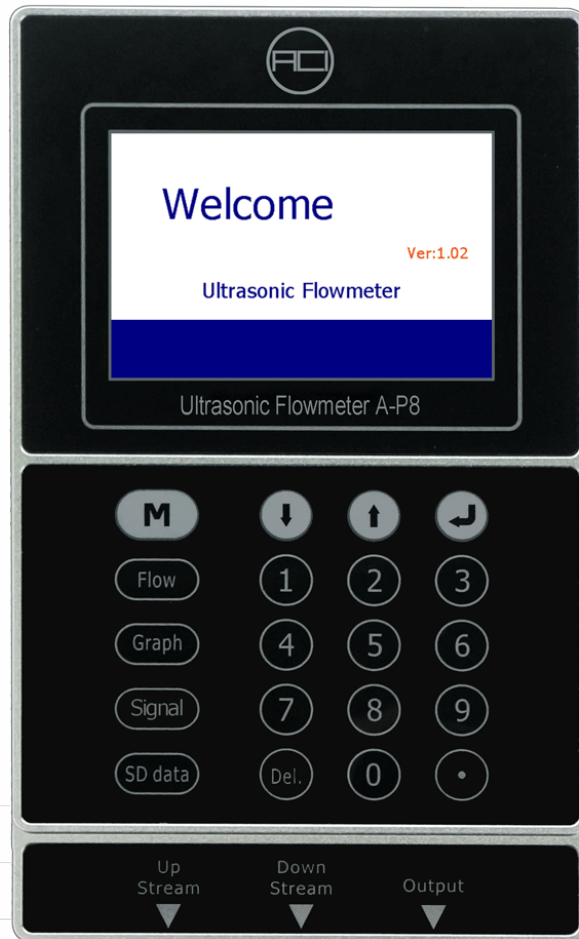


Portable Ultrasonic Flow meter A-P8



ABOUT A-P8

A- P8 is an ultrasonic flow meter based on transit-time schematic design.

Designed using the digital technology and low-voltage integrated circuit, it has broadband pulse transmission. While principally designed for full-pipe and clean liquid applications.

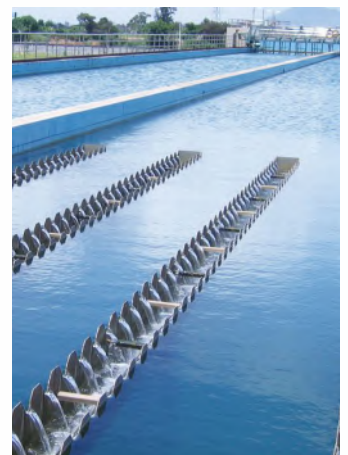
A-P8 is tolerant of liquids with small amounts of air bubbles or suspended solids found in most industrial environments. Integration design and high integration reduce the link between PCB boards, more reliable.

A-P8 have friendly menu selections make flow meter simple and convenient to use. It can easy to check daily, monthly and yearly totalized flow. Parallel operation of positive, negative and net flow totalizes.



APPLICATION

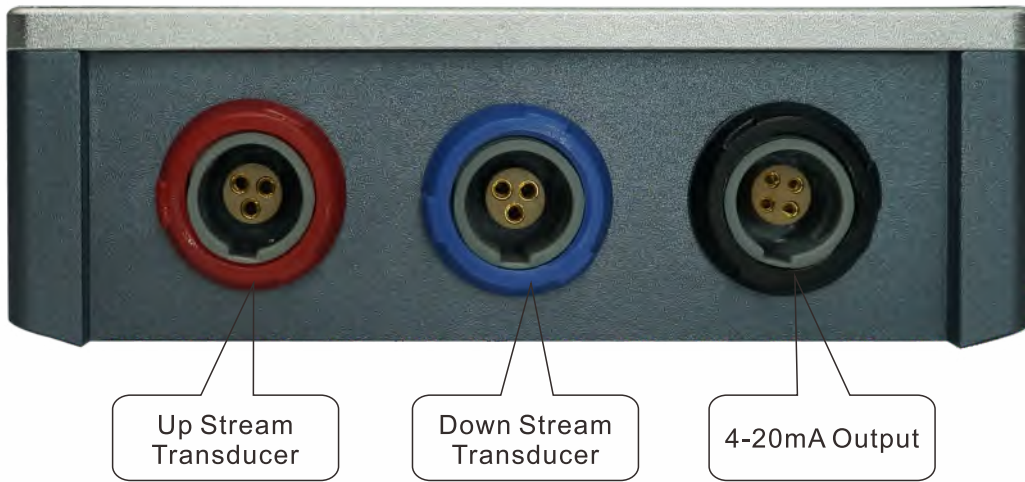
Widely used in chemicals, Irrigation, industrial process water, water supply, water treatment, boiler, etc.



