

# UV Photometric Ozone Analyzer

AIR QUALITY MONITORING SYSTEMS



## SPECIFIC FEATURES:

- Unique LED based UV photometry technology (Patented)
- Eco-friendly & eco-innovative conception
- Provides accurate, extremely stable and repeatable O<sub>3</sub> measurements in the range of 0-500 ppb or 0-10 ppm
- Maximum efficiency, minimum size: compact, lightweight, offering the best metrological performances
- Service assistant inside: detects early signs of trouble, allows predictive maintenance, identifies the service needed and guides the service operations step by step
- Real-time calibration graph, animated synoptic, auto-diagnostic, control and maintenance data screens can be displayed while the instrument is operating
- Auto-ranging / user programmable ranges
- Simultaneous multi-screen remote emulation of the analyzer: minimizes training and on-site expensive expertise needs
- Local and remote control through digital port (configuration, calibration, test and diagnostic parameters for maintenance support)
- User-friendly: one click to perform zero, span or calibrations using O<sub>3</sub> gas generators
- Automatic recognition of plugged electronic boards or optional devices: plug and play principle. Automatic download of updated drivers when connected to internet
- Includes embedded Communication Protocol for XR® Software with automatic recognition and configuration



ESA Connect™  
Free Apps  
iOS / Android



Adopt the no-screen version and avoid the pollution related to the screen manufacturing and recycling cycle. The analyzer is connected with your device (computer, tablet or smart-phone). Simultaneous multi-screen remote access via Wifi or Lan using the dedicated application ESA Connect™ for control, diagnostics, software update,...

## MAIN APPLICATIONS:

- > Continuous indoor and outdoor air quality monitoring
- > Stationary and mobile AQMS laboratories
- > Industrial fence-line monitoring
- > Continuous emissions monitoring (CEM) by dilution
- > Background (urban or suburban), Rural, Traffic, Kerbside measurement campaigns and monitoring studies
- > Laboratory and field studies on ozone effects

## COMPLIANCE WITH:

2008/50/EC, EN 14625 (2012), EN 15267  
40 CFR PART 53 AND 40 CFR PART 58



# UV Photometric Ozone Analyzer **O342e**

## PRINCIPLE OF OPERATION:

The **O342e** combines patented optical technology with decades of expertise to ensure you get best ozone monitoring results available on the market, quickly, ecologically and reliably!

The monitor represents an absolute technological evolution as it implements in premiere LED based UV photometric technique (Patented). The innovative LED component replaces the Mercury lamp traditionally used as a spectroscopic source for ozone monitoring. Besides eliminating Mercury, which is heavily polluting, the LED technology offers also excellent stability of the measurement.

## TECHNICAL SPECIFICATIONS

Measurement Range	0-10 ppm / 0-500 ppb (user selectable & programmable)
Detection limit (2σ)	0.2 ppb
Noise	0.1 ppb
Zero drift	<0.5 ppb / 24h, <1 ppb / 7 days
Span drift	<0.5% / 24h, <1% / 7 days
Response time	min. 20 s
Linearity	1% (FS)
Sample flow-rate	1 l/min
Memory Capacity	1 year
Output connectivity	Ethernet network connection (RJ45), 3 x USB ports, 2 dry contacts outputs included
Dimensions L x W x H (mm)	483 x 545 x 133
Chassis	19" rack, 3U
Weight	9 kg (19.9 lbs)
Operating temperature	0-35°C
Power supply	115 V, 60 Hz - 230 V, 50 Hz
Power consumption	23 W/h
Internal sampling pump	
Pressure and temperature compensation	
Internal solenoid valve block for zero air and span gas	
Integrated web-server with full remote emulation of the analyzer	

## MAIN OPTIONS:

- 7" TFT colour touch screen
- WiFi module (in standard with the no-screen version)
- RS232 or RS485 serial interface (via USB port)
- External opto-isolated I/O interface with:
  - 4 independent analog inputs
  - 4 independent analog outputs
  - 4 remote control inputs
  - 6 dry contacts outputs
- Internal ozone generator for span check control; provides repeatable and stable O<sub>3</sub> molecules generation
- 24 VDC Power supply

## E-SERIES ADVANTAGES:



- > Environmental friendly:
  - Low carbon footprint
  - Over 95% of the analyzer can be recycled
  - Ultra low power consumption
- > Economic, Easy and reduced maintenance
- > Service Assistant inside
- > Interactivity: connected instruments
- > SmartStatusLight™ power button for status of operation (ON/OFF, Alarm, Maintenance required...)
- > Common electronic boards: optimized spare parts stock

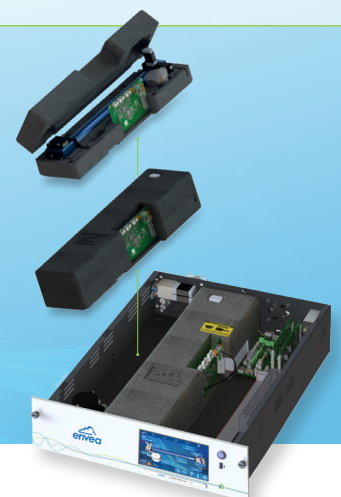
The e-Series of analyzers has been fully eco-designed, with a special consideration to the environmental impacts of the product during its whole life-cycle. The exclusive «inside the box» foam modular concept makes the product more robust, power saving, simpler to service and eco-friendly.

Detailed information related in the e-Series brochure

## O342e Operating Principle



Increased reliability and metrological performances, recyclability, extended life-time while reducing operational cost and maintenance have been the key values guiding our R&D department for the development of the new, eco-designed e-Series of analyzers.



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