

# Silica analyzer

## Liquiline System CA80SI

Colorimetric system for the monitoring of boiler feedwater, steam, condensate and ion exchangers



More information and current pricing:

[www.ch.endress.com/CA80SI](http://www.ch.endress.com/CA80SI)

### Benefits:

- Protection of expensive plant equipment in the power industry: The silica analyzer monitors trace levels of silica in water steam cycles helping to avoid glass-like deposits on the equipment surfaces.
- Early online detection of critical silica levels ensures efficient power plant performance and optimizes maintenance and blowdown cycles by early counter measures.
- Standard heteropoly blue method allows direct comparability to lab results.
- Best reliability: Unique combination of peristaltic and high-precisions dispenser pumps ensures stable operation and low maintenance.
- Optimized investment: The option of up to 6 sample channels meets changing process needs at any time, and connection of Memosens sensors allows an easy upgrade to a complete measuring station.
- Seamless integration into process control systems thanks to digital field buses such as Modbus, EtherNet/IP or PROFIBUS.
- Advanced diagnostics and remote access via web server enable fast remedy in case of errors.

### Specs at a glance

- **Measurement range** 0.5 to 200  $\mu\text{g/l}$  (ppb) 50 to 5000  $\mu\text{g/l}$  (ppb)
- **Process temperature** 5 to 45  $^{\circ}\text{C}$  (41 to 113  $^{\circ}\text{F}$ )
- **Process pressure** 1 to 5 bar (14.5 to 72.5 psi)
- **Measuring method** Comply with standard colorimetric measuring principle - heteropoly blue method

**Field of application:** Liquiline System CA80SI provides precise online analysis of silica and helps protect plant equipment from glass-like deposits ensuring optimum performance of turbines and ion exchangers. Its unique combination of peristaltic and high-precision dispenser pumps enables extremely reliable operation and low maintenance. The silica analyzer offers advanced diagnostics and can be easily adapted to your process needs by retrofitting up to 6 channels and connecting up to 4 Memosens sensors.

## Features and specifications

### Analyser

#### Measuring principle

Colorimetric

#### Characteristic

Analyzer for silica in aqueous solutions

#### Measuring method

Comply with standard colorimetric measuring principle - heteropoly blue method

#### Size

Housing (open version):

793 x 530 x 417 mm

31.22 x 20.87 x 16.42 in

Housing (closed version):

793 x 530 x 463 mm

31.22 x 20.87 x 18.23 in

Housing with base:

1723 x 530 x 463 mm

67.83 x 20.87 x 18.23 in

#### Design

Open design / cabinet

Plastic ASA-PC

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**Analyser****Process temperature**5 to 45 °C (41 to 113 °F)

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**Ambient temperature**5 to 40 °C (41 to 104 °F)

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**Process pressure**1 to 5 bar (14.5 to 72.5 psi)

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**Sample flow rate**60 to 250 ml/min (2.03 to 8.45 fl.oz/min)

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**Consistency of the sample**Particle free

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**Specials**

Easy upgrade to measuring station with up to four digital Memosens sensors

Automatic calibration and cleaning

User-configurable measuring, cleaning and calibration intervals  
optional up to 6 sample channels

Flexible functionality and modular expandable

Digital communication for remote access

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**Application**

Determination of silica concentration in boiler feed water

Monitoring of water-steam-circuit and condensate

Monitoring and optimization of reverse osmosis and desalination

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**Power supply**100 to 120 VAC / 200 to 240 VAC  $\pm$  10%50  $\pm$  1 or 60  $\pm$  1.2 Hz

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**Output / communication**

2x 0/4 to 20 mA

Optional: Webserver, Modbus, Ethernet/IP, Profibus DP

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## Analyser

### Input

1, 2, 4 or 6 measuring channels

Optional 1 to 4 digital inputs for sensors with Memosens protocol

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### Measurement range

0.5 to 200 µg/l (ppb)

50 to 5000 µg/l (ppb)

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### Consumables

Reagents and standard solutions CY80SI

Maintenance kit CAV800

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