

CHLORIDE COLORIMETRIC ANALYZER

Compact online analyzer for measurement of chloride in water

APPLICATION FIELDS

- Boiler feed
- Cooling water
- Drinking water
- Industrial waste water
- Surface water

ADVANTAGES / FEATURES

• Different compartments

To ensure complete separation between the electronics (upper case) and the wet part (lower case).

• One reagent configuration, reduced running costs

Minimum operating cost, low maintenance solution.

• 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 Chloride Analyzer vary from 0.2 to 5000 mg/L Cl^- using internal dilution module.

• Color touchscreen user interface

The colorimeter is equipped with a graphic touchscreen interface showing measured values and status information. Easy access to menus and functions. Integrated datalogger with USB download.



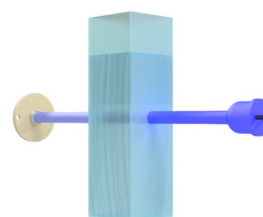
• Factory tested, ready for installation and operation

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

• Measurement principle

The colorimeter uses an adaptation of the mercury thiocyanate method to measure chloride.

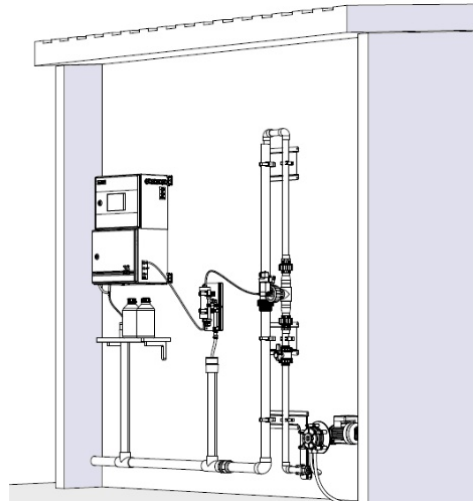
Chloride reacts with mercury thiocyanate and iron based reagents to produce an orange-brown ferric thiocyanate complex. The absorbance intensity is proportional to the chloride concentration in the sample and is measured at 470 nm.



TECHNICAL SPECIFICATIONS

Measured parameter	Cl ⁻ (ppb, ppm, mg/l)
Measuring principle	Differential colorimetric absorbance.
Measuring range	0.2 to 50 ppm Cl ⁻ for the 26 mm cell, 0.5 to 100 ppm Cl ⁻ for the 16 mm cell; up to 5000 ppm Cl ⁻ with internal dilution.
Reproducibility	± 0.3 ppm or ± 5%, whichever is greater up to 20 ppm; ≥ 20 up to 50 ppm: ± 0.5 ppm or ± 5%, whichever is greater (26 mm cell) ± 1 ppm or ± 5%, whichever is greater (16 mm cell).
Analysis Frequency	Freely programmable, batch near-continuous analysis.
Cycle time	6 - 8 minutes, including conditioning before analysis cycle and rinsing after measuring.
Reaction cell	Temperature heated
Sample	Pressure-free vessel Temperature: 5 - 50 °C (41 - 122 °F) 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
Dimensions (H x W x D)	604 x 380 x 242 mm (23.6 x 14.8 x 9.4 in)
Weight	Approx. 20 Kg (44 lbs)
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	2 SPDT programmable potential free relays
Digital Input	Remote start/stop, start extra cycle, skip idle time, emergency stop
Working Temperature	5 - 46 °C (41 - 113 °F)
Humidity	10 to 90% RH (indoor use only)
Installation	Wall mount (standard), bench top support or panel mount (options).
Protection Grade	IP54

INSTALLATION EXAMPLE



The analyzer is easily installed in a minimum amount of wall space.

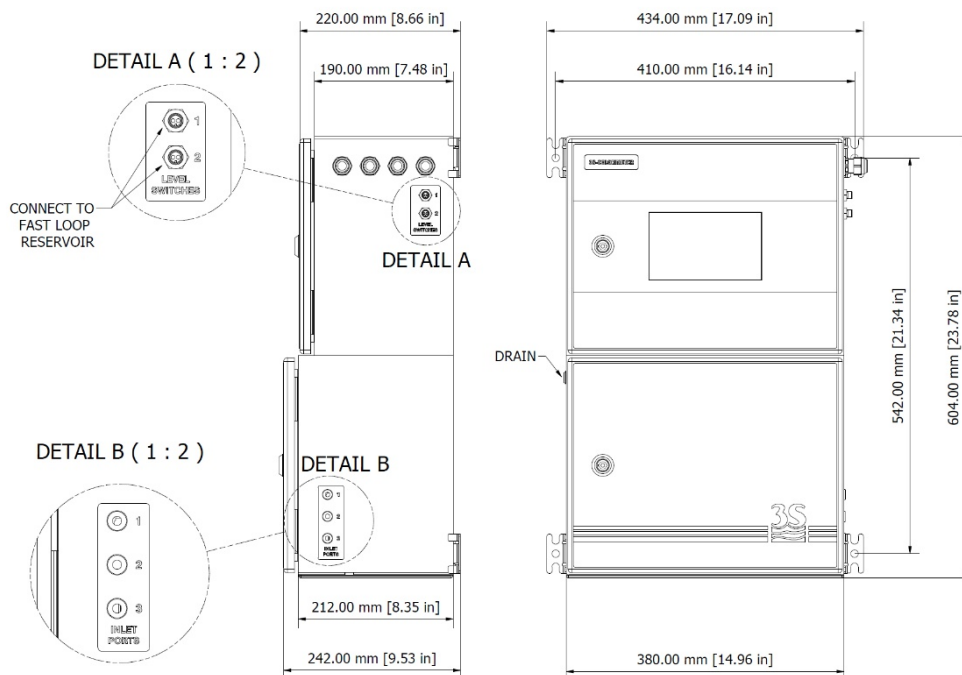
In the picture are included the optional accessories:

