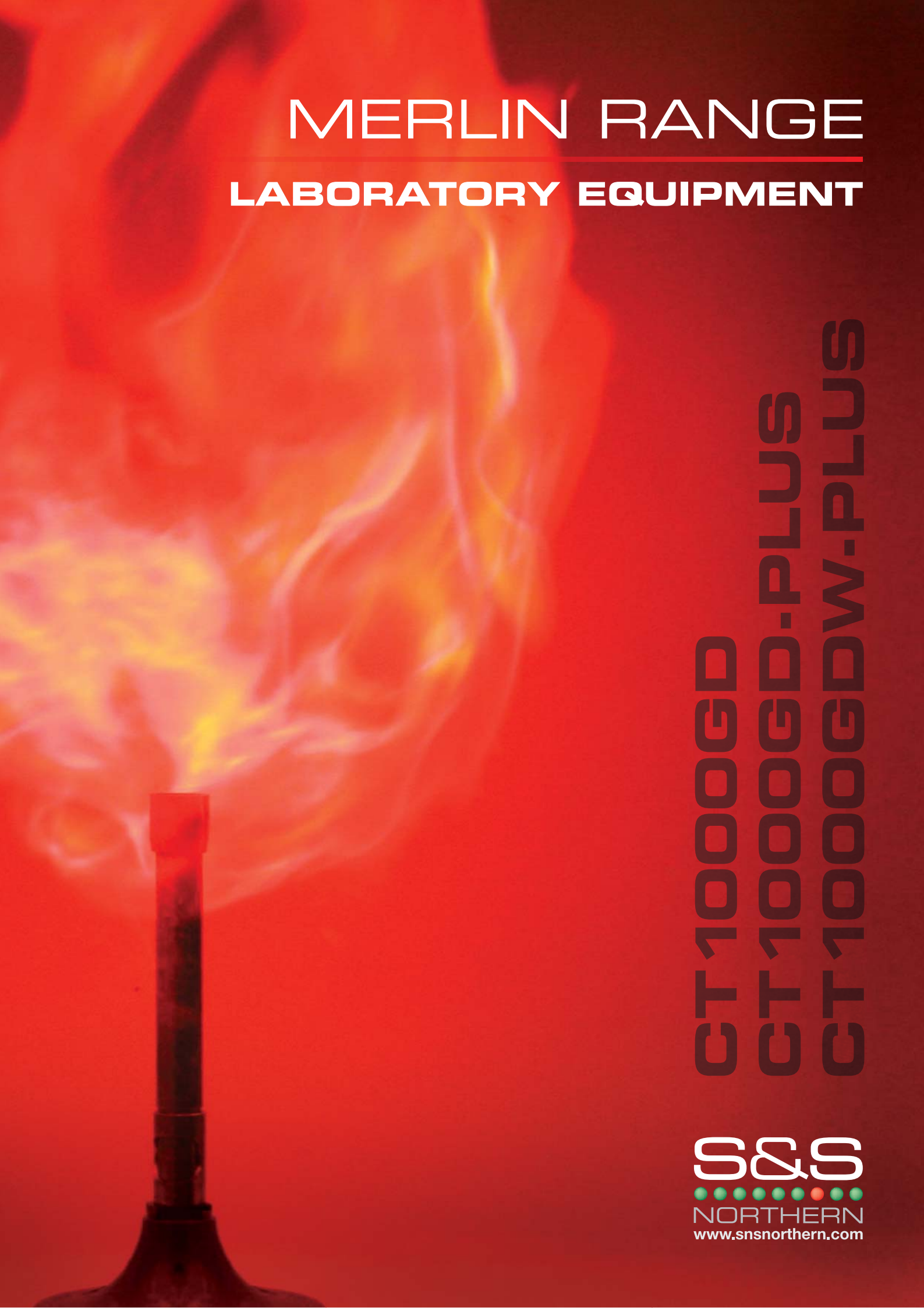

MERLIN RANGE

LABORATORY EQUIPMENT

CT1000GD
CT1000GD-PLUS
CT1000GDW-PLUS

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MERLIN RANGE

CONTENTS

Merlin 1000GD

The Merlin 1000GD gas pressure proving system is designed for use in School and University Laboratories. If there is a gas appliance open or a leak in the pipe work when the panel is turned on, the system will automatically detect a drop in pressure and will not allow the gas valve to open. Therefore preventing gas escaping into the classroom.

