



MicroMac 1000

Portable Colorimetric Analyser

PRODUCT DATASHEET

APPLICATIONS

Wastewater
Process Water
Drinking Water
Surface Water
Seawater

MEASUREMENTS

Aluminium
Ammonia
Iron
Manganese
Nickel
Nitrate
Nitrite
Orthophosphate
TON

FEATURES

Flexible Loop Flow Analysis (LFA)*
Multi-parameter Options
*Patented by Systea Srl, Italy

INSTALLATION OPTIONS

Work Top
Field Deployable Weatherproof
Package
Power options – mains or battery with
renewable energy options

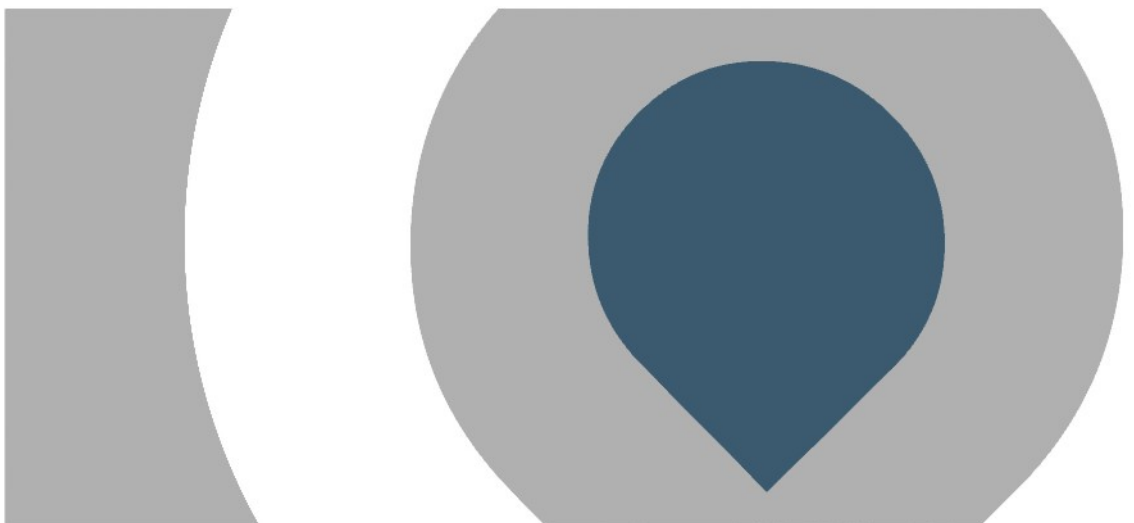


The MicroMac 1000 is designed to operate as a free standing colorimetric analyser which gives the user the ability to get “live” data from a site for a short period of time without having to install complex on-line monitoring packages.

The portability of the analyser gives the user a portable “laboratory” as it uses the same standard methods of analysis as most laboratories. It can be used as a tool for site surveys, investigations or when set up as a package, longer term studies or profiling of a site. With the advantage of “live” results the system can be used in place of samplers where the sample is collected and sent away for laboratory analysis thus enabling changes to be made much quicker.

The chemistry module employs the patented Loop Flow Analysis System (LFA –Systea Srl) resulting in a very flexible chemistry base which can incorporate high temperature digestion or heating, UV digestion, acid digestion, temperature controlled end point reactions all utilising either a visible light colorimeter or a fluorimeter.

In the same way as the wall mounted monitor, the MicroMac C, the MicroMac 1000 can be configured as a single or multiple chemistry system up to a maximum of 4



