



# ALSONIC

Hand-held Transit-Time Ultrasonic Flowmeter

Model ALSONIC-DHL Series

## GENERAL

The Alsonic-DHL series is a hand-held transit-time ultrasonic flowmeter with a built-in data logger and clamp-on transducers for non-invasive liquid measurement. Our microprocessor based, user friendly, field programmable signal processor allows no interruption of the process flow resulting in low installation costs.

## FEATURES

- 4 line LCD display with flow rate, totalizer & diagnostics.
- High accuracy,  $\pm 1.0\%$ .
- Compact, lightweight design
- Wide range, fluid velocities ranging 1.5 ft~40 ft/sec (0.5~ $\pm 12$ m/s).
- Ni-MH Battery life for up to 16 hours of continuous operation.
- Transducers for pipe sizes from 1"~ 48" (25 to 1200 mm).
- Transducers include magnetic base, which allows for mounting on metal pipes, without mounting belt or clamps.
- Data logger records parameters including flowrate, date, total flow and diagnostics.
- Response time less than 10 seconds.



## SPECIFICATIONS

Measuring Principle : Transit time Ultrasonic

Transducers: 1"~ 48" (25~1200mm)

Pipe Material: Cast Iron, Stainless Steel, Ductile Iron  
Copper, PVC, Aluminum, Asbestos  
Fiberglass

Liner Material: Epoxy, Rubber, Mortar, Polypropylene,  
Polystyryal, Polystyryene, Polyester, Ebonite,  
Polyethylene, Teflon... etc.

Display: 4 Line LCD with back-light.

Flowrate: 5 digit with decimal point

Totalizer: 9 digit, Forward, Reverse & Net values.

Engineer Unit: m<sup>3</sup>, Liter, US Gallon, Imperial Gallon,  
Million Gallon, Cubic Feet, US Barrels,  
Imperial Barrels, Oil Barrel.

Time Unit: Second, Minute, Hour, Day.

Add'l Parameters: Velocity, Date, Time, Signal condition

Accuracy:  $\pm 1\% \sim \pm 2\%$  of reading 1.5 ft~40 ft/sec (0.5~12m/s)

Repeatability:  $\pm 0.3\%$  of reading

Keypad: 23 Key with tactile action

Response Time: Less than 10 second

Fluid velocity: 1.5~40 ft/s (0.5~ $\pm 12$ m/s)

Resolution: 0.05 m/s

Ambient Temperature: 14~140° F (-10~+60° C)

Ambient Humidity: 0-90% RH, non-condensing

Built-in battery: 11.1V Ni-MH Battery

Operation Time: > 16 Hours

Data Logger: 8G SD card  
flow rate, totalizer,  
time, date, etc..

Output: 4-20mA, maximum 750Ω  
Data logger (FAT 16)

Charger: 110~240V<sub>AC</sub> 50/60 Hz, 4-6 Hour charge time

Power consumption: Less than 2.5W

Dimension: 8.07" x 4.17" x 1.37" (205\*106\*35mm)

Weight: 1.4 lbs (0.65Kg)

