



ALSONIC-FX2

Ultrasonic Flowmeter

ALSONIC SERIES

GENERAL

THE SMARTMEASUREMENT ALSONICFX2 is a fixed-mount, transit-time ultrasonic flowmeter, with clamp-on transducers for non-invasive liquid flow measurement. Our microprocessor based, user friendly, field programmable flow measurement technique creates no interruption of the process flow and provides for all installation costs.

FEATURES

- 4 line LCD display with flowrate, totalizer & diagnostics
- Stores up 64 Day/month's totalizer daily values
- Batch control function
- Temperatures of up to (230°F) 110°C
- Transducers for pipe size from 1" ~ 48" (25 ~ 1200mm)
- Available with clamp on or insertion
- High accuracy of $\pm 1\%$ of reading
- Transducers include magnetic insert, for installation on metal pipe without mounting belt
- Data logger function; includes date, totalizer, signal condition & diagnostic code status
- Response time of less than 1 second

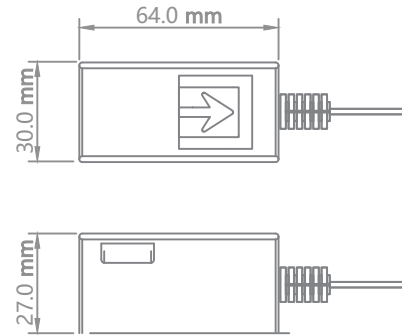
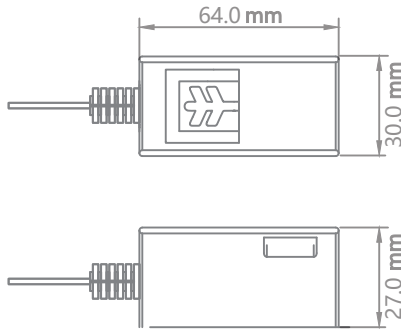


SPECIFICATIONS

• Measuring Principle:	Transit time ultrasonic	• Keypad:	16 key with tactile action
• Pipe sizes:	SC1: 1" ~ 31" (25mm ~ 800 mm) SC2: 20" ~ 48" (500 mm ~ 1200 mm)	• Response Time:	Less than 1 second
• Pipe Material:	Cast Iron, Stainless Steel, Ductile Iron, Copper, PVC, Aluminum, Asbestos, Fiberglass, etc.	• Flow Velocity:	1 ~ 33ft/s (0.3 ~ 10m/s)
• Display:	4 line LCD with backlight	• Resolution:	0.0001m/s
Flowrate:	5 digits with decimal point	• Ambient Temperature:	-4 ~ 140°F (-20 ~ +60°C)
Totalizer:	8 digits, forward, reverse & net values	• Mounting:	Wall mounting, panel, local or etc.
Engineering Units:	Million Gallon, Cubic Feet, US Barrels, Imperial Barrels, Oil Barrel	• Max. Cable Length:	330' (100m)
Time Units:	second, minute, hour, day	• Power Consumption:	Less than 2W
Other:	Velocity, Date, time, signal condition	• Power Supply:	Std - 24V _{DC} Opt - 90 ~ 245V _{AC}
• Accuracy:	Std - $\pm 1\%$ of reading (0.3 ~ 5 m/s) $\pm 5\%$ of reading (0.1 ~ 10m/s)	• Data Storage:	Operation parameters, totalization, date are stored by EEPROM
• Repeatability:	$\pm 1\%$ of reading	• Analog output:	4~20mA, max load 750Ω
• Communication:	RS485/Modbus	• Pulse output:	0~10KHz
		• Data Logger:	16 GSD card, 64 data points including
		• Alarm:	High/Low with buzzer as option
		• Protection::	Converter - IP65; Sensor - IP68

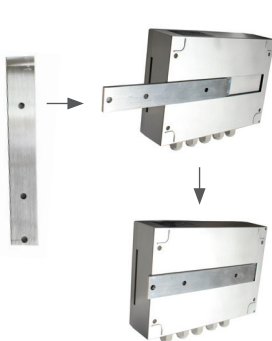
■ STANDARD TRANSDUCER

Fluid Temperature: -22 ~ 167°F (-30 ~ +75°C)
 -22 ~ 230°F (-30 ~ +110°C)
 Accuracy: 1%