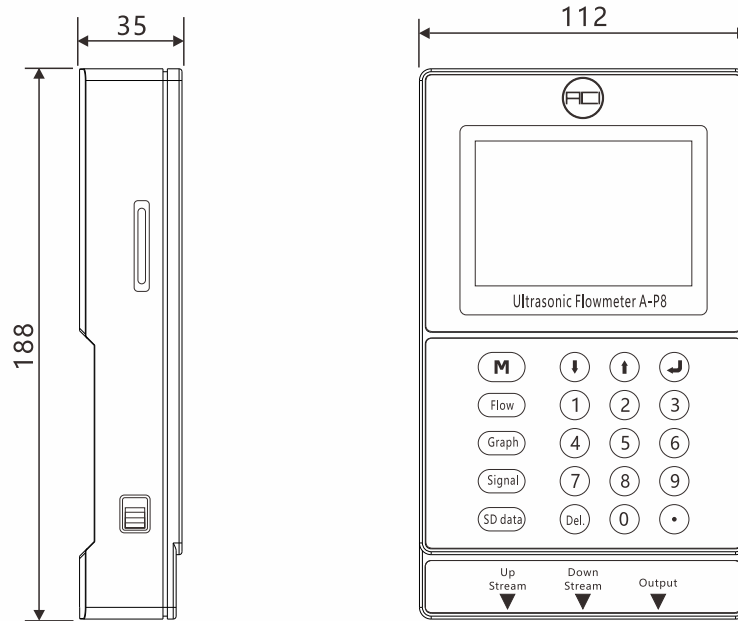
SPECIFICATION

| Performance specifications | |
|----------------------------|--|
| Flow range | 0~±40 ft/s (0~±12 m/s) |
| Accuracy | ±0.5% of measured value (±0.01m/s~12 m/s) |
| Repeatability | 0.1% |
| Linearity | ±0.5% |
| Pipe size | 1" to 200" (25mm to 5000mm) |
| Function specifications | |
| Outputs | Analog output: 4~20mA (max load 750Ω) |
| Power supply | Built-in lithium battery (16 hour) |
| Keypad | 20 (4×5) key with tactile action |
| Display | 3.5" TFT LCD 480*320 |
| SD Card | SD Card Memory: 4GB, Time interval: 1-7200s, Files Number: Max. 2000Files. Through the conversion software, convert to excel format for statistics and analysis |
| Temperature | Transmitter: -40°F~140°F (-40°C~ 60°C) Transducer: -40°F~176°F (-40°C ~ 80°C) (standard) |
| Humidity | UP to 95% RH, non-condensing |
| Physical specifications | |
| Transmitter | Die-cast aluminum;Enclosure:IP54 |
| Transducer | Cable Length (Std.): 16 ft (5 m) Extension length: 66ft (20m),per 16ft extension;Enclosure:IP68 |
| Weight | Transmitter: approximately 1.81 lb (0.82kg) Transducer: approximately 2.84lb (1.29kg) (standard) |

