ALSONIC-HL

Handheld Transit-Time Ultrasonic Flowmeter

Model ALSONIC-HL Series

GENERAL

Alsonic-PHL series is a Handheld transit-time ultrasonic flowmeter with clamp-on transducers for non-invasive liquid measurement. Our microprocessor based,user friendly field programmable flow measurement technique creates no interruption of the process flow and has low installation costs.

FEATURES

- ❑ 4 line LCD display with flow rate, totalizer & diagnostics.
- ❑ The flowmeter is designed for high accuracy ± 1.0%.
- ❑ Small sized (8.25" x 3.50" x 1.48") and lightweight (≈1 lb.)
- ❑ Wide range of fluid velocities - 0.9 ~ ±105 feet/sec. (0.3 ~ ± 32 m/s)
- ❑ Long-life Ni-MH battery for up to 12 hours of continuous operation.
- ❑ Transducers for pipe sizes ranging from ½" ~ 240" (15 to 6000 mm)
- ❑ High accuracy of ±0.5% of reading (or ±0.2% of reading)
- ❑ Transducers include magnetic device,which can install on metal pipe without mounting belt.
- ❑ Data logger which records flowrate, date, total flow, signal condition, etc.
- ❑ Response time less than 1 second

SPECIFICATIONS

- Measuring Principle : Transit time ultrasonic
- Transducers : SCS : ½" ~ 4" (15 mm ~ 100 mm)
  : SCM: 2 ~ 38" (50 mm ~ 1000 mm)
  : SCL: 12" ~ 240" (300 mm ~ 6000 mm)
  : SHS: ½" ~ 4" (15 mm ~ 100 mm)
  SHL: 2" ~ 38" (50 mm ~ 1000 mm)
- Pipe Material : Cast Iron, Stainless Steel, Ductle Iron Coppor, PVC, Aluminum, Asbestos Fiberglass... etc.
- Liner Material : Tar Epoxy, Rubber, Mortar, Polypropylene, Polystryal, Ploystryene, Polyester, Ebonite, Polyethylene, Teflon... etc.
- Display : 4 Line LCD with backlight
  Flowrate : 5 digit with decimal point
  Totalizer : 8 digit, Forward, Reverse & Net values.
  Engineering Units : M^3, Liter, US Gallon, Imperial Gallon, Million Gallon, Cubic Feet, US Barrels, Imperial Barrels, Oil Barrel.
  Time Units : Second, Minute, Hour, Day.
  Other Parameters : Velocity, Date, Time, Signal condition.
- Accuracy : ± 1% ~ ± 2% of reading (1.5 ~ 100 feet/sec.)
  : ± 0.5% of reading (online calibration)
- Repeatability : ±0.2% of reading
- Keypad : 18 Key with tactile action
- Response Time : Less than 1 second
- Flow velocity : 0.9 ~ 105 feet/sec. (0.3 ~ ± 32 m/s)
- Resolution : 0.0003 feet/sec. (0.0001 m/s)
- Ambient Temperature : -4 ~ 122 °F (-20 ~ 50 °C)
- Ambient Humidity : 90% RH or Less
- Built-in battery : Ni-MH Battery
- Operation Time : > 12 Hours
- Charger : 90 ~ 260V_{AC} 50/60 Hz, 8-12 Hr charging
- Data Storage : Operation parameters and totalization data are stored by EEPROM for more than 10 years
- Operation Time : > 10 Hours
- Charger : 90 ~ 260V_{AC} 50/60 Hz, 8-12 Hour charging
- Data Logger : 64 data include flowrate, totalizer, time, date.
- Alarm : High/Low with buzzer
- Power consumption : Less than 2W
- Dimension : 3.25" x 3.50" x 1.18"
- Weight : 1.10 lbs.
- Enclosure
  Converter : IP65
  Sensor : IP68 (Submersible)

SmartMeasurement
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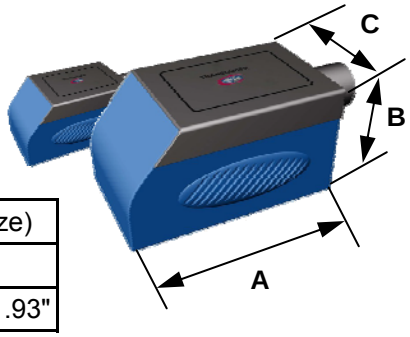
URL : http://www.smartmeasurement.com
E-mail :sales@smartmeasurement.com

TRANSDUCER SPECIFICATION



- **Standard Transducers**

Fluid Temperature : -40 ~ 230 °F

Model	SCS (Small Size)	SCM (Medium Size)	SCL (Large Size)
Pipe Size	½" - 4"	2" - 40"	12" - 240"
A*B*C	1.75" x 0.90" x 1.00"	2.50" x 1.25" x 1.38"	3.85" x 1.75" x 1.93"

- **High Temperature Transducers**

Fluid Temperature : -40 ~ 320 °F

Model	SHS (Small Size)	SHL (Medium Size)
Pipe Size	½" - 4"	2" - 40"

