



# Tips for Correct Gas Sampling with Pumped Instruments

**Houston, TX – May, 2021** – In many situations and at various work sites, it is important to ensure the safety of a confined space before entering, with pre-entry gas checks. This could also be a risk assessment or permit to work requirement. Using a pumped instrument with a sampling tube is an excellent way to conduct pre-entry checks to determine the safety of a confined space.

However, such measurements are not simple and that is why it is important to follow these instructions:

1. Before proceeding, perform a function check using the pump and sample tube with the gas to be detected
2. Make sure that the temperature of the sampling tube is above the flashpoint temperature of the target gas in order to decrease the risk of absorption of the gas/vapor in the sample tube
3. The monitor should be correctly calibrated for the target gas
4. Only use the sample tube supplied by a reliable company
5. The sample tube length should be kept as short as possible
6. Allow enough time for the gas to reach the sensor. It may need 3 seconds per meter in addition to the T90 response time of the sensor.

7. Also note that some of the gases are 'reactive' gases. These gases can react with, or be absorbed by, the material with which they come into contact. As a result, the gas concentration that reaches the sensor may reduce and result in an incorrect reading

8. Apply appropriate accessories and precautions during the measurement, calibration or bump testing of sensors when targeting reactive gases

9. While taking sample measurements –

- Teflon, FEP or PTFE tubing should be used with the tube length kept as short as possible without any connectors or unions
- The sample should flow through the regulator/pipe for at least 3 minutes, for initial absorption to occur, before taking a reading

10. Keep the following points in mind –

- Recommended gas flow-rate is 0.5 liters per minute
- Gas generators should be used instead of gas cylinders, for gases where very low ppm concentrations are required
- Only stainless-steel regulators should be used for cylinder gas
- Use the correct calibration adaptor, appropriate for the specific product.

The above tips will allow your devices to deliver accurate pre-entry checks and ensure that everyone remains safe.

If you are looking for gas detector rental and repair in Houston, TX, talk to [Green Light Safety](#) at **832-262-9931** right away. Green Light Safety specializes in rentals, sales, service and calibration of Gas Detection equipment. With over 15 years' experience in this industry, Green Light Safety specializes in rentals, sales and service of Gas Detection equipment as well as calibration of the equipment.