

# pFlow

F3 Ultrasonic Flowmeter For Small Pipe Size Series



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## 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

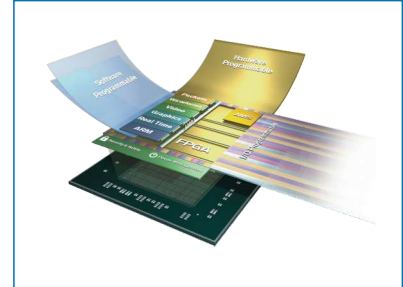
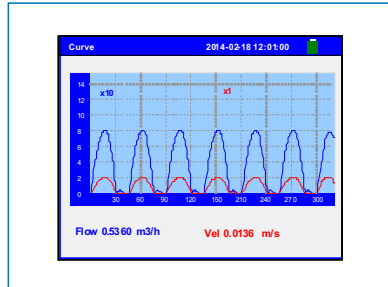
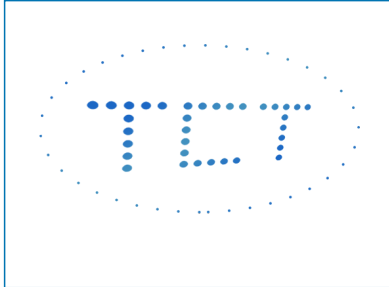
LCD

## 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 management system, realized unattended and unified administration.

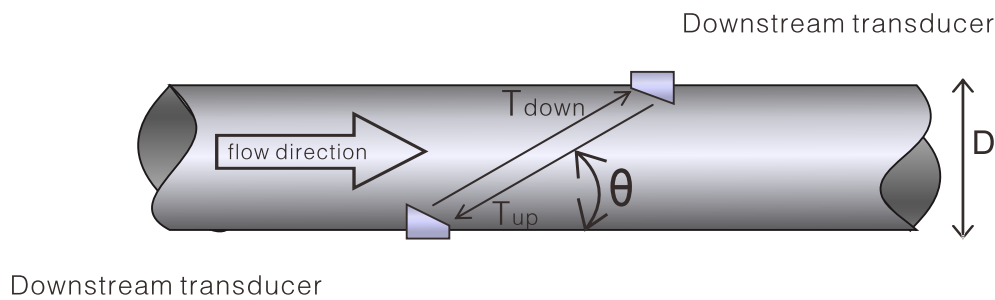
## TCT Technology

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.



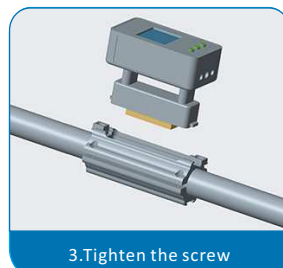
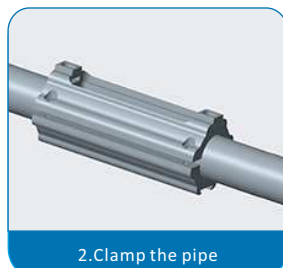
## Working Principle

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.



## 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	$\pm 0.098\text{ft/s} \sim \pm 16\text{ft/s}$ ( $\pm 0.03\text{m/s} \sim \pm 5\text{m/s}$ )
Accuracy	$\pm 2.0\%$
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 750 $\Omega$ .
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	$\emptyset$	W	W1	L	L1	H	Flow Range $\text{m}^3/\text{h}$	Weight(kg)
DN20	25~29	60	51	105	115	121	0.04~6	0.68
	21~25	60	51	105	115	121		
DN25	32~36	60	56	105	115	128	0.05~9	0.71
	28~32	60	56	105	115	128		
DN32	39~43	60	63	105	115	135	0.09~15	0.82
	35~39	60	63	105	115	135		
DN40	50~54	60	74	105	115	146	0.13~23	0.96
	46~50	60	74	105	115	146		
DN50	63~67	60	89	105	115	159	0.20~35	1.1
	59~63	60	89	105	115	159		
DN65	76~80	60	102	105	115	172	0.35~60	1.6
	72~76	60	102	105	115	172		
DN80	87~91	60	113	105	115	183	0.55~90	2.0
	83~87	60	113	105	115	183		