Merlin 1000GD-Plus

The Merlin 1000GD-Plus is designed to protect people and property by means of testing for leaking gas each time the system is switched on. Whether gas is escaping from an open gas tap, an appliance that has been left on or by a leak in the pipe work, the 1000GD-Plus will not open the gas solenoid valve should even the smallest leak be detected. In addition the Merlin 1000GD also has built in electrical isolation to control all bench electrics to the room

Merlin 1000GDW-Plus

The Merlin 1000GDW-plus uses a key switch operation on the panel, meaning the gas, electric and water supply is only available when requested. This gives the Teacher full control over gas taps, electrical sockets & water solenoid valves using individual key switches.

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1000GD

LABORATORY EQUIPMENT

Merlin 1000GD

The Merlin 1000GD gas pressure proving system is designed for use in School and University Laboratories. If there is a gas appliance open or a leak in the pipe work when the panel is turned on, the system will automatically detect a drop in gas pressure and will not allow the gas valve to open. Therefore preventing gas escaping into the classroom.

With clear LED indications the Merlin 1000GD gives you clear and concise system diagnosis.

The Merlin 1000GD is designed to give the teacher full control over the incoming gas supply with the lockable key-switch operation, if the panel is in the off postion and the key removed gas cannot be used in the classroom.

The Merlin 1000GD comes with an Emergency stop button fitted on the panel front with the capacity for additional multiple remote emergency stops to be connected to the 1000GD. All are low voltages contacts and are normally situated near a fire exit or a door.

Timeout Function

Another useful feature on the Merlin 1000GD is the ‘Time out’ facility, which is simple and straightforward to use.

The ‘Time out’ feature switches the gas supply off after a preset period ensuring that if the user should forget to switch the system off then the gas supply will automatically be isolated at the end of the ‘Time out’ period. The Time out function can be set at 2, 5 or 8 hours and can be overridden if required. This can be adjusted by a competent electrician.

MERLIN RANGE

Detectors

Natural gas, carbon monoxide, LPG or carbon dioxide detectors can be used with the Merlin 1000GD and its accompanying models. 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.

Pressure Low

When the gas pressure drops below 12mb, for more than 10 seconds, the gas valve will shut and the “pressure low” LED will illuminate. This is because at a pressure as low as 12mb the flame is weak and could simply blow out, allowing gas to continue to leak into the work environment. To prevent this the gas is constantly measured from start up.

The British designed circuitry makes the best use of digital components; this provides cost savings on initial purchases and also provides a quicker and easier installation procedure, which offers even further savings. Pictured above is the gas-proving transducer which screws into the downstream port of the gas solenoid valve. Suitable for most valves which have a ¼ “BSP downstream port.

Advantages of the Merlin 1000GD

- Easy installation, the Merlin 1000GD is designed for simple installation with the use of low voltage wiring and clearly marked PCB connections.
- Protects people and property by testing for leaks and open taps etc before allowing gas on.
- Digital electronic pressure measuring, no false dropouts, no recalibration.
- Key switch operation, gas is only on when needed, giving the teacher total control.
- Quick proving time, typically 30 seconds from switch on to ready for use.
- Countdown timer, no complicated timer resetting, protects building out of hours.
- Low pressure indication, continual monitoring of gas pressure.
- User friendly, digital design means clear system status indication at all times.
- Emergency shut off button, more can be added all low voltage. Instant gas shutdown.

1000GD

LABORATORY EQUIPMENT

Pressure Proving and Gas Shut-Off:

The Merlin 1000GD control panel can be used in conjunction with a main gas solenoid valve.

The 240-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 circuit board,

The main Solenoid valve is connected to the terminals marked L.N.E “to Valve” on the circuit board. Valves should be 240 volt rated.

The gas pressure Transducer requires wiring to the control panel with 3 core low voltage cable. Terminals are marked -, + and IN on both control panel and the gas pressure transducer device.

Connections marked EM stop are provided (low voltage) should additional emergency stop shut off buttons be required. Any number can be used, these should be wired in series as normally closed.

For setting the fill and prove time, a row of switches are provided. These times can be adjusted. (See operating instructions)

A Time out function is available this can be adjusted to 2, 5 or 8 hours or can be overridden altogether. Adjustment is made by altering the dip switches on the circuit board. (See operating instructions). In the main body of the control panel there is a master fuse rate at 3amp. The fuse is located in the main body of the circuit board.

The control panel housing is an IP65 rated ABS enclosure measuring 180mm high 255mm wide x 65mm Deep.

The complete system is designed to comply with the latest CE directives including the low voltage Directive.

Warranty

A three-year warranty is standard on all Merlin products, which includes valves and panel connections.

