PORTABLE ULTRASONIC FLOW METER

Ideal for on-demand measuring the flow rate of clean, non-aerated fluids in full pipes such as water, chemicals & oils.

FEATURES

- 3 Transducer sizes to measure from 1/2" to 48" pipes
- Rechargeable lithium batteries with up to 3 weeks of battery life
- Rugged aluminum housing with silicone protective end caps
- IP67 carrying case with protective molded foam and room for all transducer sizes and installation hardware
- Transit Time Ultrasonic Principle of Measurement
- Simple 5-Key Configuration (English, French, Spanish selectable)
- 12 Million-Point Data Logger
- Password Protected Backlit LCD Display
- CE Approval

BENEFITS

Non-Contacting Flow Measurement
Ultrasonic transducers clamp on the outside of pipes, allowing for installation without system shutdown, and produces no pressure drop.

User-Friendly Operating System
Built-in keypad and simple menu system for fast and easy programming of pipe diameter, pipe material, liquid type, and measurement units. All settings, calibration values, and totalizer are retained during power interruptions.

Wide Range of Applications
Compatible with a wide range of pipe materials and fluids, including treated, raw, cooling and low-conductivity water, water/glycol solutions, chemicals, and hydraulic, diesel and fuel oils.

Safe in Wet Locations
IP67 (NEMA 6) rating allows for safe operation during temporary periods of submergence.

Convenient Portable Tool
Transport all you need for on-demand flow measurement in a rugged, weather-tight carrying case. Approx. shipping weight of 12 lbs (5.5 kg)

TECHNICAL SPECIFICATIONS

Measuring Accuracy
±1.0% of reading or ±0.015 ft/sec (±0.0046 m/s)

Repeatability & Linearity
±0.25%

Flow Measuring Range
±0.07-40 ft/sec (±0.02-12 m/sec)

Pipe Diameter
SE16A: 0.5" to 2" (15 to 50mm)
SE16B: 2" to 10" (50 to 250mm)
SE16C: 12" to 48" (300 to 1200mm)

Pipe Materials
Any metal or plastic sonic conducting materials, including carbon steel, stainless steel, ductile iron, concrete lined ductile iron, cast iron, PVC, HDPE, PVDF, fiberglass, copper, brass, aluminum, and pipes with bonded liners, including epoxy, rubber, and PTFE.

Operating Frequency
SE16A: 2.56 MHz
SE16B: 1.28 MHz
SE16C: 640 kHz

Operating Temperature Range
Transducers:
-40°F to 300°F (-40 to 150°C)
Portable Electronics:
-5°F to 140°F (-20 to 60°C)

Power Input
- Built-in rechargeable lithium polymer battery for up to 15 hours of continuous use
- External mains to USB-C charger with 100-240VAC, 50-60Hz, 0.6A input; and 5.0VDC, 3A, 15@ output

Ingress Protection Rating
IP67 when cables connected; IP65 when transducer cables not connected

Outputs
Log files, daily log files, parameter settings files, and waveform capture files via USB-C flash drive (included)

Data Logger
12 million point capacity, configurable for velocity or flow rate, date & time stamped, configurable format for Logger Software or CSV, available intervals of 10 s, 30 s, 1 min, 2 min, 5 min, 10 min, 15 min, 30 min, and 1 hr.

AW-LAKE
PROCESS FLOW MEASUREMENT

2440 W. Corporate Preserve Dr. #600, Oak Creek, WI 53154 | www.aw-lake.com

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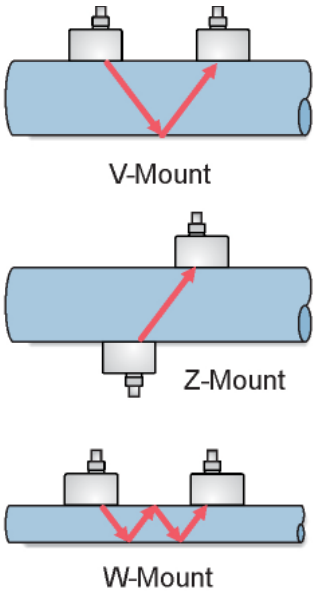
MEASUREMENT OPERATION

The Transit Time Flow Meter measures flow from the outside of pipes. It works by measuring the time of flight difference for ultrasonic sound pulses transmitted from one transducer to another. Depending on the mounting configuration, the signal may cross the pipe once, twice, or four times. The time between transmitted and received signals is precisely measured by the flow meter. Ultrasonic signals are sent upstream and then downstream with the transducers alternating their functions as transmitters/receivers.

The transit time in the direction of flow is always faster than the transit time against the flow. By comparing these differences with precision timing circuits, the meter is able to accurately calculate the flow rate. Because the ultrasonic signal is transmitted across the pipe, an average of the flow profile is calculated.

The transducers can be mounted on vertical or horizontal pipes, and the pipe must be full. Choice of V, Z, or W mounting method depends on the application and pipe diameter.



