OPSIS

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Internationally Approved
EN 15267 Certified

A Cost-effective Solution for
Air Quality Monitoring

System 300

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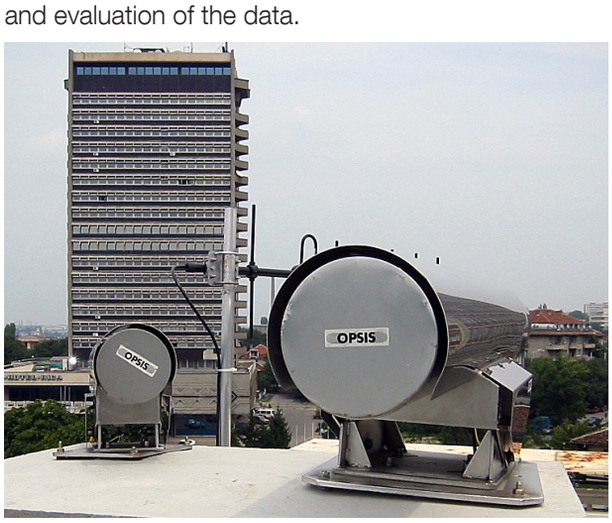
System 300 is a cost-effective, high-performance, air quality monitoring package, designed for trend and street-level applications. The measurements are based on the DOAS technique (Differential Optical Absorption Spectroscopy), allowing continuous monitoring of several compounds. System 300 is available in three configurations:

- 300BASIC: Basic system calibrated for sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and ozone (O_3).
- 300BXT: Calibrated for benzene (C_6H_6), toluene (C_7H_8), and xylene (C_8H_{10}).
- 300EXT: Extended system calibrated for sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone (O_3), benzene (C_6H_6), toluene (C_7H_8), and xylene (C_8H_{10}).

Fast response, reliability and multi-analytical capabilities are some major benefits of the OPSIS system. It requires a minimum of maintenance, and operates unattended for long periods.

Each measurement result includes not only information on concentration but also on standard deviation and light level. Altogether, this provides the possibility of comprehensive and thorough analysis and evaluation of the data.



An OPSIS installation at roof-top level

An OPSIS system, mounted on a specially designed moveable container, monitoring the release of air pollutants at street level.

TRUE MONITORING

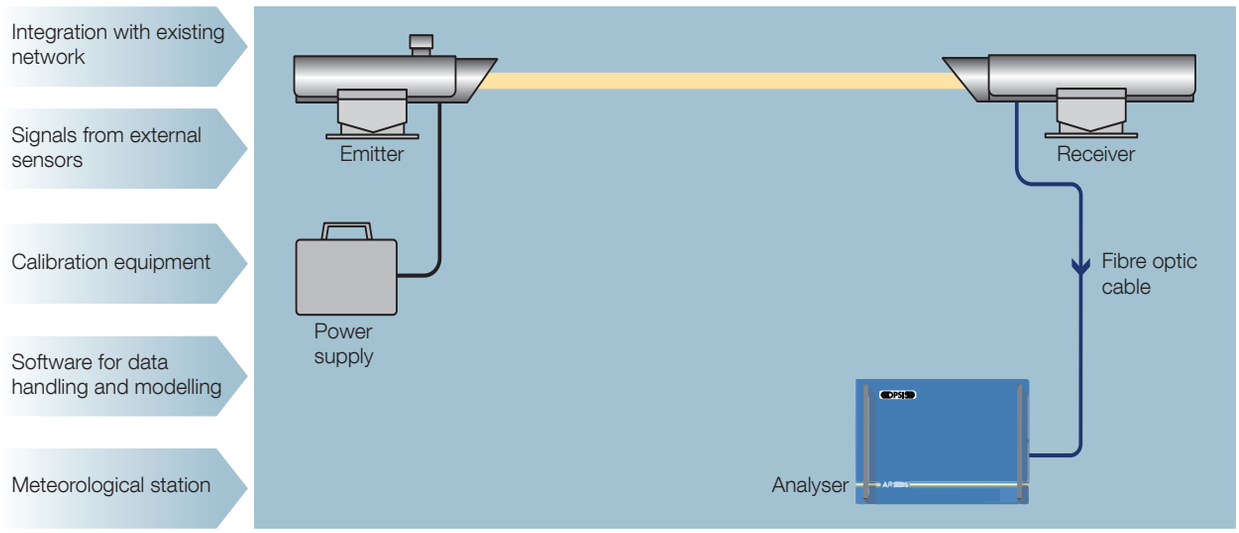
With an OPSIS System 300 you will achieve true monitoring of the different components. The System 300 is not affected by contaminated sample lines, NO_2 converters, hydrocarbons and blocked filters etc., known problems which affect the data quality from point monitoring systems.

SUPPLIER WITH A GLOBAL VIEW

OPSIS is specialized in the development, manufacture and marketing of high-quality systems for air quality monitoring. The importance of finding user-defined solutions to measurement problems is always being emphasized. OPSIS systems are in operation all around the world today.

SYSTEM OVERVIEW

A basic system layout of the System 300, including a number of additional options



PERFORMANCE DATA

(typical data which may vary depending on application)

Compound	Max. measurement range (500 m path)[1]	TÜV/MCERTS approved	Min. detectable quantities (monitoring path 1 m, measurement time 30 sec.)
UV/FTIR DOAS Analyser Model AR500			
NO_2	0—1000 µg/m³	Yes	1 µg/m³
SO_2	0—2000 µg/m³	Yes	1 µg/m³
Benzene	0—500 µg/m³	Yes	1 µg/m³
Toluene	0—1000 µg/m³	—	1 µg/m³
m-, p-Xylene	0—500 µg/m³	—	1 µg/m³
O_3	0—1000 µg/m³	Yes	3 µg/m³

[1] Recommended monitoring path length: 300 to 500 m.

Accuracy
Better than 2% of measured value or equal to the detection limit (whichever is greater).

Span drift
Less than 2% per year.
Please, refer to QAL1 documents.

Zero drift
Less than 2% of measurement range per year.
Please, refer to QAL1 documents.

Linearity error
Less than 1% of measurement range.

SYSTEM 300 PACKAGE (STANDARD)

AR500 Analyser, calibrated for SO_2, NO_2 and O_3, and/or BTX, including analyser software
ER110 Emitter and receiver set
PS150 Power supply unit
OF060S Optical fibre cable (10 m)
Upgrade to ER120 or ER150 Emitter and receiver set (option)

The OPSIS analyser, including analyser software

The emitter and receiver set creates the monitoring path.

Air Quality Monitoring with System 300

Automatic alignment

One system for all components

Cost-effective, open-path technology

High availability

Representative path-integrated data

Direct monitoring of NO_2

Gas calibration only once per year

Low energy consumption

Operates with a minimum of maintenance

Approved by MCERTS, TÜV, U.S. EPA, and Chinese EPA

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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 application sheets are available. Specifications subject to change without notice.

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