



Handheld Ultrasonic Flowmeter

Handheld ultrasonic flowmeters enable non-contact measurement of liquid flow. The flow is measured by mounting the sensor on the outer wall of the pipe. It has the characteristics of small size, convenient carrying and accurate measurement. It can do production monitoring, flow verification, and is a necessary tool for real-time flow inspection. Widely used in tap water, heating, water conservancy, metallurgy, chemical, energy and other industries.

Key Benefits

- Non-contact measurement, small size and easy to carry
- The sensor is easy to install and is suitable for measuring pipes of various sizes.
- Easy to install and no need to cut off the flow, no pressure loss
- Rechargeable Power Supply
- Data Storage
- Reduces installation time, improve installation accuracy
- Wide Measurement Range

Product Description

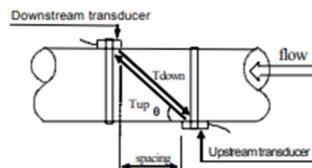
The AFT handled ultrasonic flowmeter is designed to work with clamp-on transducers to enable the flow of a liquid within a closed pipe to be measured accurately without needing to insert any mechanical parts through the pipe wall or protrude into the flow system.

Using ultrasonic transit time techniques, the is controlled by a micro-processor system which contains a wide range of data that enables it to be used with pipes with an outside diameter ranging from 15mm up to 6000mm (depending on model) and constructed of almost any material. The instrument will also operate over a wide range of fluid temperatures

Key feature:

- High accuracy, accuracy better than 1%.
- Wide measurement range, measurement range from DN15~ DN6000mm.
- Built-in high-capacity NiMH rechargeable batteries will last more than 10 hours (Fully charged).
- Can achieve measurement with clamp on sensors
- 32K BIT built-in data storage, can store two thousand rows of data
- LCD display can display the instant flow, total flow, flow velocity and working condition.

$$V = \frac{MD}{\sin 2\theta} \times \frac{\Delta T}{T_{up} \cdot T_{down}}$$



Where

θ is the include angle to the flow direction

M is the travel times of the ultrasonic beam

D is the pipe diameter

T_{up} is the time for the beam from upstream transducer to the downstream one

T_{down} is the time for the beam from downstream transducer to the upstream one

$\Delta T = T_{up} - T_{down}$

§1.4 Packing List (Standard Configuration)

Check up the packing list carefully before installing

#	Item Name	Parameter Values
1	Applicable Medium	Water, sea water, acid liquid, beer, alcohol, oil and any other liquid that can spread sonic
2	Working Principle	Ultrasonic time difference principle
3	Accuracy	Flow: Better than $\pm 1\%$
4	Display	LCD display with Chinese, English, Italian language
5	Flow Direction	Forward and reverse measurement
6	Data Interface	Data Interface
7	Data Record	External SD card data storage (can store instantaneous traffic, accumulated traffic, etc.)
8	Signal Output	OTC output
9	Pipe Material	Steel, Stainless steel, Cast iron, copper, PVC, aluminium, FRP etc. (liner allowed)
10	Measuring Range	15~6000mm
11	Temperature	-30~160°C
12	Power Consumption	1W
13	Case Material	Flame retardant ABS
14	Standard Configuration	Host, standard probe, signal cable and aluminum alloy protection box