

MERLIN CO2 24HR AVG

Complies with Scottish Technical Handbook 2015



The Merlin CO2 24hr AVG

The Merlin CO2 24hr AVG by S&S Northern is a household Carbon dioxide monitoring system. Visual and audible indications can notify occupants to improve ventilation.

Specifically designed in line with the Scottish technical handbook



Features

- Clear digital readings of the live CO2 levels.
- LED warning lights when the CO2 levels increase.
- Push button on the fascia to display the 24 hr CO2 average, which is updated every 15 minutes along with the previous 8-hour average and highest CO2 level within the last 24hrs.
- 240v AC Main Powered.
- Self-contained double insulated therefore no earth is required.
- Terminal outputs to control mechanical air ventilation.
- Complies with the Scottish Technical Handbook October 2015 requirements for CO2 monitoring with domestic dwellings.
- 2 Year Warranty, Manufactured in Britain.

Scottish Technical Handbook October 2015 3.14.2 Ventilation awareness in dwellings



Carbon dioxide (CO₂) is present in the external air we breathe at concentration levels of around 400 parts per million and is not harmful to health at low concentration levels. However, as people release CO₂ into the air when they exhale, increased levels of CO₂ in occupied buildings can occur. This is generally accepted as being a reasonable indication that ventilation action is necessary.

CO₂ monitoring equipment should be provided in the apartment expected to be the main or principal bedroom in a dwelling where infiltrating air rates are less than 15m³/hr/ m² @ 50 Pa. This should raise occupant awareness of CO₂ levels (and therefore other pollutants) present in their homes and of the need for them to take proactive measures to increase the ventilation. Guidance on the operation of the monitoring equipment, including options for improving ventilation when indicated as necessary by the monitor, should be provided to the occupant.

For more detailed information on the provision of guidance to occupants, reference may be made to “Domestic Ventilation” Scottish Government 2015 <http://www.gov.scot/Resource/0040/00409104.pdf>. The installed monitoring equipment for CO₂ should be mains operated and may take the form of a self-contained monitor/detector or a separate monitor and detector head.

The monitor should have an easily understood visual indicator and be capable of logging data to allow the occupant to gain information on CO₂ levels for at least the preceding 24 hour period. If the detector/monitor has an audible alarm this should be capable of being permanently deactivated. CO₂ monitoring equipment should be capable of recording and displaying readings within a range of at least 0 – 5,000 parts per million. The equipment should also be capable of logging data at no more than 15 minute intervals, over a 24 hour period. Where carbon dioxide monitors/detectors are within the scope of either or both: • European Directive 2006/95/EC – Low Voltage Directive, and/or • European Directive 1999/5/EC – Radio and Telecommunication Terminal Equipment Directive they should be constructed to fully comply with all applicable safety aspects of the Directive(s).

A carbon dioxide detector head requires a flow of air over it to operate correctly, therefore, it should not be located in an area that is likely to restrict the free movement of air. Unless otherwise indicated by the manufacturer, a carbon dioxide detector head should not be sited:

- *if ceiling mounted, within 300mm of any wall*
- *if wall mounted, within 150mm of the ceiling or a junction with another wall*
- *where it can be obstructed (for example by curtains, blinds or furniture)*
- *next to a door or window, or*
- *next to an air vent or similar ventilation opening. Unless otherwise indicated by the manufacturer, a carbon dioxide monitor, with or without an integral detector, should be mounted between 1.4m and 1.6m above floor level.*