



## CLF10 sc Free Chlorine Analyzer (Panel Only) with Combination pH Sensor

**Product #:** LXV45A.99.12022  
**ZAR Price:** Contact Hach  
**Ships within 3-5 weeks**

### Hach's answer to reagentless amperometric chlorine measurement.

The CLF10 sc Free Chlorine Analyzer and CLT10 sc Total Chlorine Analyzer measure free or total chlorine continuously for real time process control. It is based on amperometric technology and is fully compatible with all of Hach's digital controllers. The CLF10 sc can be used in most municipal and industrial applications, and is best utilized where waste stream management is a constraint.

#### Exclusive Self Diagnostics

The CLF10 sc and CLT10 sc analyzers leverage Hach's exclusive self diagnostics to alert users when the process has changed or the instrument needs servicing. Diagnostic features include the Cal Watch algorithm for warning of pH and chlorine calibration deviation and a non-contacting flow sensor for notification of insufficient sample flow.

#### No Reagent Replacement, No Waste Stream

Chlorine measurement with an amperometric analyzer, such as the CLF10 sc or CLT10 sc, does not require reagents, eliminating the need for routine reagent replacement and waste stream management.

#### Real-Time Process Control

The CLF10 sc and CLT10 sc analyzers allow for real-time control of disinfection processes by providing continuous readings that indicate when treatment conditions have changed.

#### Compatible with Hach's "Plug and Play" Digital Controllers

The CLF10 sc and CLT10 sc analyzers can be used with any Hach sc digital controller. Whether you're measuring turbidity or chlorine, you only need to learn one controller for all your water analysis measurement points. Hach sc controllers have no complicated wiring or setup procedures. Just plug in any Hach digital sensor and it's ready to use without software configuration.

#### EPA Compliant According to Method 334.0

In accordance with EPA Method 334.0, the CLF10 sc and CLT10 sc analyzers can be used for reporting chlorine residual measurements. Additionally, Hach has created a suite of laboratory products and methods to help with startup and quality control procedures required in Method 334.0.

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### Specifications

Accuracy:	Free Chlorine: $\pm 3$ % of the reference test** (DPD) at constant pH less than 7.2 ( $\pm 0.2$ pH unit)
Accuracy 2:	10 % of the reference test** (DPD) at stable pH less than 8.5 ( $\pm 0.5$ pH unit from the pH at calibration)
Accuracy 3:	Total Chlorine: $\pm 10$ % of the reference test** (DPD) at stable pH less than 8.5 ( $\pm 0.5$ pH unit from the pH at calibration)
Accuracy 4:	Total Chlorine: $\pm 20$ % of the reference test** (DPD) at stable pH greater than 8.5
Cable Connection:	5 pin, M12 connector
Cable Length:	1 m (between gateway and sc controller)

Certifications:	CE compliant for conducted and radiated emissions:  - CISPR 11 (Class A limits)  - EMC Immunity EN 61326-1 (Industrial limits)  Additional certifications when connected to an sc controller
Connection Drain Line:	1/2 in ID
Controller:	Panel only
Controller Compatibility:	SC200, SC1000, SC4500. All controllers sold separately
Description:	CLF10sc Free Chlorine Analyzer (Panel Only) with Combination pH Sensor
Dimensions:	mm x 25 mm (7.68 in x 0.98 in)
Fitting:	USA
Includes:	CL10sc Panel, 1 m digital extension cable, Panel Manual, Combination pH Sensor Manual, Chlorine Sensor Manual.
Interferences:	Free chlorine: monochloramine, chlorine dioxide, ozone, and chalk deposits.  Total chlorine: chlorine dioxide, ozone and chalk deposits
Length:	Sensor: 195 mm
Lower Limit of Detection (LOD):	30 ppb (0.03 ppm)
Material:	Corrosion-resistant materials, fully-submersible  (stainless steel, PEEK, PVC, silicon rubber and polycarbonate)
Measurement method:	Reagentless, electrochemical, three-electrode amperometric system
Mounting:	Panel or Wall Mounting
Operating temperature range:	0 - 45 °C
Options:	Combination pH Sensor
Parameter:	Free Chlorine
pH Monitoring Required?:	with pH Combination
pH Range:	4 - 9
Power requirements (Voltage):	None
Pressure Range:	0.5 bar, no pressure impulses and/or vibrations
Range:	0 - 20 ppm Cl <sub>2</sub>
Repeatability:	30 ppb or 3%, whichever is greater
Response time:	Free Chlorine: 140 s or less for 90% change (T90)  at a stable temperature and pH
Response Time:	Total Chlorine: 100 s or less for 90% change (T90)  at a stable temperature and pH
Sample Flow Rate:	30 - 50 L/h (7.9 - 13.2 gal/hour), Optimal is 40 L/hour (10.5 gal/hour)
Sample Temperature:	5 - 45°C (41 - 113°F)
Storage conditions:	-20 °C to 60 °C dry
Warranty:	12 months
Weight:	5.5 kg Approximately 5.5 kg (12 lbs)  Panel and empty panel-mounted components only
What's included?:	CL10 sc Panel, 1 m digital extension cable, Panel Manual, Combination pH Sensor Manual, Chlorine Sensor Manual.

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## Required Accessories

- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 100-240 VAC, US plug (Item LXV525.99E11551)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 100-240 VAC, without power cord (Item LXV525.99A11551)
- SC4500 Controller, Prognosys, 5x mA Output, 1 digital Sensor, 100-240 VAC, without power cord (Item LXV525.99A11501)
- SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, 24 VDC, without plug (Item LXV525.99Z11551)