MICROMAC CYANIDE TOTAL

ON LINE ANALYZER FOR CYANIDE TOTAL MONITORING IN WATER

MICROMAC CYANIDE TOTAL is a microprocessor controlled On Line analyzer specifically designed for automatic Cyanide 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 batch type CFA* hydraulics allows easy maintenance and long terms reliable operations.

**CFA: Continuous Flow Analysis*

✓ 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

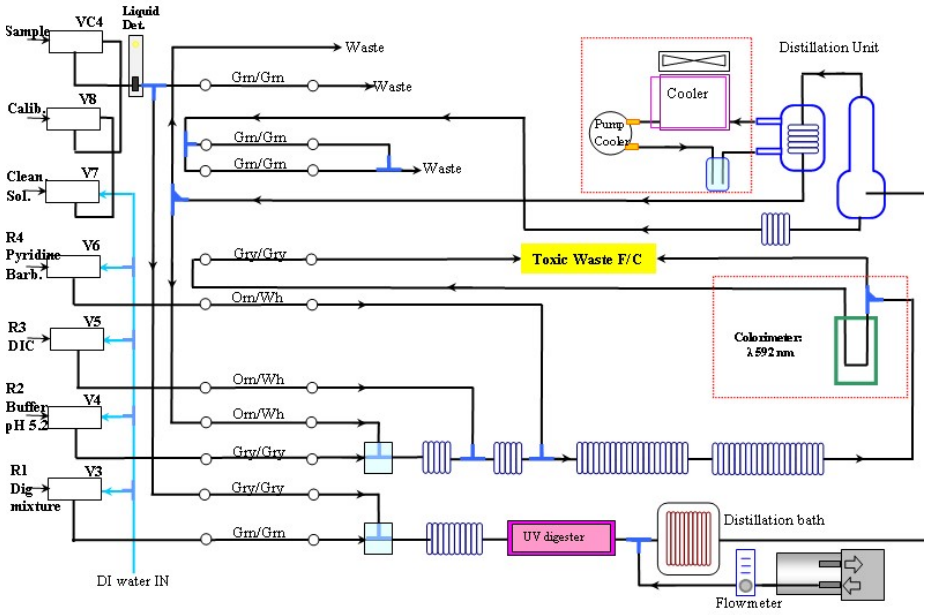
User selectable; between two measurements the analyzer remains in stand by mode, without reagents consumption.

✓ 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)

Cyanide Total measuring principle and hydraulic diagram

ln this automated method, the sample is mixed and diluted with a digestion mixture at pH3.8, then it is passed into a UV reactor emitting over 290 nm to free the complexed cyanide. After digestion the sample is put into a flow of compressed air and then sent to a heating bath at 140°C, to distillate the freed cyanide. The distilled sample is then condensed and mixed with a buffer at pH 5.2 and cyanides are converted to cyanogen chloride by reaction with a source of chlorine, dichloroisocianuric acid sodium salt, which subsequently reacts with pyridine and barbituric acid to yield a reddish-violet colored complex which is measured colorimetrically at 592 nm.



Technical Specifications

MEASURING PRINCIPLE: Colorimetric, pyridine/barbituric acid + UV digestion
COLORIMETER: dual beam, silicon detector
MEASUREMENT TYPE: cyclic
MEASURING INTERVAL: programmable
MEASURING TIME: <= 30 minutes, depending on the range
MEASURING RANGE: 0 – 0.1/0.2/0.5/10 ppm as CN; other ranges available on request.
DETECTION LIMIT: typically better 3% of the full scale, calculated as for EPA p. 136 appendix B
REPEATABILITY: better than 5% ; SD% of 7 replicates at 50% of the full scale
ACCURACY: better than 5% , average of 7 replicates at 20% 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; 90 W (mean) analysis
WEIGHT: 33 Kg without reagents;
DIMENSION: 800x420x280 mm (hxwxd)

Subject to change without notice

SYSTEA S.p.A.

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