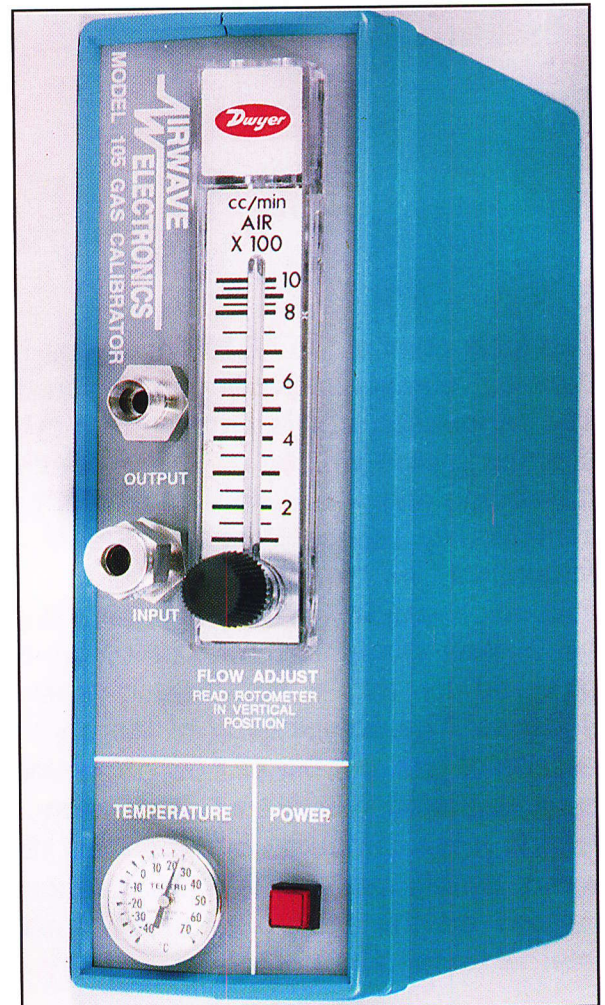


AIRWAVE ELECTRONICS

Model AE105 Portable Gas Calibrator

Features:

- * Adjustable Air Flow
100 - 1000 cc/min
- * Proven Technology
- * Simple Operation
- * Compact
- * Designed for Laboratory Or Field use
- * No Temperature Controlling Devices
- * Customer Specified Range From
1ppm to 200ppm
- * Multi-Range Output
- * Replaceable Tubes
- * Multiple Gas Sources Available
- * Minimum Maintenance

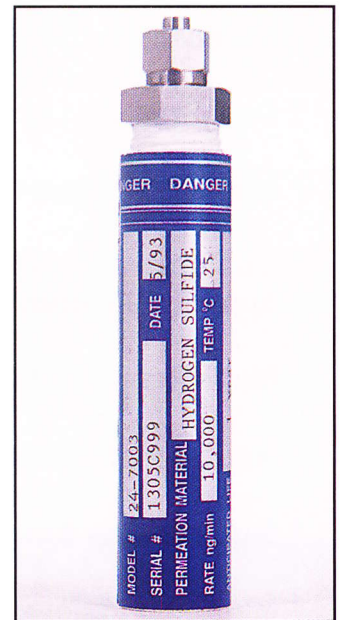


Introduction

The Model AE105 portable gas calibrator provides a continuous source of gas at a specific concentration and flow rate. The AE105 was designed to obtain repeatable gas output concentrations while providing a simple-to-operate instrument with minimal maintenance requirements. Small and lightweight, the Model AE105 is self contained in a rugged case making it ideal for field calibrations while maintaining instrumentation shop standards. The AE105 Multi-Range portable gas calibrator is designed to accommodate all permeation tubes manufactured by Airwave Electronics Ltd. Providing a very low temperature coefficient, the Model AE105 eliminates the need for temperature controlling devices. Both a versatile and economical instrument, the Model AE105 is capable of performing most calibration requirements.

Operational Principal

The focal point of the AE105 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 two 6 volt sealed lead acid batteries. The combination of the controlled escape of gas and the air flow determine the final calibrated gas output. The permeation tube is a low temperature dependent device with a usable range of 50°C. A thermometer located on the face plate determines the internal temperature of the AE105.



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	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:	7" x 2.5" x 8"
Weight:	1.3 Kg
Output Method:	Airwave Permeation Tube
Output Range:	1 200 ppm customer specified
Flow Rate:	100 - 1000 cc/min.
Accuracy:	+/- 10 %
Operating Life:	permeation tube - 1 year warranty (most gases) scrubber - 3 to 4 months
Warm up Time:	10 minutes from start up
Temperature Range:	0 to +50°C measured internally
Power:	2 6 volt sealed lead acid battery
Battery Life:	min. 40 hours (rechargeable)

OPTIONS

Sample Adapter (customer specified)

Tubing and Adaptor

Scrubber Assembly

Scrubber Material (100 grams)

Replaceable Permeation Tubes

Carrying Case

