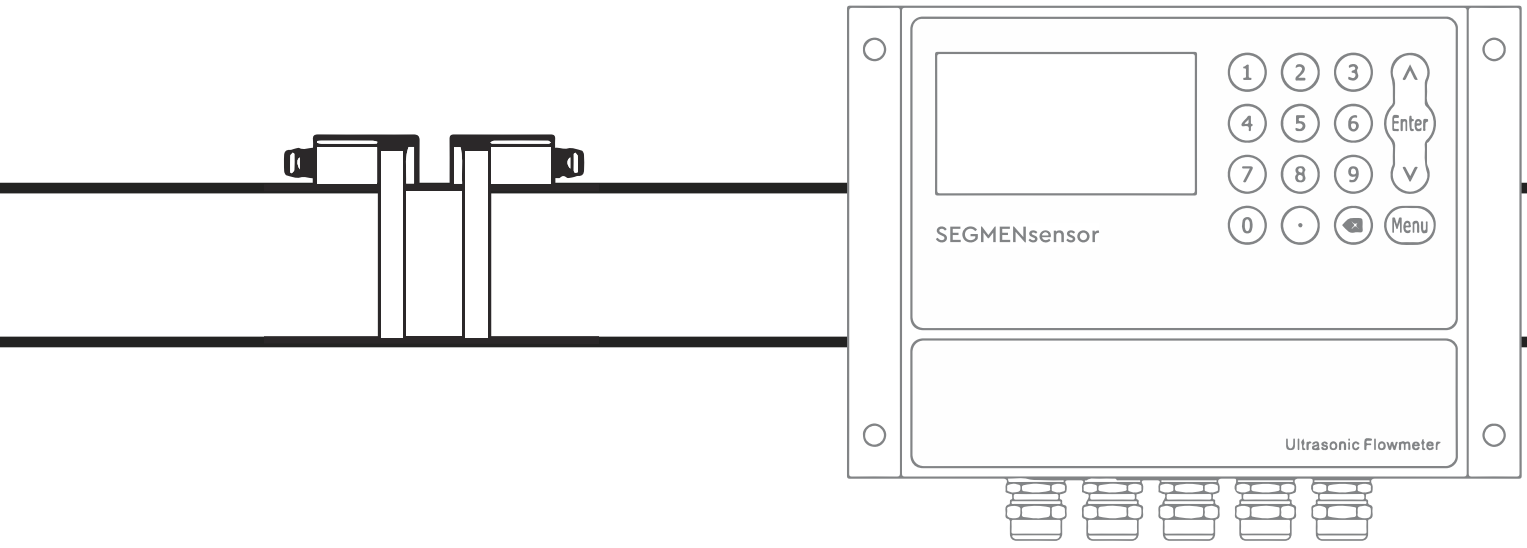
SEGMENsensor



ULTRASOME FLOW METER-SEG801

Suitable for any diameter pipe

Introduction

It 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.
Has a 240*128 back lit 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.

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

Application

Ultrasonic flowmeter widely application in HVAC, water treatment, irrigation.

