



ALSONIC-FX

Ultrasonic Flowmeter

Model ALSONIC Series

GENERAL

THE ALSONIC-FX series is a fixed-mount, transit-time ultrasonic flowmeter, 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 flowrate, totalizer & diagnostics
- Stores up 64 Day/months totalizer daily values
- Batch control function
- Measures wide range velocities from 0.03 ~ ± 175 ft/s
- Transducers for pipe size from $\frac{1}{2}$ " to 240" (15 to 8000mm)
- 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 less than 1 second

SPECIFICATIONS

- | | | | |
|------------------------|--|------------------------|---|
| • Measuring Principle: | Transit time ultrasonic | • Keypad: | Up to 16 key with tactile action |
| • Pipe size | S Type : $\frac{1}{2}$ "~4" (15 mm~100 mm)
M Type : 2"~28" (50 mm~700 mm)
L Type : 12"~240" (300 mm~6000 mm) | • Response Time: | Less than 1 second |
| • Pipe Material: | Cast Iron, Stainless Steel, Ductile Iron, Copper, PVC, Aluminum, Asbestos, Fiberglass, etc. | • Flow Velocity: | 0.03 ~ ± 105 ft/s (0.3 ~ ± 10 m/s) |
| • Liner Material: | Tar Epoxy, Rubber, Mortar, Polypropylene, Polystyrol, Polystyrene, Polyester, Ebonite, Polyethylene, Teflon, etc. | • Resolution: | 0.0001m/s |
| • Display: | 2 Line LCD with backlight | • Ambient Temperature: | -5 ~ 122°F (-20 ~ +60°C) |
| Flowrate | 5 digits with decimal point | • Mounting: | Wall mounting, panel, local or DIN Rail |
| Totalizer | 8 digits, Forward, Reverse & Net values | • Max. Cable Length: | 500' (150m) |
| Engineering Units | Million Gallon, Cubic Feet, US Barrels, Imperial Barrels, Oil Barrel | • Power Consumption: | Less than 2W |
| Time Units | Second, Minute, Hour, Day | • Power Supply: | Std - 85 ~ 264V _{AC} , 50/60 HZ
Opt - 24V _{DC} |
| Other | Velocity, Date, Time, Signal condition | • Data Storage: | Operation parameters, totalization, date are stored by EEPROM |
| • Accuracy: | $\pm 1\% \sim \pm 2\%$ (0.3 ~ 10 m/s)
$\pm 0.5\%$ (online calibration) | • Power output: | 4-20mA, 0-20mA |
| • Repeatability. | $\pm 1\%$ of reading | • Pulse Output: | 1-9999 Hz |
| • Communication: | RS485, M bus | • Data Logger: | SD card for wall mount, 64 data points including flowrate, totalizer time, data |
| | | • Alarm: | High/Low with buzzer |
| | | • Protection: | Converter - IP54, IP65
Sensor - IP65 (Std), IP68 (Opt) |

STANDARD TRANSDUCER

Fluid Temperature: -22 ~ 195°F (-30 ~ +90°C)

Accuracy: 1%

Model	SCS (Small Size)	SCM (Medium Size)	SCL - (Large Size)
Pipe Size	½"~4" (DN15-100mm)	2"~40" (DN50-600mm)	12"~240" (DN300-6000mm)

INSERTION TRANSDUCER

Fluid Temperature: -22 ~ 320°F (-30 ~ +160°C)

Accuracy: 1%

Model	Pipe Size	Pipe Size Wall Thickness	Pipe Material
SIS (Standard)	3"~40" (DN80-1000mm)	≤¾" (20mm)	Carbon Steel, SS, etc.
SIL (Large Size)	12"~240" (DN300-6000mm)	≤2¾" (70mm)	PVC, steel, concrete, etc.

