MICROMAC CALCIUM

ON LINE ANALYZER FOR CALCIUM MONITORING IN WATER

MICROMAC CALCIUM is a microprocessor controlled On Line analyzer specifically designed for automatic Calcium monitoring on several types of water matrices.

✓ ROBUST AND RELIABLE

Designed for industrial and Environmental On Line applications ensures the highest level of robustness in the electronics, mechanics and hydraulics components. Complete separation between electronics and hydraulics plus a simple and robust LFA* hydraulics allows easy maintenance and long terms reliable operations.

**LFA: Loop Flow Analysis patent pending*

✓ EASY TO INSTALL

The analyzer is delivered after a long and successful series of factory tests ready for installation and setup; it is provided with complete set of spares for start up. To start monitoring is enough to connect reagents, sample line, waste line and power supply.

✓ AUTOMATIC CALIBRATION

When the Calibration Time interval expires the analyzer performs a Calibration Cycle, storing and checking the new calibrant O. D. If new O.D. exceeds selected limits, an alarm contacts is closed.

✓ SAMPLE DILUTION

Sample can be analyzed as it is or after automatic dilution. Automatic dilution is factory adjusted for high range applications.

✓ MEASURING INTERVAL

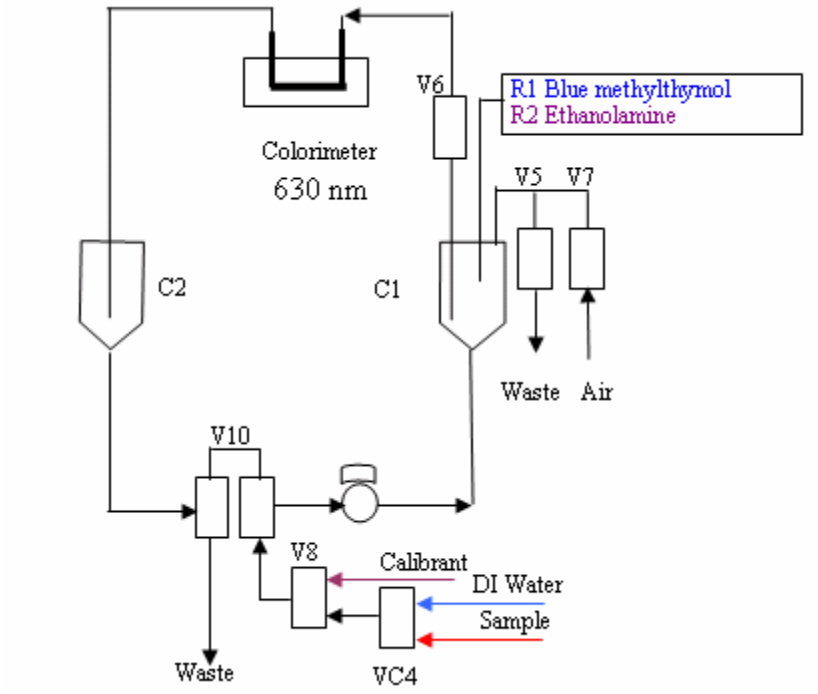
User selectable; between two measurements the analyzer remains in stand by mode, without reagents consumption.

✓ FEATURES AND BENEFITS

- Fully automatic operation
- Long autonomy; low maintenance, low operating cost
- Low reagents consumption; short preparation time; low disposable costs
- Easy operation; plug in analyzer, no special training is required
- Electronics and hydraulics completely separated
- Serial interface for local o remote PC connection (option)

Calcium measuring principle and hydraulic diagram

The sample, after proper filtration, is pumped inside the LFA reactor, then two specific reagents are injected: Blue-Methylthymol and Ethanolamine. After suitable mixing and reaction time, the intensity of the blue color formed is measured at 630 nm.
The sample concentration is calculated against the calibration factor stored in the analyzer.



Technical Specifications

MEASURING PRINCIPLE: Colorimetric, blue methylthymol/ethanolammine
COLORIMETER: dual beam, silicon detector
MEASUREMENT TYPE: cyclic
MEASURING INTERVAL: programmable
MEASURING TIME: about 10 minutes, depending on the range
MEASURING RANGE: 0 – 5 up to 300 ppm $Ca2^{+}$; other ranges available on request
DETECTION LIMIT: typically better 2% of the full scale, calculated as for EPA p. 136 appendix B
REPEATABILITY: better than 2%
OUTPUT SIGNAL: 4-20 mA
INPUT SIGNALS: n. 1 Analysis, n. 1 calibration; digital contacts
ALARMS: n. 1 High Limit, n. 1 General, n. 1 Calibration; potential free contacts
SAMPLE AND WASTE DELIVERY: pressure free;
SAMPLE TEMPERATURE: 10 °C - 30 °C
REAGENTS REPLACEMENT: 3/4 weeks depending on the operating temperature
PROTECTION: IP55
HARDWARE: PC104 industrial standard, Integrated keyboard and graphics display, RS232 option
POWER SUPPLY: 12 V DC external power supply included; 4W Standby; 10 W (mean) analysis
WEIGHT: 33 Kg without reagents;
DIMENSION: 800x450x300 mm (hxwxd)

Subject to change without notice

SYSTEA S.p.A.

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