

Manual Addendum: Ozone Detector Calibration



Due to the reactive nature of ozone (O₃) special procedures should be followed when calibrating gas detectors that incorporate an ozone sensor. By following the guidelines for calibration below users will maximise the protection level that their gas detectors give them.

Always calibrate Crowcon ozone detectors with ozone only.

Fittings:

For ozone calibrations all fittings and pipe work should be stainless steel, brass, aluminium or PTFE. Fittings or pipe work in other plastic materials such as Tygon must not be used.

Gas flow rate:

It is important that the flow rate is set correctly as otherwise pressure effects may distort calibration values and prevent the gas detector from working correctly. To calibrate Crowcon portable detectors the flow rate should be set between 0.8-1.0 litres / minute (0.03-0.04 cubic feet / minute).

Normal safety precautions for handling ozone should always be observed along with any special instructions that accompany the calibration gas cylinder or generator being used.

Model specific instructions:

Below is information about the calibration of specific Crowcon detectors. This differs between models due to the different interactions of sensors and gas flows in each type.

Gasman

The standard flow plate should be used to supply gas at the flow rate stated above.

Tetra: 3

For calibrating the ozone sensor the special flow plate marked "Ozone Only" (part number S012975) should be used. Note that the standard flow plate must be used for calibrating the other gas sensors.

Tetra

For calibrating the ozone sensor, the flow plate with four inlets (part number S012976) should be used. The ozone sensor should always be at position 3 as marked on the aspirator plate. Note that the standard flow plate must be used for calibrating the other gas sensors.

I-module sensor assemblies Spare

Ensure spare I-modules are always zeroed in clean air before use.

Upon installing the I-module, switch on the unit in clean air and autozero on start-up, if autozero is disabled on start-up, autozero using the front panel display menu.

Refer to the user manual for detail on how to autozero.

This is applicable to ozone I-module assemblies S011432/M and S011432 only.

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