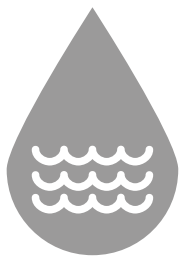




SYCON SiO₂: Continuous, fully automatic monitoring of silicate (SiO₂)



Drinking water



Raw water



Waste water



Boiler water



Cooling water

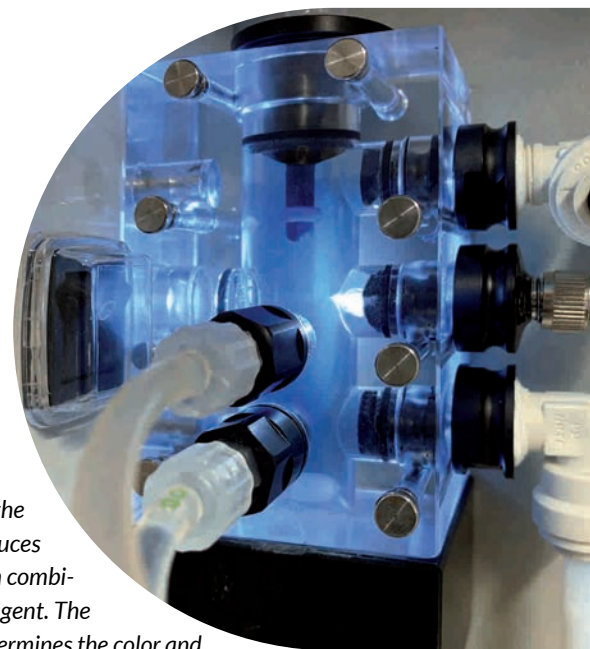
Safety reliably produced.

The online analyzer SYCON SiO₂

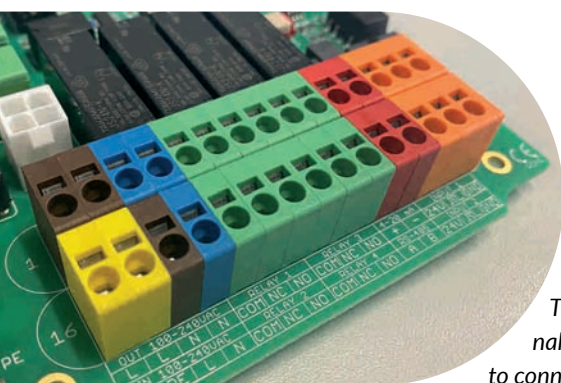
The online analyzers of the SYCON series offer extensive possibilities for monitoring substances in water. All analyzers are characterized by robust and durable measurement technology that performs fully automatic and continuous analyses of water samples without much effort.

In the production of high purity deionate, the presence of silicate / silicic acid cannot be measured with a conductivity probe. To prevent discoloration of stainless steel surfaces due to SiO₂ deposits, a chemical measurement method is required.

With the SYCON SiO₂ the monitoring of your mixed bed filter is easily possible. The combination of our proven CALDUR test set formulations with the SYCON measurement technology ensures convenient and digitally documented monitoring of your water treatment.



Silicate present in the sample water produces a blue coloration in combination with the reagent. The SYCON silicate determines the color and intensity of the sample and calculates the current content of SiO₂.



The double-row terminal block makes it easy to connect the electrical supply and the inputs and outputs. The colour coding of the individual blocks also ensures easier assignment.

Measuring ranges

As with the proven manual CALDUR test sets, the colouring of the sample depends on the concentration of SiO₂ in the sample. After addition of the reagents, different colour nuances are produced in a chemical reaction.

- Measuring ranges: 0.3 to 10 mg/l



Highlights

- Compact design with easily accessible components
- Tool-free maintenance of the measuring chamber
- Simple and intuitive operation via eight buttons and large display
- Durable and accurate analytical technology
- Extensive standard equipment

Functions

- Automatic zero-point adjustment before each measurement
- One individually adjustable limit value for alarm function via relay
- Interfaces for measured value output
 - Measured values and protocol on SD card
 - Modus-RTU
 - Analog output 0/4 - 20 mA for measured value or detailed status message
- Four relay outputs for individual alarms, warnings and for controlling other components (e.g.: sample pump for pressureless water)
- Two programmable digital inputs

Safety reliably produced.



Accessories

A wide range of accessories is available to go with our analyzers. In this way, you can simplify installation, make maintenance more convenient or even replace a large number of components individually. Because we want all online analyzers of the SYCON series to be in your service for a long time, solid and reliable.

Article

Art. no.

