



Extended version of System 400HWE

Continuous Emissions Monitoring
and Process Control

System 400HWE

Continuous Emissions Monitoring and Process Control System 400HWE

System 400HWE 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.

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 System 400HWE will measure all relevant gases for CEM applications such as NO, NO₂, SO₂, NH₃, CO, CO₂, HCl, HF, N₂O, CH₄, H₂O, O₂, 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 System 400HWE 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 System 400HWE will measure all relevant gases, thus reducing maintenance and overall costs.

Increased cost reduction is possible if the System 400HWE measures on more than one duct. Long unattended operation and long intervals between calibrations is enabled by high quality end well proven technology.



A standard version of System 400HWE

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

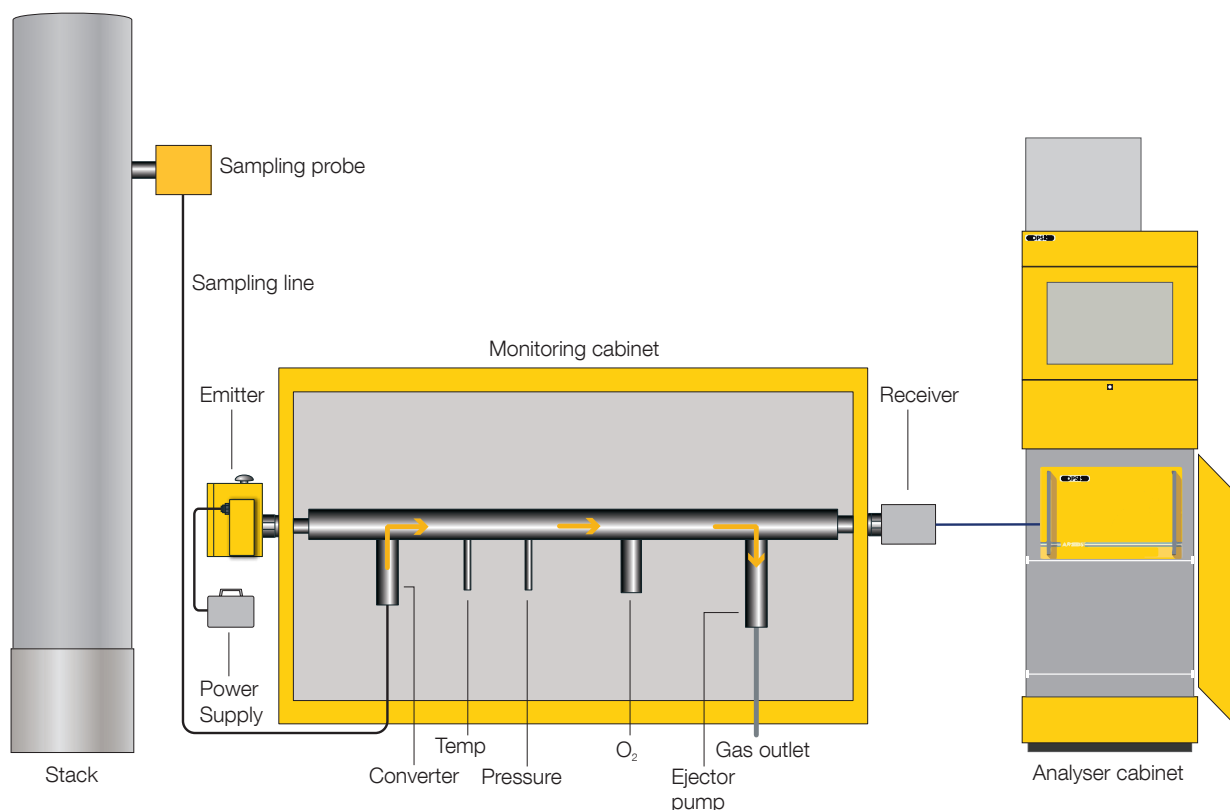
OPSIS has a full product portfolio for measurements of gases in a range of applications. It includes complete CEM systems for reporting, process analysers for raw gas measurements, TDL analysers for NH₃, HCl, and O₂, oxygen analysers, and Hg analysers. OPSIS also offers a system for long-term sampling of dioxin, furan, and CO₂.

For further information, please visit www.opsis.se.

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.

SYSTEM OVERVIEW



TECHNICAL SPECIFICATION

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

System 400HWE - Standard

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

Options

Monitoring cabinet – cover
 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
 MC100 Converter for Hg monitoring
 H₂S Converter

SYSTEM 400HWE PERFORMANCE DATA

Compound	Lowest measurement range according to EN 15267
UV/IR DOAS Analyser Models AR600 / AR650	
NO	0-150 mg/m ³
NO ₂	0-20 mg/m ³
SO ₂	0-80 mg/m ³
NH ₃	0-10 mg/m ³
Hg ⁰	0-45 µg/m ³
THg	0-45 µg/m ³
CO	0-75 mg/m ³
CO ₂	0-20% Vol.
H ₂ O	0-30% Vol.
CH ₄	0-15 mg/m ³
N ₂ O	0-50 mg/m ³
HCl	0-15 mg/m ³
HF	0-5 mg/m ³
O ₂	0-25% Vol.

Continuous Emissions Monitoring and Process Control by OPSIS

Outstanding performance using UV/FTIR DOAS

Measures total gaseous mercury (option)

Measures on two ducts (option)

Built-in web interface

EN 15267, TÜV, and MCERTS certified

Thousands of systems installed worldwide

Serviced by highly skilled service network

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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.

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