System400FL

Certified according to EN 15267, TÜV and MCERTS

Continuous Emissions Monitoring • Fast Loop

OPSI®
System 400 Fast Loop

System 400FL is based on Opsis UV/FTIR DOAS system giving fast response and best possible performance for all gases.

The high resolution FTIR system is free from interference from all gases including water.

The UV measurements of NO, NO₂, SO₂ and Hg gives outstanding performance.

A fan is used to move the gas sample from the stack into the measurement cell via a heated bypass line.

One analyser cabinet can operate several measurement cells using an optical multiplexer.

A single System400FL will measure all relevant gases for CEM applications such as NO, NO₂, SO₂, NH₃, CO, CO₂, HCl, HF, N₂O, CH₄, H₂O, O₂ and Hg.

System400FL combines the benefits of hot wet extractive and in situ. The gas is moved at high speed in a bypass line. No filter or probe is used and the measurement takes place in a non-contact measurement cell.

A built-in web interface and web logger allows the user to control the system via internet and to manage the measurement without loss of data.

Return of Investment

All plants that produce energy have to measure the emissions to the air. A single Opsis System400FL will measure all relevant gases, thus reducing maintenance and overall costs.

 Increased cost reduction is possible if the System400FL measures on more than one duct. Long unattended operation and long intervals between calibration is guaranteed by high quality end well proven technology.

Approvals

The Opsis system is approved according to EN 15267 by TÜV and MCERTS. The system meets and exceeds requirements from international organizations such as U.S. EPA and Chinese EPA.

Opsis Product Portfolio

The product range includes CEM systems based on UV/FTIR DOAS applied in situ, bypass or heated extractive. It also includes process analysers for raw gas measurements, TDL analysers for specific applications, compact analysers based on dilution extractive and oxygen analysers. Data management includes web loggers and reporting software.

Data Management Features

- All data stored in analysers.
- Automatic backup to the web logger.
- Automatic transfer of data to FTP site.
- Access to system and remote control via the Internet.
- Monitoring of all system and control parameters.
- Automatic alarms.
- Reporting software as an option.

Please contact your Opsis supplier to discuss your particular system requirements, including the compounds you wish to monitor. Separate product and other industrial application sheets are available.

Specifications subject to change without notice
System400FL

Standard
- Cabinet including air-condition
- Heated bypass line (10 m)
- Sample gas fan
- Measurement of sample flow, temperature and pressure
- Modbus connectivity
- Web interface

Options
- Additional measurement cell for simultaneous measurements of two ducts
- Bypass line longer than 10 m
- Automatic calibration
- Analog/digital inputs and outputs
- FID for measurement of TOC
- Reporting software

Technical Specifications
Dimension (W × D × L) 600 × 800 × 2300 mm
Weight (approx.) 250 kg
Power consumption 5 kW

System400FL Performance Data
Based on AR600/AR650 Analysers

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Lowest measurement range according to EN15267</th>
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</thead>
<tbody>
<tr>
<td>NO</td>
<td>0–150 mg/m³</td>
</tr>
<tr>
<td>NO₂</td>
<td>0–20 mg/m³</td>
</tr>
<tr>
<td>SO₂</td>
<td>0–80 mg/m³</td>
</tr>
<tr>
<td>NH₃</td>
<td>0–10 mg/m³</td>
</tr>
<tr>
<td>Hg⁰</td>
<td>0–45 μg/m³</td>
</tr>
<tr>
<td>CO</td>
<td>0–75 mg/m³</td>
</tr>
<tr>
<td>CO₂</td>
<td>0–20% Vol.</td>
</tr>
<tr>
<td>H₂O</td>
<td>0–30% Vol.</td>
</tr>
<tr>
<td>CH₄</td>
<td>0-15 mg/m³</td>
</tr>
<tr>
<td>N₂O</td>
<td>0-50 mg/m³</td>
</tr>
<tr>
<td>HCl</td>
<td>0–15 mg/m³</td>
</tr>
<tr>
<td>HF</td>
<td>0-5 mg/m³</td>
</tr>
<tr>
<td>O₂</td>
<td>0–25% Vol.</td>
</tr>
</tbody>
</table>
Why System400FL?

Outstanding performance using UV/FTIR DOAS

Combines the benefits of extractive and in situ technologies

Measures on two ducts (option)

Long sample tubes

Built-in web interface

EN15267, TÜV and MCERTS certified

Thousands of systems installed worldwide

Serviced by highly skilled service network