



Ultrasonic Water Meter



www.nsedatis.ir





What is an Ultrasonic Water Meter?

An ultrasonic water meter is one of the most advanced devices for measuring water flow, operating based on ultrasonic technology. This device measures water flow using sound waves without any moving parts, providing a very high level of accuracy

Features of Ultrasonic Water Meters:

- 1. **Ultrasonic Technology**: This meter uses sound waves to measure water flow, providing greater accuracy compared to mechanical meters. This technology, due to the absence of moving parts, reduces wear and increases the device's lifespan.
- 2. **Digital Display**: This product is equipped with a digital display that shows real-time information about the consumed water flow. This feature allows users to easily view their consumption data.
- 3. **High Accuracy**: This water meter is designed for high accuracy and can measure both low and high water flows precisely. This feature is particularly useful in residential and industrial applications where precise water consumption control is required.
- 4. **Durability and Longevity**: Due to the lack of mechanical parts and the use of ultrasonic technology, this meter has greater resistance to wear and failure compared to conventional meters.
- 5. **Easy Installation**: The design of this product allows for very simple and quick installation without the need for significant changes to existing infrastructure.
- 6. **Low Energy Consumption**: This water meter operates with low energy consumption, reducing operational costs and extending its battery life.
- 7. **Protective Display Cover**: This product includes a protective cover that shields the display from dust and other environmental factors, helping to enhance the device's longevity.







www.nsedatis.ir





Technical Specifications of Ultrasonic Water Meters:

Energy Consumption:

• Very low power consumption, suitable for longterm applications without the need for frequent battery replacements.

Protection Class:

• IP68 (dust and water-resistant), suitable for use in humid environments and even underwater.

Body Materials:

- Durable plastic or polycarbonate for the outer body.
- Connections made of brass or stainless steel for corrosion resistance.

Weight:

• Lightweight, typically ranging from 0.5 to 1.5 kilograms, depending on the size and material of the body.

Type of Technology:

- Flow measurement using ultrasonic waves.
- No moving parts, based on the passage of sound waves through the fluid.

Flow Rate Measurement Range:

- Minimum flow rate: Typically from 0.01 liters per hour (l/h) to several thousand liters per hour.
- Maximum flow rate: Usually in the range of 15 cubic meters per hour or more, depending on the pipe size and model.

Measurement Accuracy:

- Typical accuracy: $\pm 1\%$ to $\pm 2\%$ for nominal flows.
- Accuracy at low flows: $\pm 0.5\%$ for lower flow rates.

Connection Size:

- Various sizes for installation in pipes DN15 to DN50 (15 millimeters to 50 millimeters internal pipe diameter).
- Standard BSP or NPT threads.

Temperature Range:

- Operating temperature: Typically from 0°C to 90°C (may vary in some models).
- Suitable for both cold and hot water.

Working Pressure:

• Maximum pressure: Usually up to 16 bar (1.6 megapascals) or more.

Data Output:

- LCD display: Shows the amount of water consumed in a high-resolution digital format.
- Supports communication protocols such as Modbus, M-Bus, or Pulse Output for integration with energy management systems.
- Capability to store and transfer data to smart systems.

Power Supply:

- Internal battery with a lifespan of 6 to 10 years (depending on usage).
- Some models also have the option to connect to an external power sourc







Other Features:

- Easy Installation: Designed for direct installation on pipelines with minimal need for modifications.
- **Protection Against Hacking and Tampering**: Aimed at enhancing security in commercial and industrial applications.
- Bidirectional Measurement Support: Ability to measure flow in both directions (forward and backward).

Applications of Ultrasonic Water Meters:

- **Residential Applications**: This meter is suitable for measuring water flow in homes and residential buildings, accurately displaying the water consumption for each unit.
- **Industrial and Commercial Applications**: Used for controlling water flow in production lines, cooling and heating systems, and even in smart irrigation systems.

Advantages of Using Ultrasonic Water Meters:

- No Wear and Tear: Due to the absence of moving mechanical parts, this water meter has a longer lifespan, significantly reducing the likelihood of breakdowns and the need for repairs.
- **Cost Savings**: This meter allows for more accurate control of water consumption and helps prevent water wastage, contributing to long-term savings on your expenses.
- **Easy Reading of Information**: The digital display enables you to easily view and analyze your consumption data without the need for a specialized technician.



Our social media



www.nsedatis.ir



بر ای مشاهده محصولات دیگر به وب سایت www.nsedatis.ir مر اجعه کنید





Our social media



&: 021-28421231 - 0919-4060724