MICROMAC NITROGEN TOTAL

ON LINE ANALYZER FOR NITROGEN TOTAL MONITORING IN WATER

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

✓ ROBUST AND RELIABLE

Designed for industrial and Environmental On Line applications Micromac C 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 setupit 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)

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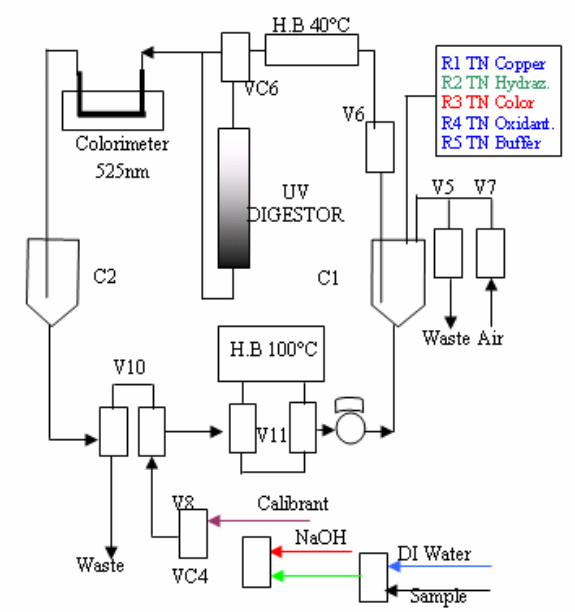
Nitrogen Total measuring principle and hydraulic diagram

In this automated method the sample is digested inside a UV digestor, where organic Nitrogen is converted to Nitrate by UV radiation in persulfate alkaline medium. The nitrate formed is then reduced to nitrite by hydrazine in alkaline solution, with copper as catalyst; the nitrite reacts with sulfanilamide and naphtylethylendiamine in acid solution to form a pink colored compound measurable at 525 nm.



Technical Specifications

MEASURING PRINCIPLE Colorimetric, UV digestion to NO3, hydrazine reduction, NED+SAN
COLORIMETER: dual beam, silicon detector
MEASUREMENT TYPE: cyclic
MEASURING INTERVAL: programmable **MEASURING TIME**: 13 minutes
MEASURING RANGE: 0-5/10/20/50/100/200/1000 ppm N, 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 3%
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;
REAGENTS REPLACEMENT:: 3/4 weeks depending on the operating temperature
SAMPLE TEMPERATURE: 10 °C - 30 °C
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**: 800x450x300 mm(hxwxd)

Subject to change without notice

SYSTEA S.p.A.

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