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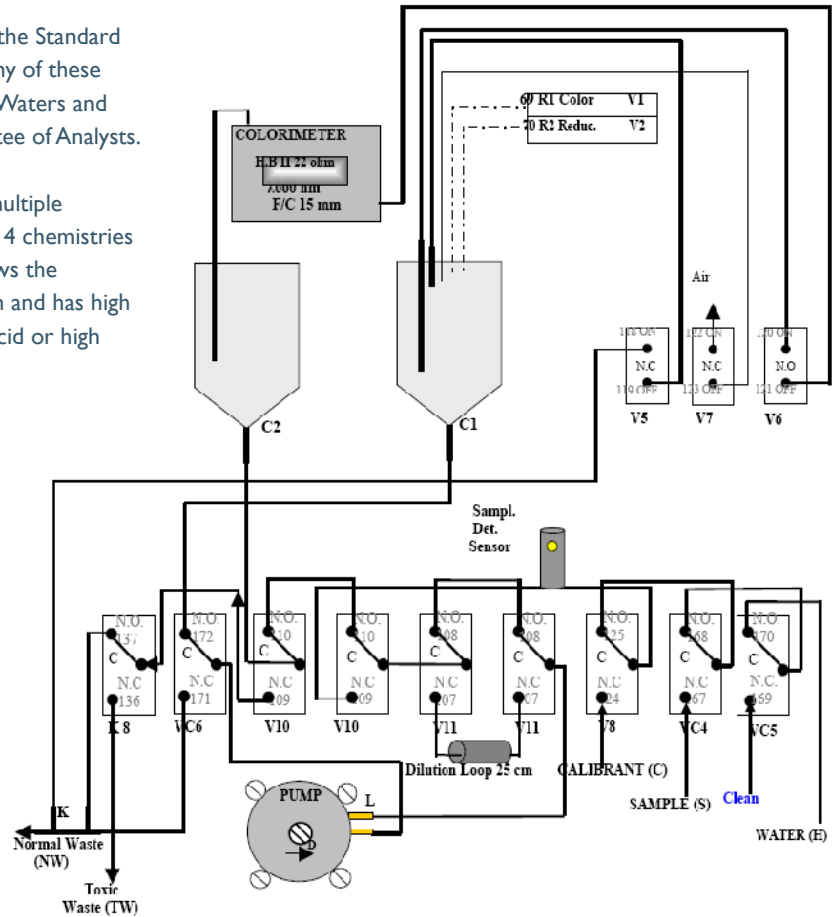
MicroMac 1000

Loop Flow Analysis

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The analytical methods used in the MicroMac 1000 are based on the Standard Methods that are used in Laboratories throughout the world. Many of these methods have their basis in the "Methods for the Examination of Waters and Associated Materials" as published by HMSO – Standing Committee of Analysts.

The Loop Flow Analysis system can be configured as a single or multiple chemistry module. The multiple chemistry module can have up to 4 chemistries or 7 reagent additions. The multiple chemistry module above shows the inclusion of a high temperature heating bath for hot acid digestion and has high pressure valves and teflon tubing in all areas in contact with the acid or high temperatures.



STANDARD METHODS (others available on request)

Aluminium	0-500 µg/l to 0-5 mg/l	Orthophosphate	0-500 µg/l as P to 0-50 mg/l as P
Ammonia	0-2 to 0-50 mg/l as N	Soluble Iron	0-500 µg/l to 0-10 mg/l
Manganese	0-300 µg/l to 0-5 mg/l		
Nitrate (TON)	0-1 to 0-20 mg/l as N		
Nitrite	0-1 to 0-20 mg/l as N		

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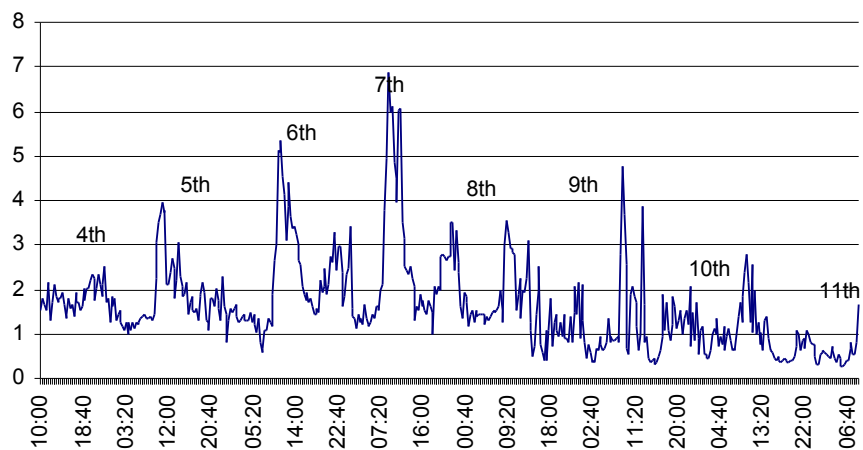
Field Deployable Package