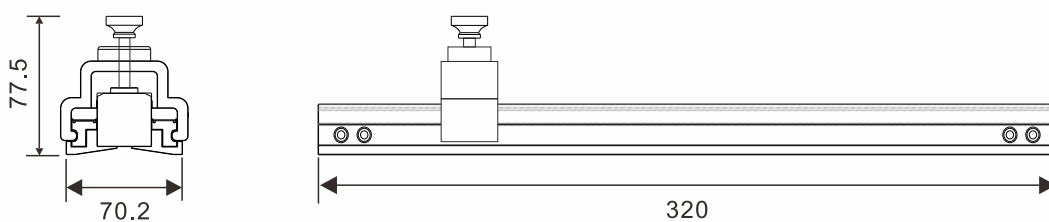
WIRING DIAGRAM



DIMENSIONS

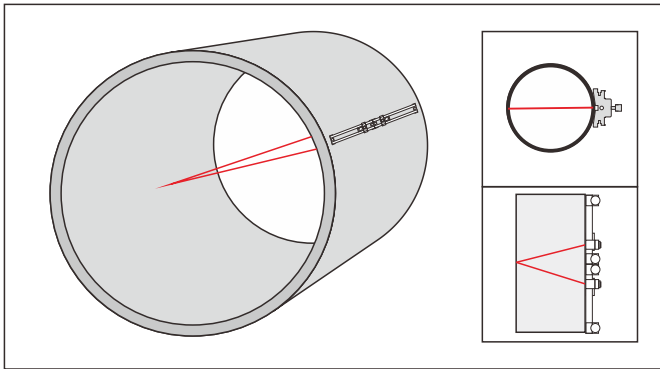


Transmitter dimensions(mm)



Rack Size(mm)

INSTALLATION METHODS



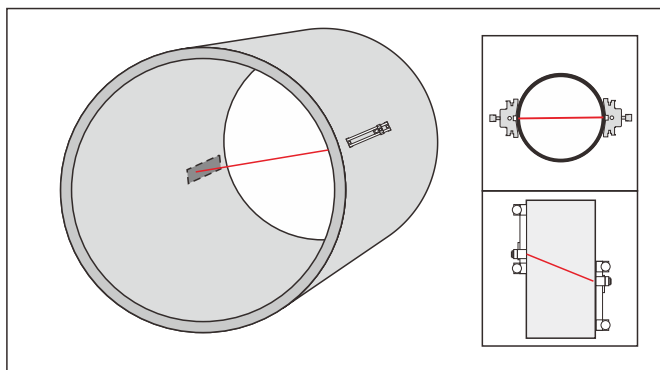
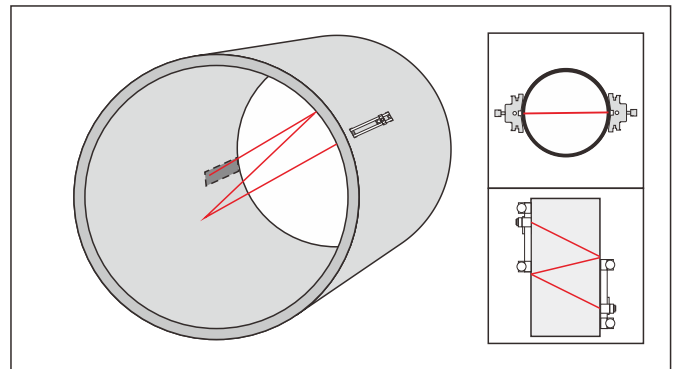
V Method

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. Also, it is convenient to use, but still requires proper installation of the transducer, contact on the pipe at the pipe's centerline and equal spacing on either side of the centerline.

N Method

With the N method, the sound waves traverse the fluid three times and bounce twice off the pipe walls. It is suitable for small pipe diameter measurement.

The measurement accuracy can be improved by extending the transit distance with the N method (uncommonly used).