PART NUMBER GUIDE

CUTT – P – B1A1 – ☐ – XA1A

Measurement Principle
CUTT = Clamp-on Ultrasonic Transit Time meter

Style
P = Portable

Transducers
- A = Clamp-on for 0.5" to 2" (15mm to 50mm) pipes, BNC connectors and IP65 rating
- B = Clamp-on for 2" to 10" (50mm to 250mm) pipes
- C = Recommended for 12" to 48" (300mm to 1200mm) pipes, suitable for 4" to 48" (100 mm to 1200 mm) pipes, BNC connectors and cable strain-relief fittings for IP67 rating
- D = Combo of A & B
- E = Combo of B & C
- F = Combo of A & C
- G = Combo of A, B & C

Products may be subject to change without notice - Contact factory for the most up-to-date product information.

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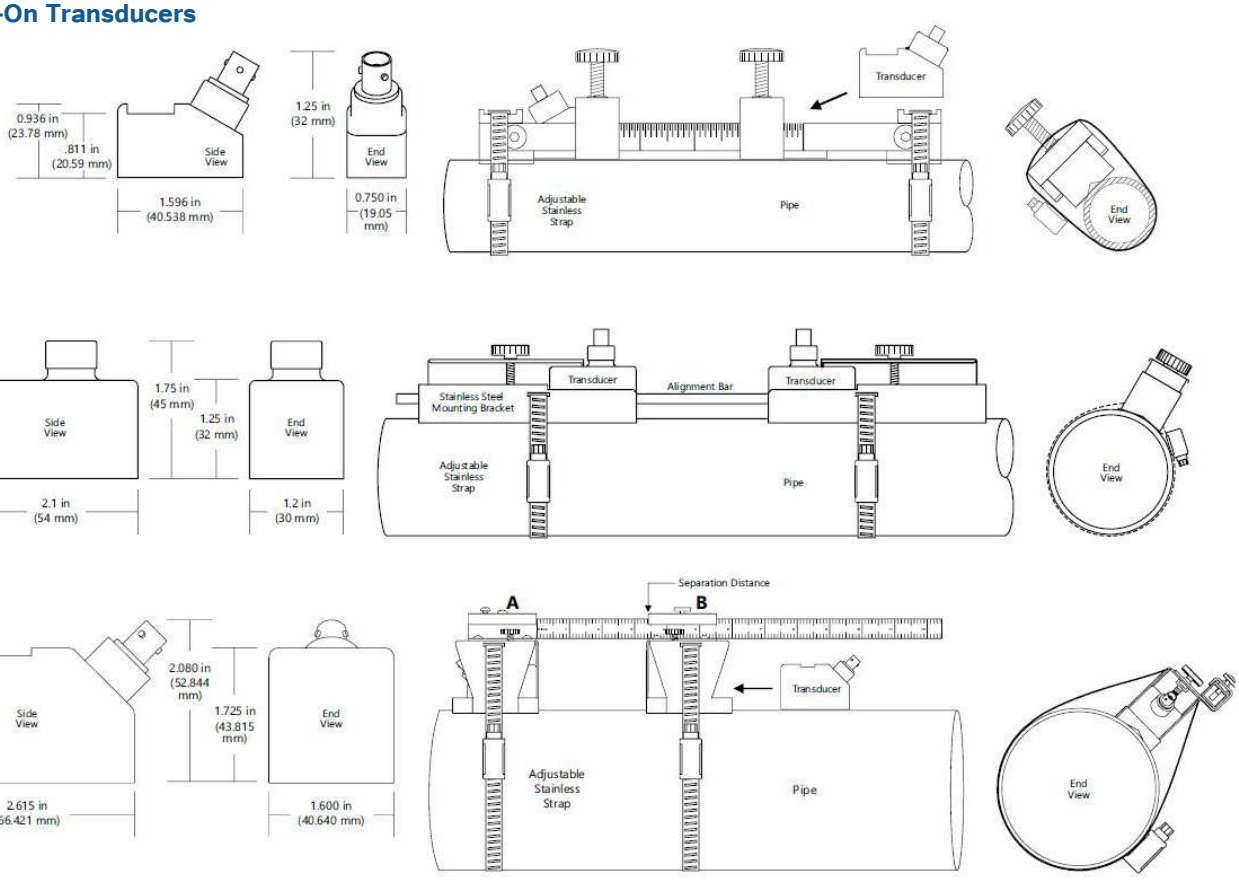
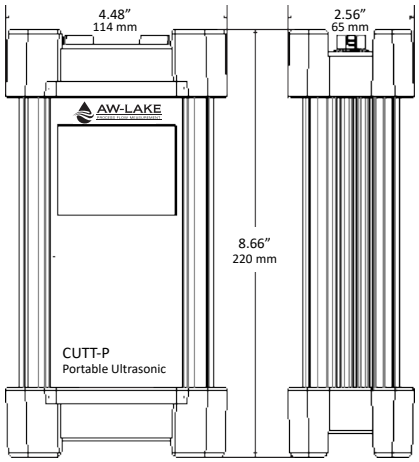
PRODUCT DIMENSIONS

Clamp-On Transducers



Hand-Held Unit



Custom Transport Case Included