MERLIN RANGE

Merlin 1000GD-Plus

The Merlin 1000GD-Plus is designed to protect people and property by means of testing for leaking gas each time the system is switched on. Whether gas is escaping from an open gas tap, an appliance that has been left on or by a leak in the pipe work, the 1000GD-Plus will not open the gas solenoid valve should even the smallest leak be detected.

There are many applications for gas pressure proving, the Merlin 1000GD plus however also includes key switch electrical isolation for bench sockets. The Merlin 1000GD-Plus uses a single digital pressure transducer which screws directly into the downstream port on the gas solenoid valve. The combination of gas and electrical isolation along with the unique pressure transducer gives a cost saving over some competitors units as no brazing of copper is required. Mechanical pressure and dual transducer sensors are now a thing of the past with the development of our single screw in pressure transducer.

The key switch operation of the panel means that the gas/electric is only switched on when it is needed giving the operator full control of the environment.

When first switched on the proving time is typically 30 seconds, the Merlin 1000GD- Plus is designed to give the teacher full control over the incoming service supply with a lockable key switch operation, if the panel is in the off position and the key removed gas and bench electrics cannot be used in the classroom.

The Merlin 1000GD-Plus comes with an emergency stop button fitted on the panel front. With the capacity for additional multiple remote emergency stops and can be connected to the 1000GD-Plus; these are low voltage contacts that are normally situated near a fire exit or a door. Pressing any of the emergency stops will isolate both the gas and the electric supply.

1000GD-Plus

LABORATORY EQUIPMENT

Timeout Function

Another useful feature on the Merlin 1000GD-Plus is the 'Time out' facility, which is simple and straightforward to use. The 'Time out' feature switches the gas supply off after a preset period ensuring that if the user should forget to switch the system off then the gas supply will automatically be isolated at the end of the 'Time out' period. The Time out function can be set at 2, 5 or 8 hours and can be overridden if required. A competent electrician can adjust this.

Pressure Low

When the gas pressure drops below 12mb, for more than 10 seconds, the gas valve will shut and the 'pressure low' LED will illuminate. This is because at a pressure as low as 12mb the flame is weak and could simply blow out, allowing gas to continue to leak out into the work environment. The supply gas pressure is constantly measured from start up. The British designed circuitry makes the best use of digital components; this gives not only cost savings at point of purchase but also a quicker and easier installation procedure that offers even further savings.

Detectors

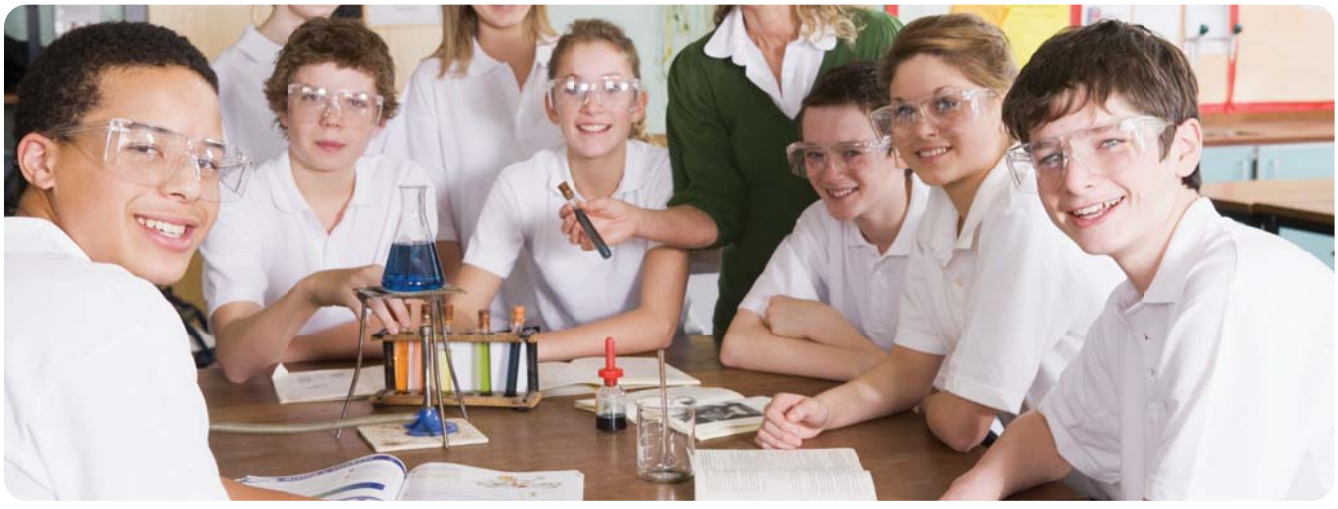
Natural gas, carbon monoxide, LPG or carbon dioxide detectors can be used with the Merlin 1000GD-Plus. If the detector goes into alarm due to a build up of gas the system will sound an alarm and shut the gas solenoid valve preventing further gas leakage.

