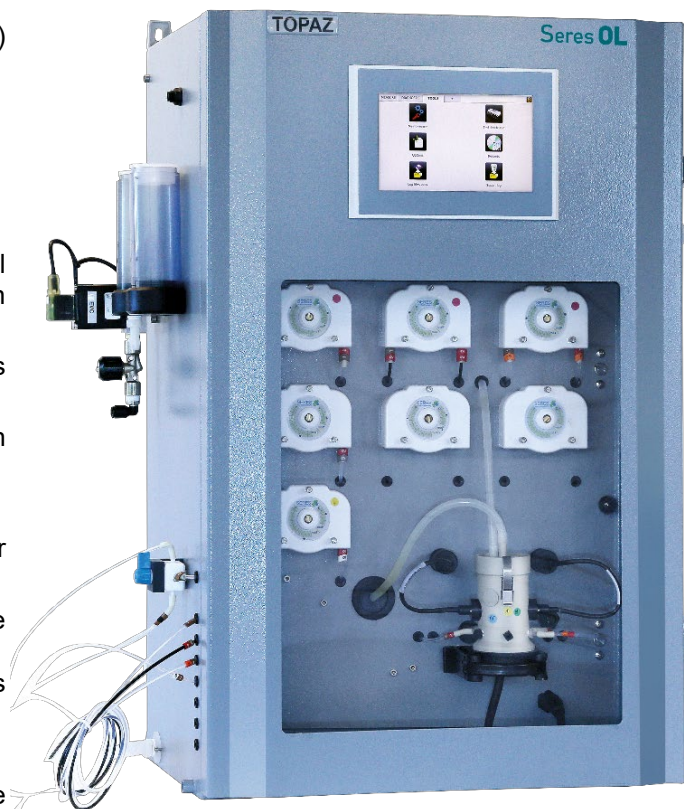


Complete monitoring system for the automatic, continuous measurement of chloride in potable water.

Analyzer Topaz Chloride

- For the continuous, selective electrode (ISE method) online determination of chloride.
- Available in several measuring ranges:
 - 0 to 50 ppm or
 - 0 to 100 ppm or
 - 0 to 200 ppm
- Complete system including measurement and control electronics, measuring unit, flow indicator, reaction chamber and reagent dosing system.
- Robust, high quality analyzer cabinet painted stainless steel, 316L.
- Automatic, electrical zero measurement prior to each measurement cycle.
- Automatic cell cleaning.
- 2 easily accessible peristaltic pump modules for accurate, automatic dosing of chemical reagents.
- 1 peristaltic pump for demineralized water to control the slope of the electrode automatically.
- 2 analog and 7 digital outputs for alarms for process values and diagnostic alarms for each sample stream.
- RS485 Modbus/JBUS RTU interface.
- Large back-lit touchscreen color LCD display for the reading of all measured values and status information simultaneously.
- Easy menu-guided operation in English or French.



Topaz Series Showcase

Analyzer	Topaz Chloride (select range from below)	SOL-57.341.000
Range Selection	0-50 ppm	Specify in Order
Range Selection	0-100 ppm	Specify in Order
Range Selection	0-200 ppm	Specify in Order
Configuration	2-Channel Setup (similar range) (similar range)	SOL-83.590.020
Configuration	4-Channel Setup (similar range) (similar range)	SOL-83.590.040
Configuration	6-Channel Setup (similar range) (similar range)	SOL-83.590.060
Configuration	Ethernet Interface (TCP/IP)	SOL-81.410.020
Option	1-Year Spare Part Package "Basis" (for Analyzer + 1 st channel)	SOL-84.110.060
Option	1-Year Spare Part Package "Multi-Channel" (add once if multi-channel config. was selected)	SOL-84.110.150
Option	Reagent Shelf in SS316L	SOL-89.610.010

Chloride Measurement

Potentiometric method (ISE):

Measurement by selective ion electrode (ISE) combined with addition of standard.

Reaction time 10-11 min.

