

# Your water – Our products

## Catalogue



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## Limit value devices for water hardness

### LIMES Base

The LIMES Base is the most affordable model in the Limes series for entry-level online water hardness monitoring.

The LIMES Base hardness control device is characterized by the following features:



- Low-cost model to start with - can be easily upgraded to LIMES Plus at any time
- Quasi-continuous monitoring of soft water for a softening or a reverse osmosis plant.
- Fault signal as potential-free changeover contact in case of hardness breakdown (e.g. for automatic regeneration triggering)

**The limit value is determined by the LHV series indicator used:  
other reagent type = other limit value**

Residual and total hardness: ppm 0.18 / 0.9 / 53 / 125

Article description	Item number	Voltage
LIMES Base hardness control unit	30-003501	110/230 V
Upgrade kit to LIMES PLUS, plug-on board including rubber cap and board extractor	30-035205	
LIMES maintenance set	33-030135	

You will find suitable reagents starting on page 15.

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# Limit value devices for water hardness

## LIMES Plus

The LIMES Plus is the model in the Limes series with extensive setting options for online monitoring of water hardness.

The LIMES Plus hardness control unit has the following features in addition to the LIMES Base:



- Adjustable analysis interval. Start of a measurement every 10, 20 or 30 minutes.
- Input for potential-free contact for interrupting the analysis interval when the system is at a standstill. For example, over night or at the weekend.
- Can be used as an alternative for starting an analysis by an external control.
- Extensive diagnostic options for convenient service

**The limit value is determined by the LHV series indicator used:  
other reagent type = other limit value**

Residual and total hardness: ppm 0.18 / 0.9 / 53 / 125

Article description	Item number	Voltage
LIMES Plus hardness control unit	30-003502	110/230 V
LIMES maintenance set	33-030135	

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# Limit value devices for water hardness

## SYCON 2602

Online analyzer for monitoring the limit value: In addition to current measured values of the water hardness, further information can be taken from a display, such as the course of the hardness of the last 100 measurements. In addition, all measurement results are documented on an SD card



- Monitoring of a limit value
- Reagent deficiency alarm / BOB functionality
- LCD display with extensive information
- graphical representation of the last 100 measurements with timestamp
- Analysis start options:
  - Automatically according to time interval or quantity interval
  - Suppression of the analysis by means of flow switch
  - Analysis via external control
- 3 potential-free outputs:
  - Limit value exceeded
  - Device fault
  - Analysis active (e.g.: cooling water valve of a sample cooler)
- 1 contact input for external control or flow switch

The SYCON 2602 is optionally offered on a wall mount or in a housing. You can also choose between a 110/230 V and a 24 V variant.

**The limit value is determined by the H25 reagent used:  
other reagent type = other limit value**

Total hardness H25:	°dH	0.02 / 0.05 / 0.1 / 0.2 / 0.3 / 0.5 / 1.0 / 2.0 / 3.0 / 5.0 / 10
	ppm	0.4 / 1 / 2 / 4 / 6 / 10 / 20 / 40 / 60 / 100 / 200
Carbonate hardness C25:	°dH	1.0 / 1.5 / 2.0 / 3.0
	ppm	20 / 30 / 40 / 60

Article description	Item number	Voltage
Analyzer SYCON 2602, on wall mount	30-010160	110/230 V
Analyzer SYCON 2602, in housing	30-210160	110/230 V
Analyzer SYCON 2602, on wall mount	30-010146	24 V
Analyzer SYCON 2602, in housing	30-211160	24 V
Housing for SYCON analyzer	33-099005	
Maintenance set SYCON 2500/2501/2502/2602	33-090028	

You will find suitable reagents starting on page 15.

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## Certified analyzer for water hardness

### SYCON BoB

The TÜV approved analyzer for monitoring boiler feed water, boiler water and condensate returns.

The additional relay contacts allow the control of an external cooling water valve for a sample cooler.



