



SYCON Fe: Continuous fully automatic monitoring of dissolved iron Fe (II + III)



Drinking water



Raw water



Waste water



Boiler water



Cooling water

Safety reliably produced.

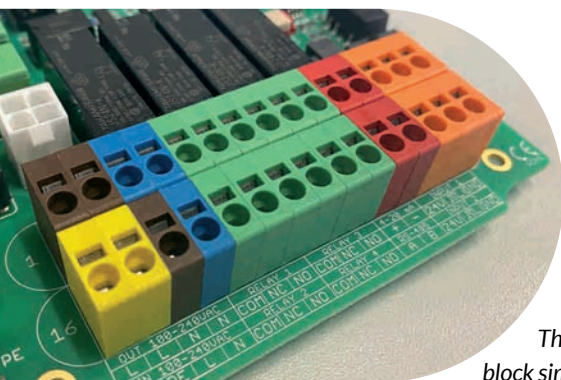
The online analyzer SYCON Fe

The online analyzers of the SYCON series offer extensive possibilities for monitoring constituents in water. All analyzers contain robust and durable measuring technology, which carries out fully automatic and continuous analyses of water samples without much effort.

Even with the standard range of functions of the SYCON analyzers, you can improve your existing process control and avoid downtime. A large number of analog and digital data outputs transmit measured values, device statuses and information on the reagents. Thus, the online analyzers of the SYCON series can be easily integrated into your existing systems.



Due to the use of a special plastic measuring chamber, condensation does not cover the optics in case of temperature differences between water and the environment.

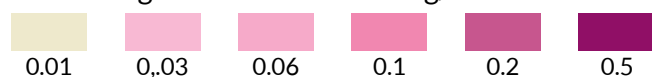


The double-row terminal block simplifies the connection of the electrical supply and the inputs and outputs. The color coding of the individual blocks ensures easier assignment.

Measuring range

Two reagents with different measuring ranges are available for selection. This allows monitoring of an individual limit value adapted to the application.

- Low range – LRS: 0.01 to 0.5 mg/l



- High range – HRS: 0.2 to 6 mg/l



Highlights

- Compact design with easily accessible components
- Tool-free maintenance of the measuring chamber
- Simple and intuitive operation via 8 keys and large display
- Durable and accurate analysis technology
- Extensive standard equipment

Functions

- Measurement method based on ISO 6332
- Automatic zero point adjustment before each measurement
- Individually adjustable limit value for alarm function via relay
- Interfaces for measured value output
 - Measured values and protocol on SD card
 - Modbus RTU
 - Analog output 0/4 - 20 mA for measured value or detailed status messages
- Four relay outputs for individual alarm, warning messages and for controlling other components (e.g. sample pump for cooler)
- Two programmable digital inputs

Safety reliably produced.



SYCON Fe on wall mounting plate



SYCON Fe in housing

Accessories

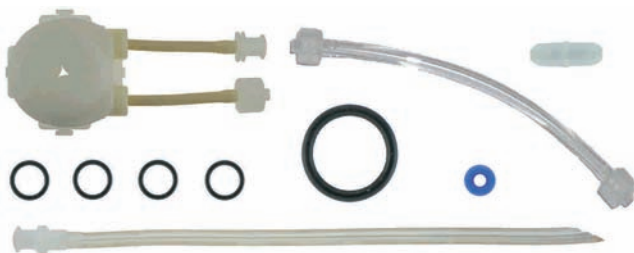
A wide range of accessories is available to match our analyzers. This allows you to simplify installation, make maintenance more convenient or even replace a large number of components individually. Because we want all online analyzers of the SYCON series to be in your service solid and reliable for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

Here is a selection from our wide range of accessories:

Article	Art.-No.
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Maintenance set for SYCON Fe

33-090034



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.
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Online analyzer **SYCON Fe**

230 V on wall mounting	30-700164
230 V in housing	30-710164
24 V on wall mounting	30-701164
24 V in housing	30-701064

Article	Art.-No.
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Cleaning set for SYCON Fe

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 mounting plate

33-090734



The online analyzer SYCON Fe

Specifications

Parameters	Iron Fe (II + III), total dissolved	
	Low range - LRS	High range - HRS
Measuring range	0.01 - 0.5 mg/l	0.2 - 6 mg/l
Messuring accuracy * in each case the larger value	±0.005 mg/l or ±10 % *	±0.1 mg/l or ±10 % *
Repeatability * in each case the larger value	±0.005 mg/l or ±5 % *	±0.05 mg/l or ±5 % *
Measuring method	Ferrozine	o-Phenanthroline
Number of reagents	1	1
Shelf life	24 months	24 months
Cycle time	10 minutes	
Analysis interval	Select between 10 and 360 min., external	
Automatic cleaning	After each measurement with sample water	
Calibration	Manually in service menu	
Storage temperature	0 - 45 °C (30 - 115 °F)	
Ambient temperature	10 - 45 °C (50 - 115 °F)	
Humidity	0 - 90 % rh (without ice or condensation)	
Sample temperature	5 - 40 °C (40 - 100 °F)	
Sample pressure	Min. 0.5 bar, max. 5 bar recommended: between 1 and 2 bar	
Sample quality	Max. particle size 100 µm, < 0.1 g/l, turbidity < 50 NTU, degassed	
Outlet	Open drain, pressureless	
Power supply	230 V (100 - 240 VAC at 50/60 Hz) alternatively 24 V (AC/DC ±10 % at 50 Hz)	
Power consumption	25 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	
	On wall mounting	With housing
IP-protection class	IP43	IP54
Material	Wall mounting plate of polycarbonate	Housing of ABS
Dimensions (W x L x H)	274 x 275 x 130 mm	330 x 300 x 185 mm
Weight	1.7 kg	3.7 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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