Pressure Transducer

Gas-proving Transducer which screws into the downstream port of the gas solenoid valve. Suitable for most valve sizes which have a ¼ BSP Downstream Port.

Advantages of the Merlin 1000GD-Plus

- Easy installation, the Merlin 1000GD-Plus is designed for simple installation with the use of low voltage wiring and clearly marked PCB connections.
- Full control over Gas taps and electrical sockets using individual key switches.
- Protects people and property by testing for leaks and open taps etc before activating gas supply.
- Digital electronic pressure measuring, no false dropouts, no recalibration.
- Key switch operation, gas & electric is only on when needed, giving the operator total control.
- Quick proving time, typically 30 seconds from switch on to ready for use.
- Countdown timer for gas only, no complicated timer resetting, protects building out of hours.
- Low pressure indication, continual monitoring of gas pressure.
- User friendly, digital design means clear system status indication at all times.
- Emergency shut off button, more can be added all low voltage. Instant gas shutdown.



MERLIN RANGE

Pressure Proving and Electric/Gas Shut-Off: Merlin 1000GD Plus

The Merlin 1000GD Plus control panel can be used in conjunction with a main gas solenoid valve.

The 240-volt main supply to the panel should be externally fused at 3 amps and connected to the terminals marked L.N.E “power in” on the circuit Board,

The main Solenoid valve is connected to the terminals marked L.N.E “to Valve” Valves should be 240 volt rated.

The gas pressure transducer requires wiring to the control panel, with 3 core low voltage Cable. Terminals are marked -, + and IN on both the control panel and the pre-wired pressure transducer. Terminals on the circuit board “Electric Contactor” should be used to connect to a contactor which would normally be supplied by others and located by the distribution board.

Connections marked EM stop are provided (low voltage) should additional emergency shut off buttons be required, any number can be used and these should be wired in series as normally closed.

For setting the fill and prove time a set of switches are provided on the circuit board. These times can be adjusted (see operating instructions)

A time out function is available for the gas. This is adjustable from 2 to 8 hours or can be overridden altogether. Adjustment is made by altering the dip switches on the circuit board (see operating instructions)

On the circuit board there is a master fuse rated at 2amps. The control panel housing is an IP65 rated ABS enclosure measuring 178mm high 254mm wide x 62mm Deep.

The complete system is designed to comply with the latest CE directives including the low voltage Directive.

Warranty

A three-year warranty is standard on all Merlin products, which includes valves and panels

1000GDW-Plus

LABORATORY EQUIPMENT

Merlin 1000GDW-Plus

The Merlin 1000GDW-Plus is designed for use within a wide variety of applications including schools, colleges and university laboratories. Not only is the Merlin GDW-Plus a gas pressure proving system but it also allows key switch electrical isolation of bench sockets and the isolation of water solenoid valves. If there is a gas appliance open or a leak in the pipe work when the panel is turned on, the system will automatically detect a drop in gas pressure & will not allow the gas valve to open.

The Merlin 1000GDW-Plus uses a single digital gas pressure transducer which screws directly into the downstream port on the gas solenoid valve. This reliable method of checking for gas leaks makes installation easier and quicker than dated systems that require copper connections upstream and downstream of the gas valve. Mechanical pressure and dual transducer sensors are now a thing of the past with the development of our single screw in pressure sender unit.

The key switch operation of the panel means that the gas, electric and water is only available when requested giving the operator full control in the classroom. When first switched on the proving time is typically 30 seconds. The Merlin 1000GDW-Plus is designed to give the teacher full control over the incoming gas supply, electrical supply to the benches and the water supply into the classroom. With a lockable key switch operation, if the panel is in the off position and the keys are removed gas, bench electrics and water cannot be used in the classroom.

The Merlin 1000GDW-Plus comes with an emergency stop button fitted on the panel front. Additional multiple remote emergency stops can be connected to the 1000GDW-Plus; these are low voltage contacts that are normally situated near a fire exit or a door. Pressing any of the emergency stops will isolate the gas the water and the electric supplies.

MERLIN RANGE

Timeout Function

Another useful feature on the Merlin 1000GDW-Plus is the 'Time out' facility, which is very simple and straightforward to use.

The Time out feature switches the gas supply off after a preset period ensuring that if the user should forget to switch the system off then the gas supply will automatically be isolated at the end of the 'Time out' period.

The Time out function can be set at 2, 5 or 8 hours and can be overridden if required. A competent electrician can adjust this.