Online analyzer **SYCON SiO₂**

Voltage 100 - 240 V

in housing

30-000178

Reagent set silicate 2x A, 1x B, 1x C

for app. 1000 analyses 32-010100

Here is a selection from our extensive range of accessories:

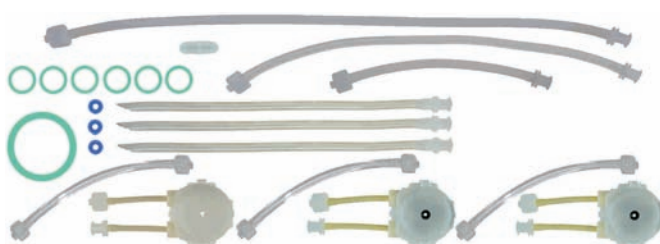
Article

Art. no.

Maintenance set

for SYCON SiO₂

33-030197



Connection set for SYCON

33-000701

- 1 ball valve for water inlet
- Connection to 1/2" external thread or 1/4" internal thread
- Hose connection on the device side Ø 6 mm



Article

Art. no.

Cleaning set for

SYCON SiO₂

30-010900

- 1 funnel
- 1 cleaner FIT 3000
- 1 pipette brush
- 1 test tube brush
- 10 gloves



Measuring chamber cleaner

FIT 3000 (1000 ml)

32-089100

Pressure regulator

with wall bracket

33-090734



The online analyzer SYCON SiO₂

Specifications	Value / Range
Parameter	Silica / Silicate / SiO ₂
Measuring range	0.3 - 10 mg/l
Measuring accuracy	±0.2 mg/l or ±10 % *
* the larger value in each case	
Repeatability	±0.1 mg/l or ±2.5 % *
* the larger value in each case	
Measuring method	Colorimetric, Molybdate
Number of reagents	3
Shelf life	24 months
Measuring duration	15 minutes
Analysis interval	Select between 10 and 360 min, external
Automatic cleaning	After each measurement with sample water
Storage temperature	0 - 45 °C (30 - 115 °F)
Ambient temperature	10 - 45 °C (50 - 115 °F)
Humidity	20 - 90 % rh (without ice or condensation)
Sample temperature	5 - 40 °C (40 - 100 °F)
Sample pressure	Min.: 0.5 bar, max.: 5 bar recommendation: between 1 and 2 bar
Sample quality	Maximum particle size 100 µm, < 0.1 g/l, turbidity < 50 NTU, degassed
Sample cleaning	Fully softened water, 2 bar consumption approx. 2 l per analysis
Outlet	Open drain, pressureless
Power supply	230 V (100 - 240 VAC at 50/60 Hz)
Power consumption	30 VA (in operation) - 3.5 VA (standby)
Relay outputs	4 relays with max. 250 VAC/VDC 1 A, potential free NC/NO
Analog output	0/4 - 20 mA
Signal inputs	2 inputs for potential-free contacts for external analysis start, water meter or flow monitor
Digital interface	RS485 with Modbus RTU protocol
IP-protection class	IP54
Material	Mounting plate and housing made of plastic, valve made of steel
Dimensions (W x L x H)	600 x 490 x 260 mm
Weight	9.2 kg

Our product range:

Water hardness measurement

With our analyzers of the SYCON series you can also monitor the function of your ion exchangers and reverse osmosis systems. For steam boiler houses we offer you an analyzer with approval for BoB operation. For each of your applications, you can obtain an optimized instrument with an individually configurable range of functions from RLS Wacon analytics.



Sample coolers

You will find coolers in our assortment that allow you to take samples for manual analysis. We also offer pre-coolers for analytical instruments. Body and cooling coil are made of stainless steel (type 1.4571) and are approved for a nominal pressure up to 16 bar.



Reagents

We can supply you with the right reagent for your analyzer. We will gladly send you an overview of the available reagents for your SYCON analyzer. In addition to the reagents of RLS Wacon analytics, our delivery program also includes compatible reagents for the analyzers of other manufacturers.



Test sets

We offer a wide range of test sets for the determination of water parameters. Besides many common quick tests for the control of residual hardness, total hardness, chlorine content and iron concentration you will also find many test sets which are needed for niche applications.

The RLS Wacon analytics GmbH is a family-owned enterprise based in Hildesheim, Germany. For more than 40 years, we are developing and manufacturing robust and safe measurement and sensor technology for demanding applications. We hereby consistently focus on quality and well-known products. Our particular interest is the dialogue with customers, partners and suppliers. That's how **safety is reliably produced**.

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