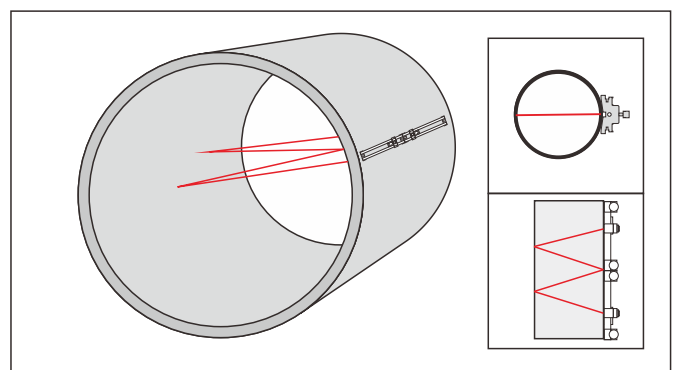
Z Method

The signal transmitted in a Z method installation has less attenuation than a signal transmitted with the V method. This is because the Z method utilizes a directly transmitted (rather than reflected) signal which transverses the liquid only once.

The Z method is able to measure on pipe diameters ranging from 100mm to 5000mm (4"~200").

W Method

As with the N method, the measurement accuracy can also be improved by extending the transit distance with the W method. The sound wave traverses the fluid four times and bounces three times off the pipe walls. It is suitable for very small pipe (diameters less than 50mm, 2").

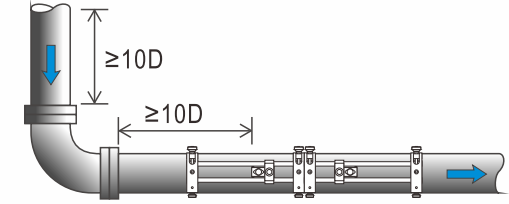
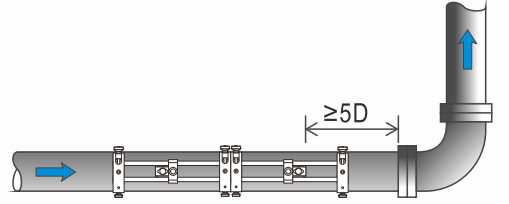
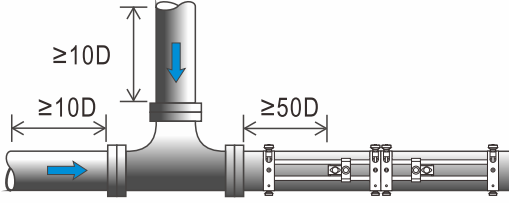
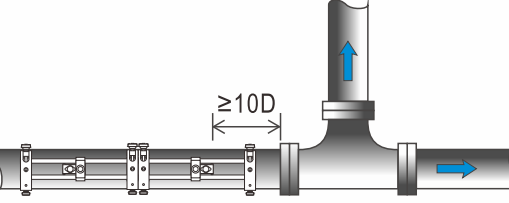
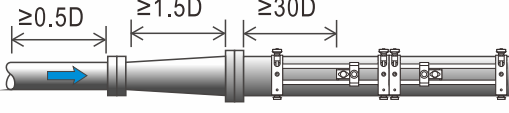
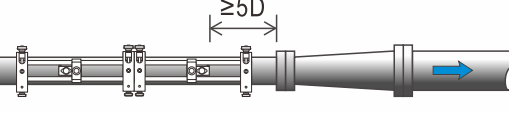
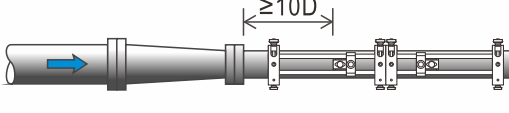
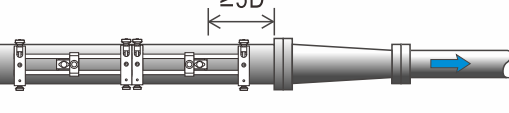
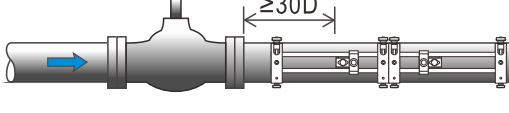
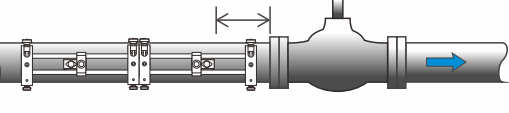
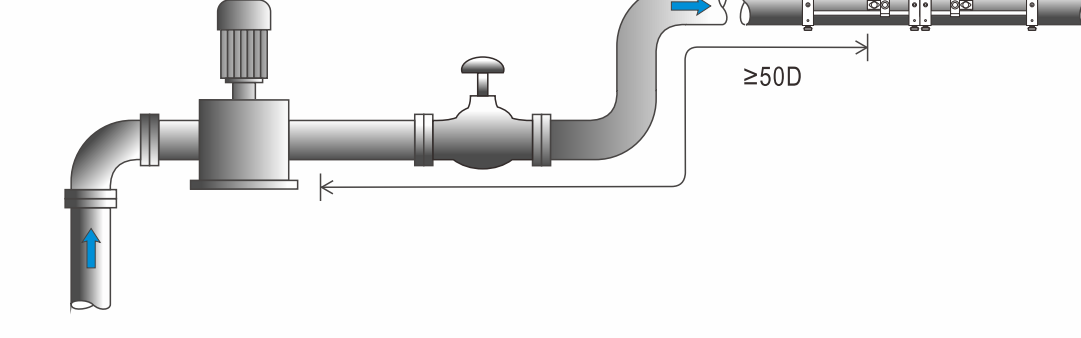


