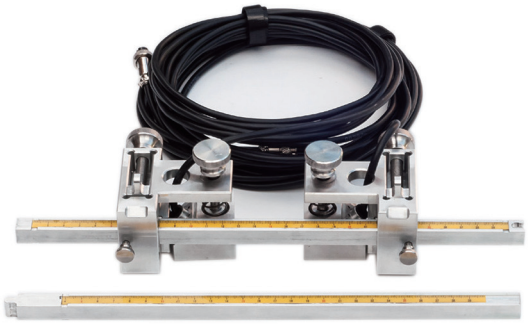
ALSONIC-PL

Ultrasonic Flowmeter

Model ALSONIC Series

GENERAL

THE ALSONIC-PL is a portable transit-time ultrasonic flow and energy meter with clamp-on transducers for non-invasive liquid flow rate measurement. Our microprocessor based, user friendly, field programmable flow measurement technique creates no interruption of the process flow and has low installation costs.



FEATURES

- 2 line LCD display with flow rate, totalizer & diagnostics
- Stores up 512 days of data w/recording interval of 1 to 3600 seconds
- Velocity range of ±0.98 ft/s~±32 ft/s (±0.1 ~±10 m/s)
- Pipe sizes from 1-48" (25~1200) mm
- Bracket-type transducers for easy installation without mounting belt
- Data logger includes date, totalizer, signal condition & diagnostic code status
- Response time of less than 1 second

SPECIFICATIONS

- **Flow range:** ±0.98 ft/s~±32 ft/s (±0.1 ~±10 m/s)
- **Pipe size :** Clamp-on: 1"~48" (25mm~1200mm)
- **Fluid:** Clean liquids w/up 1% particles/bubbles
- **Accuracy** ±1% of reading (0.3~5 m/s); ±5% of reading (0.1~10 m/s)
- **Pipe material:** Carbon steel, stainless steel, PVC, copper, PVDF, polypropylene
- **Outputs:** Analog output: 4~20mA, Max 750 Ω. Modbus/RS485
- **SD card:** 16Gb for data-logger
- **Measuring Interval:** User set 1 ~ 99999 sp seconds
- **Display:** 240*128 back-lit LCD
- **Power supply:** Rechargeable lithium battery, 3000mAh (16 hours continuous operation)
- **Temperature:** Ambient: -40°F~+140°F (-40℃~+60℃)
- **Temperature:** Process -40°F~+176°F (-40°C~+80°C) and up to 230°F (130°C) optional
- **Humidity:** Up to 99% RH, non-condensing
- **Transmitter:** NEMA3S, IP54
- **Transducer:** Encapsulated design, IP68
- **RTD (options):** PT100, PT500, PT1000
- **Transducer cable:** Standard cable length: (16ft) 5m
- **Keypad:** Membrane type

■ ACCESSORIES

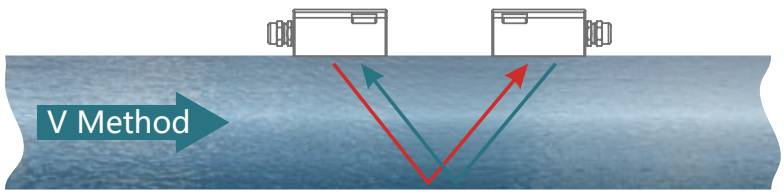
- Carrying Case
- Flow computer (transmitter)
- Transducers
- Mounting track, ST or DT type
- Mounting straps
- Coupling compound (silicone), battery charger, output cable and measuring Tape

Single guide mounting bracket (ST)

Dual guides mounting bracket (DT)

