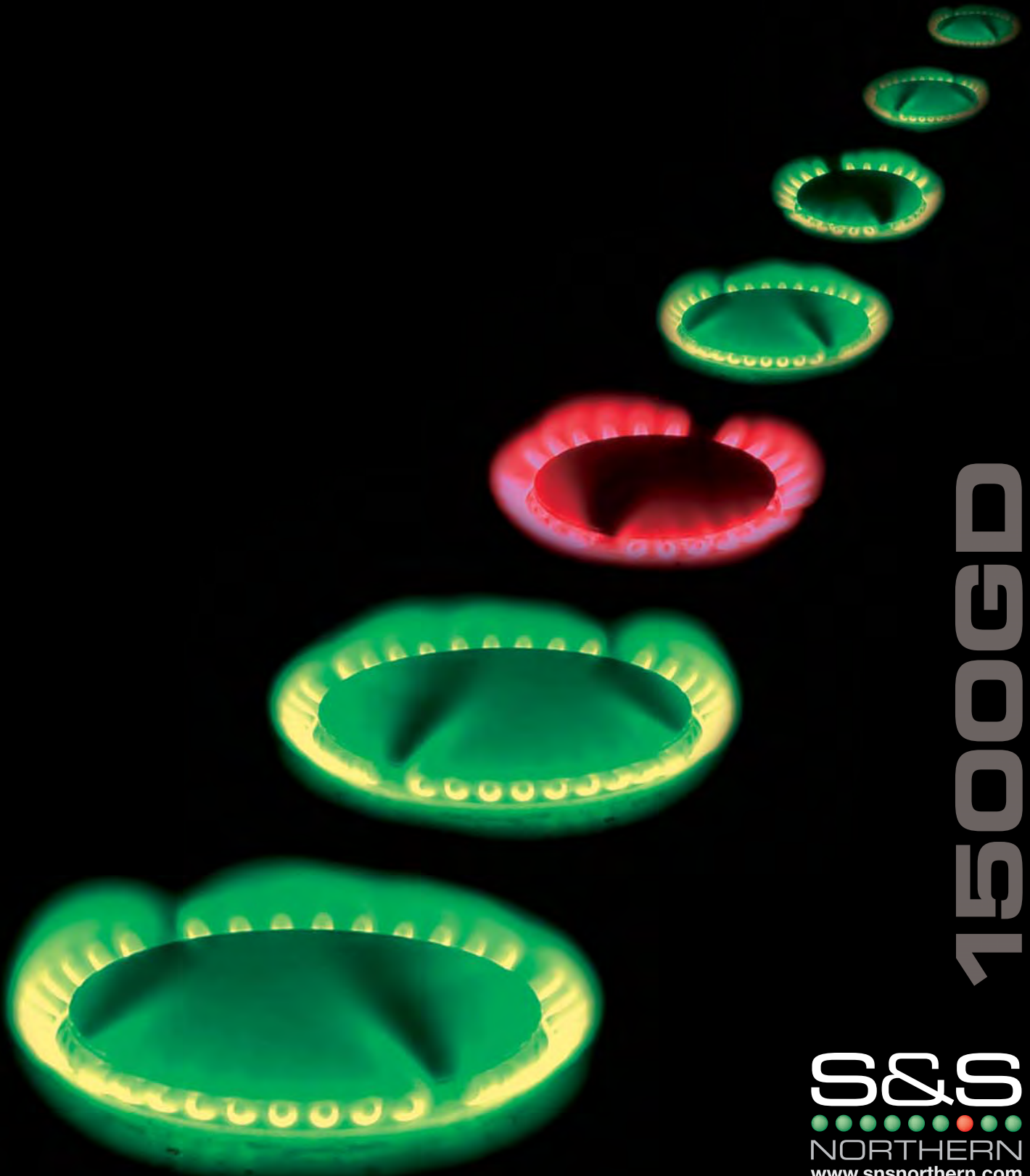


MERLIN RANGE

KITCHEN EQUIPMENT



1500GD

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Merlin 1500GD

The Merlin 1500GD ventilation interlock system is designed specifically for use in commercial kitchens to meet **BS6173: 2001**, which is now a much-recognised standard in the catering industry.

This panel is to be used when the kitchen appliances **do** have flame failure devices. Therefore Gas proving is not a requirement.

The Merlin 1500GD acts as an interlock between the ventilation system and the gas solenoid valve. It ensures the gas solenoid valve cannot be opened until the ventilation system is proven to be operating. The fans can be monitored with either air pressure differential switches or by means of a current monitor.

To operate the Merlin 1500GD the fans should be turned to the "on" position, once our panel receives a signal to indicate the fans are operational the key on the panel can be turned to the "on" position and this will open the gas solenoid valve. If the fans should fail, the "fan fail" LED on the panel will illuminate and the gas solenoid valve will close.

1500GD

KITCHEN EQUIPMENT

Operating the system in the above manner will ensure the requirements of **BS 6173:2001** are fully met where all the catering equipment has flame failure devices fitted.