- a) A46ERLS000 - Fast Loop external reservoir with level switch
- b) A46SF10020 - Filtration unit 100 micron 230 VAC (other mesh size and input voltages available)
- c) A46SPP0000 - Sampling Pump

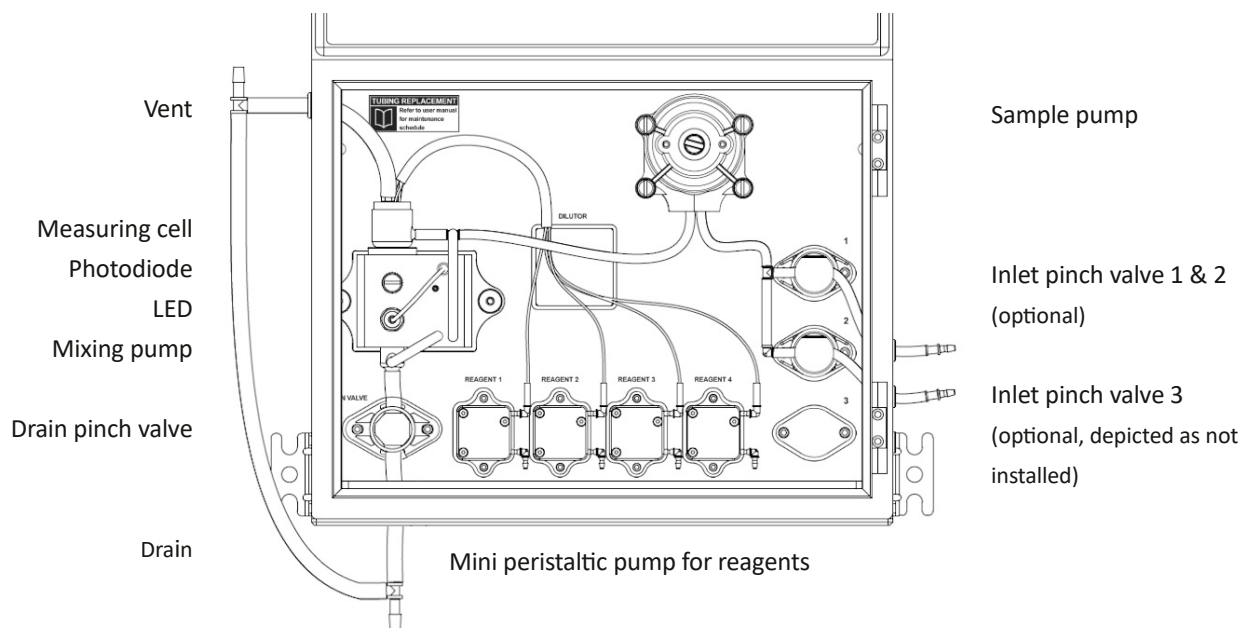
Other accessories, including external dilutors to increase the analyzer range and different kind of sample reservoirs are also available. See our website for more info.



TECHNICAL DRAWING



HYDRAULIC COMPARTMENT VIEW



PRODUCT CODES

CL3-1-470-0-16-CL	Chloride Colorimeter, one inlet port, 16 mm cell
CL3-1-470-2-16-CL	Chloride Colorimeter, two inlet ports, 16 mm cell
CL3-1-470-3-16-CL	Chloride Colorimeter, three inlet ports, 16 mm cell
CL3-1-470-0-26-CL	Chloride Colorimeter, one inlet port, 26 mm cell
CL3-1-470-2-26-CL	Chloride Colorimeter, two inlet ports, 26 mm cell
CL3-1-470-3-26-CL	Chloride Colorimeter, three inlet ports, 26 mm cell