

THE MERLIN RANGE

CT2000S SYSTEM

The Merlin 2000S ventilation interlock system is specifically designed for use in commercial kitchens to meet BS6173. This panel is designed for use when the kitchen appliances do not have flame failure devices fitted, therefore gas proving is a requirement.

The Merlin 2000S System acts as an interlock between the ventilation system and the gas solenoid valve. The system is compatible with both current monitors and air pressure differential switches in order to interlock with up to 4 fans. The Merlin 2000S is fitted with CO2 Mode which suits new Gas safe bulletin TB140 and allows the kitchen to have access to their gas supply for up to 24 hours in the event of a fan fault as long as they have a CO2 Monitor fitted and the air quality is at a safe level. The Merlin 2000S can also work in conjunction with natural gas, carbon monoxide and LPG sensors.



Key Features of the Merlin CT2000S System

- Allows Compliance with BS6173 for commercial kitchens and also suits TB140
- Clear LED display for system indications
- Gas proving for when kitchen appliances are not fitted with flame failure devices
- BMS Normally Closed or Normally Open and Common
- Low Pressure monitoring for incoming gas supply
- Allows Kitchen Staff to have gas supply for up to 24 hours in event of a fan failure using the Merlin CO2 Monitor
- Interlocking with fans using either Air PD switches or fan current sensors to interlock up to 4 fans
- Easy Installation
- Will accept remote emergency knock-off buttons
- Covered by S&S Northern Ltd 3 year warranty.



KITCHEN EQUIPMENT ENGINEERED TO MEET BS6173

Ventilation/gas Interlock ensures the gas solenoid valve cannot be opened until any fans connected to the panel are operating. If at any time the fan fails a signal will be sent to close the gas solenoid valve, the panel will read "fan fault" and the "LED" relating to the fan that has failed will flash.

The gas pressure proving is carried out using our gas pressure transducer fixed into the downstream port of the gas solenoid valve. If the Merlin 2000S detects there is a drop in gas pressure, or a gas leak, within the 30 second start-up period, the gas solenoid valve will not be allowed to open and the panel will show "test fail". Is the gas line is found to be sound the panel will go to "Gas on" and the gas solenoid valve will open. If the incoming gas pressure drops below 12mb, for more than 10 seconds, the gas valve will shut and the "pressure low" LED will illuminate.

The Merlin 2000S also suits the new Gas Safe TB140 as it is fitted with CO2 mode, assuming a

carbon dioxide sensor is fitted this allows the kitchen to have access to the gas supply in the event of fan failure. When the 'fan fault' light is illuminated red, the kitchen staff can hold the CO2 Mode button in for 5 seconds the 'fan fault' will then go off and the CO2 Mode will come on. The Merlin 2000S System and the external Merlin CO2 Monitor will monitor the CO2 Levels only and allow the gas solenoid valve to stay open for a maximum of 24 hours considering the CO2 Levels are at a safe level. If the CO2 level reaches 4500ppm the panel will go into alarm and the gas solenoid valve will close.

Natural gas, carbon monoxide and LPG detectors can be used with the Merlin 2000S. If the detector goes into alarm due to a build-up of gas the system will sound an alarm and shut the gas solenoid valve preventing further gas leakage and the "gas detected" light will be illuminated red.



S&S Northern has a full technical team available on 01257 470 983 or if you are based in the South East please call 01702 291 725

Merlin CT2000S System Wiring Diagram

1. 230v AC Supply
2. 230v AC output to valve
3. Input - close when fan on
(for use with PD switches or current monitor)
4. Terminal for BMS connections
5. Pressure sensor input
(wire to pressure transducer using 3 core wire)
6. Remote emergency stop button input
7. Gas detector input & Permanent 12v DC output
8. CO2 Monitor output
9. Permanent 12v DC output
(normally used to power PM2 current monitor)

Merlin CT2000S Box Dimensions

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|--------|-------|
| Height | 178mm |
| Length | 254mm |
| Depth | 62mm |

