

The Model 322 Portable Dilution Calibrator

A convenient portable instrument for the calibration of Gas Analyzers



The Model 322 Portable Dilution Calibrator is a state-of-the-art precision instrument that produces precise, software selectable concentrations of multiple gases for the calibration of ambient air quality analyzers. Precise Mass Flow Meters control the gas output to the selected concentration.

A built-in ozone generator provides a very repeatable ozone output at concentrations ranging from only a few PPB to greater than 1 PPM at a flow rate of up to 5 LPM. The ozone can be combined with NO gas to produce precise NO₂ calibrations using Gas Phase Titration (GPT).

An advanced graphical user interface provides easy operation and advanced features, such as automatic calibrations are designed to simplify the gas calibration process.

Standard Features:

- Precision Pulse Width Modulated Ozone Generator for enhanced performance at very low concentrations
- Automatic temperature and pressure correction of the Ozone Generator
- Calibration Data, preconfigured setups, diagnostic logs, etc., can be saved to or read from a standard removable flash memory card
- Built in RS-232 port and USB port allow simple connection to external computers or controlling equipment
- Color graphic display with large numbers, readable from a distance
- Easy-to-use menu system with advanced calibration features and reports
- Analog and/or serial inputs allow the results of the calibrated instrument to be captured, viewed on screen and reported.
- I/O card slots support a variety of networking and data acquisition options
- Flexible power supply allows operation from 96 to 240 VAC

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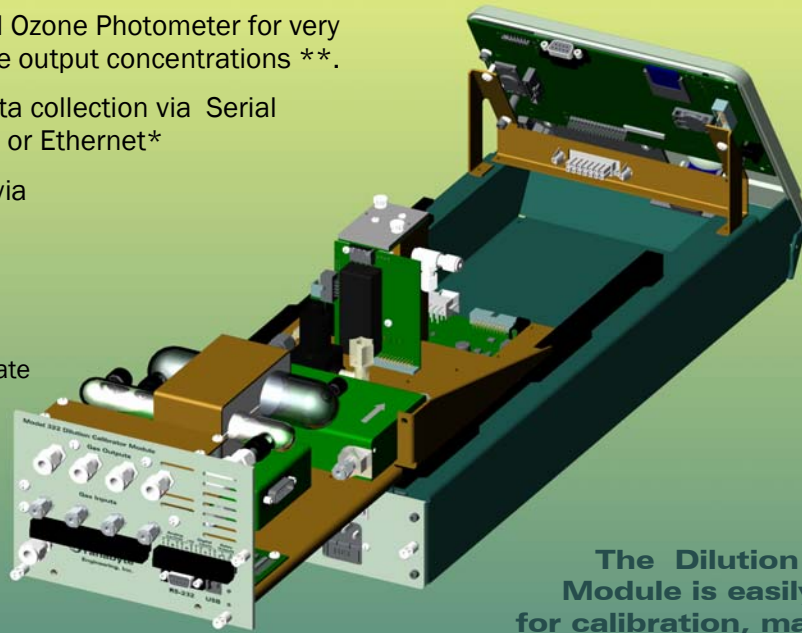
Model 322 Calibrator Module in the single-bay portable enclosure

Options:

- EPA Equivalent Method Ozone Photometer for very precise control of ozone output concentrations **.
- Remote control and data collection via Serial RS-232, USB, modem* or Ethernet*
- Internet connectivity* via modem or Ethernet

* Future Options

** Either provided in a separate Single-bay enclosure or integrated together with the Model 322 module in a Dual-Bay Chassis.



Also available in a dual-bay rack or bench mount enclosure that can support two calibration or analysis modules

The Dilution Calibrator Module is easily removed for calibration, maintenance or shipment to a certification lab

SPECIFICATIONS

Mechanical:

Dimensions: 8.1" Wide x 9" High x 22.4" Deep (206 x 228 x 570 mm)
Weight: Less than 20 lbs (9 Kg)

Environmental & Electrical:

Operating Temperature: 5° to 45°C (20° to 30°C EPA Approved Range)
Humidity: 0 to 90%, non-condensing
Input Voltage: 90 to 264 VAC, 50 or 60 Hz
Power Requirement: 100 Watts

Dilution System:

Accuracy of Flow Measurements: +/- 0.5%
Repeatability of Flow Control: +/- 0.1%
Linearity of Flow Measurements: +/- 0.5%
MFC Range for Dilution Air: 0 – 10 SLPM (other ranges available)
MFC Range for Dilution Gases: 0 – 100 SCPM (other ranges available)

Ozone Generator:

Range: 0.02 – 1.1 PPM at 5 SLPM instrument flow
Accuracy: +/- 2% of set point or +/- 3 PPB at 5 SLPM
Nominal Ozone Flow: 100 SCCM
UV Lamp Temperature: 50 +/- 0.1°C

Digital I/O:

Status input voltage range: up to 35V, TTL, or contact closure
Control output maximum voltage: 35VDC
Control output maximum current: 500mA with all outputs activated; 1.2A with only one



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