System 300

Certified according to
EN 15267, U.S. EPA, TÜV, MCERTS

A Cost-effective Solution to
Air Quality Monitoring

OPSIS
System 300
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:

• BASIC: for sulphur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃)
• BTX: for Benzene, Toluene, Xylene
• EXT: for SO₂, NO₂, O₃, Benzene, Toluene, Xylene

Fast response, reliability and multi-analytical capabilities are some major Opsis benefits. 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.

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, NO₂ converters, hydrocarbons, 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 today in operation all around the world.
System 300 Package (Standard)

- AR500 Analyser, calibrated for SO₂, NO₂ and O₃, 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)

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System 300 – Performance Data

<table>
<thead>
<tr>
<th>Compound</th>
<th>Typical measurement range (500 m path)</th>
<th>TÜV/MCERTS approved</th>
<th>Min. detectable quantities (monitoring path 500 m, measurement time 1 min.)</th>
<th>Zero drift (500 m path, max. per month)</th>
<th>Span drift (per month, better than)</th>
<th>Span drift (per year, better than)</th>
<th>Linearity error (of measurement range, better than)</th>
<th>Max. length of fibre optic cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR500 DOAS Analyser</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO₂</td>
<td>0–1000 µg/m³</td>
<td>Yes</td>
<td>1 µg/m³</td>
<td>±2 µg/m³</td>
<td>±2%</td>
<td>±4%</td>
<td>±1%</td>
<td>20 m</td>
</tr>
<tr>
<td>SO₂</td>
<td>0–2000 µg/m³</td>
<td>Yes</td>
<td>1 µg/m³</td>
<td>±2 µg/m³</td>
<td>±2%</td>
<td>±4%</td>
<td>±1%</td>
<td>20 m</td>
</tr>
<tr>
<td>O₃</td>
<td>0–1000 µg/m³</td>
<td>Yes</td>
<td>3 µg/m³</td>
<td>±6 µg/m³</td>
<td>±2%</td>
<td>±4%</td>
<td>±1%</td>
<td>20 m</td>
</tr>
<tr>
<td>Benzene</td>
<td>0–500 µg/m³</td>
<td>Yes</td>
<td>1 µg/m³</td>
<td>±2 µg/m³</td>
<td>±2%</td>
<td>±4%</td>
<td>±1%</td>
<td>20 m</td>
</tr>
<tr>
<td>Toluene</td>
<td>0–1000 µg/m³</td>
<td>—</td>
<td>1 µg/m³</td>
<td>±2 µg/m³</td>
<td>±2%</td>
<td>±4%</td>
<td>±1%</td>
<td>20 m</td>
</tr>
<tr>
<td>p-/m-Xylene</td>
<td>0–500 µg/m³</td>
<td>—</td>
<td>1 µg/m³</td>
<td>±2 µg/m³</td>
<td>±2%</td>
<td>±4%</td>
<td>±1%</td>
<td>20 m</td>
</tr>
</tbody>
</table>

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(1) Recommended monitoring path length: 300 to 500 m.
Why System 300?

Cost-effective, open-path technology

High-performance monitoring of criteria pollutants

High-performance monitoring of BTX

Representative path-integrated data

Easily calibrated

Operates with a minimum of maintenance

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