Pressure Low

When the gas pressure drops below 12mb, for more than 10 seconds, the gas valve will shut and the 'pressure low' LED will illuminate. This is because at a pressure as low as 12mb the flame is weak and could simply blow out, therefore gas could continue to leak out into the work environment. The supply gas pressure is constantly measured from start up.

Detectors

Natural gas, carbon monoxide, LPG or carbon dioxide detectors can be used with the Merlin 1000GD. 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.

The British designed circuitry makes the best use of digital components; this gives cost savings on initial purchases and also a quicker and easier installation procedure that offers even further savings.

A gas pressure transducer can be screwed into the downstream port of the gas solenoid valve. It is suitable for most valves which have a quarter of an inch BSP downstream port.

Advantages of the Merlin 1000GDW-Plus

- Easy installation, the Merlin 1000GDW-Plus is designed for simple installation with the use of low voltage wiring and clearly marked PCB connections.
- Full control over gas taps, electrical sockets and water solenoid valves using individual key switches.
- Protects people and property by testing for leaks and open gas taps etc before allowing gas on.
- Digital electronic pressure measuring, no false dropouts, no recalibration.
- Key switch operation, gas, electric and water is on only when needed, gives full teacher control.
- Quick proving time, typically 30 seconds from switch on to ready for use.
- Countdown timer for gas, no complicated timer resetting, protects building out of hours.
- Low pressure indication, continual monitoring of gas pressure.
- User friendly, digital design means clear system status indication at all times.
- Emergency shut off button on panel fascia. Additional volt free EM stops can be fitted. Instant shutdown of gas electric and water.

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1000GDW-Plus

LABORATORY EQUIPMENT

Pressure Proving and Gas Shut-Off: Merlin 1000GDW-Plus

The Merlin 1000GDW-Plus control panel can be used in conjunction with a main gas solenoid valve.

The 240-volt main supply to the panel should be externally fused at 3 amps and connected to the terminals marked L.N.E. “Power In” on the circuit Board

The Gas Solenoid valve is connected to the terminals marked L.N.E “to valve” Valves should be 240 volt rated.

The Water Solenoid Valve should be 240V normally closed, and should be connected as per the wiring diagram.

The gas pressure transducer requires wiring to the control panel with 3 core low voltage cable Terminals are marked -, + and IN on both control panel and the gas pressure transducer.

Terminals on the circuit board ‘Electric Contactor’ should be used to connect to a contactor which would normally be supplied by others & located by the distribution board.

Any Water valves should be wired as per the attached wiring diagram. Water valves should be 230V normally closed type.

Connections marked EM stop are provided (low voltage) should additional emergency stop shut off buttons be required, any number can be used these can be wired in series as normally closed.

For setting the fill and prove time a set of switches are provided on the circuit board. These times can be adjusted (see operating instructions)

A time out function is available for the gas. This is adjustable from 2 to 8 hours or can be overridden altogether. Adjustment is made by altering the dip switches on the circuit board (see operating instructions)

On the circuit board there is a master fuse rated at 2amps. The control panel housing is an IP65 rated ABS enclosure measuring 180mm high 255mm wide x 65mm Deep.

The complete system is designed to comply with the latest CE directives including the low voltage Directive.

Warranty

A three-year warranty is standard on all Merlin products, which includes valves and panels

