MicroMac C

Aluminium Analyser

PRODUCT DATASHEET

APPLICATIONS

Potable Water – Final Water
Intake Protection
Sewage Treatment – Inlet Monitoring
Final Effluent
River Monitoring

FEATURES

Robust LFA Analysis System
Low Reagent Consumption
Automatic Over-range Handling
Fully Integrated Packages
Easy to use software interface
Complete Supply and Install Service

BENEFITS

Low Overall Ownership Cost
Improved Effluent Quality
Reduced Chemical Costs

ALTERNATIVE PARAMETERS

Total Phosphorus
Ammonia
Orthophosphate
Soluble Iron
Total Iron
Nitrate
Manganese
Total Nitrogen

Multi-chemistry analysers are available for up to 4 parameters depending on the combination

INSTALLTION OPTIONS

Fully Integrated Sample Preparation Package
Installation and Commissioning Service

The MicroMac C Analyser is a fully featured system designed for reliable and accurate monitoring of a wide range of parameters. For Aluminium the analyser can be configured to use a number of the standard Blue Book methods. The standard method is a Eriochrome based method which chosen for it's wide application range and reliable nature.

Developed for on-line process analysis the MicroMac C uses the patented Loop Flow Analysis (LFA) technique. The LFA technique is highly flexible and extremely robust. The analyser automatically carries out calibration and cleaning routines to ensure extended periods between manual intervention. The analyser also has a built in sample dilution process to automatically analyse out of range samples.

The current drive to install Phosphate removal plants using Iron based coagulant has created the need to measure Aluminium in the effluent Channel both as a consent monitor and as a guide to setting the optimum dosing level. This monitoring helps prevent overdosing which is costly in both economic and environmental terms.

In potable water treatment Aluminium is also used as a dosing chemical, again consistent control of the dosing rate is vital for cost management and final water quality. Automated control is readily achieved by interfacing the MicroMac C with the site control system.

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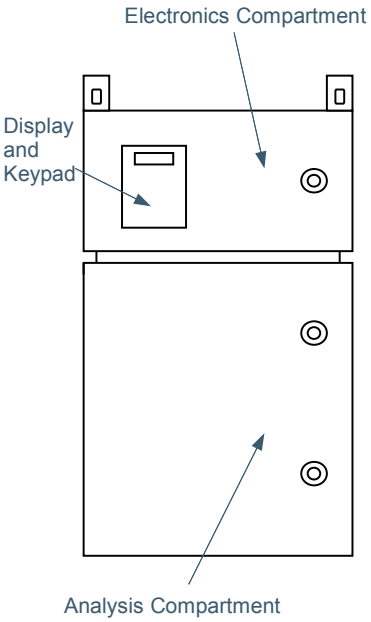

Technical Specification

Physical	
Mounting	Wall mounted, additional environmental protection is required and can be included as part of our package
Weight	25 kg
Dimensions	800 x 450 x 300 mm (h x w x d)
Operating Temperature	10 to 30C
Electrical	
Power Supply	12 VDC, or 115/230 VAC Typically 4W on standby, 10W during analysis (analyser only)
Outputs	4-20mA maximum load 400 ohm
Alarm Signal	1 relay for process alarm and relay for general fault alarm, busy line to indicate that analysis is taking place
Communications	RS232 or RS485 available
Display	Full graphical display giving detail of current analyser status, previous results and a plain language configuration menu
Analysis	
Range	from 0-400 ppb to 0-10 ppm , other ranges on request
Detection Limit	better than 2% of full scale
Repeatability	better than 2% of full scale
Principle	Colorimetric
Normal Method	Eriochrome alternative methods are available to suit other sample matrices
Wavelength	525 nm
Reagents	
Reagent 1 P/N 221975	Aluminium, Reagent 1, Acid, for MicroMac Eriochrome Method (1 Litre)
Reagent 2 P/N 221977	Aluminium, Reagent 2, Buffer, for MicroMac Eriochrome Method (1 litre)
Reagent 3 P/N 221976	Aluminium. Reagent 3, Colour, for MicroMac Eriochrome Method (1 Litre)

The analyser will also require a calibration solution that will be supplied at a concentration appropriate to the selected range, in some applications a cleaning solution of Sodium Hydroxide is used to extend the service interval. The analyser will also require a supply of dilution water.

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