

Seres OL Analyzer Topaz Fluoride

Datasheet No. DenSOL57331000



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

For the continuous, selective electrode (combined ISE electrode with standard addition) online determination of Fluoride within the range of 0.2 to 20 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 6 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.



Seres OL Topaz Series Showcase

Analyzer	Seres OL Topaz Fluoride	(0.2-20 ppm)	SOL-57.331.000
Configurations	2-Channel Setup	(similar range)	SOL-83.590.020
	4-Channel Setup	(similar range)	SOL-83.590.040
	6-Channel Setup	(similar range)	SOL-83.590.060
	Ethernet Interface (TCP/IP)		SOL-81.410.020
Options	1-Year Spare Part Package "Basis" (Analyzer + 1 st channel)		SOL-84.110.170
	1-Year Spare Part Package "Multi-Channel" (add once if multi-channel configuration was selected)		SOL-84.110.150
	Reagent shelf in SS316L		SOL-89.610.010

01/2022 Subject to changes without notice



Fluoride Measurement

Potentiometric method (ISE):

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

Reaction time 15 min.

Sensors/Measurement Equipment

ISE electrode Fluoride:

Electrode filling product: NaF(0.1M)/KCl(1M)

Reference electrode (Simple junction):

Electrode filling product: KCl 3M

Temperature controlled measuring chamber

Analyzer	Measuring range
Topaz Fluoride	0.2-20 ppm
Limit of Detection	< 0.2 ppm
Repeatability	± 5 % FS
Accuracy	± 5 % FS

Automatic baseline adjustment.

Sample flow surveillance.

Control of the slope of the ISE electrode automatically.

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, 7", touch-screen

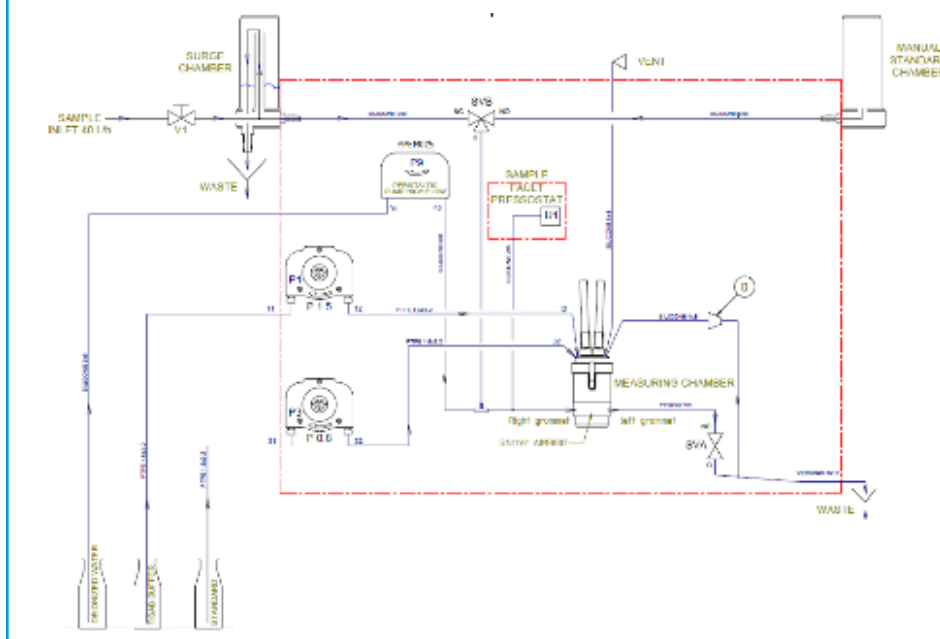
Display of process value, alarm status and time during operation.

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.

Seres OL Topaz Fluoride Measurement Scheme



Alarm Relays

1 summary alarm for "analyzer failure"

Maximum load: 1 A / 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: 1 A / 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

5 to 40 °C

Temperature: 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.

Storage of reagents: store between 10 - 30°C

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 19

Wall cabinet

Dimensions: 780 x 570 x 370 mm

Material: Stainless Steel 316L

Total weight: 35 kg

Protection degree: IP 55

Reagent specifications

Analyzer Fluoride

Type	Code
Demineralized Water	RXX273
Reagent Consumption	
4l/month (1 slope control/week)	
TISAB	RXX213
Reagent Consumption	6l/month
Sodium Fluoride standard	RXX257G1
Reagent Consumption	2.5l/month

