Continuous Emissions Monitoring • Cross-Stack

System 400CS

Certified according to EN 15267, TÜV and MCERTS
System 400 Cross-Stack

System400CS 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.

The System400CS is based on a non-contact method, using an optical measurement path that operates across the duct.

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

A single System400CS will measure all relevant gases for CEM applications such as NO, NO₂, SO₂, NH₃, CO, CO₂, HCl, HF, N₂O, CH₄, H₂O, O₂ and Hg.

The in situ method measures the gas component inside the stack without use of a sampling system. The in situ system is analysing several cubic metres of stack gas every minute, thus giving a fast and representative result.

The in situ system can be installed in all applications including high dust, high temperature and sticky gas conditions.

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 System400CS will measure all relevant gases, thus reducing maintenance and overall costs.

Increased cost reduction is possible if the System400CS 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.
A System400CS setup

System400CS

Standard

- Cabinet including air-condition
- Optical emitter and receiver
- Optical fibre (10 m)
- Modbus connectivity
- Web interface

Options

- Additional measurement path for simultaneous measurements of two ducts
- Automatic calibration
- Analog/digital inputs and outputs
- FID for measurement of TOC
- Reporting software
- Measurement of stack temperature and pressure

Technical Specifications

<table>
<thead>
<tr>
<th>Dimension (W × D × L)</th>
<th>600 × 800 × 2300 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (approx.)</td>
<td>250 kg</td>
</tr>
<tr>
<td>Power consumption</td>
<td>1.5 kW</td>
</tr>
</tbody>
</table>

System400CS Performance Data

Based on AR600/AR650 Analysers

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Lowest measurement range according to EN15267</th>
</tr>
</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>

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
Why System400CS?

Outstanding performance using UV/FTIR DOAS
Cross-stack, non-contact method
Measures on two ducts (option)
Low energy consumption
Built-in web interface
EN15267, TÜV and MCERTS certified
Thousands of systems installed worldwide
Serviced by highly skilled service network