



Model DT3000 Oxygen Analyzer – Extractive Analyzer for CEMS



The Datatest Model DT3000 Oxygen Analyzer provides reliable O₂ concentration data to enable the operator to optimize fuel consumption, improve combustion, enhance process control, and minimize air pollution.

The Model DT3000 is ideal for applications that include coal, oil, gas-fired and packaged boilers, furnaces, incinerators, dryers, process heaters, kilns and other combustion applications where economical, in situ O₂ monitoring is required.

Key Benefits

- Automatic calibration
- Sensor temperature display
- Front panel programmable
- Instantaneous and averaged 4-20 mA outputs
- RS 422/232/485 Modbus RTU output

- Meets or exceeds USEPA 40 CFR 60, Appendix B, P.S.3

Control Unit

The Datatest Model **DT3000** Control Unit is exceptionally user-friendly with access to all system functions, and is controlled via a membrane touch keypad and 80 character LCD readout. Among the Control Unit functions are:

- Real time displays
- Zero gas/ span gas value display
- Scales in %
- Sensor mV display
- Hi/Lo set point display
- Sensor temperature display

Oxygen Sensor

Unlike other oxygen monitoring systems on the market, the Datatest **DT3000** features easy field replacement of the Zirconia cell. Mounted inside the control unit it's easily accessible for quick and easy replacement.

A constant temperature of 1000°F is maintained at the Zirconia Cell. This is a cooler operating temperature than other systems that greatly increases the life of the cell.

Datatest emission monitoring instruments



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Specification

Probe

Sensor:	Zirconia
Measurement type:	Extractive
Measurement range:	0-20.9%
Measurement output:	4-20 mA corresponding to 0-25% (adjustable)

Control Unit

Ambient Operating Temp:	0°C– 45°C
Microprocessor Platform:	Siemens C167 MPU
Response Time:	15 seconds to 90% value
Sensitivity:	0.1% (25% scale)
Repeatability:	±0.5% of FSD
Contact Output	1 SPST for each of the following sub-relay outputs: System alarm, Back purge, O ₂ low, O ₂ high, Span calibration gas and Zero calibration gas
Analog Port:	4-20 mA, instantaneous and averaged
Serial port:	Modbus RTU (RS232/422/or 485) for bi-directional communication.
Contact Rating:	1 amp, 230 volts, resistive load.
Display:	4-line by 20 character LCD
Keypad:	Tactile
Power Supply:	100 watts, 220/110 Volts AC, 50/60 Hz
Weight:	35 Lbs
Enclosure:	19" standard rack mount

Air/Calibration

Gas Ports:	1/8" NPT (F)
Air Supply:	No more than 1 SCFH at .1 psig
Calibration:	Manual and/or automatic in accordance with real time clock
Back Purge:	Automatic, adjustable

*As required by USEPA