

Ultrasonic Flow Measurement

No pipe cutting – no moving parts – quick flow verification

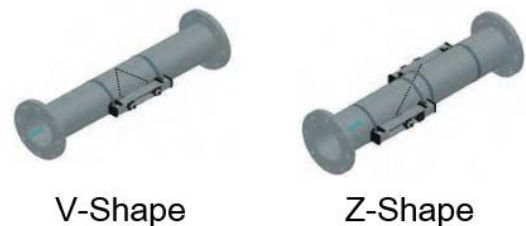
Ultrasonic transit time flowmeters measure the flow velocity by 2 transducers clamped on outside the pipe for sending and receiving ultrasonic signals:

- easy installation and retro fitting - no pipe cutting
- no flow interruption during installation and maintenance
- no moving parts - no wear and tear
- for pipe sizes from 25 up to 5000 mm
- unaffected by density, concentration or temp.
- rugged and reliable



The ultrasonic transit time flow sensors have 2 transducers diagonally mounted on the top and bottom outside a pipe. Both sensors are simultaneously sending and receiving ultrasonic signals. The upstream and downstream transit time is equal when there is no flow. The flow transit time difference during flow is directly related to the flow velocity.

For big pipe size diameters (12" or more) the transducers are mounted on the opposite side of the pipe (Z-shape). For diameters below 12" the transducers are mounted on the same side and the pulse crosses the pipe flow twice (V-shape). They indicate bi-directional and remote flow, leakage detection, automatic batching, scheduling and efficiency monitoring.



The flow transmitter has pre-configured options for easy set up of pipe material, thickness and diameter.

Portable transport devices are used for short-term monitoring of several flow points, data logging and verification of built-in flowmeters.

Applications

Transit type ultrasonic flow meters are used for liquids that allow ultrasonic waves to pass: water, oils, fuel oils, lubricants, molten sulfur, cryogenic liquids, chemical liquids, solvents and others in



- Water, Waste Water, Water Management, Desalination
- Steel, Power, Machining plants
- OLEO-Chemical, Chemical, Petro-Chemicals
- F&B, Pharma, Solar

[more on Ultrasonic Clamp-On Flowmeters](#)

