



Ultrasonic Atomization Module – MS-02

Technical Datasheet

1. General Description

The MS-02 ultrasonic atomization module is designed for water-based mist generation using high-frequency ultrasonic vibration (1.7 MHz). It is suitable for integration into humidification systems, HVAC equipment, and OEM misting applications.

2. Technical Specifications

Working Voltage: DC 36V (34–38V)

Working Current: 1.4 – 1.7 A

Frequency: 1.7 MHz

Continuous Output: 0.8 – 1.3 L/H

Droplet Size: 1 – 10 μm

Working Water Temperature: 5 – 45°C

Recommended pH Range: 5 – 8

Optimum Water Level: 30 – 35 mm

Protection Water Level: 10 – 16 mm

Overheat Protection: 55 – 65°C

Lifetime (Clean Water): 3500 – 5000 hours

3. Mechanical Specifications

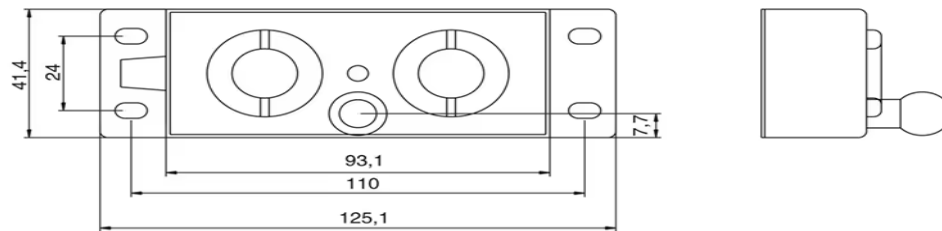
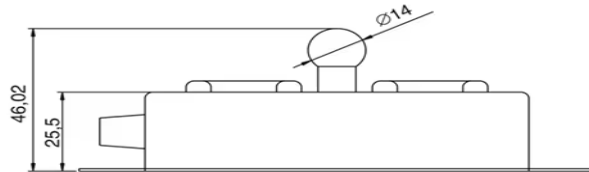
Housing Material: polished 304 stainless steel housing

Nickel-chrome plated brass compression ring

Atomizing Disc Diameter: $\varnothing 20 \text{ mm} \times 2$

Dimensions: 125 × 42 × 26 mm

Cable Length: 1500 mm



4. Power Supply

Use the matched power supply: AC 220 V input, 36 VDC output, 80 W rated capacity.

5. Features

- High-frequency ultrasonic atomization (1.7 MHz)
- Compact design for OEM integration
- Built-in over-temperature protection
- Water level protection (dry-run prevention)
- Suitable for continuous-duty operation when correct water level, water quality, cooling and maintenance are maintained
- Stainless steel housing for durability

6. Application Areas

- Humidification systems
- HVAC integration
- Industrial misting
- Agricultural / greenhouse use
- OEM equipment integration

7. Important Notes

- Standard module is designed for clean water operation
- Recommended pH range: 5–8
- Do not use disinfectants, HOCl solutions, fragrances, nutrients, acids, alkalis or other process liquids unless compatibility has been confirmed in writing. Optional glass-coated discs may be available for approved weak acidic or alkaline liquids after application testing.
- “Optimum Water Level” means the vertical water depth above the ceramic disc surface; it is not the total tank depth. When the standard float assembly is used, the typical total tank depth is approximately 80 mm. Confirm the actual tank and float configuration before operation.
- RO or softened water is recommended in hard-water areas to reduce mineral scale and extend service life.
- Service life may vary depending on water quality and operating conditions

8. Maintenance and Cleaning

8.1 Recommended Inspection

- Inspect the atomizing discs and stainless-steel housing every 2 weeks during regular operation.
- Inspect more frequently in hard-water areas or during continuous-duty operation.
- Clean the module when mineral scale or sediment is visible, mist output decreases, or atomization becomes uneven.

8.2 Cleaning Procedure

1. Switch off the equipment and disconnect the module from the power supply. Never clean or handle the module while it is energized.
2. Remove the module from the tank. Lift it by the stainless-steel housing, not by the cable.
3. Rinse away loose sediment with clean water.
4. If mineral scale remains, soak only the atomizing surface in a diluted citric-acid solution or a mild acidic descaler for 10–15 minutes. Keep the cable connector and power supply dry.
5. Gently remove softened deposits with a soft-bristle brush or cotton swab. Do not scrape, press or strike the ceramic discs.
6. Rinse thoroughly with clean water. Inspect the discs, sealing rings and compression rings for cracks, looseness or corrosion.
7. Reinstall the module and confirm an operating water level of 30–35 mm above the ceramic disc surface before restarting.

8.3 Maintenance Precautions

- Do not use strong acids, strong alkalis, solvents, abrasive cleaners, metal brushes or high-pressure water jets.
- In systems with a water tank, inspect and clean the tank every 2 weeks, or more frequently when sediment or biological buildup is present.
- If a disc is cracked or damaged, or mist output remains low after cleaning, stop operation and replace the affected disc and seal.
- Allow the connector to dry completely before reconnecting power.

9. Testing & Evaluation

Samples are available for testing and evaluation upon request.