

MICROMAC TOTAL CYANIDE

AMPEROMETRIC ON LINE ANALYZER FOR TOTAL CYANIDE MONITORING IN WATER



MICROMAC TOTAL CYANIDE is a microprocessor controlled online analyzer specifically designed for automatic Cyanide monitoring on several types of water matrices.

✓ ROBUST AND RELIABLE

Designed for industrial and environmental online applications, it 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 term 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 startup. To start monitoring is enough to connect reagents, sample line, waste line and power supply.

✓ AUTOMATIC CALIBRATION

When the Calibration Time interval expires, the online analyzer performs a Calibration Cycle, storing and checking the new calibration span. If new span 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.

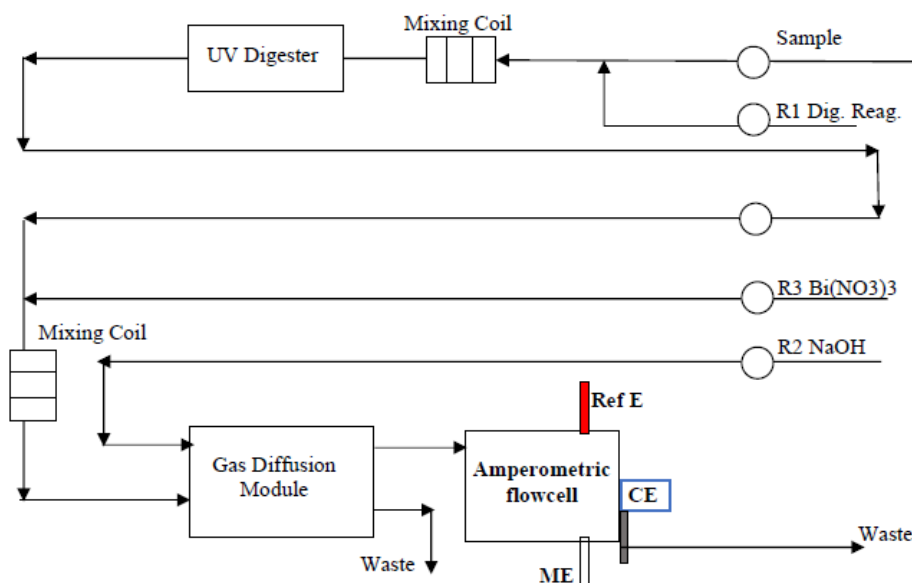
✓ FEATURES AND BENEFITS

- 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 or remote connection.

Total Cyanide measuring principle and hydraulic diagram

This method is based on the Amperometric determination of Total Cyanide in alkaline solution after UV Digestion, as per ASTM D7511 – 12; the resulting hydrogen cyanide then passes in a gas diffusion membrane and it is collected in an alkaline solution of NaOH. This solution is moved inside an Amperometric flow cell and the cyanide is finally detected.

In presence of sulphide the bismuth nitrate is added to deplete this interference.



Technical Specifications

MEASURING PRINCIPLE: ASTM D7511 – 12

DETECTOR: Amperometric

MEASUREMENT TYPE: cyclic

MEASURING INTERVAL: programmable

MEASURING TIME: <= 20/30 minutes, depending on the range

NUMBER OF STREAMS: up to 6

MEASURING RANGE: 0 – 0.1/0.2/0.5/5 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

SERIAL OUTPUT: RS232 bidirectional, ASCII protocol or Modbus RTU

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, 8" touch screen graphic color display

POWER SUPPLY: 12 V DC, external power supply is included; 4W standby; 90 W (mean) analysis

WEIGHT: 33 Kg without reagents

DIMENSIONS: 800x420x280 mm (H x W x D).

Subject to change without notice

SYSTEA S.p.A.

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