Sensors/Measurement Equipment

ISE electrode

Reference electrode (Double junction):

Internal Part KCI 3M)

External Part KNO3 1M

Temperature controlled measuring chamber

Analyzer Measuring range

Topaz Chlorides 0-200 ppm

Repeatability 5% FS

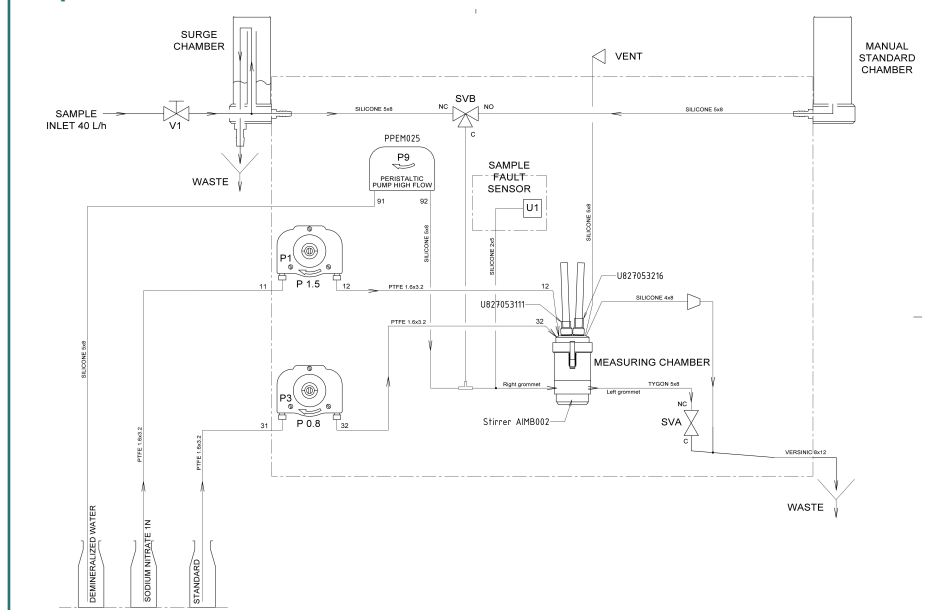
Accuracy 5% FS

Automatic baseline adjustment.

Sample flow surveillance.

Control of the slope of the electrode automatically.

Topaz Chloride Measurement Scheme



Specifications and Functionality

Dosing pump type peristaltic
Pump quantity 2
Pump for demineralized water 1

Power supply

Voltage: 110 - 240 VAC
Frequency: 50 /60 Hz
Power consumption: Typical 150 VA, 300 max.

Operation

Display: Color LCD display, 7", touchscreen
Display of process value, alarm status and time during operation.

Smart and intuitive interface based on separate menu sections: "Measurement", "Diagnostic" and "Tools".

User menus in English and French.

Password protection and storage of data records. Storage and graphical display of measurement history.

Alarm Relays

1 summary alarm for "analyzer failure"

Maximum load: 1A / 24 V

Relay Outputs

2 potential-free contacts for each channel programmable as limit switches for measuring values (high/low thresholds)

1 sample flow alarm for each channel

1 output for indication of the active sample stream for each channel.

1 output for maintenance indication.

Rated load: 1A / 24 V

Signal outputs

2 programmable signal outputs for measured values (freely scalable, linear).

Current loop: 4 - 20 mA

Communication interface

RS485 interface (galvanically separated) with Modbus/JBUS RTU protocol included in standard.

Ethernet interface (TCP/IP) optional.

Analyzer Data

Sample conditions

Flow rate: min 30 l/h
optimum 40 l/h
Temperature: 5 to 40 °C
Inlet pressure_{Abs.} (25 °C): 0.1 up to 2.0 bar
Outlet pressure: pressure-free
Particle size: < 20 µm

Ambient Conditions

Temperature: 5 to 40 °C
Humidity: 10 to 80% rel.

Sample connections

Sample inlet: 1/4" BSP F
Sample outlet: soft tubing D INT 9
Sample outlet waste: soft tubing D INT 12
Sample outlet (Multi-ch.) soft tubing D INT 18

Wall cabinet

Dimensions: 780 x 570 x 370 mm
Material: Stainless Steel 316L
Total weight: 35 kg
Protection degree: IP 55

Reagent specifications

Type	Code
Demineralized Water	RXX273
Reagent Consumption	
4l/month (1 slope control/week)	

Sodium Nitrate 1M	RXX109
Reagent Consumption	2.1l/month
Chloride Standard	RXX256
(The concentration of the standard depends on the range)	
Reagent Consumption	3.7l/month