ACCESSORY (standard package)

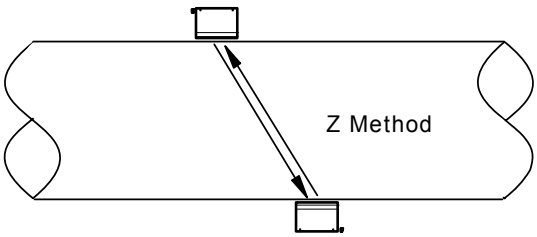
Case

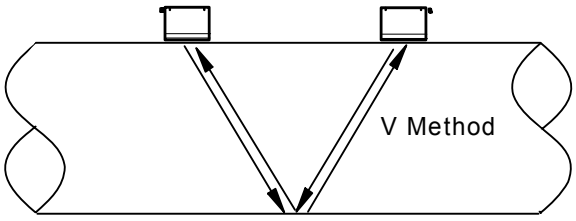
Silicone grease

Mounting Belt

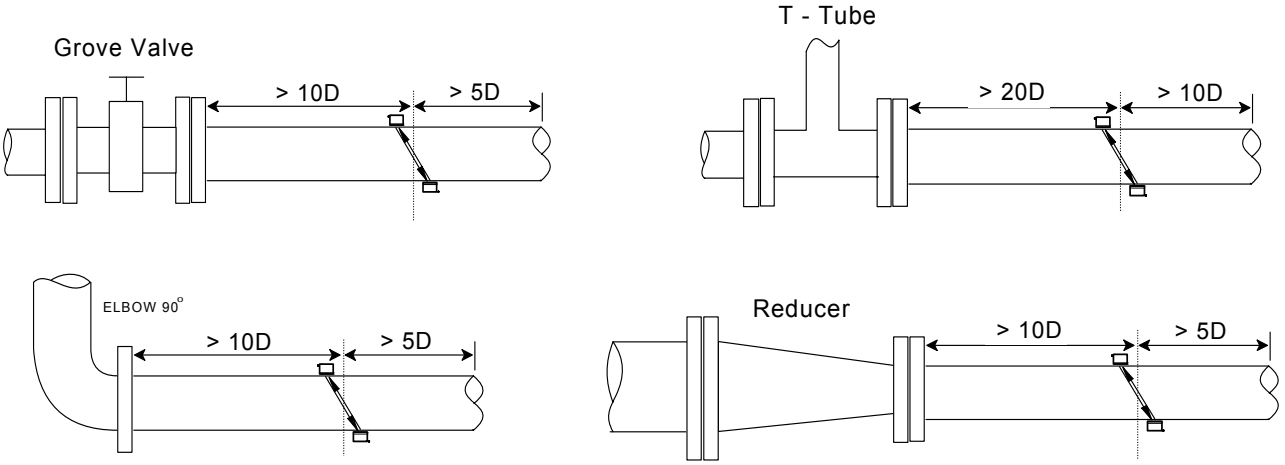
Measuring Tape

INSTALLATION





STRAIGHT RUN PIPING REQUIREMENT



COMBINATION FOR ULTRASONIC FLOWMETER

Power adaptor

RS232 Communication cable

OTHER ACCESSORIES

Waterproof Case

Mounting Belt

Thickness gauge

**** Please contact your local SMC 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**
Line Size	**Nominal pipe size and sensor connection type (insertion,clamp, etc..)**
Process Pressure and Temperature	**We will calibrate your flowmeter as close to your operating conditions as possible**
Type of Electronics	**Output and installation type (compact, wall mount, panel mount,etc..)**
Pipe Material	**Please provide the name of your pipe material (Copper, PVC, black iron, etc.)**

Model Selection Guide

Alsonic-HL						
Example : Alsonic-HL-SCS-C1-NS						
Alsonic-	******	******	******	******		**Description**
Handheld HL Basic Model, Include: * Alsonic-HL Handheld * 1 set * Power Adaptor (90-264 V_{AC}, 50/60Hz) * 1 s * RS232 communication cable * 1 set * Silicone grease * 1 Box * Aluminum Carrying Case * Measuring Tape	HL					Portable Flowmeter
No transducers required		NTS				Transducers
Small clamp sensor, ½" - 4" (15 - 100 mm)		SCS				
Medium clamp sensor, 2" - 40" (50 - 1000 mm)		SCM				
Large clamp sensor, 12" - 240" (300 ~ 6000 mm)		SCL				
High Temp. clamp sensor; -22 ~ 320 °C, ½" - 4" (15 ~ 100 mm)		SHS				
High Temp. clamp sensor; -22 ~ 320 °C, 2" - 40" (50 ~ 1000 mm)		SHL				
No cable needed			NC			Signal Cable Length
16' (5M), 2 Cables			C1			
32' (10M), 2 Cables			C2			
48' (15M), 2 Cables			C3			
None option				NS		Accessories
Thinkness gague				TT		
Waterproof case				WPC		
Extra single cable. 10m * 2				Cable		
Mounting Belt. 6m * 2				MS		