



A50x

aquaMonia

Automatic ammonium analysers in water



Operation

The **aquaMonia A50x devices** are characterized by its low maintenance and may operate in:

Automatic mode.

It performs the measurements automatically, having a self-calibration system that extends the autonomy of the system.

Data collected is sent in real time to a local or remote control center for analysis and use.

It carries out continuous processing of the measurements, being able to generate and send alarms to other equipment or systems.

Manual Mode.

The measurement process can also be carried out by local order, through the equipment's touch screen, or by remote order from the control center.

Ammonium in natural water is usually found in very low concentrations, with levels less than 0.1mg of NH_4^+/L . Its presence mainly is due to excretions of fluvial fauna or as a decomposition product. In its natural cycle, it is incorporated by plants as a source of nitrogen.

The presence of ammonium in higher concentration is usually indicative of contamination by urban or livestock wastewater. It could also come from seepage from fertilized soil or have an industrial origin from the rubber, food, textile or other industries, or from cooling processes.

Measuring ammonium in water is an efficient warning method to prevent toxic effects on the environment since, in the presence of pH and temperature, it can be transformed into its gaseous form (NH_3), which is much more toxic than the dissolved ion (NH_4^+).

The aquaMonia series of analysers covers the whole range and provides all the tools for measuring this parameter.

- **aquaMonia A503.** Analyzer for detecting incidents in surface waters with low ammonium levels.
- **aquaMonia A504.** Low maintenance analyzer for midrange measurements.
- **aquaMonia A505.** Analyzer designed especially for measuring ammonium in sewage in general, capable of withstanding high levels of turbidity.

The choice of model will be determined by the user's needs and requirements.

Regarding communication with the control center, it allows the transmission of **MQTT** messages, which facilitates integration with **IoT-oriented services**, such as the **Adasa's ecoData® Alert and Monitoring System**.

Noteworthy Characteristics

aquaMonia A503

aquaMonia A503 is the ideal analyser for determining ammonium concentration with great accuracy, ensuring perfect characterization of the water mass.

Its application is centred mainly on monitoring surface waters, rivers, wells, etc. generally with low turbidity. Particularly useful for monitoring intakes of water to be used for the production of drinking water.

Based on the FIA (Flow Injection Analysis) system with potentiometric measurements, aquaMonia A503 combines a selective electrode with a semi-permeable membrane that stops the sample coming into direct contact with the electrode, thus eliminating all types of interference.

aquaMonia A504

aquaMonia A504 is characterized by its low maintenance and offers the ideal solution for environments that do not need a low detection limit.

Based on an FIA system and ISE selective electrode, aquaMonia A504 features low consumption of reagents.

aquaMonia A505

aquaMonia A505 is the analyser best suited for applications with high levels of turbidity and/or where ammonium levels are high, such as highly polluted rivers, sewage collectors, treatment intakes, etc.

Designed to measure values of up to 100ppm of ammonium, it has an effective cleaning system with low reagent consumption to guarantee very low maintenance levels

All Adasa products are designed and manufactured according to the highest quality standards:

- ISO 9001 Quality Management
- ISO 14001 Environmental Management
- EMAS Eco-Management and Audit Scheme



Technical Specifications

Supply voltage and consumption

24VDC (Máx. 6A). Optional external power supply 110-240Vac (50-60Hz) / 24Vdc

Communications

ModBus TCP, MQTT (ecoData®), Ftp, Remote Desktop and WEB access. Other options: Talk to us for more options

Physical ports

Ethernet (RJ45) and USB

User Interface

Touch screen (Color TFT 7")

Measurement range

| | |
|----------------|---|
| aquaMonia A503 | 0.01 - 4 ppm NH ₄ ⁺ |
| aquaMonia A504 | 0,1 - 10 ppm NH ₄ ⁺ |
| aquaMonia A505 | 1 - 100 ppm NH ₄ ⁺ |

Dimensions & weight

Coverage without connectors or brushings

| | |
|--------------|--------------------------------|
| Doors closed | 693 x 675 x 320 mm H x W x D |
| Doors opened | 693 x 1,260 x 320 mm H x W x D |
| Net weight | 30 kg |

We make
water
a trusted
friend