Installation for the Merlin 1500GD is easy, there is no calibration. Wiring of the system is straightforward using low voltage connections for all air PD switches and remote emergency stops. (See wiring diagrams). A corgi registered plumber would be required to fit the gas solenoid valve.

All Gas solenoid valves and control panels supplied by S&S Northern carry a full 3-year manufactures warranty.



Air PD Switch (Low Voltage)

We only supply the highest quality air PD switches for increased longevity and reliability. Electrical connections are made by use of two-core low voltage wiring.

Incorporated in the Merlin 1500GD is a ten second Airflow dropout delay. In the event of interruptions to airflow for less than 10 seconds the delay will allow the gas solenoid valve to remain open, preventing nuisance tripping. Should the airflow be interrupted for 10 seconds or more the fan fail LED will illuminate and the gas solenoid valve will close.

Gas Detectors

Natural gas, carbon monoxide and carbon dioxide detectors can be used with the Merlin 1500GD. 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.

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References to BS6173: 2001

“Appliances shall be interlocked with any mechanical ventilation system that is fitted to enable the safe operation that appliance.

Where appliances are not fitted with full flame safeguards, e.g. some second-hand appliances, the system shall also be fitted with a system to prove closure of all valves prior to the establishment or restoration of the gas supply.”

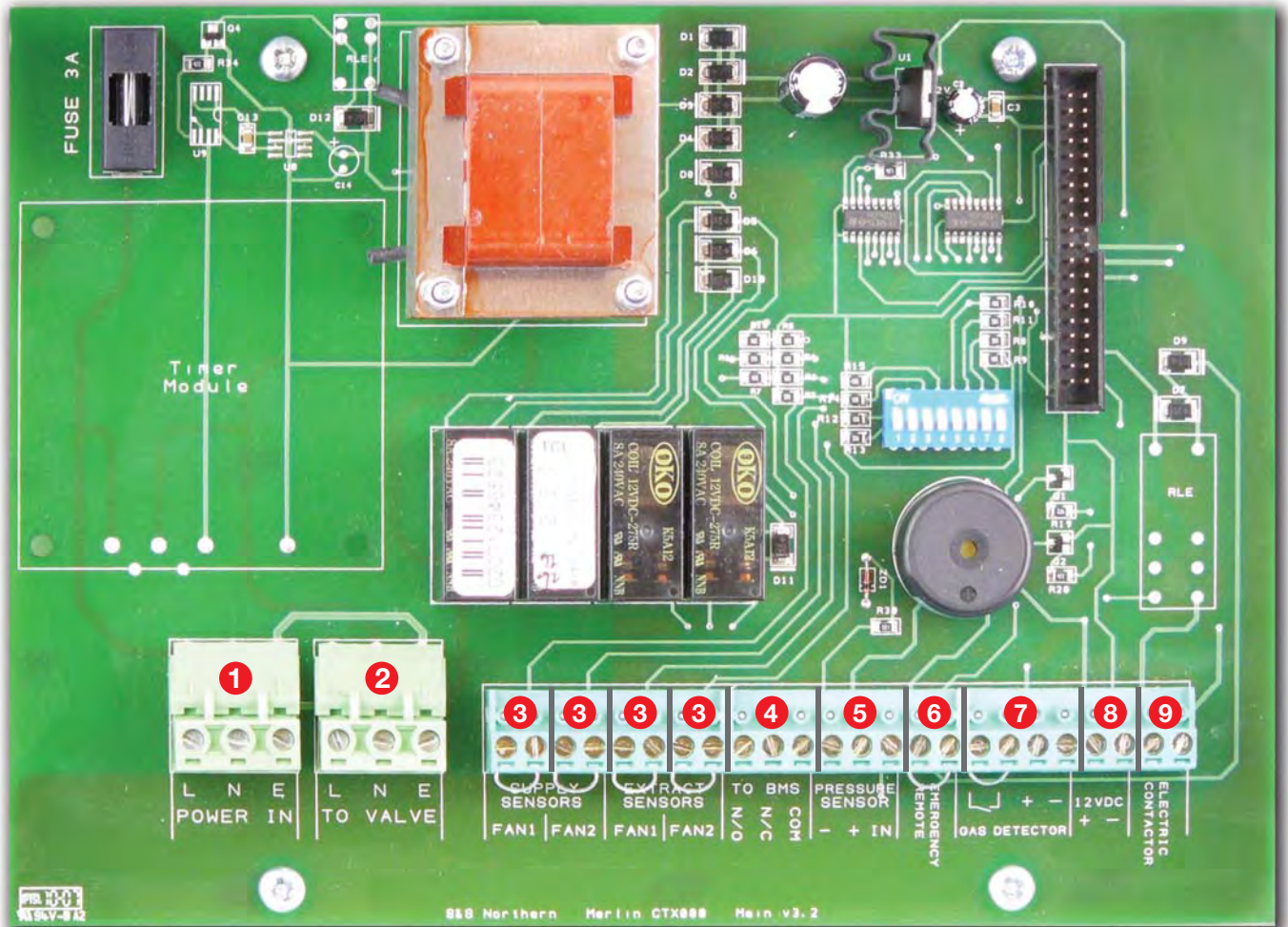
Key features of the Merlin 1500GD

- Complies with **BS6173: 2001** for commercial kitchens
- Clear LED display for system indications
- Interlocking with fans using either air PD switches or fan current sensors.
- Easy installation
- Key operation giving user full control



