



G460 Ozone Calibration

Technical Note 1002

The GfG G460 Multi-gas detector may be configured for the detection of up to 6 gases. Some gases require the use of special procedures and equipment. This includes Ozone (O_3). Special tubing and calibration adapters must be used to prevent the calibration gas from affixing itself to the calibration equipment.

The calibration adapter used to calibrate ozone sensors is a small cup-style adapter that must be held in place manually when performing the calibration. The tubing has a special lining that does not scavenge the gas before it can reach the sensor.

Identifying the Correct Sensor Port

Since this adapter only allows the delivery of gas to a single sensor diffusion port rather than to all sensors, the specific port for the sensor to be calibrated must be identified.

Unlike other sensors ozone sensors do not have a white hydrophobic filter in front of them, but rather a rapid diffusion metal mesh screen. The metal screen is medium gray in color as shown in figure 1.



Figure 1. Ozone sensor port magnified

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Calibration equipment

The calibration equipment consists of a handheld cup-style calibration adapter and special lined tubing. See figure 2.



Figure 2. Calibration adapter and tubing

Calibration

Follow the calibration steps outlined in the G460 manual. When you are ready to apply the gas to the ozone sensor attach the supplied tubing to the regulator or to the outlet of the gas generator. Start the flow of gas and hold the calibration adapter firmly in place over the sensor as shown in figure 3.



Figure 2. Calibration adapter and tubing

Additional information

- When calibrating with certain gases, including chlorine the flow rate of the regulator or gas generator must be 1 liter per minute.
- Make sure to keep calibration material clean
- Follow the recommendations outlined in the G460 manual for calibration and verification of accuracy frequencies.
- Ozone sensors are not protected by a hydrophobic filter, so extra care must be taken not to expose these sensors directly to water as it may damage the sensors.
- If you have any question contact GfG technical support at 800-959-0329.

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