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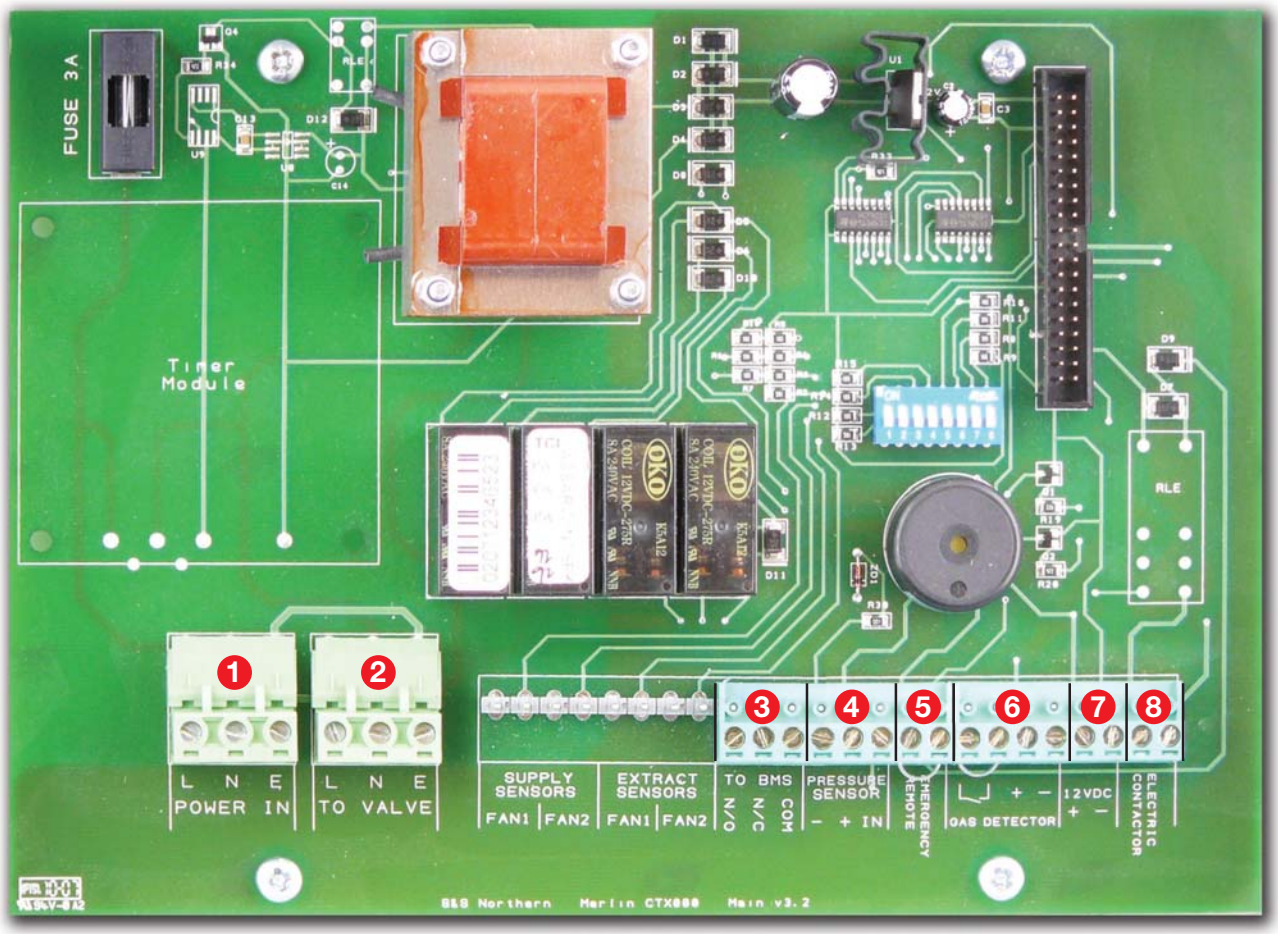

Merlin 1000GD Wiring Diagram

1. 240v AC Supply
2. 240v AC output to valve
3. Terminal for BMS connections
4. Pressure sensor input (wire to pressure transducer using 3 core wire)
5. Remote emergency stop input open when operated
6. Gas detector input & Permanent 12v DC output
7. 12v DC output
8. Disabled

