



**TELEDYNE INSTRUMENTS**  
*Advanced Pollution Instrumentation*  
A Teledyne Technologies Company

MODEL **702**

# Precision Calibrator



- ▶▶ Two channels of source gas
- ▶▶ Remote control with contact closures
- ▶▶ Digital status output
- ▶▶ Temperature controlled flow control system to provide stable flow
- ▶▶ Optional ozone generator with temperature control
- ▶▶ GPT using EPA conforming glass GPT chamber
- ▶▶ Two independent variable O<sub>3</sub> concentration presets
- ▶▶ Digital electronics for ease of use, reliability and performance
- ▶▶ Optional carrying handle for portable applications
- ▶▶ Rack mountable

The Model 702 Precision Calibrator provides an ideal means of calibrating ambient air analyzers in an economical, high-value manner. A microprocessor controls all functions including temperature control of the restrictor/orifice flow regulators, flow control system and ozone generator, ensuring accurate temperature-independent performance.

The versatility of the Model 702 is unmatched. It can be supplied with an internal ozone generator and an EPA-conforming glass GPT chamber to allow both ozone and GPT calibration checks. The two inlet ports allow use of two independent calibration gases, which may be diluted to provide the required span gas. Dilution ratios from 20:1 to 300:1 are manually set from the front panel. Once set, they can be remotely activated by external contact closure or by front panel switch.

With the GPT/O<sub>3</sub> option, two preset levels of ozone concentration can be programmed by the operator as a percent of full scale ozone concentration. The ozone GPT level can then be activated remotely by contact closure or front panel switches. Contact closures also indicate Model 702 operating mode as well as temperature warning and System OK signals.

The Model 702 includes surge and transient protection for the main power. Voltages/frequencies of 115, 220, 240, 50/60 Hz are field configurable, and the unit is CE approved.



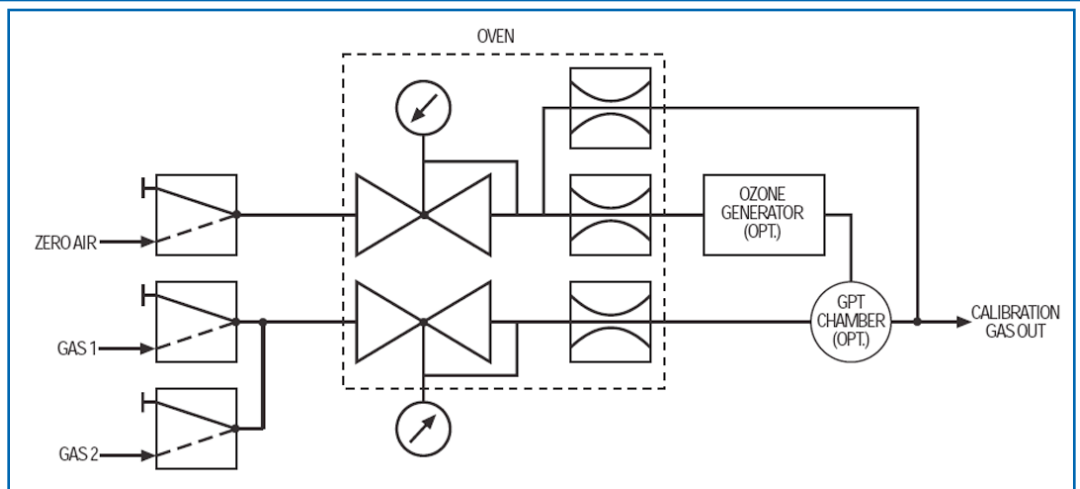
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# Precision Calibrator

## Specifications

Calibration gas ports:	2	Ambient temperature range:	5 to 40°C
Diluent flow:	1 to 3 SLPM	Power Requirements:	100V 50/60 Hz, 115V 60 Hz, 220V 50/60 Hz, 230V 50 Hz, 240V/50 Hz, 100 Watts
Calibration gas flow:	10 to 50 cc/min	Weight:	29 lbs. (13.1 kg)
Dilution ratio:	20:1 to 300:1	Dimensions (HxWxD):	5.25" x 17" x 23.5" (134 x 432 x 597 mm)
Flow stability:	1%/7 days	Approvals:	CE
Ozone generator:	Current regulated, temperature controlled mercury vapor lamp	Peripheral equipment required:	Source gas cylinder with dual stage regulator, 40 psig TAPI Model 701 Zero Air Module or other source of zero air (3 SLPM @40 psig)
Ozone pre-set points:	2 (independent)		
Ozone concentration:	50 ppb (minimum) (@ 1 SLPM); 4 ppm (maximum)		
Ozone adjustment resolution:	5 ppb		
Ozone stability:	3%/7 days		

## Schematic



## How to Order

### Model 702 Precision Calibrator includes:

- Housing suitable for table or rack mounting
- Two internal regulators for adjustment of calibration gas and zero air flow
- Temperature-controlled oven for flow controls
- Status outputs:
  - Calibration gas select (port 1/port 2/none)
  - Diluent on/off
  - Ozone select (Preset 1/Preset 2/off)
- Front panel controls:
  - Diluent pressure adjust

- Calibration gas pressure adjust
- Calibration gas select (Port 1/Port 2/Off)
- Ozone preselect (Preset 1/Preset 2/Off)
- Ozone preset adjust
- Power (Off/On)

### Specify voltage/frequency:

- |   |                                    |
|---|------------------------------------|
| <input type="checkbox"/> 100V/50hz      | <input type="checkbox"/> 100V/60hz |
| <input type="checkbox"/> 220V/50hz      | <input type="checkbox"/> 115V/60hz |
| <input type="checkbox"/> 230V/50hz (CE) | <input type="checkbox"/> 220V/60hz |
| <input type="checkbox"/> 240V/50hz      |                                    |

### Additional Options:

- Rack Mounts (19")
- Carrying handle
- Ozone generator with GPT mixing chamber
- TAPI Model 701 Zero Air Module

Specifications subject to change without notice. M702/09.06



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