Enclosure

Converter: IP54,NEMA 13

Transducer: IP68/NEMA 6P

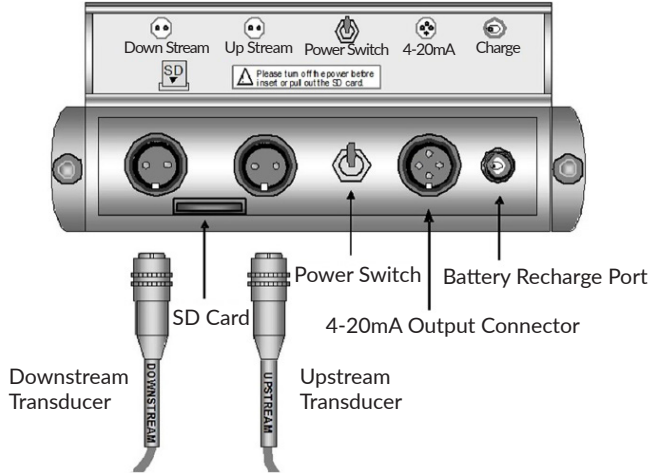
### TRANSDUCER SPECIFICATION

#### Standard-Transducers

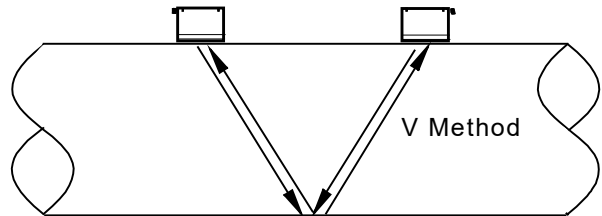
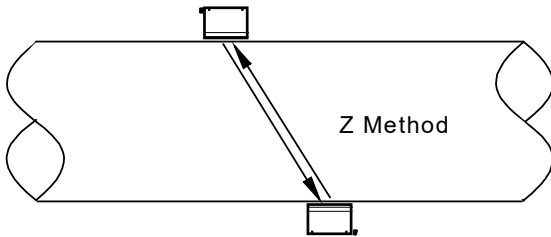
Fluid Temperature: 14°F ~ +176°F (-10°C ~ +80°C)  
 Pipe Size: 1"~48" (DN25~DN1200)  
 Protection: IP68  
 Cable: 5m(std), 10m, 15m (opt)



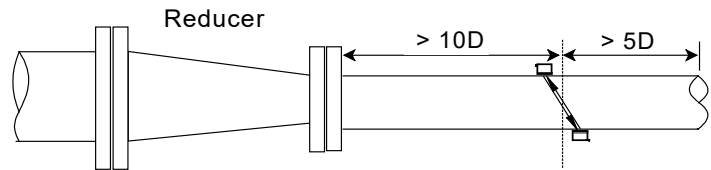
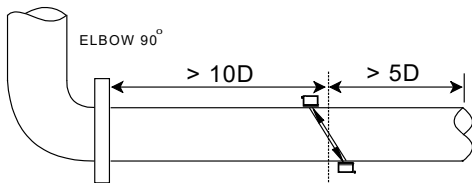
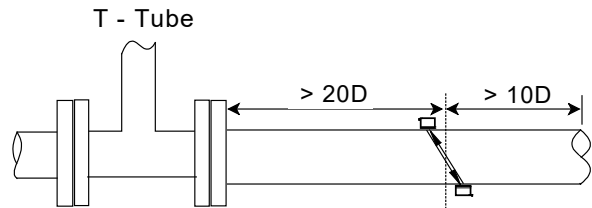
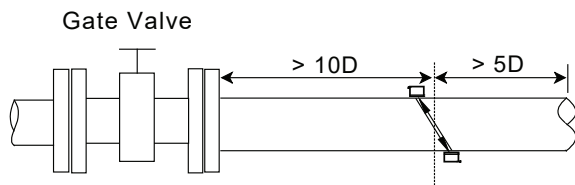
### CONNECTIONS



### INSTALLATION



### STRAIGHT RUN PIPING REQUIREMENT



### CONTENTS OF PORTABLE ULTRASONIC FLOWMETER KIT



### OTHER ACCESSORIES



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

<b>TYPE OF FLUID</b>	Please provide the name of your fluid, including operating density and viscosity
<b>LINE SIZE</b>	Pipe size and sensor connection type (insertion, clamp, etc..)
<b>PROCESS PRESSURE AND TEMPERATURE</b>	We will calibrate your flowmeter as close to your operating conditions as possible
<b>PIPE MATERIAL</b>	Please provide the name of your pipe material

### ALSONIC

Example : Alsonic-DHL-DTS-C1-DL

ALSONIC DHL	**	**	**	**	**	**	**	DESCRIPTION
Handheld DHL	DHL							Portable Flowmeter
Basic Model, Includes:								
* Alsonic-DHL Handheld *1 set								
* Power Adaptor (110-240 V <sub>AC</sub> , 50/60Hz) *1 set								
* 4-20mA cable *1 set								
* Waterproof Carrying Case								
No transducers required		NTS						Transducers
Standard transducer, 1"~48" (25~1200mm)		DTS						
None cable needed				NC				Signal Cable Length
5M, 2 Cables				C1				
10M, 2 Cables				C2				
15M, 2 Cables				C3				
None option					NN			Option
8G SD card					DL			
Extra single cable. 10m * 2					Cable			
Thickness gauge					TT			

