



## CLF10 sc Free Chlorine Analyzer with SC200 Controller and pH Differential Sensor

Product #: 2982100

**OBSOLETE ITEM**  
This item is no longer available.

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

The CLF10 sc Free Chlorine Analyzer measures free chlorine continuously for real time process control. It is based on amperometric technology and comes with the SC200 digital controller. The CLF10 sc can be used in most municipal and industrial applications, and is best utilized where waste stream management is a constraint. This analyzer is equipped with a pH sensor for use with Hach's unique Cal Watch advanced diagnostic feature.

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

The CLF10 sc and CLT10 sc Chlorine Analyzers are designed to be used with all Hach sc digital controllers. Set up is fast and easy, and the system is compatible with the full line of Hach digital sensors.

#### No Reagent Replacement, No Waste Stream

Chlorine measurement with the CLF10sc and CLT10sc amperometric technology eliminates the need for routine reagent replacement and waste stream management.

#### EPA Compliance

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

#### Advanced Diagnostics

CLF10sc and CLT10sc advanced diagnostics alert you 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 sample flow sensor for notification of insufficient sample flow.

#### Real-time Process Monitoring and Control

The CLF10sc and CLT10sc Chlorine Analyzers allow for real-time monitoring and control of disinfection processes.

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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:	Free 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 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)
Calibration Method:	1-point or 2-point (zero and slope) calibration

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:	pH Flow Cell Outlet: 1/2-inch ID
Connection Sample Line:	1/4 inch OD
Controller:	Dual Digital
Controller Compatibility:	SC200, SC1000, SC4500. All controllers sold separately
Controller Options:	Dual Input
Description:	CLF10sc Free Chlorine Analyzer with SC200 Controller and pHD Differential Sensor
Dimensions:	Sensor Only: 195
Fitting:	USA
Fitting Type:	USA
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:	SC200 Controller & pHD Differential Sensor
Parameter:	Free Chlorine
pH Monitoring Required?:	with pHD Differential
pH Range:	4 - 9
Power requirements (Voltage):	110 - 230 VAC
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:	Total Chlorine: 100 s or less for 90% change (T90)  at a stable temperature and pH
Response time:	Free Chlorine: 140 s or less for 90% change (T90)  at a stable temperature and pH
Sample Flow Rate:	30 - 50 L/h
Sample Temperature:	5 - 45°C (41 - 113°F)
Storage conditions:	-20 °C to 60 °C dry
Warranty:	12 months
Weight:	13.47 kg Approximately 5.5 kg (12 lbs)  Panel and empty panel-mounted components only

What's included?: SC200 Controller, Mounting Hardware, SC200 Basic User Manual, CL10sc Panel, 1 m digital extension cable, Panel Manual, pH Sensor Manual, Chlorine Sensor Manual.

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