MICROMAC COD

ON LINE ANALYZER FOR WATER AND WASTEWATER COD-Cr MONITORING IN WATER

MICROMAC COD is a microprocessor controlled On Line analyzer specifically designed for automatic COD Potassium Dichromate method monitoring on several types of waters 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 LFA * 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.

**LFA: Loop Flow Analysis patent pending*

✓ 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.

✓ MEASURING INTERVAL

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

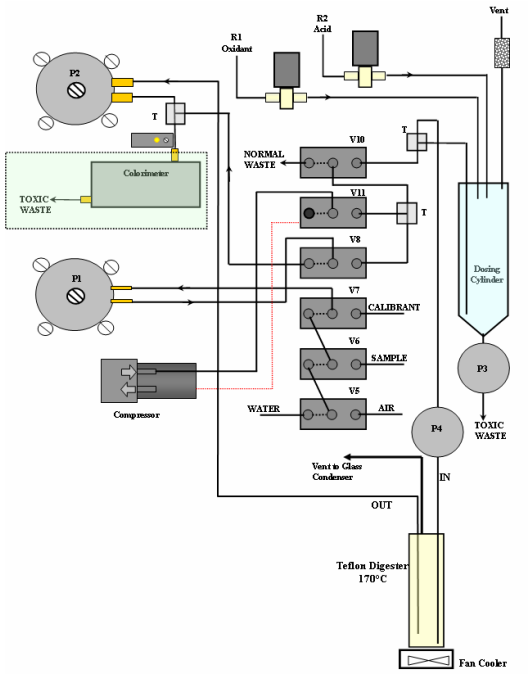
✓ FEATURES AND BENEFITS

- 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 (optional)

SYSTEA

COD measuring principle and hydraulic diagram

The sample after proper filtration is pumped inside the vessel C1, where Sulfuric Acid and Potassium Dichromate are injected. After mixing by compressed air the sample is transferred in the Digester H1 where is heated at 170° C for 15 minutes. When digestion time expires the reaction product is cooled until the temperature decrease to a value that allows a stable reading inside the colorimeter flow cell.
The measured absorbance is used for the calculation of the sample concentration against the stored calibration factor.



Technical Specifications

MEASURING PRINCIPLE: Colorimetric, after digestion with potassium dichromate and sulfuric acid
COLORIMETER: dual beam, silicon detector
MEASUREMENT TYPE: cyclic
MEASURING INTERVAL: programmable
MEASURING TIME: 90-95 minutes (depending on the measurement range)
MEASURING RANGE: 0-50/100/200/300/500/1000/2000 ppm COD, other ranges available on request
DETECTION LIMIT: typical 5% of the full scale, calculated as for EPA p. 136 appendix B
REPEATABILITY: better than 5%
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: 4/5 weeks
PROTECTION: IP55
HARDWARE: PC104 industrial standard, Integrated keyboard and graphics display, RS232 option
POWER SUPPLY: 12 VDC analyzer + 24 V AC digestor external power supply included; 4W Standby; 90 W (mean analysis
WEIGHT: 33 Kg without reagents; **DIMENSION:** 800x620x300 mm(hxwxd)

Subject to change without notice

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