1500GD

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Merlin 1500GD 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 Disabled
- 6 Remote emergency stop button input
- 7 Gas detector input & Permanent 12v DC output
- 8 Permanent 12v DC output (normally used to power PM2 current monitor)
- 9 Disabled

Merlin 1500GD Dimensions

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

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Technical Data Sheet

Ventilation Gas Interlock and Gas Shut-Off: Merlin 1500GD

The Merlin 1500GD control panel should be used in conjunction with a 230v normally closed gas solenoid valve. It can be used with either air pressure differential switches or a fan current monitor.

The 230-volt mains supply to the panel should be externally fused at 3 amps and connected to the terminals marked "L.N.E. Power in" on the Merlin circuit board.

If being used, the gas solenoid valve should be wired from the terminals marked "L.N.E to valve" on the Merlin 1500GD circuit board. Valves should be 230v.

Terminals marked "EM Rem" are provided (volt free), should additional emergency shut off buttons be required. Any amount can be used and these should be wired in series as normally closed.

Terminals marked "Gas detector" and "12v dc" are available on the circuit board. These are used when remote "Merlin" gas detectors are to be used in conjunction with the 1500GD panel. Using 4-core low voltage cable, electrical connections are made between the Merlin 1500GD panel and the remote detector. Merlin detectors are available for use with most gases.

A master fuse, rated at 2 amps and is located on the circuit board.

The Merlin control panel housing is an IP65 rated ABS enclosure measuring 178mm high 254mm wide x 62mm deep.

Air pressure differential switches can be used in conjunction with the Merlin 1500GD. Volt free connections can be made from the air pressure differential switch to the Merlin 1500GD using 2-core cable.

As an alternative to air Pd switches we are able to supply current monitors. (See PM2 information).

The PM2 will be powered by a 12v dc supply from the Merlin 1500GD, by using two core low voltage cable. An additional two-wire low voltage connection should be made from the power monitor to send a signal back to the Merlin 1500GD panel.

The live feed from the fan on/off controller to the fan should be interrupted by wiring it into the "L" terminal on the PM2, the live feed should then continue to the fan from the "OUT" terminal on the PM2. In the case of a three phase fan one of the three phases can be used. When the power monitor sends a signal indicating no current is going to the fan the gas solenoid valve will close, the "Fan Fail" LED on the Merlin 1500GD will illuminate, the LED of the fan that has failed will flash and the gas solenoid valve will close.

The complete system is designed to comply with the latest CE requirements and the low voltage Directive.



1500GD

KITCHEN EQUIPMENT

About S&S Northern

Here at S&S Northern we design, manufacture and supply the latest range of gas safety products for use in commercial kitchens, school laboratories and boilerhouses. We also design and manufacture a complete range of commercial gas detection panels.

Kitchens

The gas/ventilation interlock panels we manufacture for commercial kitchen applications will allow you to fully meet the requirements of **BS6173:2001**. We are able to supply gas pressure proving systems for use when flame failure devices are not fitted to the catering equipment. Also available is a full range of ventilation/gas interlock panels, which can be used if gas pressure proving is not a requirement. We have recently had six of our systems installed in the Palace of Westminster so whether it's a single system for the local Chinese takeaway or a number of systems for the Houses of Parliament we are able to offer you a system to suit.

Laboratories

We have, quite literally, thousands of our gas pressure proving systems installed in laboratories throughout the UK. These panels offer a safe start-up and not only protect the pupils during the course of a normal working day but also offer protection to buildings out of hours. Our gas proving range uses a single unique electronic pressure measuring system, which eliminates the problems associated with traditional "pressure switch" systems and double transducer installations

Gas Detection

Whether it is a boilerhouse, car park, shopping centre or a specialist application, we can normally supply a gas detection system to meet your requirement. The more common requirements are Methane, Carbon Monoxide, LPG or Carbon Dioxide.

Spec Wizard

We have a unique and simple way to make it easier for Design Engineers to create specifications. With spec wizard you can easily obtain details and information on which of our products is most suited to your specific needs. All you need to do is go to the product page, click on spec wizard, answer a few simple questions and the spec wizard will automatically send the details to your email for you to copy into your specification.

Warranty

All Merlin equipment is designed and manufactured in the UK and carries a three year warranty. The Merlin range was specifically designed to be user friendly and provide simple cost effective installation. The Merlin range of products is designed and manufactured to meet CE full requirements.





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