



UA108D

Multipath Ultrasonic Flowmeter



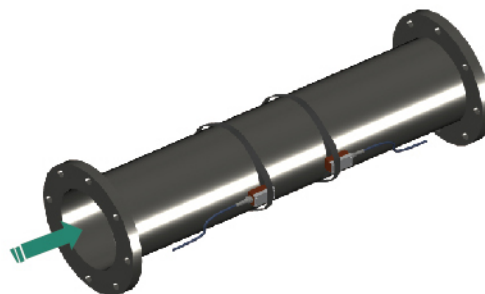
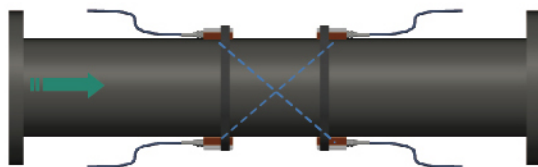
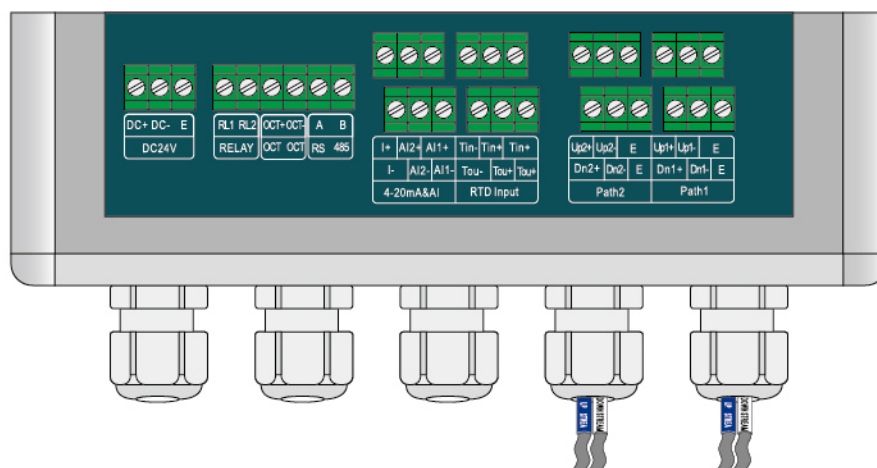
The UniArms multipath ultrasonic flowmeter UA108D use the most reliable digital signal processing technology, transmitting flow measurement for a wide range of liquid and pipe size with high accuracy and reliability. Coupled with the outstanding performance transducer with higher industrial grade material, UniArms instruments could have long time work without trouble.

UA108D transmitter is designed with user-friendly menu, which makes it is very easy to operate. Four touch screen buttons. It is convenient to check the daily, monthly and yearly flow totalizer.

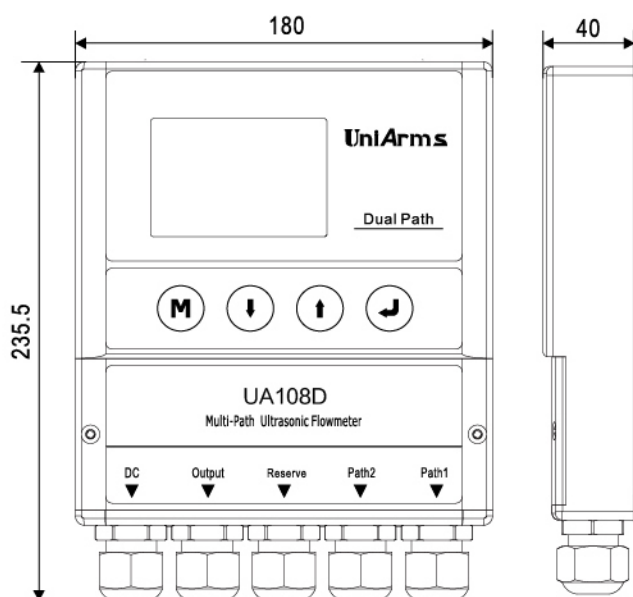
Operating and maintenance costs of flow metering can be significantly reduces by UniArms ultrasonic flowmeter. Operating costs are low because there is no need to break the pipe. Maintenance is nearly none as there is no wear.



Wiring Connection

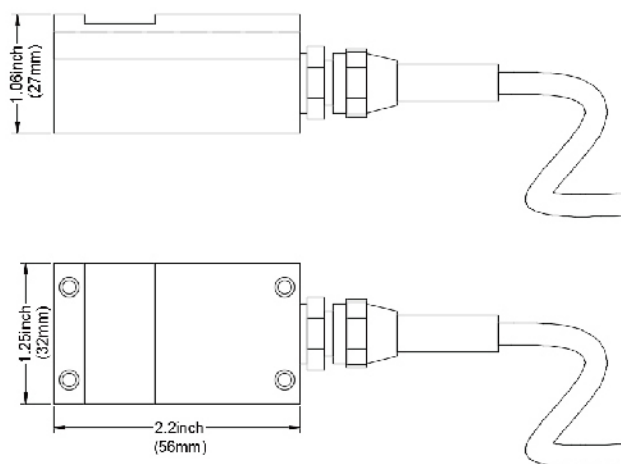


Transmitter Dimension



Transmitter dimensions(mm)

Transducer size



User Friendly Interface

Setup menu

0. Pipe and Transducer parameter
1. System setting
2. Calibration
3. Output setting
4. Energy setting
5. Historical data refer
6. System information
7. Manual Totalizer

