

# System400HWE



Certified  
according  
to EN 15267,  
TÜV and  
MCERTS

Continuous Emissions Monitoring • Hot Wet Extractive

**OPSIS**<sup>®</sup>

# System 400 Hot Wet Extractive

System400HWE 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, NO<sub>2</sub>, SO<sub>2</sub> and Hg gives outstanding performance.

An ejector pump is used to move the gas sample from the stack into the measurement cell via a heated sample line.

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

A single System400HWE will measure all relevant gases for CEM applications such as NO, NO<sub>2</sub>, SO<sub>2</sub>, NH<sub>3</sub>, CO, CO<sub>2</sub>, HCl, HF, N<sub>2</sub>O, CH<sub>4</sub>, H<sub>2</sub>O, O<sub>2</sub> and Hg.

Total mercury can be measured as an option using a separate measurement cell and a converter that converts all mercury species into elementary mercury.

The System400HWE is designed to be used in clean gas applications where the Hot Wet Extractive method is accepted.

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.

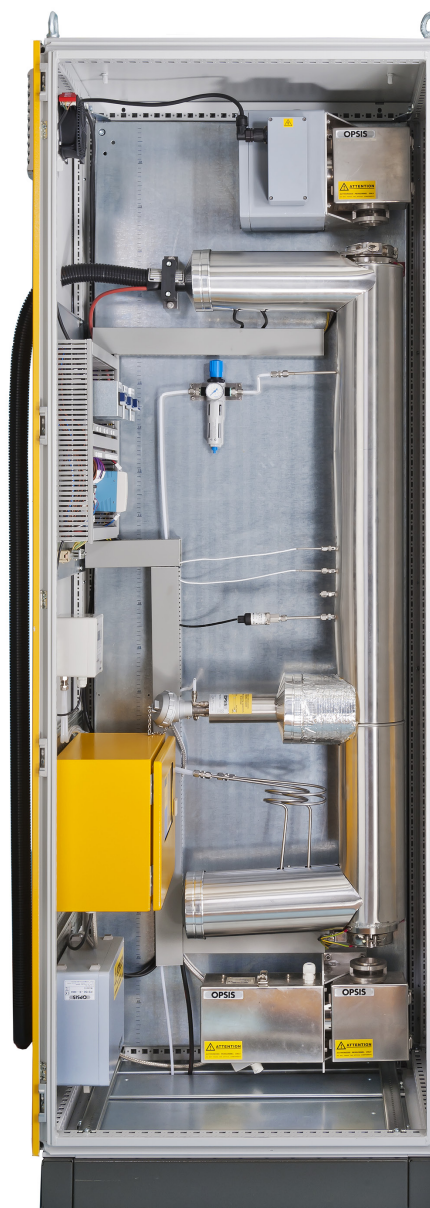
## Return of Investment

All plants that produce energy have to measure the emissions to the air. A single Opsis System400HWE will measure all relevant gases, thus reducing maintenance and overall costs.

Increased cost reduction is possible if the System400HWE measures on more than one duct. Long unattended operation and long intervals between calibration is enabled by high quality end well proven technology.

## Approvals

The Opsis system is approved according to EN15267 by TÜV and MCERTS. The system meets and exceeds requirements from international organizations such as U.S. EPA and Chinese EPA.



*The monitoring cabinet*

## 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.

# System400HWE

## Standard

- Cabinet including air-condition
- Heated probe
- Heated sample line (10 m)
- Ejector pump
- Measurement of sample flow, temperature and pressure
- Modbus connectivity
- Web interface

## Options

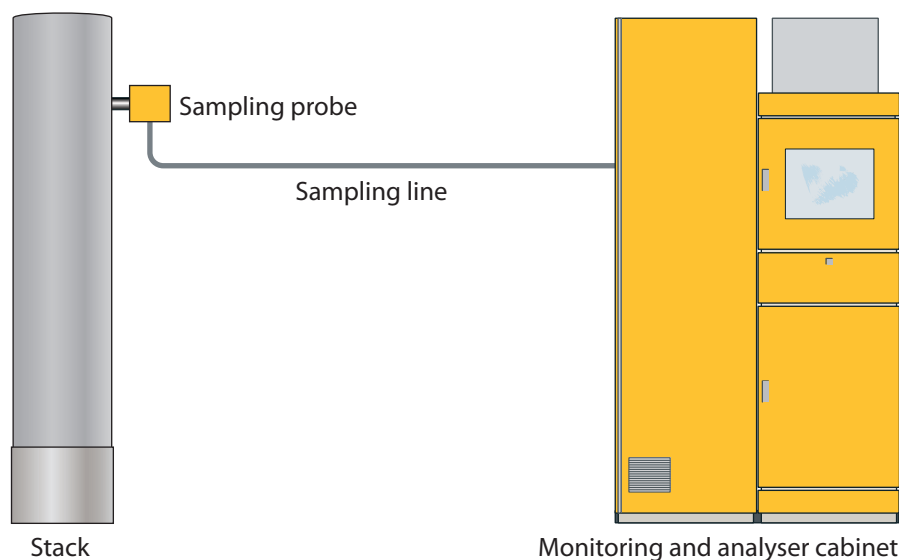
- Measurement of total mercury
- Additional measurement cell for simultaneous measurements of two ducts
- Sample line longer than 10 m
- Automatic calibration
- Analog/digital inputs and outputs
- FID for measurement of TOC
- Reporting software

## Technical Specifications

Dimension (W × D × L)	1200 × 800 × 2300 mm
Weight (approx.)	450 kg
Power consumption	5 kW

### 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 System400HWE setup

### System400HWE Performance Data

Based on AR600/AR650 Analysers

Parameter	Lowest measurement range according to EN15267
NO	0–150 mg/m <sup>3</sup>
NO <sub>2</sub>	0–20 mg/m <sup>3</sup>
SO <sub>2</sub>	0–80 mg/m <sup>3</sup>
NH <sub>3</sub>	0–10 mg/m <sup>3</sup>
Hg <sup>0</sup>	0–45 µg/m <sup>3</sup>
Hg <sup>tot</sup>	0–45 µg/m <sup>3</sup>
CO	0–75 mg/m <sup>3</sup>
CO <sub>2</sub>	0–20% Vol.
H <sub>2</sub> O	0–30% Vol.
CH <sub>4</sub>	0–15 mg/m <sup>3</sup>
N <sub>2</sub> O	0–50 mg/m <sup>3</sup>
HCl	0–15 mg/m <sup>3</sup>
HF	0–5 mg/m <sup>3</sup>
O <sub>2</sub>	0–25% Vol.

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 System400HWE?

Outstanding performance using UV/FTIR DOAS

Measures total mercury (option)

Measures on two ducts (option)

Built-in web interface

EN15267, TÜV and MCERTS certified

Thousands of systems installed worldwide

Serviced by highly skilled service network