INSTALLATION SITE SELECTION

Choose a section of pipe, which is always full of liquid, such as a vertical pipe with flow in the upward direction or a full horizontal pipe. Ensure that the pipe surface temperature at the measuring point is within the transducer temperature limits.

Consider the inside condition of the pipe carefully. If possible, select a section of pipe where the inside is free excessive corrosion or scaling. Choose a section of sound conducting pipe.

Examples acceptable measurement site selection is illustrated on the figure on the below.

| Site | Installation point front straight section | Straight pipe section after installation point |
|----------|--|--|
| 90° bend |  |  |
| Tee |  |  |
| Diffuser |  |  |
| Reduce |  |  |
| Valve |  |  |
| Pump |  | |

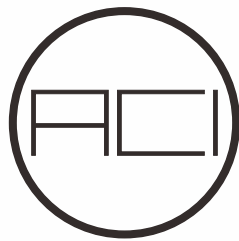
ORDERING INFORMATION

| Code | Description |
|------|--|
| A-P8 | Portable Ultrasonic Flow meter A-P8 Installation method: Portable Flow range: 0~±40 ft/s (0~±12 m/s) Accuracy: ±0.5% of measured value (±0.01m/s~12 m/s) Repeatability: 0.1% Linearity: ±0.5% Pipe size: 1"to 200" (25 mm to 5000mm) Keypad: 20 (4×5) key with tactile action Display: 3.5" TFT LCD 480*320 Power supply: Built-in lithium battery (16 hour) Transmitter enclosure: IP54, die-cast aluminum machined enclosure Output: 4~20mA |
| Code | Transmitter enclosure area classification |
| 1 | IP54, die-cast aluminum machined enclosure |
| 2 | Customer specific requirements |
| Code | Type of transducers |
| CP8 | Rack transducer. Operating temperature: -40°F~176°F (-40°C ~ 80°C);Enclosure:IP68 |
| CH8 | Clamp on transducer. Operating temperature: -40°F~266°F (-40°C ~130°C);Enclosure:IP68 |
| Code | Transducer cable length |
| 016 | Cable length 16 feet (5m) |
| xxx | Extended length, up to 66 feet (20m), per 16 feet (5m) is a lengthen unit |

Product Component



- ① Portable Ultrasonic Flow meter A-P8
- ② Transducer
- ③ Transducer Cable
- ④ 4-20mA Wire
- ⑤ Battery Changer
- ⑥ Rack
- ⑦ Stator
- ⑧ Coupling compound
- ⑨ SD card reader
- ⑩ Flexible rule
- ⑪ Case



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