MICROMAC ARSENIC*

ON LINE ANALYZER FOR LOW LEVEL TOTAL/DISSOLVED ARSENIC IN WATER



MICROMAC ARSENIC is a microprocessor controlled On Line analyzer specifically designed for automatic Low Level Total or Dissolved Arsenic 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 uLFR* hydraulics allows easy maintenance and long terms reliable operations.

**Micromac Arsenic: Patent Pending*

✓ 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

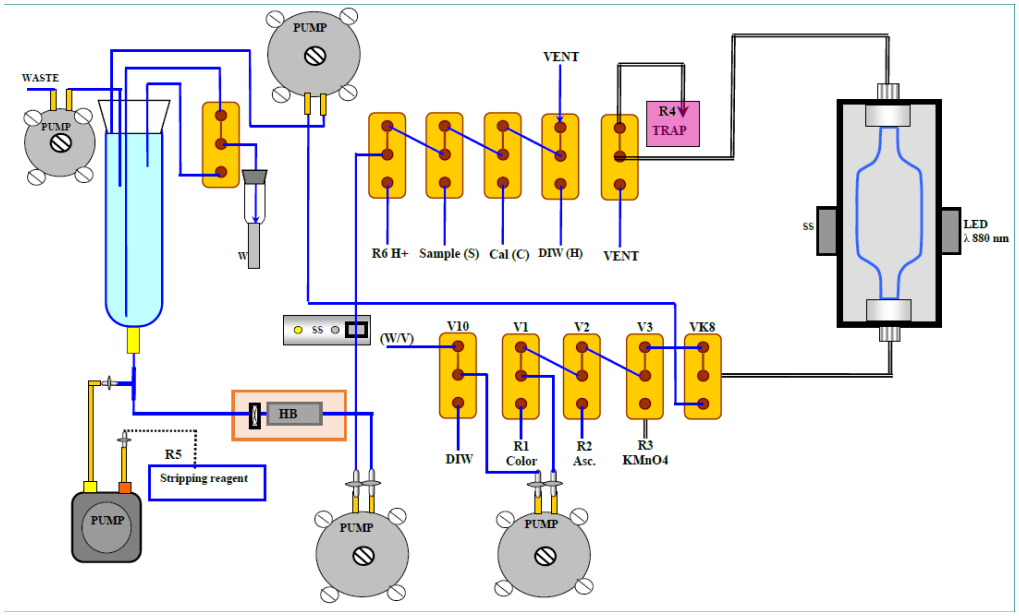
User selectable; between two measurements the analyzer remains in stand by mode, without reagents consumption

✓ 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/Dissolved Low level Arsenic measuring principle

Chemical process stripping by optical sensor. Sample is acidified and heated to have all the Arsenic bounded with organic matter available for the stripping steps. Arsenic III and V contained in the sample are converted into Arsine that is sparged inside a strong oxidant where is converted to As V. Arsenic V reacts with Molibdate and Ascorbic acid to form a blue compound measured at 880 nm.



Patent pending

Technical Specifications

MEASURING PRINCIPLE: Chemical process stripping by optical sensor; Arsine generation, Oxidation to As V, colorimetric measure by ammonium molybdate and ascorbic acid
COLORIMETER: dual beam, silicon detector
MEASUREMENT TYPE: cycles
MEASURING INTERVAL: programmable
MEASURING TIME: about 50 minutes for range 0- 20 ppb
MEASURING RANGE: 0- 20/30/300 ppb other ranges available on request
DETECTION LIMIT (LOD): ≤ 1 ppb on 0-20 ppb range (ISO 15839 - SD of 6 replicates @ 5 ppb x 3)
ACCURACY: < 3% Average accuracy of 7 replicates @ 20 ppb - standard test solutions
REPEATABILITY: ≤ 3 % as SD% of 7 replicates @ 20 ppb - standard test solutions
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: 10-30 °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: 12/24 V DC external power supply included; 10W Standby; 20 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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