Specification

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

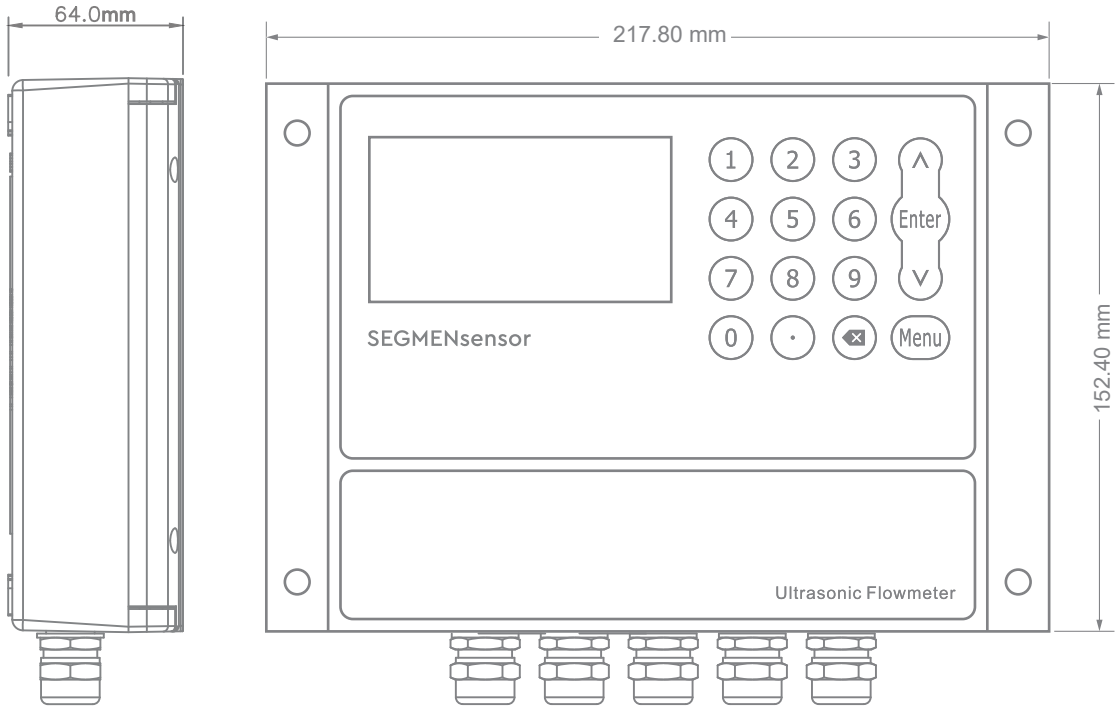
Outputs	Analog output: 4~20mA, max load 750Ω. Pulse output: 0~10KHz
Communication	RS232/RS485 Modbus
Power supply	10~36VDC/1A
Display	240*128 back lit LCD
Temperature	Transmitter: -14℉~140℉(-20℃~60℃) Transducer:-40℉~176℉(-40℃~80℃,standard)
Humidity	Up to 99% RH,non-condensing

Physical

Transmitter	PC/ABS,IP65
Transducer	ABS,IP68 Encapsulated design Double-shielded transducer cable Standard/maximum cable length:30ft/900ft(9m/274m)

Product size

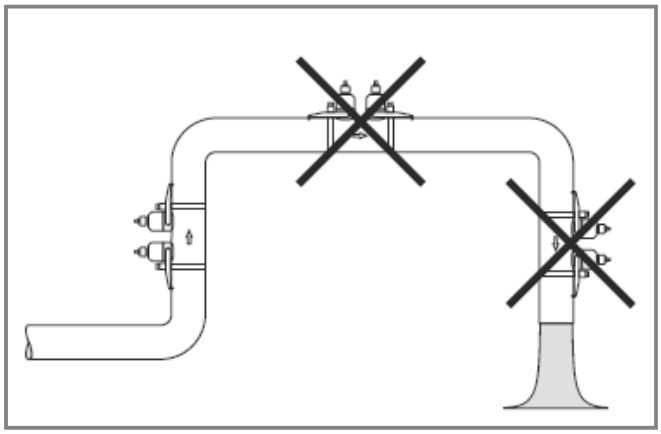
Transmitter size



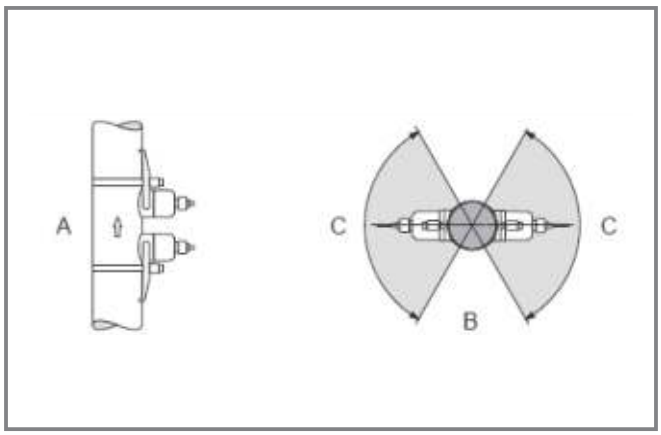
Transsducer size

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:



