

MICROMAC TOTAL CADMIUM

ON LINE ANALYZER FOR TOTAL CADMIUM MONITORING IN WATER



MICROMAC TOTAL CADMIUM is a microprocessor controlled On Line analyzer specifically designed for automatic Total Cadmium monitoring on several types of water matrix.

✓ 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 hydraulics allows easy maintenance and long terms reliable operations.

✓ 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.

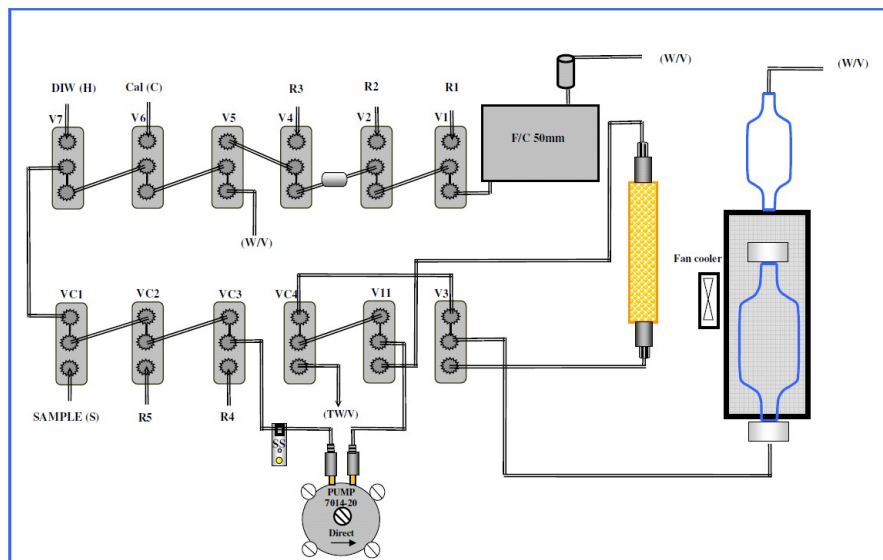
✓ MEASURING INTERVAL

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)

Total Cadmium measuring principle and hydraulic diagram



The sample is mixed with a strong digestion reagent, and placed in a heated digester. The digested sample is passed into a column to remove the interferences than added with a buffer and a specific colour reagent and develop a complex that can be measured at 480 nm. The Cadmium concentration is calculated against a calibration factor stored in the analyser memory

Technical Specifications

MEASURING PRINCIPLE: Sample digestion, interferences removal, colorimetric reaction

COLORIMETER: dual beam, silicon detector

MEASUREMENT TYPE: cyclic

MEASURING INTERVAL: programmable

MEASURING TIME: <=50 minutes

MEASURING RANGE: 0 –0.1/0.2/0.5 ppm Cd⁺; other ranges available on request

DETECTION LIMIT: 200 ppb range: <3ppb, @ 10% of the range as for EPA p. 136 appendix B

REPEATABILITY: 200 ppb range: better than 5% SD% of 7 replicates at 50% of the full scale

ACCURACY: 200ppb range: better than 5% , average of 7 replicates at 50% of the full scale

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; 50 W (mean) analysis

WEIGHT: 33 Kg without reagents;

DIMENSION: 800x420x280 mm (hwxwd)



Subject to change without notice

SYSTEA S.p.A.

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