

Using the **INLET** side of the hydrophobic filter to conserve calibration gas by using a lower flow rate.



**INLET** side of Hydrophobic filter. See **Application Note A24** for complete gas calibration instructions.

To conserve calibration gas, you turn the pump switch **off**, disconnect the tubing to the **INLET** side of the hydrophobic filter as shown and flow nitrogen at about 0.3 to 0.5 liters per minute to the inlet side while measuring the 0 to 5 volt output at TB1 between pin 8 and pin 9 for voltage value. Adjust **ZERO** if necessary. See **Application Note A46** for the location of all adjustments.



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See the **specification sheet** for the specific full scale **Model 2166** you are calibrating and find the response scale chart that shows both the 0 to 5 volt and 4-20 mA outputs as a function of gas concentration. As an example, a 1% CO<sub>2</sub> full scale unit should have a 2.50 volt output or 12.0 mA output for certified 0.5% CO<sub>2</sub> span gas.

Change tanks from nitrogen to the certified SPAN gas and flow it into the INLET side of the hydrophobic filter at about 0.3 to 0.5 liters per minute until the 0 to 5 volt reading stabilizes . Adjust SPAN if necessary to match what the chart says it should read.

Go back to the nitrogen tank and make sure the ZERO is still within 0.00±0.03 volts. Most of the sensor calibration drift with time is ZERO drift so most of the time just a ZERO adjustment with nitrogen or fresh air if you are sure it is fresh will make the unit read accurately.