Silica analyzer
Liquiline System CA80SI

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

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 PROFINBUS.
- 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**

<table>
<thead>
<tr>
<th>Analyser</th>
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<tbody>
<tr>
<td><strong>Measuring principle</strong></td>
<td>Colorimetric</td>
</tr>
<tr>
<td><strong>Characteristic</strong></td>
<td>Analyzer for silica in aqueous solutions</td>
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<tr>
<td><strong>Measuring method</strong></td>
<td>Comply with standard colorimetric measuring principle - heteropoly blue method</td>
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<tr>
<td><strong>Size</strong></td>
<td></td>
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<tr>
<td>Housing (open version):</td>
<td></td>
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<tr>
<td>793 x 530 x 417 mm</td>
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<tr>
<td>31.22 x 20.87 x 16.42 in</td>
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<tr>
<td>Housing (closed version):</td>
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<tr>
<td>793 x 530 x 463 mm</td>
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<tr>
<td>31.22 x 20.87 x 18.23 in</td>
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<tr>
<td>Housing with base:</td>
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<tr>
<td>1723 x 530 x 463 mm</td>
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<tr>
<td>67.83 x 20.87 x 18.23 in</td>
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<tr>
<td><strong>Design</strong></td>
<td></td>
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<tr>
<td>Open design / cabinet</td>
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<tr>
<td>Plastic ASA-PC</td>
<td></td>
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<tr>
<td>Analyser</td>
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</table>
| **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.endress.com/CA80SI