

8 facts about ultrasonic flow measurement.



The use of ultrasonic measurement technology is becoming one of the most effective and reliable ways to monitor flow movement.

Want to know more about ultrasonic technology? Here are 8 quick facts on the benefits of ultrasonic flow measurement devices.

- 1.** Utilises differential transit time principle to measure the velocity of fluid using ultrasound and time of flight technology, by detecting the time an ultrasonic pulse takes to reach one transducer from another.
- 2.** Greater speed of response. With measurement update rates of up to 1kHz, ultrasonic flow sensors provide an immediate and accurate response to flow rate variations.
- 3.** Measures bi-directional flow. Ultrasonic technology is able to measure flow rates moving in either direction to achieve a clear representation of the total flow being measured.
- 4.** Solid-state meters have minimal effect on the flow path. Ultrasonic meters are designed with no moving mechanical parts so there is minimal interference to the flow path, resulting in higher accuracy data collection.
- 5.** Monitors multiple parameters. Unlike other sensor types, ultrasonic technology can measure transient and steady flow, flow direction, temperature, speed of sound and cumulative usage.
- 6.** Achieves higher accuracy compared to other flow measurement devices in harsh environment applications. The design of ultrasonic transducers and signal processing help the meters deliver highly accurate data outputs, even in the presence of heavy vibration.

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7. Digital signals will not drift. Without internal moving parts to wear or drift, the accuracy of the meters are maintained, reducing re-calibration and replacement parts costs.
8. Corrosion resistant and compatible with most fluid types. With no moving parts and the use of inert materials in their construction, ultrasonic meters are highly resistant to corrosion and can be used to measure most fluid types (depending on the sensor) including fuel, oil and diesel and gas.