

# aquaMonia

Automatic analyzer of ammonium in low concentrations (A103)

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Ammonium in spring water is usually found at very low concentrations, with levels below 0.1 mg of  $\text{NH}_4^+$ /l. Basically, its presence is due to excretions from fluvial fauna or as a product of decomposition. Plants take it up as a source of nitrogen during their natural cycle.

The presence of ammonium at higher concentrations is usually indicative of urban or livestock sewage contamination. 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 given that changes in pH and temperature can turn it into its gaseous form ( $\text{NH}_3$ ), which is much more toxic than the dissolved ion ( $\text{NH}_4^+$ ).

The aquaMonia A103 unit is designed for detecting episodes of surface water contamination with low levels of ammonium as well as for controlling its concentration in fresh or salt water for fish farms.

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## CHARACTERISTICS

aquaMonia A103 is an analyzer that is optimum for determining the concentration of ammonium in levels below 0.1 ppm with a high level of accuracy, ensuring a perfect characterisation of the water mass.

Its application is mainly centred in the control of surface waters, rivers, fish farms, wells, etc., which generally have a low degree of turbidity. Particularly useful for monitoring intakes of water to be used for the production of drinking water. Its use extends to any type of water where controlling low levels of ammonium is necessary, for example in fish farms.

Based on the FIA system with potentiometric measurements, aquaMonia A-103 combines a selective electrode of  $\text{NH}_4^+$ , with a semi-permeable membrane that prevents the sample from coming into direct contact with the electrode, thus eliminating any type of interference.

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## OPERATION

aquaMonia A103 may operate in:

### Automatic mode:

The equipment performs the measurements automatically. It includes a self-calibration system that prolongs the system's autonomy. Data collected is sent in real time to a local or remote control centre for analysis and use. aquaMonia A-103 is continually taking measurements, which enables it to generate and send alarms to other equipment (aquaMostra sample taking) or systems (monitoring networks).

### Manual mode:

The measurement process can also be carried out locally by sending commands from the equipment keyboard, or by remote control from the control centre.



INNOVATIVE SOLUTIONS  
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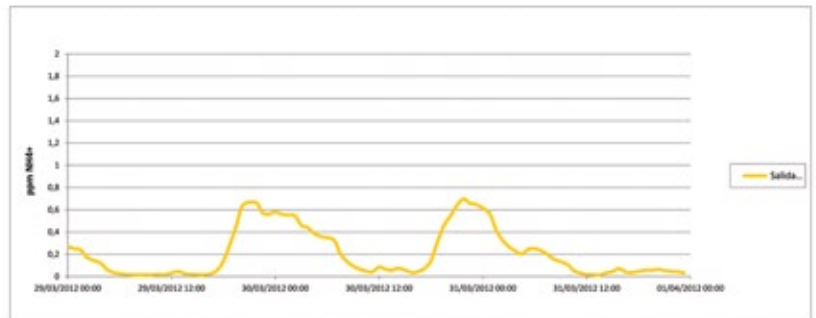


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## GENERAL CHARACTERISTICS

Power supply:	110 - 230 VAC/50 -60 Hz
Communications:	RS-232, RS-485. Options: GSM/GPRS modem, Ethernet, 4-20mA
Accuracy:	<5%
Measuring range:	0,01 ... 4 ppm NH <sub>4</sub> <sup>+</sup> The unit measures peaks of up to 200 ppm NH <sub>4</sub> <sup>+</sup> although the specified accuracy is not maintained for values greater than 4 ppm.
Measuring range:	8 min.
Dimensions:	75 x 50 x 42 cm



Adasa reserves the right to modify the technical features.

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

ISO 9001 Quality Management  
UNE 166002:2006 R&D and innovation Management  
ISO 14001 Environmental Management  
OHSAS 18001 Health and Safety