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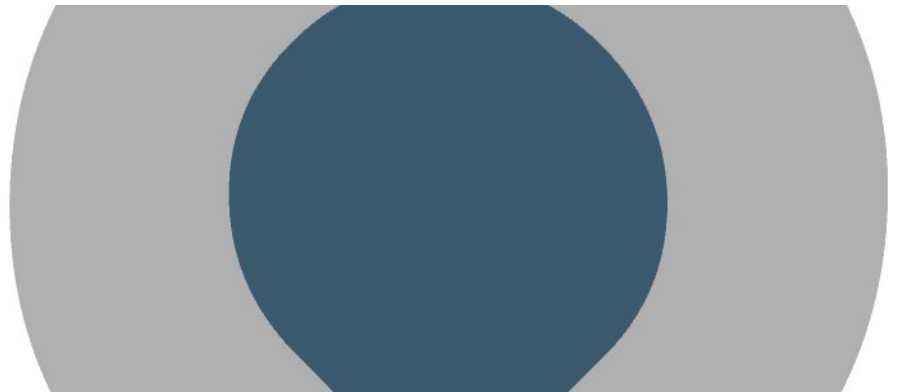
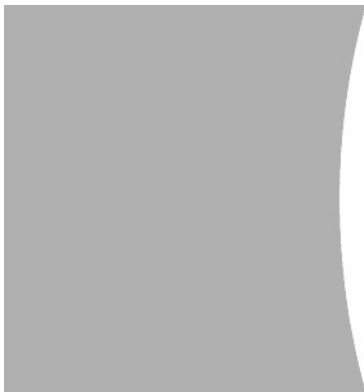


This site evaluation package allows the user to quickly assess problems that a site is encountering by monitoring 24 hours per day and at weekends. Data from site evaluations has already allowed water company's to identify site process problems and to track down illegal dumping of chemicals into the water course by an unscrupulous manufacturer.

Partech are offering this package for hire in a package that includes the analyser, sample pump, delivery and setup, reagents and data reporting. This package can be tailored to suit the particular needs of a site. Alternatively the MicroMac 1000 Portable analyser can be purchased along with its sister product, the MicroMac C which is designed for permanent installation.



Result Set showing two large Phosphate peaks which were subsequently traced to a Trade Effluent discharge



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MicroMac 1000

Portable – Colorimetric Analyser

PRODUCT DATASHEET

Analyser

Measuring Principle
Colorimeter
Fluorimeter
Number of Parameters
Measurement Frequency
Measurement Time
Number of Sample Points
Sample Requirements
Waste
Reagent Cooler

Physical

Mounting
Protection Rating
Weight
Dimensions
Environmental Temperature

Electrical

Power Supply
Power Use
Hardware
Communication Port
Output Signals
Input Signals
Alarm Signals

Alarm Messages

Colorimetric or Fluorimetric
Dual Beam, Silicon Detector
Excitation at 370 nm, emission 420 – 470 nm
1 standard, upto 4 depending on combination
Programmable
Method Specific
1 standard, upto 6 optional
10 to 30 C
Toxic and Non Toxic fed to separate drain
optional Pelter Cell

Wall Mounting normally in building or kiosk
IP55
25 kg without reagents
800 x 450 x 300 mm (hxwxh)
10 to 30 C

12VDC or 115/230VAC
Typically 4 W on standby, 10 W during analysis
PC104 industrial standard, integrated keyboard and display
RS232, RS485, USB
4-20mA per parameter, 400 ohm maximum load
Remote analysis and calibration request
1x High Alarm, SPDT, 24VDC, 0.5A per parameter
1x General Alarm, SPDT, 24VDC, 0.5A
1x Calibration Alarm, SPDT, 24VDC, 0.5 A per parameter
On display

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