



PRODUCT  
DATASHEET '24

# ADVANCE ANALYTIK

REVOLUTIONIZING ONLINE MONITORING SOLUTIONS



## OPTICS 1000 - ALKALINITY

**ALKALINITY (Alk)**

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[www.advanceanalytik.com](http://www.advanceanalytik.com)  
[sales@advanceanalytik.com](mailto:sales@advanceanalytik.com)

# Optics 1000 Series

## ALKALINITY (AIK)

### Method - Colorimetric

After adding the reagents to establish the desirable conditions to the sample, the volume of titrant is charged.

Thanks to the module syringe driver minimum dose (0.015 ml), the accuracy achieved is really high, with 3 drops differences as much between 2 consecutives analysis of the same standard. Moreover, the software has been improved to speed up the initial dose, whereas when the inflection point is close, the titrant is added slowly, to achieve precision.



### Principle of measurement

The sample is titrated with hydrochloric acid to a colorimetric end point corresponding to a specific pH.

Phenolphthalein alkalinity is determined by titration to a pH of 8.3, as evidenced by the color change of phenolphthalein indicator, and indicates the total hydroxide and one half the carbonate present.



## Advantages of the method

The method is specific for alkalinity, and thanks to the accuracy of the system of Advance Analytik the repeatability achieved is really high.

## Specifications

<b>RANGE</b>	From 0 to 100 ppm / 250 ppm / 500 ppm / 1000ppm. Adjustable to lower/higher concentrations
<b>ACCURACY</b>	±2% FS
<b>REPEATABILITY</b>	±2% FS
<b>REPRODUCABILITY</b>	±2% FS
<b>DETECTION LIMIT</b>	Due to titration chemistry technique, the limit detection depends on the FS. It is $0.0075 \cdot FS$
<b>ANALYSIS TIME</b>	around 20 minutes
<b>CALIBRATION</b>	one point
<b>LED WAVELENGTH</b>	625 nm

## Reagents consumption

- Reagent 1: 1 ml / analysis - 0.75 L / month
- Reagent 2: 4 ml / analysis - 3.0 L / month

Monthly consumption calculated assuming 1 analysis per hour.

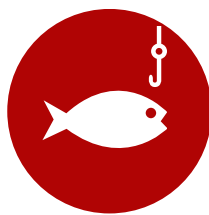




# Applications



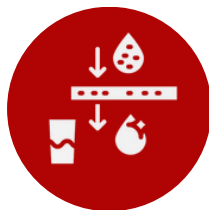
**Chlor-Alkali Industry**



**Fish farming**



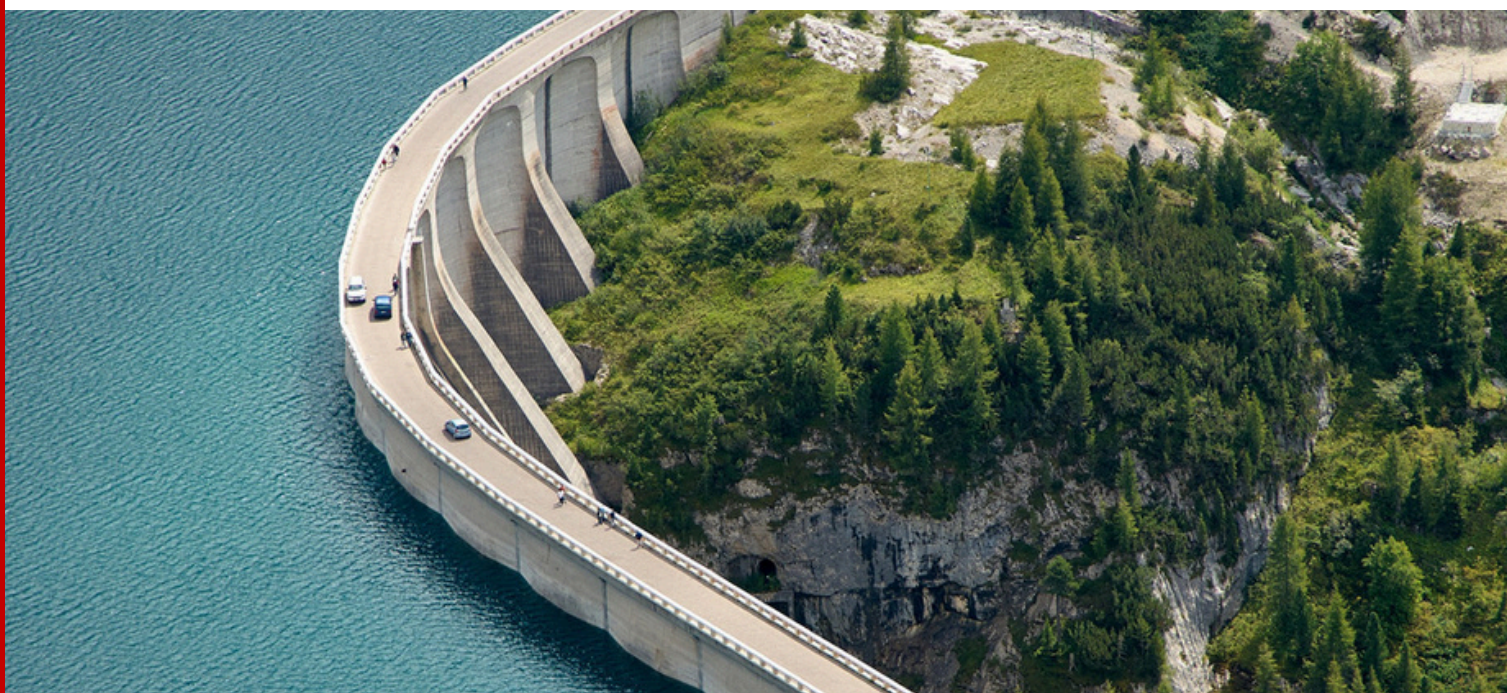
**Food and Beverage**



**Desalination Plants**



**Potable Water  
Treatment Plants  
(PWTP)**



## Note -

*This data sheet serves as general information about the Optics 1000 - ALKALINITY (Alk). 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](mailto:sales@advanceanalytik.com).*



# LET'S CONNECT !

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



## Contact Us :

+36 70328 6862

1132, Budapest Váci ut 16 Faz 12. ajtó

<https://advanceanalytik.com>

[sales@advanceanalytik.com](mailto:sales@advanceanalytik.com)