- Multilingual menu navigation
- Setup wizard for easy commissioning
- Level monitoring of the reagent bottle with TÜV-tested 72 hours BOB operation
- Two inputs for flow monitor and remote reset
- Four relay outputs for lower and upper limit, fault, cooling water and reagent message
- Modbus RTU
- SD card with measured value log and error log
- Use for monitoring boiler feed water, boiler samples or condensate returns.

Approval according to VdTÜV data sheet BP WAUE 0100

Limit value monitoring according to EN12952-12

Circulation tank with limit value 0.005 mmol/l with indicator H25-0.05.

Limit value monitoring according to EN12953-10

Bulk water boiler with limit value 0.01 mmol/l with indicator H25-0.1

Article description	Item number	Voltage
SYCON BoB analyzer in housing	30-610164	110 / 230 V
Housing for SYCON analyzer	33-099005	
Maintenance set SYCON BoB	33-030099	

You will find suitable reagents starting on page 15.

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# Titration equipment for water hardness

## SYCON 2702

The entry-level model for high demands: For optimal use in a softening plant or for the protection of a reverse osmosis, the limit value to be monitored and the measuring interval can be freely programmed. In addition, relay contacts and a 4 ... 20 mA interface allow connection to a wide range of control systems. Saving the measured values on the internal SD card is included.



- free selectable limit values in the measuring range of the reagent
- Reagent deficiency alarm
- graphic display (illuminated)
- multilingual menu navigation
- Analysis start:
  - automatically after time interval
  - Suppression of the analysis by means of a flow switch
  - Analysis via external control
- 2 potential-free outputs:
  - Limit value exceeded
  - Device fault
- 1 contact input for external control or flow switch
- 4 ... 20 mA interface for measured value output

The SYCON 2702 is optionally offered on a wall mount or in a housing. You can also choose between a 110/230 V and a 24 V variant.

**The limit value is set individually - in the range of the H25 or C25 reagent used respectively.**

Article description	Item number	Voltage
Analyzer SYCON 2702, on wall mount	30-010162	110/230 V
Analyzer SYCON 2702, in housing	30-210162	110/230 V
Analyzer SYCON 2702, on wall mount	30-010147	24 V
Analyzer SYCON 2702, in housing	30-211162	24 V
Housing for SYCON analyzer	33-099005	
Maintenance set SYCON 2702/2800/2802	33-090034	

You will find suitable H25 and C25 reagents starting on page 15.

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# Titration equipment for water hardness

## SYCON 2802

The plus for connection and monitoring options: Due to the additionally programmable second limit value, the monitoring of a water overlap is possible. The additional relay contacts enable the control of an external cooling water valve for a sample cooler. Thus, the use for monitoring boiler water samples or a condensate return is also possible.



- free selectable limit values in the measuring range of the reagent
- Reagent deficiency alarm / BOB functionality
- graphic display (illuminated)
- multilingual menu navigation
- Analysis start:
  - automatically after time interval
  - Suppression of the analysis by means of a flow switch
  - Analysis via external control
- 4 potential-free outputs:
  - Limit value exceeded 1
  - Limit value exceeded 2 or reagent deficiency
  - Device fault
  - Analysis active (e.g.: cooling water valve of a sample cooler)
- 2 contact inputs for external control or flow switch
- 4 ... 20 mA interface for measured value output
- optional Modbus

The SYCON 2802 is optionally offered on a wall mount or in a housing. You can also choose between a 110/230 V and a 24 V variant.

Article description	Item number	Voltage
Analyzer SYCON 2802, on wall mount	30-010164	110/230 V
Analyzer SYCON 2802, in housing	30-210164	110/230 V
Analyzer SYCON 2802, on wall mount	30-010148	24 V
Analyzer SYCON 2802, in housing	30-211164	24 V
Housing for SYCON analyzer	33-099005	
Maintenance set SYCON 2702/2800/2802	33-090034	

You will find suitable H25 und C25 reagents starting on page 15.

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