

8.1 Portable gas detectors and monitors

All portable gas detectors and monitors used for atmospheric testing and monitoring during confined space entry shall comply with the requirements of AS/NZS 60079.1 and AS/NZS 60079.2.

All MAC owned portable gas detectors must be added to the sites register, refer to MAC-STE-REG-086 Register of Portable Gas Detectors.

No contractor owned or hired gas detectors shall be used for Confined Space activities on site, unless prior approval is obtained in writing from the MAC appointed Statutory Electrical Engineer.

All portable gas detectors shall be periodically serviced, calibrated or tested by an external NATA accredited laboratory. A calibration label shall be applied to the detector showing the name of the NATA accredited laboratory and the next calibration date, as a minimum. The calibration frequency shall be as per OEM recommendations or every 6 monthly where OEM advice is not identified.

All portable gas detectors must be "BUMP" tested prior to each use. BUMP test units and charging stations must be available at the point of issue. BUMP test units shall be serviced and tested annually to ensure the testing of detectors provides accurate results. BUMP test stickers must be applied to the portable gas detector and the Confined Space Permit.

Portable gas detectors used for the testing and monitoring of atmospheres for confined space activities must be set up with the following alarm levels shown in Table 9 1 below. Further information on interrogating and checking alarm levels on gas detectors is included in Appendix 3 of this standard.

Table Error! No text of specified style in document.-1 Gas in atmosphere alarm levels for portable detectors

Gas	Entry to a Confined Space	Evacuation of a Confined Space	Short Term Exposure Limits	Time Weighted Average Limits
Hydrocarbons e.g. Methane (CH ₄)	≤ 5% LEL	≥ 10% LEL	-	-
Oxygen (O ₂)	Between 19.5% and 23.5%	< 19.5% or > 23.5%	-	-
Carbon Monoxide (CO)	≤ 30 ppm	> 30 ppm	200 ppm	30 ppm
Hydrogen Sulphide (H ₂ S)	≤ 10 ppm	> 10 ppm	10 ppm	10 ppm

Document Reference - MAC-STE-STD-147