

# Crowcon Technical Note

**Document Reference:** GEN017 – Ozone Detector Calibration – Issue 2

**Date:** 22/6/2018

**Document applies to:** Crowcon Detectors with Ozone sensors

## Ozone Detector Calibration

Due to the reactive and unstable nature of ozone (O<sub>3</sub>), 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.

**Crowcon ozone detectors should be calibrated with ozone only, and due to the unstable nature of ozone, the use of an ozone generator is recommended.**

Portable detectors can be returned to Crowcon, or an authorised service centre for calibration with an ozone generator. Fixed detectors should be calibrated in-situ, and Crowcon service engineers carry a portable ozone generator for this purpose.

*NB: The use of chlorine for cross calibration is not recommended, as the levels of cross sensitivity can vary from sensor to sensor. Low concentrations of Chlorine (within the range of the ozone sensor) can however be used to check if an ozone sensor is responsive to gas.*

**Fittings:** For ozone calibrations all fittings and pipework should be stainless steel, brass, aluminium or PTFE. Crowcon also sell tubing specifically for use with reactive gases (part number AC0301).

**Gas flow rate:** A flow rate of 0.5-1 litre per minute is recommended; please see product user manuals for specific flow rates.

The following models require the use of ozone specific flow plates:

### Tetra:3

The “Ozone Only” flow plate (part number S012975) should be used when calibrating the ozone sensor. Note that the standard flow plate should be used for calibrating the other gas sensors.

### Tetra

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. (Ozone sensors should not be fitted to pumped Tetras).

For other products with ozone sensors, the standard flow plate / calibration adaptor should be used.

For further information, please contact [customersupport@crowcon.com](mailto:customersupport@crowcon.com) +44 (0)1235 557711.