HIGH TEMPERATURE TRANSDUCER

Fluid Temperature: -22 ~ 320°F (-30 ~ +160°C)

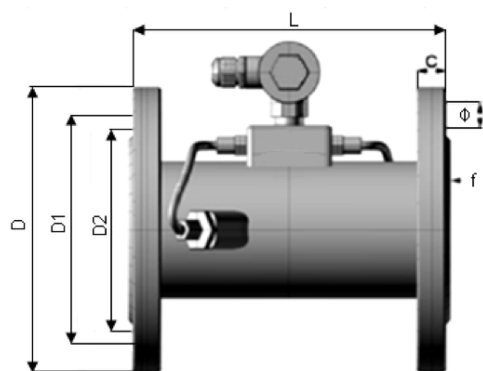
Accuracy: 1%

Model	SHS (Small Size)	SHL (Medium Size)
Pipe Size	½"~4" (DN15-100mm)	2"~240" (DN50-600mm)

INLINE TYPE

Fluid Temperature: -22 ~ 320°F (-30 ~ +160°C)

Accuracy: 1%



Note: all dimensions are mm unless stated otherwise

All dimensions in mm

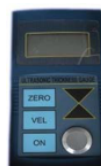
DN	L	D	D1	φ×n	D2	F	C
2"(50)	200	165	125	18×4	99	3	20
2½"(65)	200	185	145	18×4	118	3	20
3"(80)	225	200	160	18×4	132	3	20
4"(100)	250	220	180	18×8	156	3	22
5"(125)	250	250	210	18×8	184	3	22
6"(150)	300	285	240	22×8	211	3	24
8"(200)	350	340	295	22×12	266	3	24
10"(250)	450	405	355	26×12	319	3	26
12"(300)	500	460	410	26×12	370	4	28
14"(350)	550	520	470	26×12	429	4	30
16"(400)	600	580	525	26×16	480	4	32
18"(450)	700	640	585	30×20	548	4	34
20"(500)	800	715	650	33×20	609	4	36
24"(600)	1000	840	770	36×20	720	5	38
28"(700)	1100	910	840	36×24	794	5	40
32"(800)	1200	1025	950	39×24	901	5	42
36"(900)	1300	1125	1050	39×28	1001	5	44
40"(1000)	1400	1255	1170	42×28	1112	5	46



Worm Gear Clamp



Mounting Belt



Thickness Gauge



Data Logger

WALL MOUNT



Size: 7.08" x 6.70" x 2.25" (180*170*57mm)
 Setting data: Flow unit, zero, clear total flow, K- factor
 Passwords, data linearity factor
 Input: 3 channel 4-20mA analog input
 Three-wire PT100 resistor input
 Output: Isolated RS232/RS485 output
 1 channel OCT, 1 channel 4-20mA output
 1 channel relay output, SD card Data
 logger (option)
 Protection: IP65