Model	SC1 (Medium Size)	SC2 (Large Size)
Pipe Size	1" ~ 32" (DN25 ~ 800mm)	20" ~ 48" (DN500 ~ 1200mm)

■ PRODUCT ACCESSORIES



mounting plate



signal cable



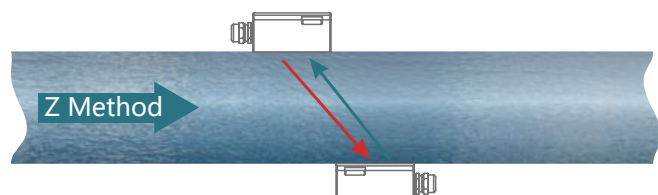
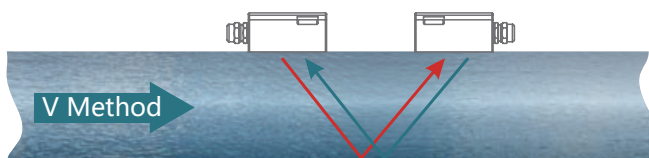
Worm Gear Clamp



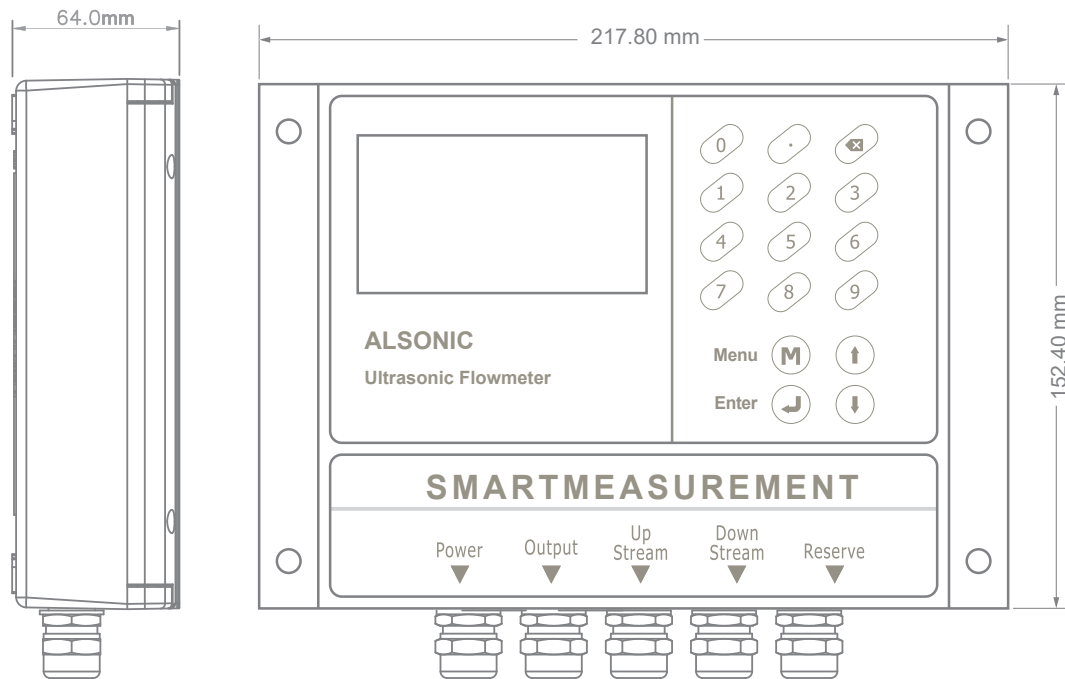
Temperature sensor

■ MEASURING PRINCIPLE

The ultrasonic signal from the transducer is transmitted and received through the moving liquid. The difference between the upstream and downstream transit time, is directly proportional to Fluid Velocity, used to calculate flow rate and velocity.

