MODEL CA6 - HARDNESS ANALYZER

Compact online colorimeter for the automatic measurement of Hardness in water

APPLICATION FIELDS

- Power plants
- Cooling water
- Water steam cycle
- Boiler feedwater
- Reversed osmosis
- Ion exchangers
- Ultrapure water
- Drinking water

ADVANTAGES / FEATURES

Dual compartment enclosure
To ensure complete separation between the electronics and the wet part.

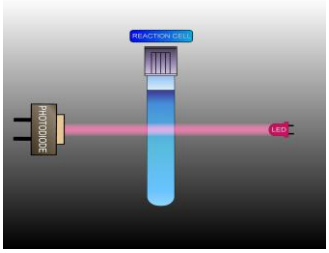
Low reagent consumption
Minimum operating cost by small reagent consumption, only 1.7L (0.45 US.gal) for the 16 mm cell / 2.5L (0.66 US.gal) for the 26 mm cell of each reagent every 30 days with 15 minute analysis frequency.

Automatic calibration / validation / cleaning
Validation, cleaning and calibration are standard features which significantly reduce downtime and operator intervention ensuring the most accurate results are obtained.
Free selectable validation, cleaning and calibration intervals.

Color touchscreen user interface
The CA6 Colorimeter is equipped with a graphic touchscreen interface showing measured values and status information. Easy access to menus and functions. Multiple languages. Integrated datalogger with USB download.

Factory tested, ready for installation and operation
Just connect the power, sample, and reagent lines and the analyzer is fully operational.

Multiple streams
Dual streams version available. External Sequencer, switching up to 4 sample streams.



MEASUREMENT PRINCIPLE

The photometric determination is based on the reaction of calcium with O-cresolphalein Complexone solution, which yields a violet colored complex. The intensity of the color formed is proportional to the calcium concentration in the sample. Absorbance of the complex is measured at 572 nm.

TECHNICAL SPECIFICATIONS

Measured parameter:	Hardness as $CaCO_3$ (ppb, ppm, mg/l).
Measuring principle:	Differential photometric absorbance. O-cresolphalein Complexone.
Measuring range:	0-500 ppb (26 mm cell) – 0-1000 ppb (16 mm cell), up to 50 ppm with internal dilution.
Reproducibility:	± 5 ppb or ± 5%, whichever is greater (26 mm cell) ± 10 ppb or ± 5%, whichever is greater (16 mm cell).
Analysis frequency:	Freely programmable, batch near-continuous analysis.
Cycle time:	6 minutes, including conditioning before analysis cycle and rinsing after measuring.
Reaction cell:	Temperature heated
Sample:	Pressure-free from overflow vessel Temperature: 41 - 113 °F (5 to 45 °C) Flow Rate: 80 to 500 mL/min Connection: 6 mm (¼-in.)
Drain:	Pressure-free, atmospheric drain Connection: 12 mm (½-in.)
N° of streams:	1, 2 with integrated switching valve 3, 4 with external sequencer

Dimensions (H x W x D):	23.6 x 15.0 x 8.2 in / 606 x 380 x 209 mm
Weight:	Approx. 44 lbs (20 Kg)
Power supply:	Voltage: 100 - 240 VAC 50/60 Hz standard or 24 VDC (option) Power consumption: max. 80 VA
Outputs:	2 x 4-20 mA outputs for measured data Modbus RTU RS485
Alarms:	4 SPDT programmable potential free relays
Digital input:	Remote start / stop
Operating Temperature:	41 - 113 °F (5 - 45 °C)
Humidity:	10 to 90% non-condensing (indoor use, outdoor installation only possible with protective cabinet or shelter not included)
Installation:	Wall mount (standard), bench top support or panel mount (options).
Ingress Protection:	IP54