SQ1:90 SQ2:99 2019-10-25 21:30:25

FlowRate: m3/h

0.000

Total: m3

NET 0.000

POS 0.000

NEG 0.000

Vel 0.000 m/s

AI1 0.000

AI2 0.000

SQ1:90 SQ2:90 2019-10-25 21:30:25

CH1:

UP:86.5 DN:86.5 Q=90

TOM/TOS: 100.8 %

SoundVel: 1482.8 m/s

TOF(us): 131.65

DT(ns): 131.65

CH2:

UP:86.5 DN:86.5 Q=90

TOM/TOS: 100.8 %

SoundVel: 1482.8 m/s

TOF(us): 131.65

DT(ns): 131.65

Transducer Mounting Space Requirement

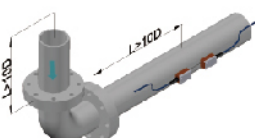
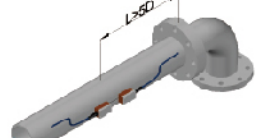
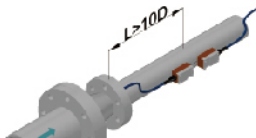
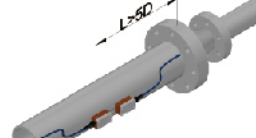
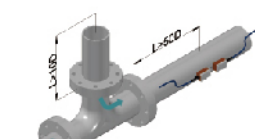
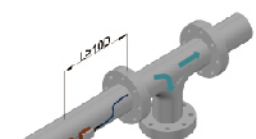
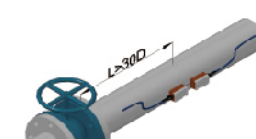
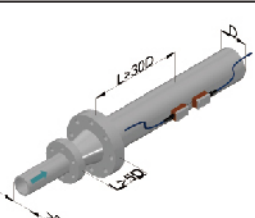
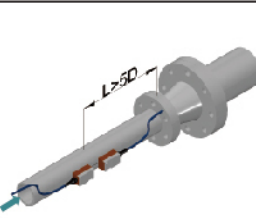
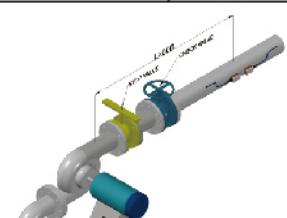
V Method Transducer Spacing

The V method is considered as the standard method. It usually gives a more accurate reading and is used on pipe diameters ranging from 25mm to 400mm (1~16") approximately.

Z Method Transducer Spacing

The Z method is able to measure on pipe diameters ranging from 100mm to 3000mm (4" ~120") approximately. Therefore, we recommend the Z method for pipe diameters over 300mm (12").

Measurement site selection

Name	Upstream Straight Pipe Length	Downstream Straight pipe length	Name	Upstream Straight Pipe Length	Downstream Straight pipe length
90° bend			Reduce		
Tee			Valve		
Diffuser			Pump		

Applications

Ultrasonic flowmeter could have a wide range of applications as below:

- Water / Waste water
- Hot / Chilled Water
- Chemical Liquids and Solvents
- Oil / Crude Oil / Fuel Oil / Diesel / Lubricant
- Water management in buildings, metropolitans.
- water / waste water treatment plants, irrigation systems, and more
- Flow monitoring and control in Desalination plants, steel plants, power plants, machining plants
- Liquid process control in chemical plants and industrial automation
- Oil / fuel / chemicals and other liquid transfer
- Retrofit capability, to upgrade or augment existing systems
- Automated batching and scheduling
- Efficiency monitoring and improvement of liquid-based
- heating / cooling systems, including solar / geothermal systems
- Beverage, food and pharmaceutical processors where non-contact is essential
- Remote flow monitoring network and leakage detection



Features & Benefits

High accuracy

- Accuracy : 0.5% of measured value ($\pm 1.6\text{ft/s} \sim \pm 16\text{ft/s}$);

High linearity

- Linearity: $\pm 0.5\%$

High reliability

- Repeatability: 0.15%;

Large colorful display with four touch keys

- Easy to check the flow status;
- Easy to operate.

Low operational costs

- Easy and low cost installation;
- Large size available;
- No need to cut pipes;
- Long economic lifetime
- Bi-directional flow measurement possible
- No need to stop flow when you install it.

Specifications

Installation method: Wall mount

Flow range: $0 \sim \pm 40\text{ft/s}$ ($0 \sim \pm 12\text{m/s}$)

Accuracy: $\pm 0.5\%$ of measured value
(for $1.5 \sim 40\text{ft/s}$ or $-1.5 \sim -40\text{ft/s}$)

Repeatability: 0.15%

Linearity: $\pm 0.5\%$

Pipe size: 1 in to 200 in (25mm to 5000mm)

Keypad: Four Touch Keys.

Display: 3.5" TFT LCD. 480*320.

Power supply: 12~36VDC.

Transmitter enclosure: IP54, die-cast aluminum machined enclosure.

Output: 4~20mA, OCT pulse output, relay output.

Communication: RS485 terminal Modbus Protocol.

4~20mA, OCT pulse output, relay output.

Clamp on transducer: $-40^{\circ}\text{F} \sim +248^{\circ}\text{F}$ ($-40^{\circ}\text{C} \sim +120^{\circ}\text{C}$);

Transducer enclosure: IP68, stainless steel cover, high quality PEI material.

Cable length: Standard 33ft (10m)