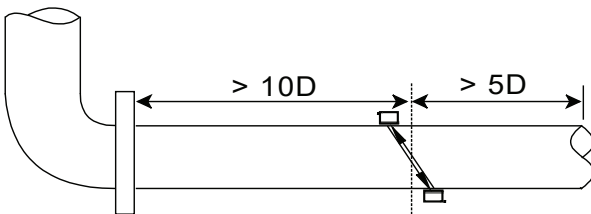


■ DIMENSION

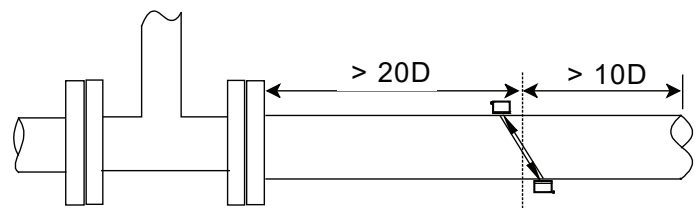


Size:	8.58" x 5.98" x 2.52" (218*152*64mm)	Outputs:	Isolated RS232/RS485 output
Setting	Flow unit, zero, clear total flow, K- factor		1 channel OCT, 1 channel 4 ~ 20mA output
Parameters:	Passwords, data linearity factor		1 relay output, SD card data
Inputs:	2 channel 4 ~ 20 mA analog input (heat/energy)		logger (optional)
	Three-wire PT100 resistor input (heat/energy)	Protection:	IP65

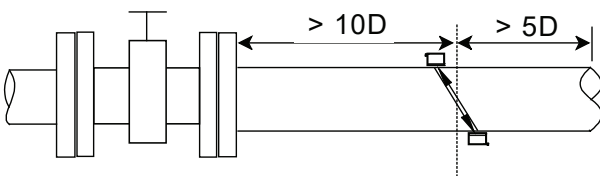
ELBOW 90°



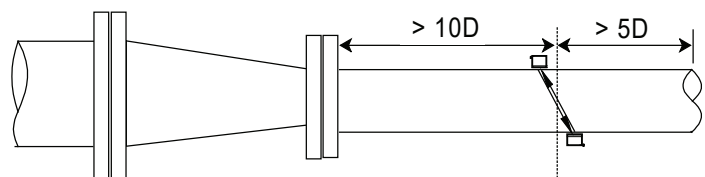
Tee Fitting



Valve



Reducer



Please contact your **SmartMeasurement** application engineer

You also need to provide the following information:

TYPE OF FLUID
FULL-SCALE FLOW RATE
LINE SIZE
PRESSURE & TEMPERATURE

Please provide the name of your fluid, including operating density and viscosity

Please provide the max, min and nominal flow rates.

Please provide the line size

We will calibrate your flow meter as close to your operating conditions as possible

ALSONIC-FX SERIES

EXAMPLE: ALSONIC-FX2-SC1-C1-NN

ALSONIC		**	**	**	**	DESCRIPTION	
Standard wall mount flow meter with display, 4-20mA, RS485		FX-2				Flow Meter	
Standard wall mount energy meter with display, 4-20mA, RS485		EG-2					
Middle clamp sensor (-30~+75°C), 25~800 mm		SC1				Transducers	
Large clamp sensor (-30~+75°C), 500~1200 mm		SC2					
High Temperature clamp sensor (-30~+110°C), 25~500 mm		HC1					
Standard insertion sensor (-30~+110°C), 80~1200 mm		IC1					
304SS inline sensor (-30~+110°C) with pipe size **		DN					
Other transducer		**					
No Cables				NC	Signal Cable Length		
5m x 2 Cables				C1			
m cables up to +75 deg C				C			
m cables up to +110 deg C				H			
Standard power supply : 10~36V _{DC} /1A.					DC	Power Supply	
Option power supply: 90~245V _{AC} , 50/60Hz					AC		
None option						NN	Options
Worm gear steel mounting belt - please offer line size <DN500						SM	
thickness gauge						TT	
Clamped on PT1000 with 5m cable, a pair						RTD	
Clamped on PT1000 with **m cable, a pair						R**	
Data logger for wall mount						DL	
Ex proof chassis for wall mount transmitter						EX	