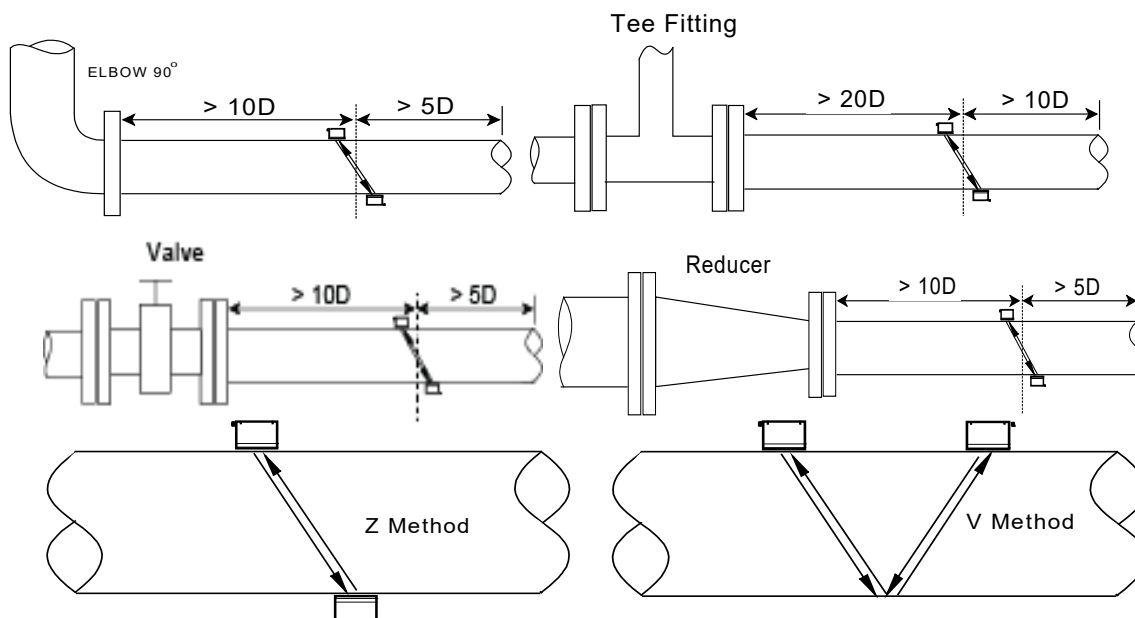
DIN RAIL MODULE



Size: 3.58" x 1.50" x 3.58" (91×38×91mm)
 Display: 1. State 2. Error time 3. Temperature
 difference 4. Temperature 5. Energy flow
 6. Total flow 7. Flow rate 8. Positive total flow.
 Input: 3 channel 4-20mA analog input
 Three-wire PT100 resistor input
 Output: Isolated RS232/RS485 output
 1 channel OCT, 1 channel 4-20mA output
 Power Supply: 8-36V_{DC} / 10-30V_{AC}

PANEL MOUNT

Size: 6.30" x 6.80" x 2.95" (160*173*75mm)
 Setting data: Flow unit, zero, clear total flow,
 K-factor, passwords, date,
 linearity factor
 Input: 3 channel 4-20mA analog input
 Three-wire PT100 resistor input
 Output: Isolated RS232/RS485 output
 1 channel OCT
 1 channel 4-20mA output
 1 channel relay output
 Protection: IP65



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 connection

PRESSURE & TEMPERATURE

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

ALSONIC-FX SERIES

EXAMPLE: ALSONIC-FX-WLF-SCS-C1-NN

ALSONIC-FX		**	**	**	**		DESCRIPTION	
Remote Mini Module with display and RS485		MUF					Flow Meter	
Wall mount with display		WLF						
Remote panel mount		PMF						
Small transducer, ½" - 4" (15 - 100mm); (-30-90°C)			SCS				Transducers	
Medium transducer, 2" - 40" (50 - 1000mm); (-30-90°C)			SCM					
Large transducer; 12" - 240" (300 ~ 6000 mm), (-30-90°C),			SCL					
High Temperature transducer, ½: - 4" (15 - 100 mm); (-30-160°C)			SHS					
High Temperature transducer, 2" - 40" (50 - 1000mm); (-30-160°C)			SHL					
Standard insertion sensor, 3"~240" (80 ~ 6000 mm); (-30-160°C)			SIS					
Long insertion sensor3"~240" (80 ~ 6000 mm); (-30-160°C),			SIL					
¼" (DN6) - Polypropylene inline tube, 0.01-9 LPM, up to 60°C			UC6P					
SS #304 inline sensor, -22~284 °F (-30-140°C) with pipe size ***			DN					
No Cables				NC			Signal Cable Length	
5M× 2 Cables				C1				
10M×2 Cables				C2				
15M×2 Cables				C3				
None Option					NN			Options
Thickness' gauge					TT			
Extra signal cable. **m * 2					Cable			
Mounting Belt. **m * 2 / worm gear clamp					ST			
Data logger for wall mount display					DL			
IP68 Protection for transducer					68			