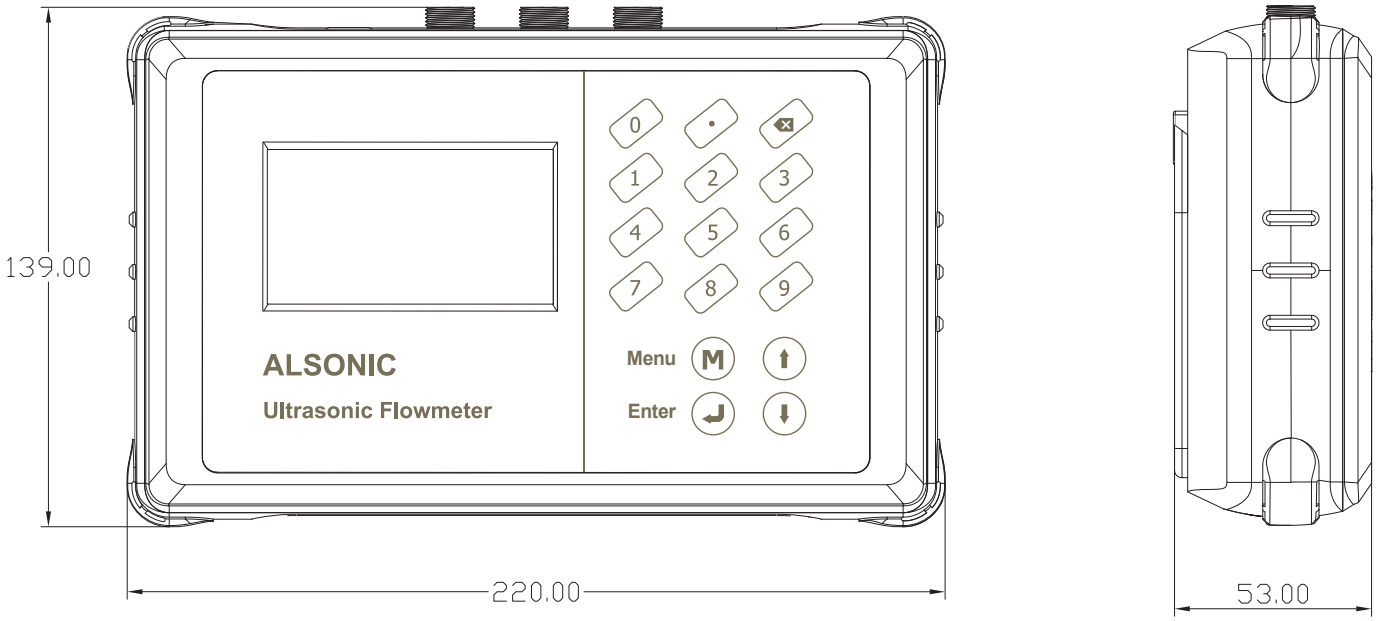
■ MEASURING PRINCIPLE

Flow rate is calculated by measuring the transit times of ultrasonic signals from the transducers transmitted and received through the moving liquid. The difference between the upstream and downstream transit time, is proportional to the flow velocity moving through the pipe.



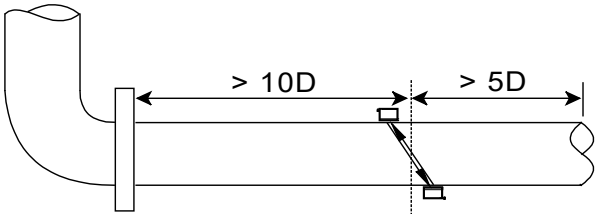
The Alsonic PL is also capable of measuring heat and energy flow rates used in devices such as heat exchangers. With clamp-on or insertion temperature RTDs, users can measure flow and heat rates of both the inlet and outlet of a system, enabling accurate measurement of energy usage.

■ DIMENSIONS

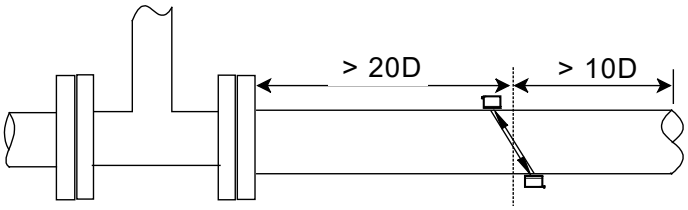


Size: 8.66" x 5.47" x 2.09" (220*139*53mm)
User Settings: Flow unit, zero, clear total flow, K- factor, Passwords, linearization table
Inputs: 4 ~ 20 mA analog input (temperature)
PT1000 resistor input (temperature)
Outputs: Isolated RS485 output
4 ~ 20mA output
1 relay output,
data logger (optional)
Protection: IP54

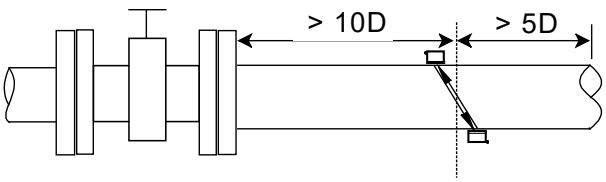
ELBOW 90°



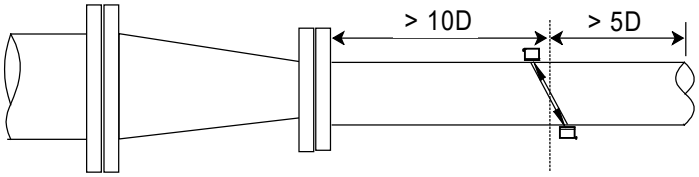
Tee Fitting



Valve



Reducer



Please contact your **SmartMeasurement** application engineer
You also need to provide the following information:

TYPE OF FLUID	Please provide the name of your fluid, including operating density and viscosity
FULL-SCALE FLOW RATE	Please provide the max and min flow rate, normal flow rate also
LINE SIZE	Please provide the line size and pipe material
PRESSURE & TEMPERATURE	We will calibrate your flow meter as close to your operating conditions as possible

ALSONIC-PL SERIES

EXAMPLE: ALSONIC-PL-SC1-NC-NN

ALSONIC	**	**	**	**	**	DESCRIPTION
Standard portable flow meter with display, 4-20mA, RS485	PL					Flowmeter Type
Standard portable energy meter with display, 4-20mA, RS485	EG-P					
Medium clamp sensor with single mounting track (-30~+75°C), 25~800mm		SC1				Transducers
Large clamp sensor with single mounting track (-30~+75°C), 500~1200mm		SC2				
High-temp clamp-on sensor with single mounting track (-30~+110°C), 25~500mm		HC1				
Standard insertion sensor (-30~+110°C), 80~1200mm		IC1				
No Cables			NC			Signal Cable Length
Standard 5m x 2 Cables			C1			
**m cables up to +75 deg C			C**			
**m cables up to +110 deg C			H**			
Battery power : 3000mAh				BA		Power Supply
None option					NN	Options
Thickness gauge					TT	
Dual mounting track for portable, up to DN600					DS	
Clamped on PT1000 with 5m cable, one pair					RTD	
Clamped on PT1000 with **m cable, one pair					R**	
Data logger with 16G SD card					DL	