

Carbon Dioxide Monitor Guidance Note

Good Ventilation is a key control in reducing the risk of spreading communicable diseases. A range of methods are in place to measure and [improve ventilation](#) at the University and this includes the provision of carbon dioxide (CO₂) monitors in some spaces.

CO₂ monitors can provide a guide to the adequacy of ventilation within a space and help identify poorly ventilated areas.

- Measurements must be considered over a defined period, to give a holistic representation of ventilation levels in the space. Results taken at a snapshot in time, can be misleading.
- Do not interfere with the monitors in any way, by moving them, altering settings, or breathing closely on the devices as this can lead to misleading results.

Raised CO₂ levels are not a direct measure of possible exposure to a communicable disease and subsequent respiratory infection.

Below is a list of CO₂ measurements and guidance on how the spaces can be managed in line with those readings.

CO ₂ reading in parts per million (ppm)	Action required
400ppm or below (Green indicator on NDIR monitor)	Report to wshelpdesk@swansea.ac.uk using the template provided below. This is more representative of outdoor areas. The monitor may be faulty or in the wrong location. Monitor to be relocated by E&FM to review readings.
400-800ppm (Green indicator on NDIR monitor)	Space is well ventilated. No further action required. Continue to monitor readings for any significant changes.
800ppm-1500ppm (Amber indicator on NDIR monitor)	Elevated levels of CO ₂ in the space. This is not a cause to vacate or stop activity. <ul style="list-style-type: none"> • Open doors (not fire doors) and/ or windows where possible. • Continue to monitor levels as the session progresses, to check for significant changes.
1500ppm and above (Red indicator on NDIR monitor)	If these readings are noted at the beginning of a session or remain consistent over a 15-minute period, take the following action: <ul style="list-style-type: none"> • Open doors (not fire doors) and windows that are not already open. • Reduce the room capacity/ vacate the room for 15 minutes or so the CO₂ levels drop back to below 1500ppm. • Consider the activity – is it contributing to the increased CO₂ i.e., exercise, shouting, singing and aerosol generating activities.

Please report any consistently high amber or red readings to wshelpdesk@swansea.ac.uk using the template below:

CO ₂ Monitor Asset number	CO ₂ Monitor reading (PPM)	Building	Room Number	Time of day	Number of people in the space