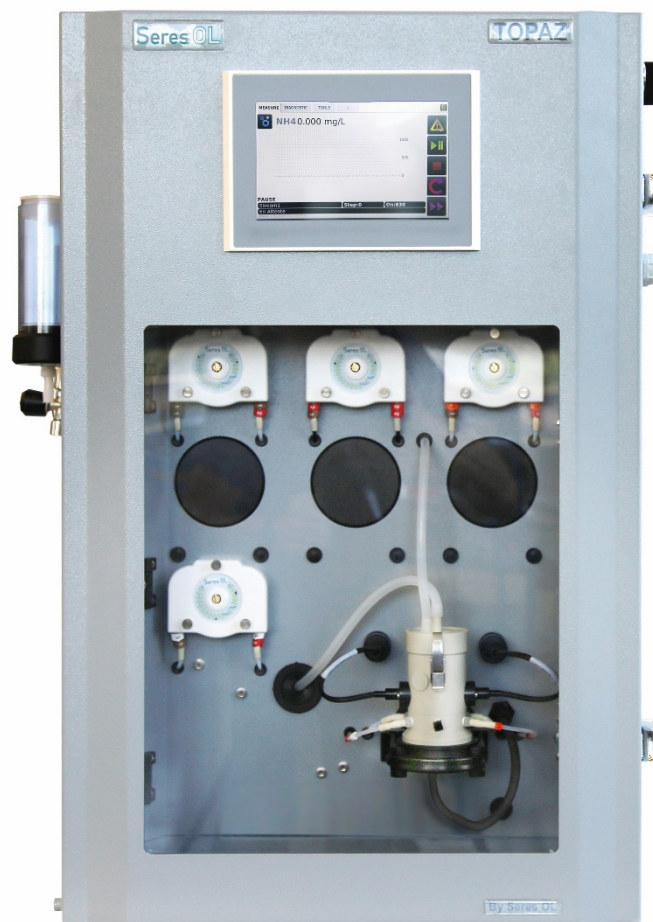


Complete monitoring system for the automatic, continuous measurement of total alkalinity TA in potable water, demin water production and process water.

Analyzer Topaz Total Alkalinity (@ pH 4.3)

- For the continuous, acid-base titration online determination of alkalinity.
- Available in several measuring ranges:
 - 5 - 50 ppm CaCO_3 or
 - 10 - 200 ppm CaCO_3 or
 - 10 - 500 ppm CaCO_3
- 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.
- 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

По вопросам продаж и поддержки обращайтесь:

Архангельск (8182)63-90-72
Астана +7(7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
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Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
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Казань (843)206-01-48
Калининград (4012)72-03-81
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Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12

Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
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Оренбург (3532)37-68-04
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Пермь (342)205-81-47
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Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56

Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Казахстан (772)734-952-31

Таджикистан (992)427-82-92-69

Analyzer Topaz Total Alkalinity (@ pH 4.3)

Datasheet No. DenSOL58321000

Seres OL

Alkalinity Measurement

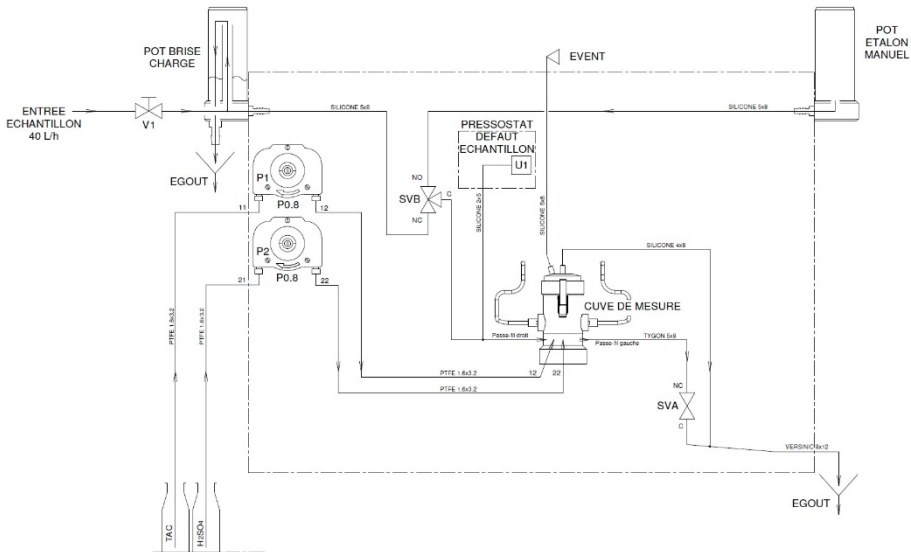
Acid-base titration method:
The TA is titled (complete alkalimetric title (OH-, CO₃²⁻, HCO₃⁻)) using sulfuric acid (concentration varies depending on the range) and a colored indicator, TAC indicator (pH turn 3.1-4.6).
Reaction time 6-10 min.

Sensors/Measurement Equipment
Detection wavelength 583 nm
Temperature controlled measuring chamber

Analyzer	Measuring range
Topaz Total Alkalinity	10-500ppm CaCO ₃
LOD	≤10ppm
Repeatability	< ± 5 % FS or ± 5ppm (whichever is greater)
Accuracy	< ± 5 % FS or ± 5ppm (whichever is greater)

Automatic baseline adjustment.
Sample flow surveillance.

Topaz Total Alkalinity Measurement Scheme



Specifications and Functionality

Pump type peristaltic
Pump quantity 2
Power supply
Voltage: 110 - 240 VAC
Frequency: 50 /60 Hz
Power consumption: Typical 150 VA, 300 max.
Operation
Display: Color LCD, 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
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 INT19
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
TAC Indicator	RXX175
Reagent Consumption	0.6l/month
Sulfuric Acid N/200 (50ppm)	RXX174N_005
Sulfuric Acid N/50 (200ppm)	RXX174N_02
Sulfuric Acid N/20 (500ppm)	RXX174N_05
Reagent Consumption (middle range)	10l/month (20l/month max.)