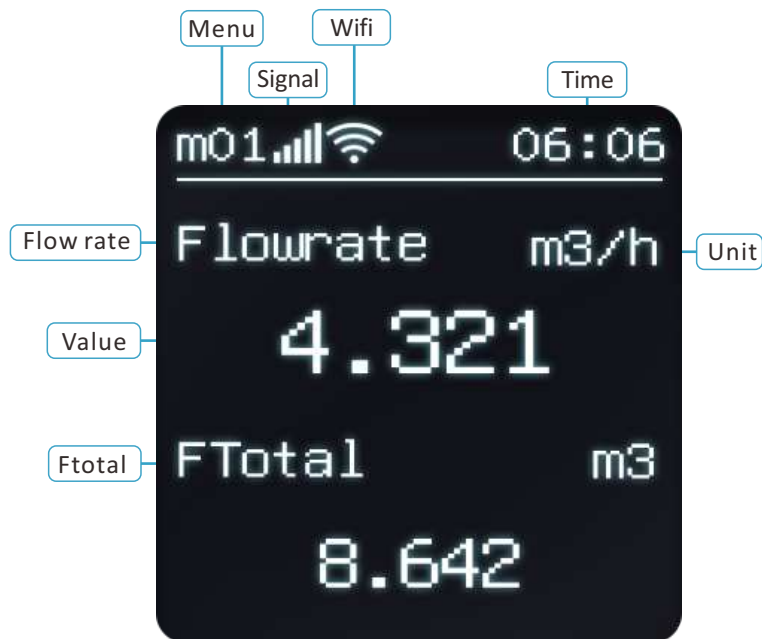
Applications

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)



Back

Data Report



Month column chart



Day column chart



Real-time curve



Monthly report



Daily report



Detailed report

Please enter a device name

Device List(Room meter)

Cooling meter Heating meter

| Serial number | Device name | Cool Capacity(kw) | Totalizer Cool Capacity(kwh) | Flow Rate(m³/h) | Positive Totalizer(m³) | Velocity(m/s) | Q value | Operating |
|---------------|-------------------------------------|-------------------|------------------------------|-----------------|------------------------|---------------|---------|-------------------------|
| 1 | 产品化部(Product Design Department)DN25 | 0.00 | 38789.00 | 0.40 | 12458 | 0.03 | 98 | Details |
| 2 | 展厅(Show Room)DN25 | 0.00 | 0.00 | 0.00 | 544.00 | 0.00 | 0 | Details |
| 3 | 展厅(Show Room2)DN20 | 3.82 | 2.17 | 0.40 | 55.20 | 0.32 | 98 | Details |
| 4 | 技术部(Technology Department)DN20 | 0.00 | 1782.00 | 0.00 | 1091 | 0.00 | 98 | Details |
| 5 | 校准台(Calibration Device)DN20 | 0.18 | 2128.00 | 0.05 | 607 | 0.04 | 98 | Details |
| 6 | 纸仓库(Warehouse 1)DN32 | 0.00 | 0.00 | 0.00 | 155.45 | 0.00 | 98 | Details |
| 7 | 老化房仓库(Warehouse 2)DN40 | 0.00 | 4238.00 | 0.00 | 1007 | 0.00 | 98 | Details |
| 8 | 销售(Sales Department 1)DN20 (1号) | 0.00 | 0.00 | 0.00 | 359.00 | 0.00 | 0 | Details |
| 9 | 销售(Sales Department 2)DN20 (2号) | 0.00 | 0.00 | 0.00 | 365.00 | 0.00 | 0 | Details |

Gentos icloud data storage and analysis Management functions. Data collection can meet different working conditions. Scan the QR code and experience the system!



Detailed data(技术部(Technology Department)DN20 S/N:v6500093)

Option:

| | | | | |
|--|---|---|---|---|
| Velocity <input checked="" type="checkbox"/> | Flow Rate <input checked="" type="checkbox"/> | Q Value <input type="checkbox"/> | Positive Totalizer <input checked="" type="checkbox"/> | Negative Totalizer <input type="checkbox"/> |
| Net Totalizer <input type="checkbox"/> | Supply T <input type="checkbox"/> | Return T <input type="checkbox"/> | >T <input type="checkbox"/> | Supply P <input type="checkbox"/> |
| Return P <input type="checkbox"/> | -P <input type="checkbox"/> | Cool Capacity <input checked="" type="checkbox"/> | Totalizer Cool Capacity <input checked="" type="checkbox"/> | Gross Heat <input type="checkbox"/> |
| Gross Heat Total <input type="checkbox"/> | | | | |

| Select project | Numerical value | |
|-------------------------|-----------------|------|
| Totalizer Cool Capacity | 1782.00 | kwh |
| Positive Totalizer | 1091.00 | m3 |
| Velocity | 0.00 | m/s |
| Flow Rate | 0.00 | m3/h |
| Cool Capacity | 0.00 | kw |

Experience Account ID: gentos Password: gentos0755

Ordering Information

| Description | |
|--|--|
| F3 | Digital Correlation Transit Time Flowmeter Installation method: Clamp-on Flow Range: $\pm 0.098\text{ft/s} \sim \pm 16\text{ft/s}$ ($\pm 0.03\text{m/s} \sim \pm 5\text{m/s}$) Accuracy: $\pm 2.0\%$ ($\pm 1.6\text{ft/s} \sim \pm 16\text{ft/s}$) ($\pm 0.5\text{m/s} \sim \pm 5\text{m/s}$) 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, 4~20mADC, OCT pulse output, relay output Communication: RS-485 terminal Modbus Protocol |
| Output | |
| 1 | WIFI(Standard) |
| 2 | 4-20mA(optional) |
| 3 | RS-485(optional) |
| 4 | TTL(optional) |
| Transmitter enclosure area classification | |
| 1 | Ip54, PC/ABS enclosure |
| Type of transducers | |
| CP | Clamp on transducer, Operating temperature: $32^{\circ}\text{F} \sim 140^{\circ}\text{F}$ ($0^{\circ}\text{C} \sim 60^{\circ}\text{C}$) |
| Transducer Cable Length | |
| 030 | Standard 7ft (2m) |
| Pipe Size | |
| DN | DN20 DN25 DN32 DN40 DN50 DN65 DN80 |
| Standard Model: F3-1-1-CP-030-DN(pipe size) | |
| Description: Standard enclosure with Clamp-on transducers, WIFI, 2m cable. | |

DISTRAME SA

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