



## CLT10 sc Total Chlorine Sensor, SC200 Controller and Stainless Steel Panel with pHD Differential Sensor, 24 VDC

Product #: 2987400

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

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

The CLT10 sc analyser uses 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. Total chlorine measurement with an amperometric analyser, such as the CLT10 sc, does not require reagents, eliminating the need for routine reagent replacement and waste stream management. The CLT10 sc total chlorine analyser allows for real-time control of disinfection processes by providing continuous readings that indicate when treatment conditions have changed. Product includes total chlorine sensor, chlorine sensor block, SC200 controller, SC Gateway, stainless steel panel, pH flow cell and pHD sensor.

#### Exclusive Self Diagnostics

The CLF10 sc and CLT10 sc analysers leverage Hach's exclusive self diagnostics to alert users whether 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 analyser, 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 analysers 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. (See page 4 for a partial listing of accessories.)

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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:	Single Digital
Controller Compatibility:	SC200, SC1000, SC4500. All controllers sold separately
Controller Options:	Single Input, 24 VDC
Description:	CLT10sc Total Chlorine Sensor, SC200 Controller and Stainless Steel Panel with pH Differential Sensor, 24 VDC
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, Stainless Steel Panel, & pH Differential Sensor
Parameter:	Total Chlorine
pH Monitoring Required?:	with pH Differential
pH Range:	4 - 9
Power requirements (Voltage):	24 VDC
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:	12.59 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, CL10 sc Panel, 1 m digital extension cable, Panel Manual, pH Sensor Manual, Chlorine Sensor Manual.

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SC200 Controller, Mounting Hardware, SC200 Basic User Manual, CL10 sc Panel, 1 m digital extension cable, Panel Manual, pH Sensor Manual, Chlorine Sensor Manual.