

µMAC 1000 applications

More than 50 different applications are available on the µMAC 1000; most important are: Ammonia, Phosphate, Nitrate+Nitrite, Nitrite, Silicates, Total Nitrogen, Total Phosphorous, COD (UV), BOD (Tryptophan like), and much more.

µMAC 1000 can be delivered as single method analyzer or multiple methods (MP versions), where the analyzer runs in sequence up to 4 measurements on the same sample.

0.1 µM cutoff tangential filtration unit with automatic backflush capability is available as option, to ensure higher accuracy measurements of nutrient compounds.

STANDARD VERSIONS

µMAC 1000 MP4 Nutrients:

Ammonia: fluorimetric by OPA

Phosphate: colorimetric by Molybdate - Ascorbic acid

Nitrate+Nitrite: colorimetric by Vanadium Chloride reduction to NO₂ followed by NED + SAA

Nitrite: Colorimetric NED + SAA

µMAC 1000 TN: Total Nitrogen: UV oxidation to NO₃ and direct reading at 220 nm

µMAC 1000 TP: Total Phosphorous: acidic hydrolysis & UV oxidation, orthophosphates measurement by Molybdate - Ascorbic acid.

Technical Data

MEASURING PRINCIPLES	Colorimetric -dual beam, fluorimetric, UV absorption
MEASUREMENT TYPE	Batch - multi parametric version: batch, sequential & multi-wavelength
MEASURING FREQUENCY	Programmable
MEASURING TIME	From 5 minutes up to 60 minutes, depending on the application
OPERATOR INTERFACE	Membrane keypad & graphic monochromatic display
NUMBER OF PARAMETERS	Up to 4; number of measuring point: 1
SAMPLE DELIVERY	Pressure: atmospheric Temperature: 10° - 35 °C Volume: 50/80 mL per analysis, depending on analyzer model Wastes: pressure free
REAGENTS REPLACEMENT	From 3 to 5 weeks depending on the measurement frequency
REAGENT COOLER	Available as option
ENVIRONMENTAL TEMP.	10-45°C (reagents up to 25°C)
MOUNTING	Bench top
STANDARD PROTECTION	IP-55
HARDWARE	PC104 standard microcontroller with integrated control boards
POWER SUPPLY	12 Vdc; external power supply from 110/220 Vac to 12 Vcc included in the scope of delivery
ABSORPTION	4W stand by, 10 W analysis
WEIGHT	13 Kg without reagents
DIMENSIONS	550 x 350 x 110 cm (L x H x W)

