

## G-Cal Permeation Devices

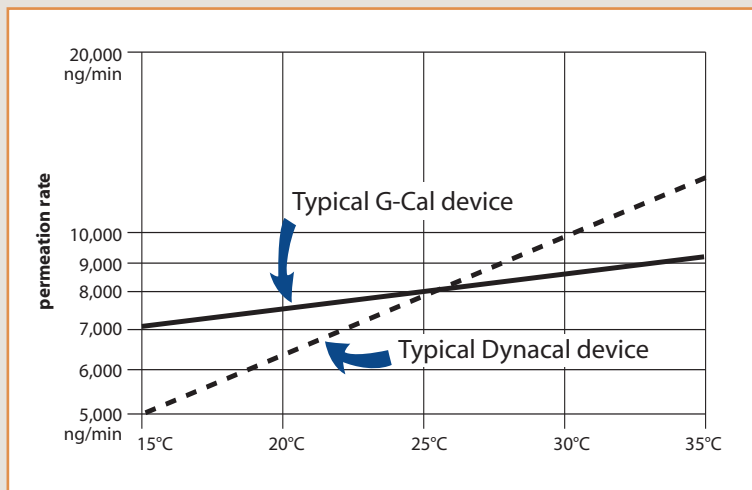
- Excellent for use in the field
- Can be operated at room temperature
- Can handle Arsine and Phosphine
- Longer lifetime than Dynacal devices

Patented\* G-Cal permeation tubes offer a proven and repeatable means of generating desired gas or vapor concentrations. The permeant gas escapes through the proprietary membrane system and mixes with a carrier gas (nitrogen is the most common) at a controlled flow rate to obtain a known mixture in ppm or ppb. Applications include calibration of gas monitoring systems and chromatographs, accuracy check of gas detectors, and generation of known test atmospheres for a specific application.

G-Cal devices exhibit the lowest temperature sensitivity among available similar products. The permeation rate through the polymeric membrane used in G-Cal devices changes only 1-3% per degree C, eliminating the need for a temperature-controlled chamber. Most G-Cal devices are guaranteed for 12 months operating life.



Over 100 different substances are available, including Arsine, Phosphine, and gas phase devices such as CO, NO, and Methane. Available permeation rates range from less than 100 ng/min to 50,000 ng/min. Each G-Cal device is individually calibrated and verified to generate a given mass output per unit time (ng/min) at a set point temperature. A graph which shows an estimated permeation rate vs. temperature from 0 to 50°C is included with each device.



Comparison of G-Cal permeation devices and Dynacal PTFE permeation devices

### MORE INFORMATION

Dynacal perm tubesp. 229

### COMPOUNDS AVAILABLE IN G-CAL PERM TUBES

Literally hundreds of compounds are available in our permeation devices. This list is merely representative of the range we offer. Contact us if you don't see what you're looking for.

- Ammonia
- Arsine \*
- Benzene
- Carbon Dioxide \*
- Carbon Monoxide \*
- Carbonyl Sulfide
- Chloroform
- DMMP
- Dichloromethane
- Dimethyl Sulfide
- Dimethyl Formamide
- Ethyl Chloride
- Ethyl Mercaptan
- Ethylene Oxide
- Formaldehyde
- Freons
- Hydrogen Fluoride
- Hydrogen Sulfide
- Methane \*
- Methanol
- Methyl Mercaptan
- Nitric Oxide \*
- Nitrogen \*
- Nitrogen Dioxide
- Nitrous Oxide \*
- Oxygen \*
- Phosphine \*
- Propylene Oxide
- Sulfur Dioxide
- Sulfur Hexafluoride
- Toluene
- Vinyl Chloride
- Water
- Xylenes

\* Available only in G-Cal permeation devices.

\* US Patent No. 4,399,942

**CHROMalytic TECHNOlogy Pty Ltd AUSTRALIAN Distributors e-mail: sales@chromtech.net.au Tel: 03 9762 2034**