

# Dynacalibrator® Calibration Gas Generators

- PPB to high PPM range
- Precise temperature control to 110°C
- Economical, flexible alternative to bulky bottled mixtures



## Description

Metronics Dynacalibrators enable calibrations traceable to NIST standards for almost any gas analyzer, in the lab or in the field. The design takes full advantage of all the conveniences inherent in our Dynacal® permeation devices to generate and deliver precise concentrations ranging from ppb to high ppm for hundreds of different compounds. Standard features on all our models, from the most basic Model 230 to the most fully equipped Model 450, facilitate accurate, reproducible, trouble-free calibrations time after time.

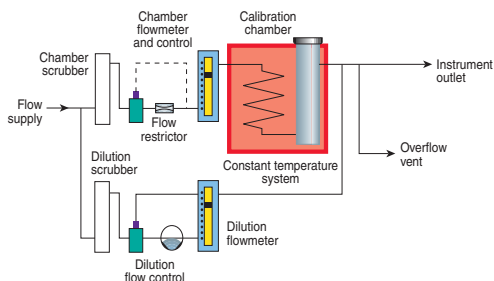
Standard features include our proprietary constant temperature system, a front-access permeation chamber large enough to accommodate several permeation devices, and a flexible flow metering system traceable to NIST standards.

Dynacalibrators can be supplied with internal pumping systems, eliminating the cost and inconvenience of external pumps, gas cylinders, regulators, and special plumbing. Units with pumps can be equipped with accessory bypass loops that provide for external modification of the carrier and/or dilution gas streams.

## Models

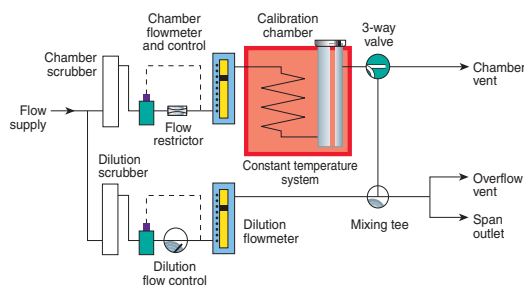
### Model 230

The Model 230 is our basic calibration instrument, offering all the standard features and configurations.



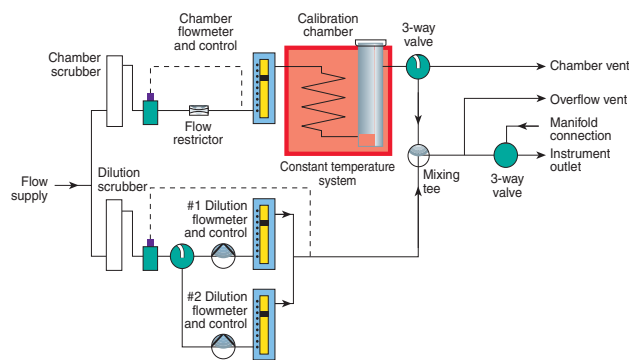
### Model 340

A front panel MODE CONTROL switch selects ZERO, SPAN, or REMOTE calibration modes. In the REMOTE mode, the Model 340 can be programmed to deliver a ZERO and a SPAN reference on command. In the ZERO mode, scrubbed air is delivered to the STREAM OUTLET.



### Model 450

Our most versatile calibration instrument incorporates a second channel of dilution gas flow and a unique “through-port” feature which eliminate the necessity of changing plumbing connections between the sample manifold, the analyzer, and the calibrator for each calibration. Also included is a front panel MODE CONTROL switch to select STANDBY, ZERO, SPAN 1 (low concentration gas), SPAN 2 (high concentration gas), and REMOTE. In the REMOTE mode, the Model 450 can be externally programmed to operate in all of its functional modes.



# Specifications

- Index
- Next
- Back
- Calibrators

Permeation device	
Maximum length .....	24 cm (9.5")
Maximum diameter .....	1.6 cm (0.62")
Permeation chamber .....	Teflon <sup>®</sup> or Pyrex <sup>®</sup> Will accommodate multiple devices
Flowmeters .....	High resolution 15 cm graduated scale. Certified ±1% accuracy full scale, NIST traceable. Full scale ranges of 1,2,5,10, 15, and 20 L/min.
Flowmeter calibration accuracy ( max % deviation from float setting)	
At maximum flow .....	1 %
At minimum flow .....	3 %
Ambient operating temperature .....	10°C - 40°C
Temperature indicator .....	Digital display
Temperature controller .....	Solid state proportional with 0.1°C set point accuracy, NIST traceable, and stability of ±0.01°C. Standard range is 25° to 50°C; optional expanded range is 25° to 110°C.
Temperature control range	
Standard units .....	2°C above ambient to 50°C
Expanded temp units .....	2°C above ambient to 110°C
Permeation chamber temperature equilibration time .....	< 1 hr
Pumps .....	Diaphragm pumps for continuous operation. Available for 10 or 20 L/min capacity
External gas stream supply and modification .....	Instruments with separate stream inlets or stream bypasses have provision for connecting dehydrators, special scrubbers, filters, etc. in series with the carrier and/or dilution gas streams
Case dimensions .....	17" wide x 23.75" deep x 10.5" high (43.2 cm x 60.3 cm x 26.7 cm)
Instrument weight	
Units with internal pumps	
Model 230 .....	55 lbs. (25.0 kg)
Model 340 .....	56 lbs. (25.4 kg)
Model 450 .....	59 lbs. (26.8 kg)
Units without internal pumps	
Model 230 .....	43 lbs. (19.5 kg)
Model 340 .....	44 lbs. (20.0 kg)
Model 450 .....	47 lbs. (21.3 kg)
Power consumption	
Units with internal pumps	
Model 230 .....	290W
Model 340 .....	300W
Model 450 .....	340W
Units without internal pumps	
Model 230 .....	100W
Model 340 .....	110W
Model 450 .....	145W
Instrument noise emission (at 3 ft)	
Units with internal pumps .....	55 - 60 dBa
Units without internal pumps .....	45 - 50 dBa

**Call toll-free  
(877) 737-1887**

© 2004  
PB-026 2/04