





## **AR600 Series**

Multi-Component Analysers for Continuous Emissions Monitoring and Process Control

The OPSIS AR600 Analyser is the central unit of an OPSIS Continuous Emissions Monitoring system. It receives light from one or more light paths via a fibre optic cable and provides data for presentation through OPSIS software.

The analyser has a high-performance spectrometer. Here, received light is converted into digital signals and analysed by the built-in computer. The computer software includes the spectrographic 'fingerprints' of a number of user-specified compounds.

Using Beer Lambert's Law, it detects and measures these compounds through the depletions they cause in the spectrum of received light.

The system refines results by calculating margins of error for each value and by noting the proportion

of transmitted light received by the analyser. This allows both data and system verification.

OPSIS is a fully modular system which may be updated or expanded at any time. An OPSIS analyser includes interfaces for a multiplexer (required when using multiple light paths) and for a data logging system (required when integrating external signals from sensors) as standard. Furthermore, it is prepared for the addition of automatic calibration equipment. It is also prepared for purge air.

Communication ports are available for data transfer via modem, LAN or Internet, using optional communication devices.

Updating an OPSIS system to monitor additional gases often involves a simple software upgrade.



NO NH<sub>3</sub>

1,2,4-, 1,3,5-TMB Benzene, Br<sub>2</sub>, Cl<sub>3</sub> ClO<sub>2</sub>, CS<sub>2</sub>

Formaldehyde, Hg NO<sub>2</sub>, O<sub>3</sub>, Phenol SO<sub>2</sub>, Styrene, Toluene, Xylene, and others

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 $\begin{array}{l} \text{HF} \\ \text{H}_2\text{O} \\ \text{HCI} \\ \text{CH}_4 \\ \text{CO} \\ \text{CO}_2 \\ \text{N}_2\text{O} \\ \text{NH}_3 \end{array}$ 

THC HxCy and others

IR

**AR600 Series** 

AR620 Series

Wavelength ranges for the AR600 series analysers

AR610 Series

AR650 Series

## **Technical Specifications AR600 Options**

Dimensions (L  $\times$  W  $\times$  H)

Weight incl. case (approx.) 35 kg

Voltage supply

230 V (+6%, -10%) / 115 V (±10%) 50/60 Hz

 $600 \times 440 \times 266 \text{ mm}$ 

Power consumption 110 W

Computer

Embedded PC with VGA

screen

Flash memory 512 Mb Serial output RS 232C

Ambient temperature +15°C to +25°C

(+60°F to +80°F)

Degree of protection IP 20

AR600M with one UV detector for marine applications

AR601 with one UV detector AR602 with two UV detectors AR603 with three UV detectors AR610 with one IR detector

AR620 with one IR detector and one UV detector

AR620M with one IR detector and one UV detector for

marine applications

AR650 with one IR detector

AR650M with one IR detector for marine applications

UV filter UF230 series

Temperature controlled cabinet

EnviMan software Calibration equipment WT256 Web transfer

IO256 Signal handling system

Ambient pressure and temperature sensors

Short-haul modems

## Standard – Separately Ordered Gas calibrations (see application sheets)

