pFlow

F2 Ultrasonic Flowmeter For Small Pipe Size Series

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# F2 Ultrasonic Flowmeter Series

About

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 thetechnology was invented, it has achieved the time measurement accuracy of 50ps (TVT is130ps), and has outstanding characteristics of high accuracy, high stability and low cost.
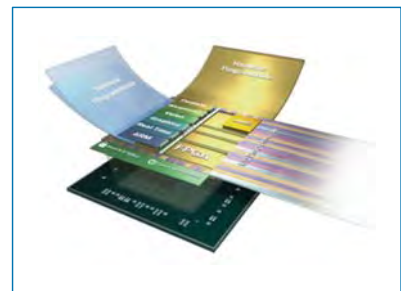
Working Principle

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.

Downstream transducer

flow direction

T_{down}

θ

T_{up}

D

Downstream transducer
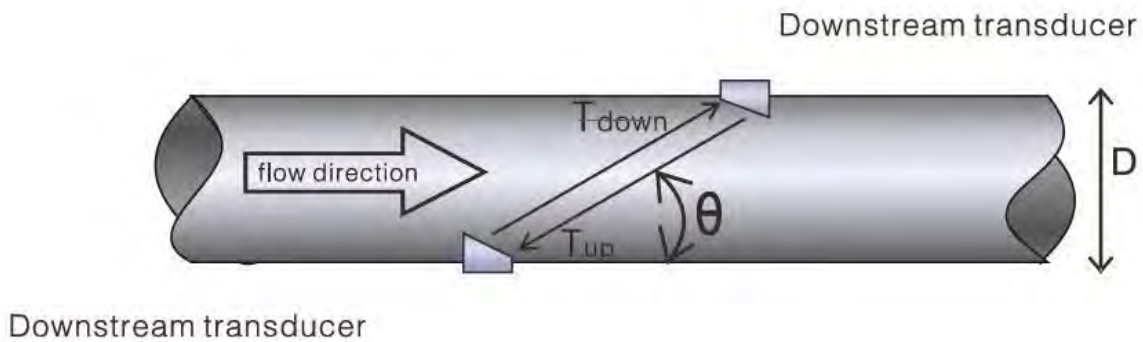
Installation Steps

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

Specifications

Performance Index	
Flow Range	(0.03～5.0) m/s
Accuracy	Valued ±2%
Repeatability	0.40%
Pipe Diameter Range(Optional)	DN20～DN80
Measuring Medium	Water
Pipe Material(Optional)	Carbon steel, stainless steel, copper, PVC
Function Index	
Communication Interface	RS485 communication interface, support Fuji protocol and Modbus protocol
WIFI	Frequency range：2.412~2.484GHz
	Transmitting power: 802.11b 16±2 dBm
	802.11n 13±2 dBm
	802.11g14±2 dBm

	Working temperature：-20~85℃
	Theoretically, it can reach 40m transmission distance in an open environment
Power Supply	10～36VDC/500mA
Keyboard	3touch keys
Display	128×128　OLED
Temperature	Transmitter installation ambient temperature：-10℃～50℃
	Sensor measurement medium temperature：　0℃～60℃
Humidity	RH: 0～99%，no condensation
IP	IP54
Working Pressure	1.6MPa
Physical Characteristics	
Transmitter	All-in-one
Sensor	Clamp-on
Cable	φ5, 6 core electric cable, standard length：2m

Dimensions Unit: mm Pipe material(PVC, Carbon Steel, Stainless Steel)								
Model	Ø	W	W1	L	L1	H	Flow Range(m3/h)	Weight(kg)
DN20	A: 21~25	60	51	105	115	101	0.04~6.0	0.68
	B: 25~29	60	51	105	115	101		
DN25	A: 28~32	60	56	105	115	108	0.05~9.0	0.71
	B: 32~36	60	56	105	115	108		
DN32	A: 35~39	60	63	105	115	115	0.09~15.0	0.82
	B: 39~43	60	63	105	115	115		
DN40	A: 46~50	60	74	105	115	126	0.13~23.0	0.96
	B: 50~54	60	74	105	115	126		
DN50	A: 59~63	60	89	105	115	139	0.20~35.0	1.1
	B: 63~67	60	89	105	115	139		
DN65	A: 72~76	60	102	105	115	152	0.35~60.0	1.6
	B: 76~80	60	102	105	115	152		
DN80	A: 83~87	60	113	105	115	163	0.55~90.0	2.0
	B: 87~91	60	113	105	115	163		

Dimensions Unit: mm Pipe material(Copper)								
Model	Ø	W	W1	L	L1	H	Flow Range(m3/h)	Weight(kg)
DN20	A: 21~25	60	51	105	115	121	0.04~6.0	0.68
DN20	B: 25~29	60	51	105	115	121	0.04~6.0	0.68
DN25	A: 21~25	60	56	105	115	128	0.05~9.0	0.71
DN25	B: 25~29	60	56	105	115	128	0.05~9.0	0.71
DN32	A: 28~32	60	63	105	115	135	0.09~15.0	0.82
DN32	B: 32~36	60	63	105	115	135	0.09~15.0	0.82
DN40	A: 35~39	60	74	105	115	146	0.13~23.0	0.96
DN40	B: 39~43	60	74	105	115	146	0.13~23.0	0.96
DN50	A: 46~50	60	89	105	115	159	0.20~35.0	1.1
DN50	B: 50~54	60	89	105	115	159	0.20~35.0	1.1
DN65	A: 59~63	60	102	105	115	172	0.35~60.0	1.6
DN65	B: 63~67	60	102	105	115	172	0.35~60.0	1.6
DN80	A: 72~76	60	113	105	115	183	0.55~90.0	2.0
DN80	B: 76~80	60	113	105	115	183	0.55~90.0	2.0

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.

Farming Irrigation

Recirculating Aquaculture System

Residential water supply

Cleaning system
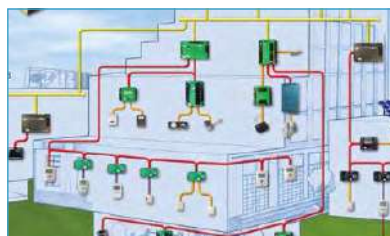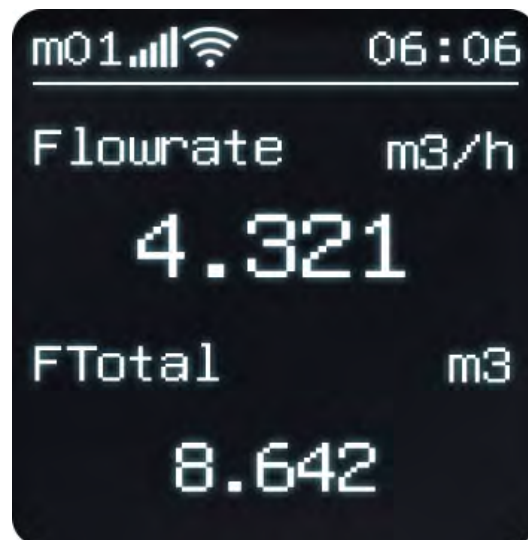

Building Automation System

HVAC Piping System

Interface

Easy operation menu Displaying Instantaneous Flow and Selecting Flow Units Optional unit, m3/h, l/m,gpm(UK), cfm, gpm(USA), etc.

Cloud Storage and Management System

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