Merlin 1000GD Dimensions

Height 178 mm

Length 254 mm

Depth 62 mm

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Wiring Diagrams

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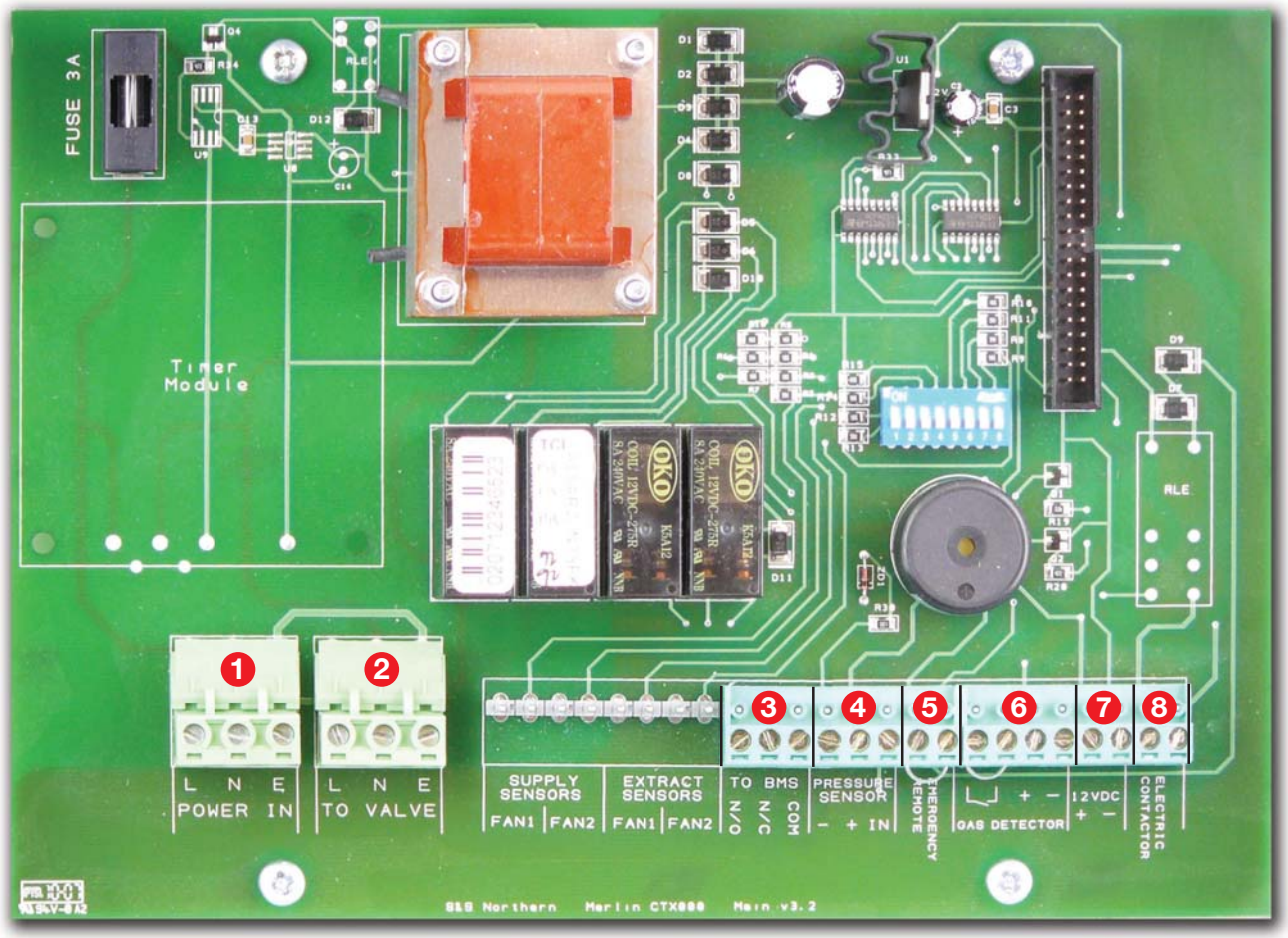

Merlin 1000GD-Plus Wiring Diagram

1. 240v AC Supply
2. 240v AC output to valve
3. Terminal for BMS connections
4. Pressure sensor input (wire to pressure transducer using 3 core wire)
5. Remote emergency stop input
6. Gas detector input & Permanent 12v DC output
7. 12v DC output
8. Electrical contact for electric supply to bench sockets

