

MICROMAC IRON

ON LINE ANALYZER FOR IRON MONITORING IN WATER



MICROMAC IRON is a microprocessor controlled On Line analyzer specifically designed for automatic iron monitoring on several types of waters 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 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

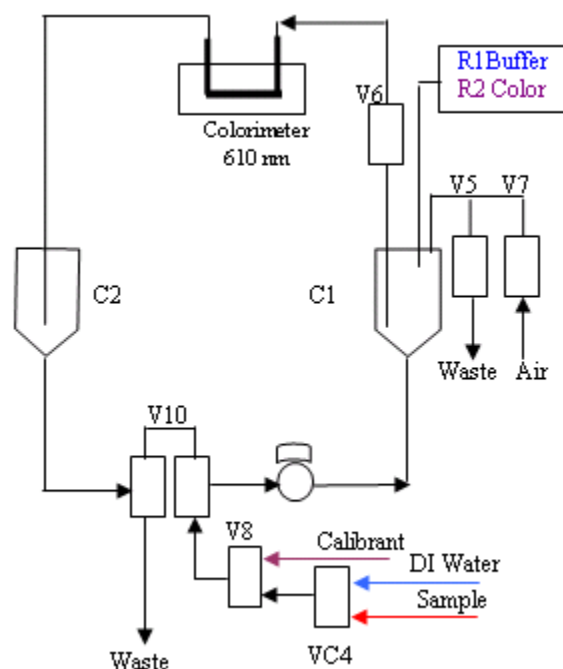
- Fully automatic operation
- Long autonomy; low maintenance, low operating cost
- Low reagents consumption; short preparation time; low disposable costs
- Easy operation; plug in analyzer, no special training is required
- Electronics and hydraulics completely separated
- Serial interface for local o remote PC connection (option)



Iron Total-dissolved measuring principle and hydraulic diagram

This automated procedure for the determination of iron is based on the formation of a violet complex of ferrous iron with 2, 4, 6-tri (2''-pyridyl)-s-triazine (also known as TPTZ). Hydroxylamine is used to ensure reduction of any trivalent iron to its divalent state and a sodium acetate buffer provides the proper pH for maximum colour development. The color is read at 609 nm.

Cupric ion, cobalt, chromic ion and nickel ion (+++) interfere.



Technical Specifications

MEASURING PRINCIPLE: Colorimetric; TPTZ method

COLORIMETER: dual beam, silicon detector

MEASUREMENT TYPE: cyclic

MEASURING INTERVAL: programmable

MEASURING TIME: 7-10 minutes depending on the range

MEASURING RANGE: 0-0.1/0.5/1/2/5/7/10/100/1000 ppm Fe^{2+} , other ranges available on request

DETECTION LIMIT: typically better 2% 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° - 40 °C

REAGENTS REPLACEMENT: 3/4 weeks depending on the operating temperature

ENVIRONMENTAL TEMPERATURE: 10 °C - 40 °C;

PROTECTION: IP55

HARDWARE: PC104 industrial standard, Integrated keyboard and graphics display, RS232 option

POWER SUPPLY: 12 V DC external power supply from local power to 12 V DC included

WEIGHT: 33 Kg without reagents; **DIMENSION:** 800x420x280 mm(hxwx d)

Subject to change without notice



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Document ID: MicC_Iron-03-E (20170109)

