# **Seres OL Analyzer Topaz Aluminum**

Datasheet No. DenSOL55331200



Complete monitoring system for the automatic, continuous measurement of aluminum in potable water, wastewater and effluents.

- For the continuous, colorimetric online determination of aluminum per ISO 10566 within ranges of 0 to 200 ppb.
- 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.
- 4 easily accessible peristaltic pump modules for accurate, automatic dosing of chemical reagents.
- 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.



Analyzer	Seres OL Topaz Alumir	num (0-200 ppb)	SOL-55.331.200
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)	Please, inform SERES about automatic or fixed IP-address (give address)	SOL-81.410.020
Options	1-Year Spare Part Package "Basis" (Analyzer + 1st channel)		SOL-84.110.040
	1-Year Spare Part Package "Multi-Channel" (add once if multi-channel config. was selected)		SOL-84.110.150
	Reagent Shelf in SS316L		SOL-89.610.010





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### **Aluminum Measurement**

**Colorimetric determination** of aluminum ions after chemical reaction in an alkaline environment.

Reaction time <13 min.

#### Sensors/Measurement Equipment

Detection wavelength 585 nm Temperature controlled measuring chamber

Analyzer	Measuring range
Topaz Aluminum	0-200 ppb
Limit of Detection	6 ppb
Repeatability	± 2 % FS or ± 3 ppb
	(whichever is greater)
Accuracy	± 3 % FS or ± 3 ppb
	(whichever is greater)

Automatic baseline adjustment. Sample flow surveillance.

### **Specifications and Functionality**

Pump type peristaltic
Pump quantity 4

#### Power supply

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

### Operation

Display: Color LCD, 7", touch-screen

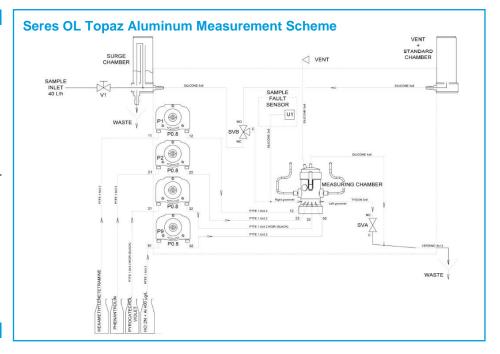
Display of process value, alarm status and time during operation.

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.



#### 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 inputs

One input for "stop command end of cycle".

### 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 ir standard.

Ethernet interface (TCP/IP) optional.

### **Analyzer Data**

### Sample conditions

Flow rate: min 30 l/h, opt. 40 l/h
Temperature: 5 to 40 °C
Inlet pressure<sub>Abs.</sub> (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. Installation in a closed, protected, tempered room is recommended

#### 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

reagent specifications	
Туре	Code
Chlorhydric acid 2N	
+400µg/L Aluminum	RXX152
Reagent Consumption	0.6l/month
Phenanthroline -1,10	RXX151
Reagent Consumption	0.8l/month
Pyrocatechol violet	RXX194
Reagent Consumption	0.8l/month

Buffer pH 6-6.2 Hexamethylenetetramine

Reagent Consumption RXX193

\* storage : dry, cool, well ventilated



