

# Hardness Colorimetric Online Analyzer

## CL323

CL323 is a microprocessor controlled online analyzer specifically designed for automatic Hardness monitoring on several types of waters matrix.

**\* Easy configuration**

With our modular configuration we can automate your color laboratory method with up to four reagents

**\* Dual compartment enclosure**

To ensure complete separation between electronics and hydraulics

**\* Touch screen interface**

Simple and user friendly menus and functions

**\* Separate waste line for sample containing reagents**

**\* Long autonomy, low maintenance, low operating cost**

**\* Rugged and reliable**

Designed for industrial and environmental on-line applications, ensures the highest level of robustness in the electronics, mechanics and hydraulics components

**\* Easy installation and operation**

To start measurement is enough to power the analyzer and connect reagents, sample and waste line.

**\* Loss of sample input**

**\* Low reagent level alarm**

**Benefit:**

**\* Programmable photometer**

**\* Low measurement range**

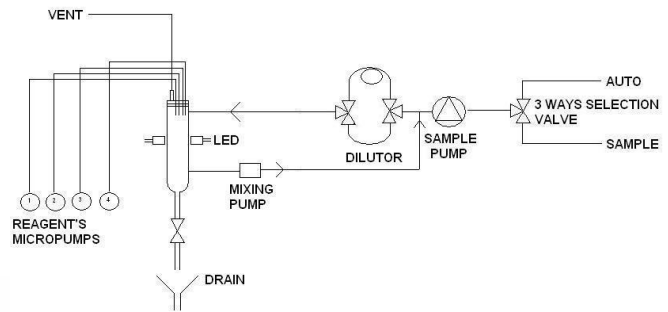
**\* Automatic calibration / validation / cleaning**

**\* Free selectable measuring, cleaning and calibration intervals**



## Measuring Principle and Hydraulics diagram

After rinsing the cuvette, sample will pump into dilutor followed by distilled water into the Cuvette. Mixing pump will then activated to mix the sample with distilled water (Dilution process applies to high range models only. For low range models sample will pump directly into Cuvette).



First measurement take place (reference) to eliminate interfering factors such as sample own colour or turbidity, miscellaneous reagents own colour and refractive index variations.

Next Reagent 1, 2 and 3 will add into cuvette, and mixing pump will activate to mix the liquid from lower part to the upper part of the cuvette. Color development and second measurement take place.

The concentration is measured with the absorbance calculated based on the difference between the two measurements and the stored calibration parameters.

## Technical Specifications:

Measuring Principle	Colorimetric
Colorimeter	LED (Specific wavelength), Photodetector, Thermostated measuring cell
Measurement type	Cyclic
Measurement Interval	Programmable
Measurement time	About 15 min
Range	0-50 °F
Detection Limit	≤2% of the full scale
Repeatability	±2% on absorbance value with turbidity < 80 NTU
Output signal	4-20mA, RS232
Input signals	2 configurable relays
Alarms	2 configurable relays
Sample and waste delivery	No pressure
Reagents consumption	2500 measurement/liter/each
Sample Temperature	5-50°C
Protection	IP55
Hardware	Color touch screen
Power Supply	220VAC , 50-60 Hz, 80VA
Weight	Approx. Kg. 17 kg.
Dimension	380 x600 x210 mm (W*H*D)