

ADVANCE ANALYTIK

REVOLUTIONIZING ONLINE MONITORING SOLUTIONS



OPTICS 1000 - IRON

IRON Low Range (Fe)

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Optics 1000 Series

IRON LR (Fe)

Method - Colorimetric

After adding the sample into the measurement cell, some reagents are added in order to adjust the solution to the desired conditions (pH, valence's elements, etc.). Then, a blank is done to correct any temperature or turbidity disturbance. Subsequently, a last reagent is added, and it reacts with solution developing a color, which is measured using a correct wavelength. Thanks to the photometer used, the result achieves a great accuracy



Principle of measurement

Any Ferric iron is reduced to the Ferrous state by means of the hydroxylamine hydrochloride. The ferrous ions react with the Ferrozine to form a pink complex when the buffer brings the solution within the range 5 to 7 pH.



Advantages of the method

The method enables iron to be measured at very low concentrations. The reagents are stable. If total iron has to be measured the stirring time may be increased to ensure that the iron has been completely dissolved by the acidic medium.

Specifications

RANGE	From 0 to 100 ppb / 500 ppb. Adjustable higher concentrations with internal dilution.
ACCURACY	±2%
REPEATABILITY	±2%
RESOLUTION	0.1 ppb
ANALYSIS TIME	around 15 minutes
CALIBRATION	two point
LED WAVELENGTH	545 nm

Reagents consumption

- Reagent 1: 1 ml / analysis - 0.75L / month
- Reagent 2: 2 ml / analysis - 1.50L / month

Monthly consumption calculated assuming 1 analysis per hour.



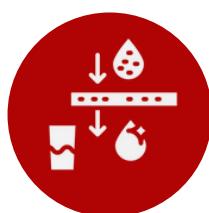
Applications



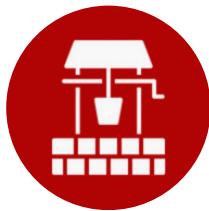
Agriculture Water



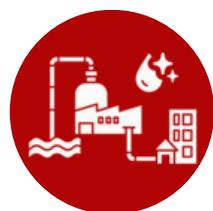
Mining Operations



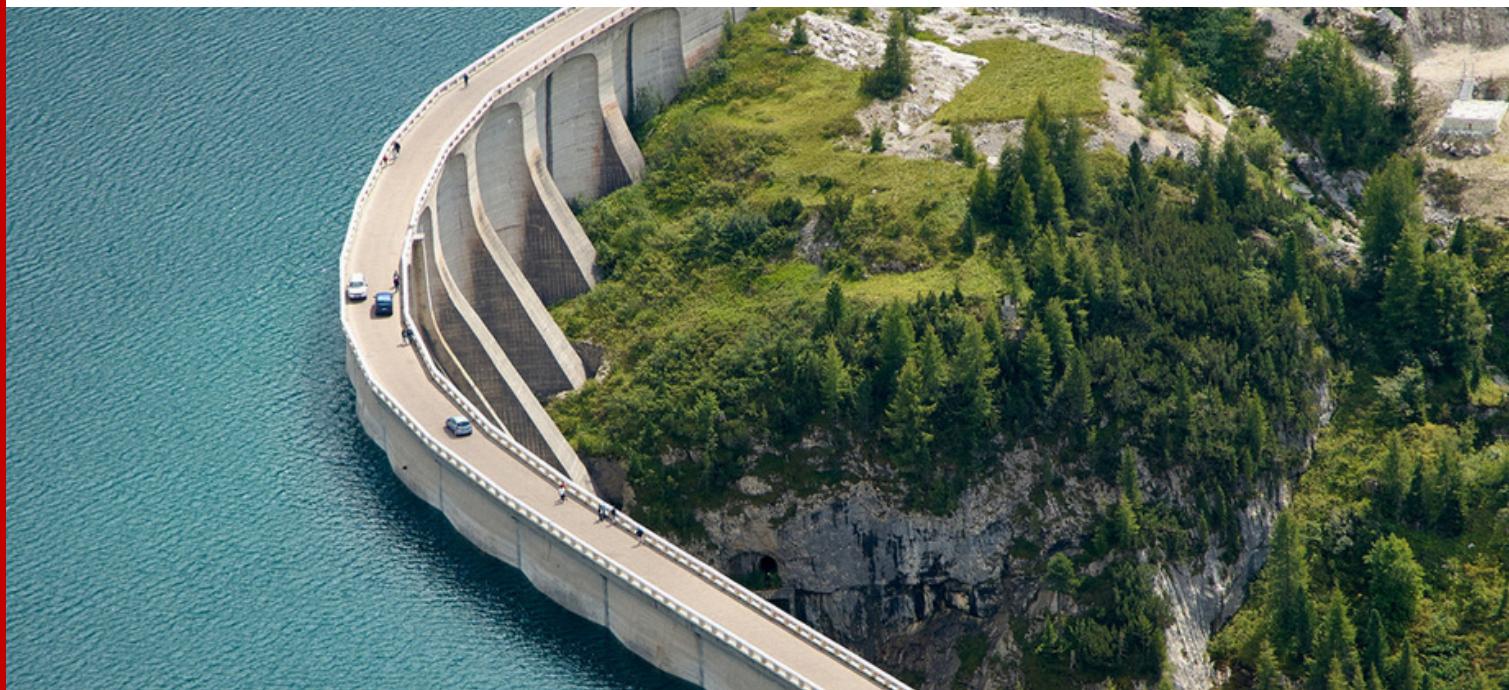
Desalination Plants



Surface & Ground Water



Potable Water Treatment Plants (PWTP)



Note -

This data sheet serves as general information about the Optics 1000 - IRON LR (Fe). For specific technical details, installation guidelines, and troubleshooting assistance, please refer to the official user manual provided with the product.

For inquiries and detailed technical information, please contact sales@advanceanalytik.com.



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Let's work together to find a solution that
works for you



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