Subject to change without notice
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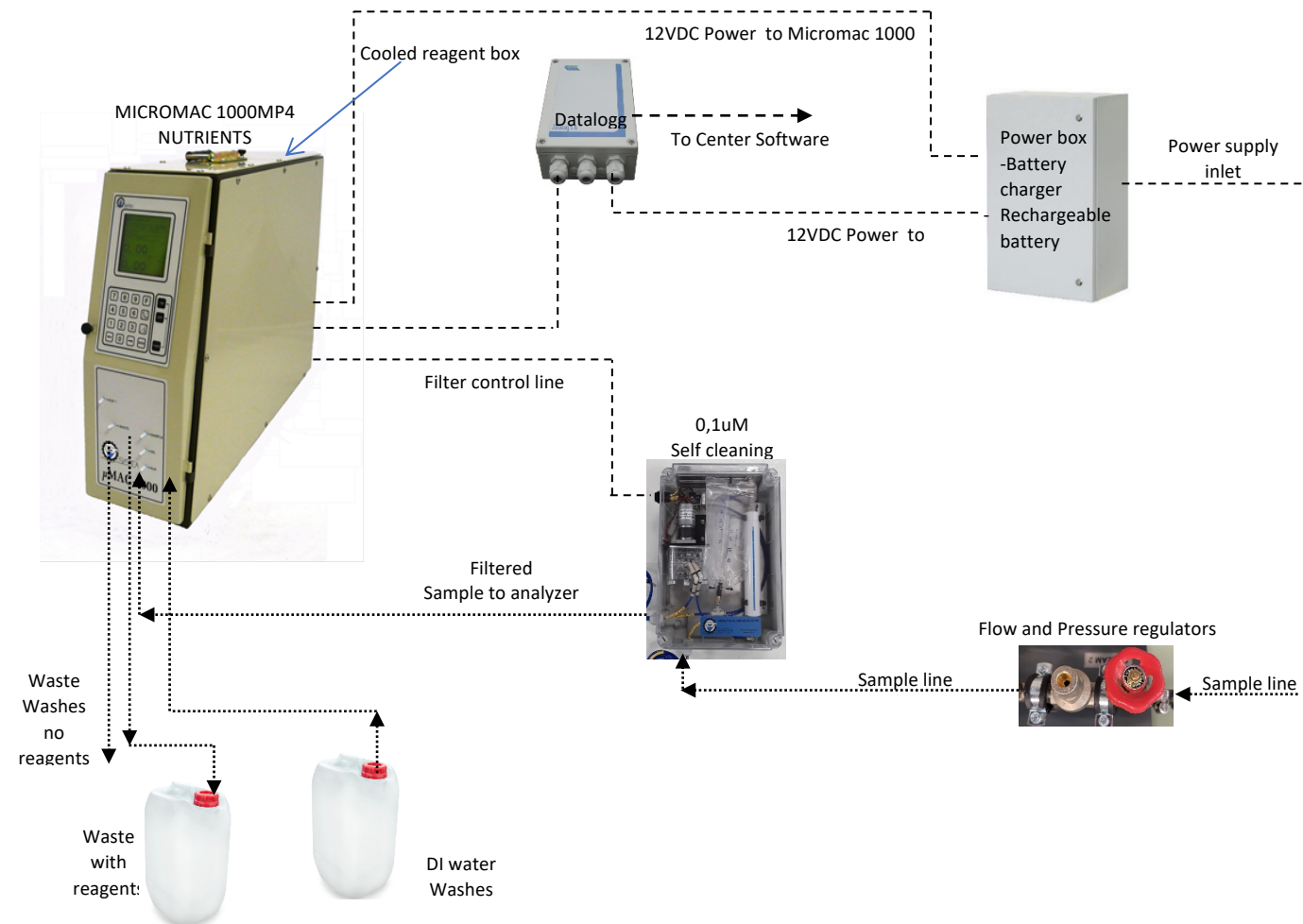
MICROMAC 1000

NUTRIENT ANALYZER
FOR WATER AND SEAWATER
MONITORING



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WATER MONITORING STATION



Self-powered Ministation for river water control



Ferry Box installation



Self powered ground water station

MICROMAC 1000



Microprocessor controlled line of analyzers specifically designed for automatic field monitoring on several types of water matrices.

ROBUST AND RELIABLE

Designed for environmental on-line or portable applications, ensures the highest level of robustness in the electronics, mechanics and hydraulics components. With a complete separation between electronics and hydraulics and a simple and robust μ LFR* hydraulics, it allows long term and reliable operations.

EASY TO INSTALL

The analyzer is delivered only after a successful final analytical test. It is provided ready for installation, with a tool kit for start-up operations.

AUTOMATIC CALIBRATION

The analyzer performs automatic calibration, the new calibration factor is checked and accepted if inside acceptance limits.

MEASUREMENT FREQUENCY

User selectable; between two measurements the analyzer remains in stand-by mode, without reagents consumption.

OFF SCALE REANALYZE

The analyzer identifies off scale samples and reanalyze the sample after automatic dilution

FEATURES/BENEFITS

- ❑ Easy and friendly operator interface
- ❑ Fully automatic operation
- ❑ Long autonomy; low maintenance, low operating cost
- ❑ Low reagent or nearly no consumption
- ❑ Easy operation; fully documented plug-in analyzer, no special training is required
- ❑ Electronics and hydraulics completely separated
- ❑ RS232 bidirectional for remote control
- ❑ USB port for data download
- ❑ Yearly maintenance.