Silica analyzer
Liquiline System CA80SI

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

More information and current pricing:
www.fr.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 to 500 µg/l (ppb) 50 to 5000 µg/l (ppb)
- **Process temperature** 5 to 45 °C (41 to 113 °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

Analyser

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

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

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

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

Consistency of the sample
Particle free

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

Application
Determination of silica concentration in boiler feed water
Monitoring of water-steam-circuit and condensate
Monitoring and optimization of reverse osmosis and desalination

Power supply
100 to 120 VAC / 200 to 240 VAC ± 10%
50 ± 1 or 60 ± 1.2 Hz

Output / communication
2x 0/4 to 20 mA
Optional: Webserver, Modbus, Ethernet/IP, Profibus DP

Analyser

Input

1, 2, 4 or 6 measuring channels
Optional 1 to 4 digital inputs for sensors with Memosens protocol

Measurement range

0 to 500 µg/l (ppb)
50 to 5000 µg/l (ppb)

Consumables

Reagents and standard solutions CY80SI
Maintenance kit CAV800

More information **www.fr.endress.com/CA80SI**

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