

AIRWAVE ELECTRONICS

Model AE100 Model AE102 Portable Gas Calibrators

Features:

- * Proven Technology
- * Simple One Step Operation
- * Low Battery Alarm
- * Compact
- * Designed for Laboratory Or Field Use
- * No Temperature Controlling Devices
- * Customer Specified Range From 1ppm to 200ppm
- * Optional Dual Range Output
- * Low Cost Replaceable Tubes
- * Multiple Gas Sources Available
- * Minimum Maintenance

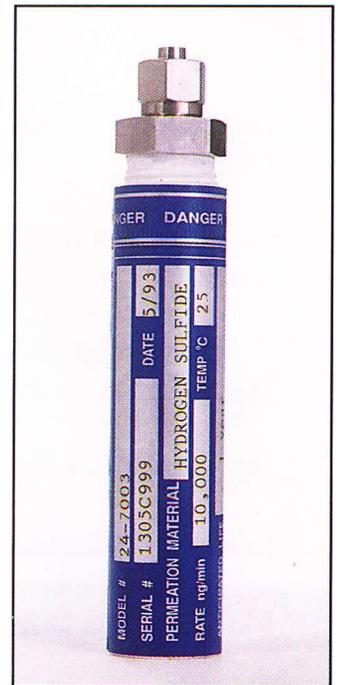


Introduction

The Model AE100 and the AE102 are simple one step operation portable gas calibrators that provide a continuous source of a gas at a specific concentration and flow rate. The AE100 offers single concentration calibration while the AE102 offers dual concentration. Small and light weight, the Model AE100 and the AE102 are self contained in a rugged case making them ideal for field calibrations while maintaining instrumentation shop standards. The AE100/AE102 portable gas calibrators are designed to accommodate all permeation tubes manufactured by Airwave Electronics Ltd. Providing a very low temperature coefficient, the Models AE100/AE102 eliminate the need for temperature controlling devices. Both versatile and economical instruments, the Model AE100 and the AE102 are capable of performing most calibration requirements.

Operational Principal

The focal point of the AE100/AE102 operation is the Airwave Electronics Ltd. permeation tube. The permeation tube is a pressurized cylinder containing pure calibration gas. A permeable membrane allows a controlled flow of gas to continuously escape from the tube which is measured in (nanograms/minute). The calibration gas mixes with free air delivered by a flow controlled air pump, which is powered by a 9 volt battery. The combination of the controlled escape of gas and the free air flow determine the final calibrated gas output. The permeation tube is a linear temperature dependent device with a usable range of 0-50°C. A thermometer located on the face plate determines the internal temperature of the AE100 and the AE102. A chart documenting the change in output concentration versus internal temperature is provided on the side of both instruments.



Permeation Devices

Acetic Acid	Dibutyl Sulfide	Methyl Acrylate
Acetone	Diethyl Disulfide	Methyl Bromide
Ammonia	Diethyl Sulfide ¹¹	Methyl Ethyl Glycidyl
Benzene	Dimethyl Disulfide	Methyl Mercaptan
isoButane	Dimethyl Formamide	Methylene Chloride
nButane	Dimethyl Sulfide	**Nitric Oxide
isoButyl Acrylate	Ethanol	Nitrogen Oxide
isoButyl Mercaptan	Ethyl Mercaptan	Propane
nButyl Acrylate	*Ethylene	isoPropyl Alcohol
nButyl Mercaptan	Ethylene Oxide	isoPropyl Mercaptan
tButyl Mercaptan	Formaldehyde	npropyl Mercaptan
*Carbon Dioxide	Freon ¹¹	Sulfur Dioxide
Carbon Disulfid ^e	Freon ¹²	Sulfur Hexaflouride
*Carbon Monoxide	Hexane	Tetrahydrothiophene
Carbon Tetrachloride	Hydrogen Sulfide	Toluene
Carbonyl Sulfide	*Methane	Vinyl Acetate
Chlorine	Methanol	***Water
Cyclohexane	Methacrylic Acid	mXylene
Diisopropylmethyl phosphonate		

* Gas Phase Device.

** Nitric Oxide requires the use of Nitrogen as carrier gas.

*** Water permeation devices are normally calibrated at 50°C.

Other permeation devices are available. Please contact Airwave Electronics Ltd. for further information.

Specifications

Dimensions:	6" x 1.5" x 3.5"
Weight:	.75 Kg
Output Method:	Airwave Permeation Tube
Output Range:	1 300 ppm customer specified
Flow Rate:	200 cc/min. typical factory set
Accuracy:	+/- 10 %
Operating Life:	permeation tube - 1 year warranty (most gases) scrubber - 3 to 4 months
Warm up Time:	10 minutes
Temperature Range:	0 to +50°C measured internally
Power:	1 9 volt Alkaline or Lithium battery
Battery Life:	min. 40 hours

OPTIONS

Tubing and Adaptor

Scrubber

Scrubber Material

Replaceable Permeation Tubes