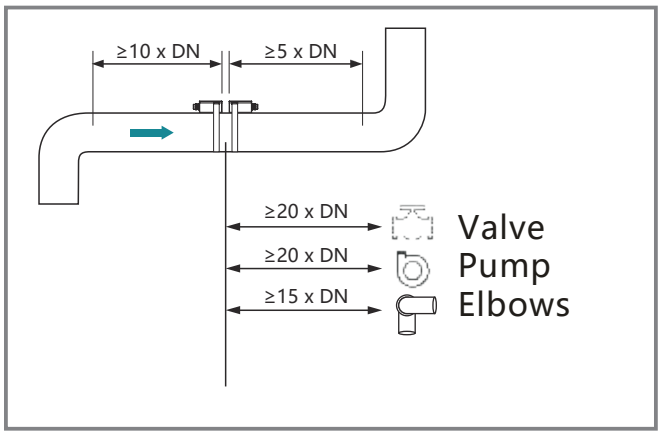
The suggestion installation area is as following:



- 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°.

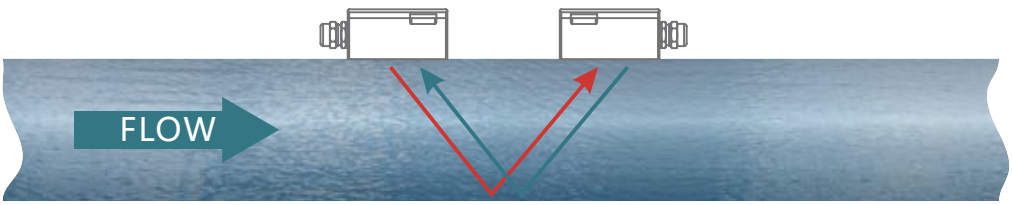
Straight pipe demand

We suggest avoiding the valve, T-branch pipe and elbows if the condition allow. Please satisfied the hardest position installation requirements when you face more than one interfering resource.



Measuring principle

Transfer time technical means the ultrasonic signal from the transducer 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.



Ordering confirmation

SEG	□□□	-	□□□	-	□	-	□
	Type		Sensor		Signal output		Connection mode
	Accuracy: ±0.5%		C01:External clamp sen–sor,IP68,–40˚F~+176˚F (–40˚C~+80˚C) C01U:External clamp sen–sor,IP68,–40˚F~+266˚F(–40˚C~+130˚C) C01W:Plug–in sen–sor,IP68,–40˚F~+266˚F(–40˚C~+130˚C)		1.OCT,Relay output, RS232/RS485, 4–20mA 2.OCT,Relay output, RS232/RS485, 4–20mA, RTD		D：Connector P：Cable M：Display meter with digital display

Optional

SEG		-		-	□	-	□
			Sensor		Temperature sensor		Cable Length
			AC power,90 to 245 VAC SD card(8G) Calorimeter Features Includes RTD + an external clip–on PT1000, PT1000 standard cable length is 9m		T:PT100		Standard cable for sensors below 80℃ is 9m, with a USD10/m exten–sion Standard cable for sensors 130℃ is 9m, with a USD20/m exten–sion

Standard flow meter model：C01–1–P9， External clamp sensor, OCT, Relay output, RS232/RS485, 4–20mA, 9m cable.

Standard energy/btu meter model：C01–2–P20–T,External clamp sensor, OCT, Relay output, RS232/RS485, 4–20mA,RTD,20m cable,TP 1000.