Merlin 1000GD-Plus Dimensions

Height 178 mm

Length 254 mm

Depth 62 mm

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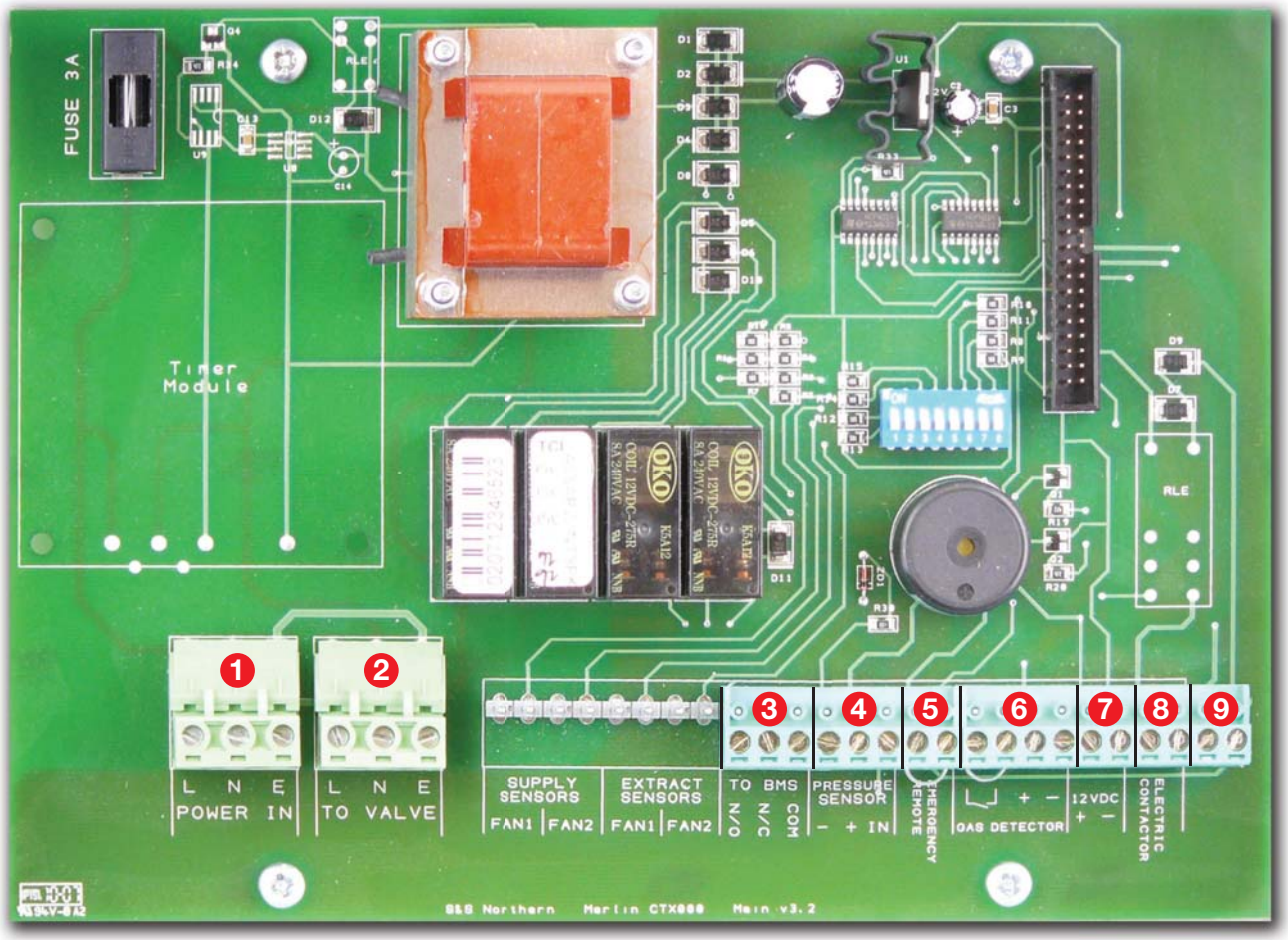

Merlin 1000GDW-Plus Wiring Diagram

1. 240v AC Supply
2. 240v AC output to valve
3. Terminal for BMS connections
4. Pressure sensor input (wire to pressure transducer using 3 core wire)
5. Remote Emergency Stop Input (open when operated)
6. Gas detector input & Permanent 12v DC output
7. Permanent 12v DC output
8. Electrical Contact for electric supply to contactor
9. Terminals for Water Solenoid Valve

Merlin 1000GDW-Plus Dimensions

Height 178 mm

Length 254 mm

Depth 62 mm

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Wiring Diagrams

LABORATORY EQUIPMENT

Other Safety & Services in our range

The laboratory equipment is only a small part of the Merlin range. Here at S&S Northern we pride ourselves on not only first rate customer service but in developing a wide range of market beating products.

The Merlin range also covers all aspects of commercial catering with an array of products available to cover the BS6173 standard for gas safety. Our kitchen models such as the best selling CT1250 are sweeping the market with systems in place to protect the health of kitchen staff all over the country, including the House of Lords and Hells Kitchen.

Further to this is the founding element of our business – gas detection. Our Merlin GSP range is a gas isolation system that marries the gas supply with elements to protect both people and property. We have a number of products ranging from single to multi-zone detection that can detect heat or a variety of gases such as LPG, carbon monoxide or oxygen depletion. All of which can be isolated by one of our Merlin panels.

We value every customer we have here at S&S Northern and as such are dedicated to ensuring that you are satisfied with our products. As such we are constantly developing and testing new products and when combined with our 3 year warranty and in-house UK based technical team we do all we can to show you why S&S Northern are specialist in gas safety and detection.

S&S Northern Ltd

Unit 2 • Dickinsons Industrial Estate • Moss Lane
Coppull • Chorley • PR7 5AL

T • 01257 470 983 F • 01257 471 937
E • info@snsnorthern.com

South East Division:
T • 01702 291 725 F • 01702 299 148

for **safety & service** contact: **s&s northern**

head office: unit 2 - dickinsons industrial estate - coppull - chorley - PR7 5AL
t • 01257 470 983 f • 01257 471 937 e • info@snsnorthern.com w • www.snsnorthern.com

southern division: 42 towerfield road - shoeburyness - essex - SS3 9QT
t • 01702 291 725 f • 01702 299 148