



Measurements of Total Ozone Column

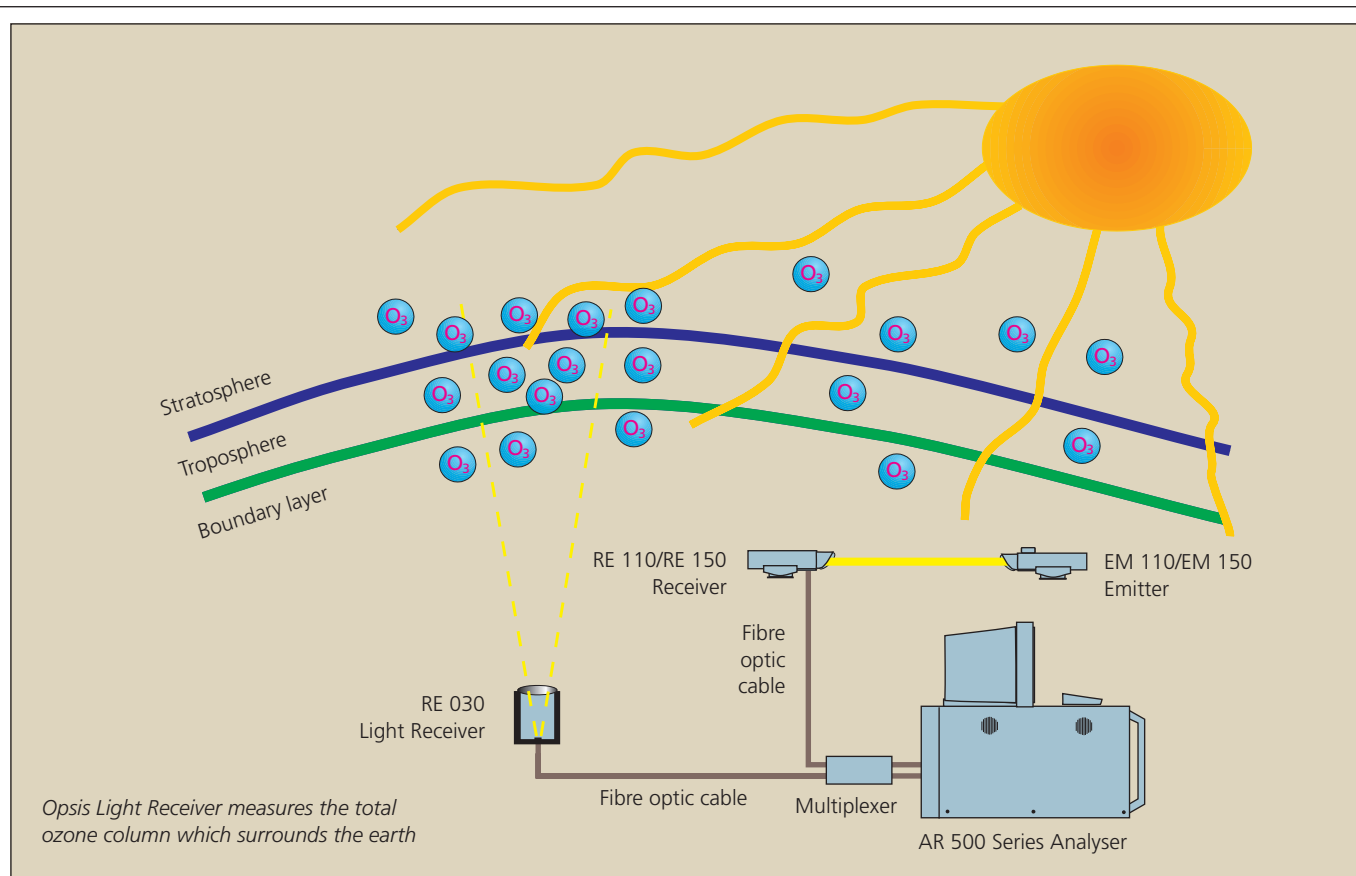
with the RE 030 Light Receiver

Emissions of various gaseous compounds react with the sensitive stratospheric ozone, resulting in thinner ozone layer. The thin ozone layer is an increasing environmental problem as it causes high UV radiation on earth.

Opsis offers a method for monitoring the total ozone column – RE 030 Light Receiver, which can be used together with the Opsis monitoring instru-

ments. The RE 030 can be integrated with existing Opsis open-path systems by using a multiplexer.

By using the sun as a light source, the receiver collects scattered light from the sky and sends the light through an optical fibre to the AR 500 analyser. The absorption path is calculated by measuring the distance of the sun through the latitude and longitude on earth and the GM time.



Technical Specifications

Material	stainless steel
Dimensions:	
Box (L×W×H)	35×35×50 mm
Lens	Ø30 mm
Weight (approx.)	1 kg
Ambient temperature	-40°C to +80°C (-40°F to +180°F)
Degree of protection	IP 65

Performance Data

Compound	Max. measurement range	Min. detectable quantities	Zero drift (per month)	Span drift (per month, better than)	Span drift (per year, better than)	Linearity error	Max. length of fibre optic cable	Hardware equipment
O ₃	0–2000 dobson units*	1 dobson unit*	±2 dobson units*	±2%	±4%	±1%	50 m	AR 500/520

* 1 dobson unit = 2.5×10^{16} mol/cm²
SO₂ and NO₂ total column can also be measured.

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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