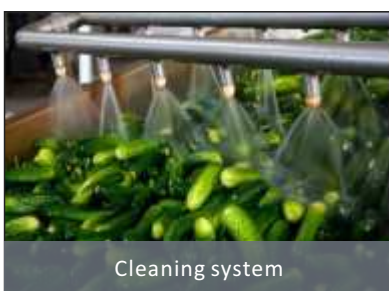
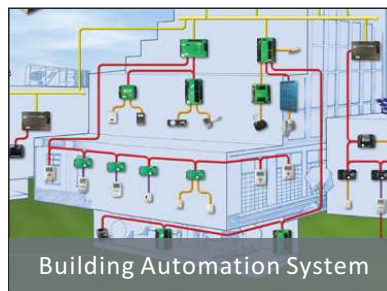
Dimensions Unit:mm Pipe material(Copper)								
Model	∅	W	W1	L	L1	H	Flow Range m <sup>3</sup> /h	Weight(kg)
DN20	25~29	60	51	105	115	121	0.04~6	0.68
	21~25	60	51	105	115	121		
DN25	25~29	60	56	105	115	128	0.05~9	0.71
	21~25	60	56	105	115	128		
DN32	32~36	60	63	105	115	135	0.09~15	0.82
	28~32	60	63	105	115	135		
DN40	39~43	60	74	105	115	146	0.13~23	0.96
	35~39	60	74	105	115	146		
DN50	50~54	60	89	105	115	159	0.20~35	1.1
	46~50	60	89	105	115	159		
DN65	63~67	60	102	105	115	172	0.35~60	1.6
	59~63	60	102	105	115	172		
DN80	76~80	60	113	105	115	183	0.55~90	2.0
	72~76	60	113	105	115	183		

## Building Energy Saving



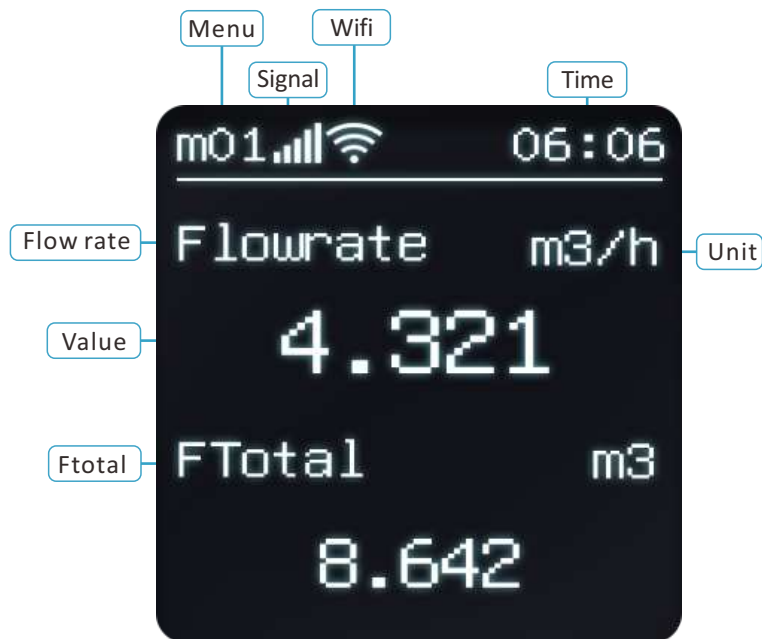
## Applications

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

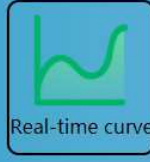
## Data Report



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)	0.00	38789.00	0.40	12458	0.03	98	<a href="#">Details</a>
2	展厅(Show Room)DN25	0.00	0.00	0.00	544.00	0.00	0	<a href="#">Details</a>
3	展厅(Show Room2)DN20	3.82	2.17	0.40	55.20	0.32	98	<a href="#">Details</a>
4	技术部(Technology Department)DN20	0.00	1782.00	0.00	1091	0.00	98	<a href="#">Details</a>
5	校准台(Calibration Device)DN20	0.18	2128.00	0.05	607	0.04	98	<a href="#">Details</a>
6	纸仓库(Warehouse 1)DN32	0.00	0.00	0.00	155.45	0.00	98	<a href="#">Details</a>
7	老化房仓库(Warehouse 2)DN40	0.00	4238.00	0.00	1007	0.00	98	<a href="#">Details</a>
8	销售(Sales Department 1)DN20 (1号)	0.00	0.00	0.00	359.00	0.00	0	<a href="#">Details</a>
9	销售(Sales Department 2)DN20 (2号)	0.00	0.00	0.00	365.00	0.00	0	<a href="#">Details</a>

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 P <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: $\pm 0.03\text{m/s} \sim \pm 5\text{m/s}$ Accuracy: $\pm 2.0\%$ ( $\pm 0.5\text{m/s} \sim \pm 5\text{m/s}$ ) 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, 4~20mA DC, 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: $32 \sim 140$ ( $0 \sim 60$ )
Transducer Cable Length	
07	Standard 7ft (2m)
Pipe Size	
DN	DN20 DN25 DN32 DN40 DN50 DN65 DN80
Standard Model: F3-1-1-CP-07-DN(pipe size)	
Description: Standard enclosure with Clamp-on transducers, WIFI, 2m cable.	

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