

MODEL CA6 - SULFATE ANALYZER

Compact online colorimeter for the automatic measurement of Sulfate in water

APPLICATION FIELDS

- Drinking water
- Waste water
- Raw water
- Process control



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 2.0L (0.53 US.gal) for the 16 mm cell / 3.0L (0.79 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.

Wide measuring range

The determination ranges of the CA6 Sulfate Analyzer vary from 0.5 to 5000 mg/L SO_4^{2-} using internal dilution module.

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

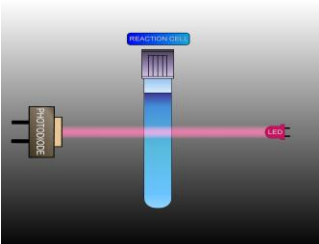
Just connect the power, sample, and reagent lines and the analyzer is fully operational.

Multiple streams

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

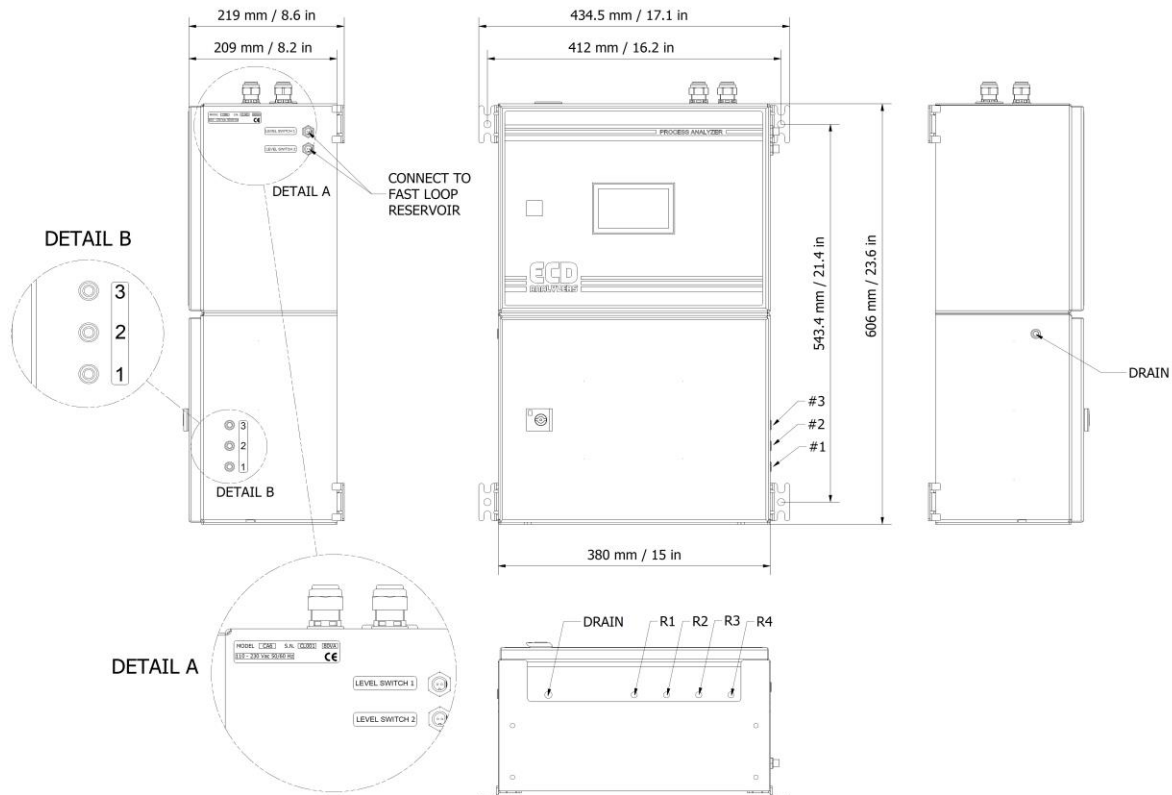
MEASUREMENT PRINCIPLE

The CA6 analyzer uses an adaptation of the turbidimetric method to measure Sulfate. The Sulfate is precipitated as barium sulfate with an excess of barium chloride. A conditioning reagent is added to maintain the barium Sulfate suspension. When the reagent is added to a sample containing Sulfate, it will cause turbidity in the sample. The absorbance (turbidity) intensity is proportional to the Sulfate concentration in the sample and is measured at 430 nm.



TECHNICAL SPECIFICATIONS

Measured parameter:	SO ₄ ²⁻ (ppb, ppm, mg/l).	Dimensions (H x W x D):	23.6 x 15.0 x 8.2 in / 606 x 380 x 209 mm
Measuring principle:	Differential photometric absorbance. Turbidimetric method.	Weight:	Approx. 44 lbs (20 Kg)
Measuring range:	0.5 to 50 ppm SO ₄ ²⁻ for the 26 mm cell, 1 to 150 ppm SO ₄ ²⁻ for the 16 mm cell; up to 5000 ppm SO ₄ ²⁻ with internal dilution.	Power supply:	Voltage: 100 - 240 VAC 50/60 Hz standard or 24 VDC (option) Power consumption: max. 80 VA
Reproducibility:	± 0.5 ppm or ± 5%, whichever is greater (26 mm cell) ± 1 ppm or ± 5%, whichever is greater (16 mm cell).	Outputs:	2 x 4-20 mA outputs for measured data Modbus RTU RS485
Analysis frequency:	Freely programmable, batch near-continuous analysis.	Alarms:	4 SPDT programmable potential free relays
Cycle time:	6-8 minutes, including conditioning before analysis cycle and rinsing after measuring.	Digital input:	Remote start / stop
Reaction cell:	Temperature heated	Operating Temperature:	41 - 113 °F (5 - 45 °C)
Sample:	Pressure-free from overflow vessel Temperature: 41 - 122 °F (5 to 50 °C) Flow Rate: 80 to 500 mL/min Connection: 6 mm (¼-in.)	Humidity:	10 to 90% non-condensing (indoor use, outdoor installation only possible with protective cabinet or shelter not included)
Drain:	Pressure-free, atmospheric drain Connection: 12 mm (½-in.)	Installation:	Wall mount (standard), bench top support or panel mount (options).
N° of streams:	1, 2 with integrated switching valve 3, 4 with external sequencer	Ingress Protection:	IP54



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