



5% CO₂ Diffusion Head Calibration Instructions

Valtronics CO₂ Diffusion Head Calibration Kit:

2 cylinders of calibration gas:
one of 99.8% Nitrogen
one of 5.0±0.1% CO₂

Regulator:

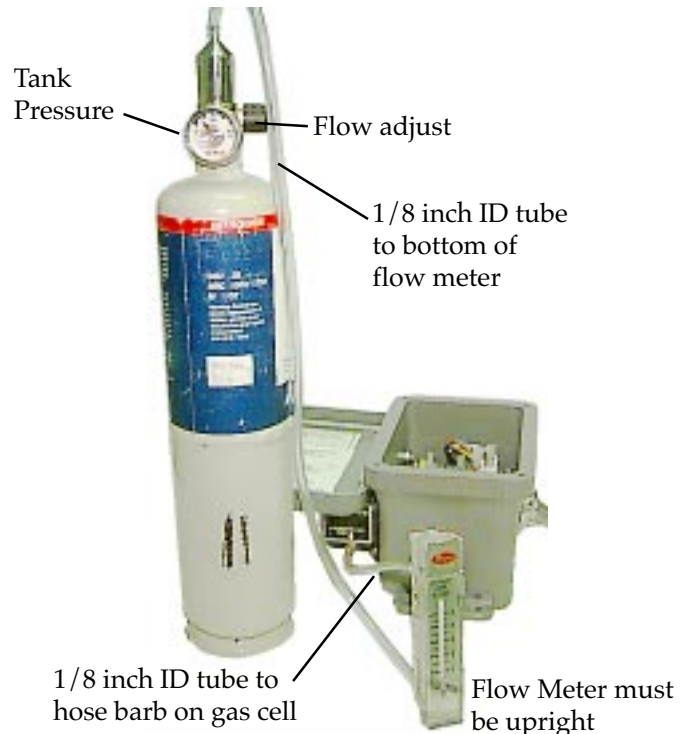
reusable 0.3 LPM
with on/off valve

Flow meter - 1-500 ml/min

Tubing

Twin-pack carrying case

To order please call (209) 754-0707
or FAX (209) 754-0104



Gas calibration should be done a minimum of once every six months (at least ZERO calibration).

CALIBRATION INSTRUCTIONS:

1. Remove protective cap from top of nitrogen cylinder. Push and thread pressure regulator valve onto cylinder outlet.
2. Connect plastic tubing from pressure regulator outlet to flow meter inlet. (bottom connection of flow meter)
3. Connect plastic tubing from flow meter outlet (top connection) to unit to be tested.
4. Make sure unit to be tested is turned on and has had a 5 minute warm-up.
5. Connect voltmeter to voltage signal output or observe signal output on field test unit.
6. Make sure flow meter is in an upright position. Open flow valve slowly while observing flow meter.
7. Adjust the flow to between 200 - 300 ml/min.
8. After 3 minutes of continuous nitrogen flow, observe signal output and perform zero adjustment (0.00 volts) if required.
9. Turn off flow valve and remove pressure regulator valve from nitrogen cylinder.
10. Replace nitrogen cylinder with cylinder containing 5.0% CO₂.
11. Open flow valve and observe signal output. (see scale data for voltage reading)
12. Allow sample to flow until final indication is obtained. Adjust span potentiometer if required. (see scale data for voltage reading at 5.0%) 1.00 volts for a Model 2008 5% CO₂ full scale. (If you use 1% CO₂ the output should be 0.200 volts)
13. Turn off flow valve and remove pressure regulator from cylinder.

Application Note: A 36



Gas Calibration Hose Barb
in place of #10-32 screw



Tubing to connect to
CAL GAS port on
gas monitor



VALTRONICS Calibration Gas Kit for Diffusion Head type gas monitors

Notes:

- **Field Calibration Kits** are available
they consist of: one tank with an 8 hour supply of 99.8% N₂
one tank with an 8 hour supply of 5.0% CO₂
a pressure regulator, flow meter, and carrying case
Concentrations of 0.1% (1000 ±20 ppm certified) CO₂, 0.2%, 0.5%, 1%, 5%, and 15%
are in stock. These are all certified to be ±2% of reading.
- Replacement gas tanks are CO₂ and N₂.
These 14" high tanks contain 3.6 ft³ or 103 liters @70°F and 1000 PSIG.
- Special gases and concentrations may be ordered with 3-6 week lead times
depending on the specific gas ordered.
- All volume discounts are based upon a single shipment
- Prices are subject to change without notice.