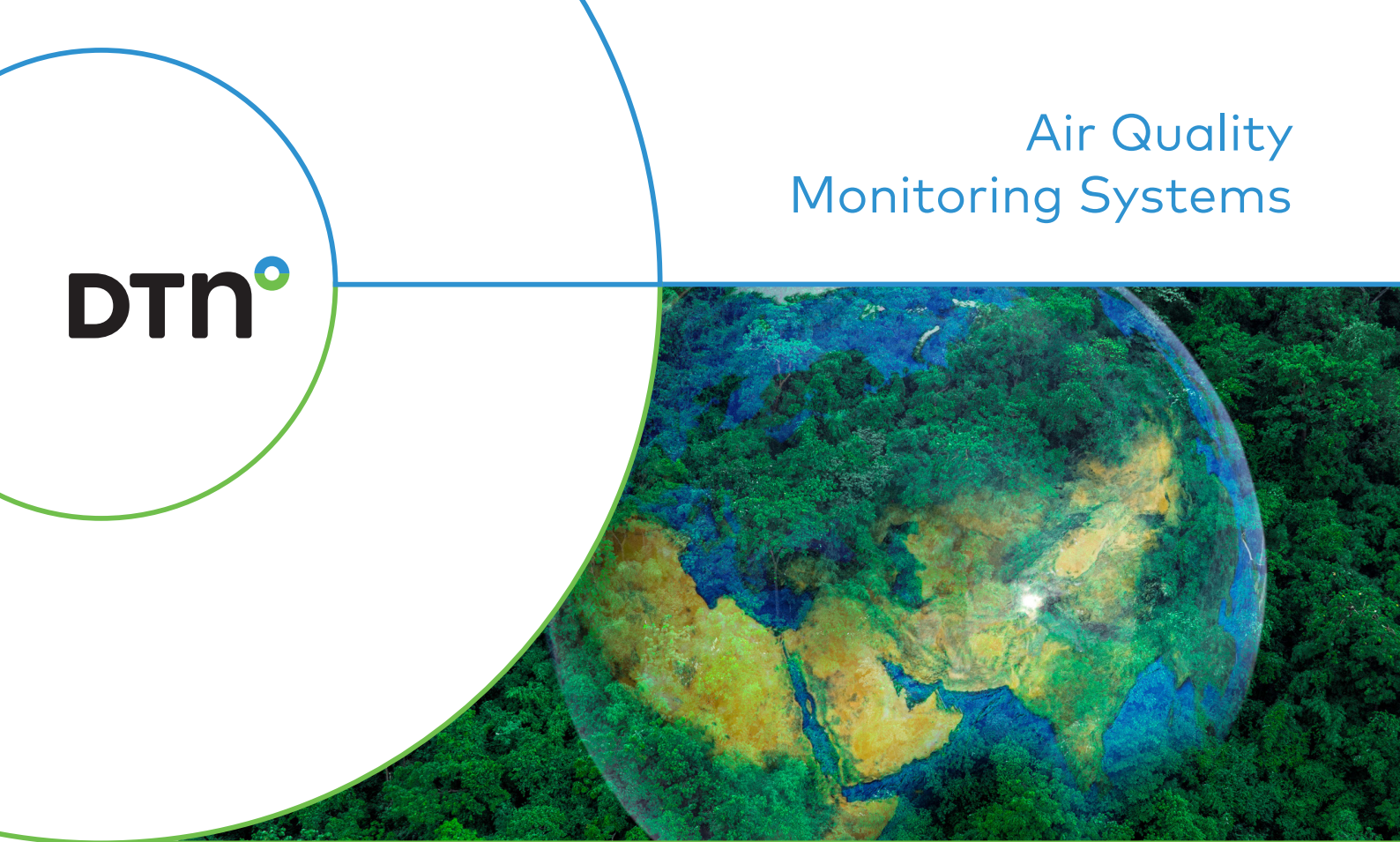




## UV Photometric Ozone Analyzer – O342e

DTN partners with ENVEA to provide organizations worldwide with the best technologies and systems and help different authorities and institutions, both public and private, to monitor air quality and achieve their goals and objectives.

### Applications

- Continuous indoor and outdoor air quality monitoring.
- Stationary and mobile AQMS laboratories.
- Industrial fence-line monitoring.
- Continuous emissions monitoring (CEM) by dilution.
- Background, rural, urban or sub-urban, industrial, traffic, roadside.
- Laboratory and field studies on SO<sub>2</sub>/H<sub>2</sub>S/TRS effects.

### Features

- Unique LED based UV photometry technology (Patented)
- Provides accurate, extremely stable and repeatable O<sub>3</sub> measurements with selectable display in ppb or µg/m<sup>3</sup>
- 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- diagnosis, 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
- Optional 24V power supply and enhanced temperature range for mobile AQMS laboratories or solar powered air quality monitoring stations

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.



## Options

- Wi-Fi 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 V power supply and enhanced T° range up to 50°C for use without air conditioner

## 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.
- 7" TFT colour touch screen.
- Interactivity: connected instruments.
- SmartStatusLight™ power button for status of operation (On/Off, alarm, maintenance required).
- Common electronic boards: optimized spare parts stock.

## Tech specs

|                                                               |                                                                                   |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Measurement range                                             | 0-500 ppm / 0-10 ppm<br>(user selectable and programmable)                        |
| Detection limit (2σ)                                          | 0.2 ppb                                                                           |
| Noise                                                         | 0.1 ppb                                                                           |
| Zero drift                                                    | <0.5 ppb / 24h                                                                    |
| Span drift                                                    | <0.5% / 24h                                                                       |
| Response time                                                 | min. 20 s                                                                         |
| Linearity                                                     | 1% (FS)                                                                           |
| Sample flow-rate                                              | 1 l/min                                                                           |
| Memory capacity                                               | 1 year                                                                            |
| Output connectivity                                           | Ethernet network connection (RJ45), 3x USB ports, 2 dry contacts outputs included |
| Dimensions                                                    | 483 x 545 x 133 mm (L x W x H)                                                    |
| Chassis                                                       | 19" rack, 3U                                                                      |
| Weight                                                        | 9 kg (19.9 lbs)                                                                   |
| Standard operating temperature                                | 0°C to +35°C                                                                      |
| Power supply                                                  | 115 V, 60 Hz - 230 V, 50 Hz                                                       |
| Power consumption for 220 V (or optional 24 V power supply)   | 50 W/h<br>(23 W/h with optional 24 V PS)                                          |
| Internal sampling pump                                        |                                                                                   |
| Pressure and temperature compensation                         |                                                                                   |
| Internal solenoid valve block for zero air and span gas       |                                                                                   |
| Built-in web server for full remote emulation of the analyzer |                                                                                   |

## O342e Operating Principle



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

