Boiler Room Control

GAS DETECTION EQUIPMENT ENGINEERED TO DELIVER EXCEPTIONAL LEVELS OF SAFETY

AGS
AMERICAN GAS SAFETY

AMERICAN GAS SAFETY

Gas detection and controls for boiler house applications

American Gas Safety is becoming North America's leading designer, manufacturer & supplier of the latest range of gas detection and gas pressure proving systems.

We also design, manufacture and supply a full range of gas safety systems for use in laboratories and commercial kitchens.

American Gas Safety has 30 years of experience in the gas industry and has become the trusted name to provide gas safety and installation solutions to the commercial market.

THE MERLIN RANGE

Meeting Gas Safety Standards is our business and our passion

Our fully qualified engineers and designers keep up to date with industry practices and developments, adhering to all health and safety legislation, as well as, building codes.

Our customers can feel assured that the solutions we are providing along with the technical backup are second to none.

American Gas Safety is a family run and operated business with excellent customer service and value for money at its core.

ADVANTAGES OF WORKING WITH AMERICAN GAS SAFETY

✔ Full technical support available

✔ Competitively priced

✔ Complete after sales care

✔ Full product catalogue available at americangassafety.com

✔ Easy Installation

✔ Express delivery available nationwide

✔ Modern digital design

✔ Full product operating and maintenance available online

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500S+
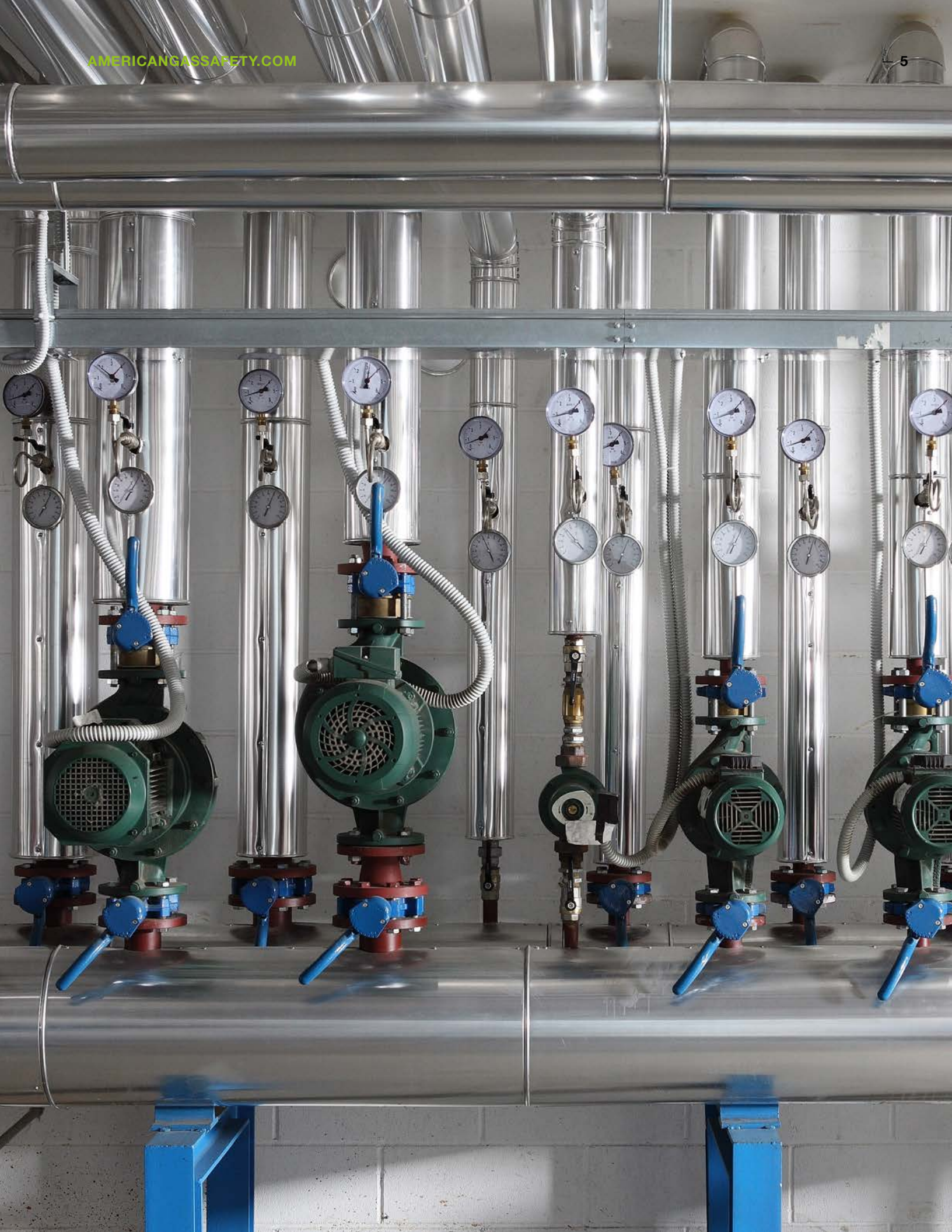Two zone utility control.
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THE MERLIN RANGE

GDP2 System

The Merlin GDP2 can be used as a single or two zone gas detection and shut off system. Used in a variety of applications including boiler-houses, plant- rooms and factories.

The Merlin GDP2 can operate with up to two Merlin detectors to monitor a variety of gases, the more common being Natural gas (Methane), Carbon Monoxide and LPG.

Gas detectors are fixed remote from the GDP2 panel & should be wired back to the GDP2 panel with three core low voltage cable. Remote emergency shut- off buttons and thermal links can also be connected to the Merlin GDP2 panel.
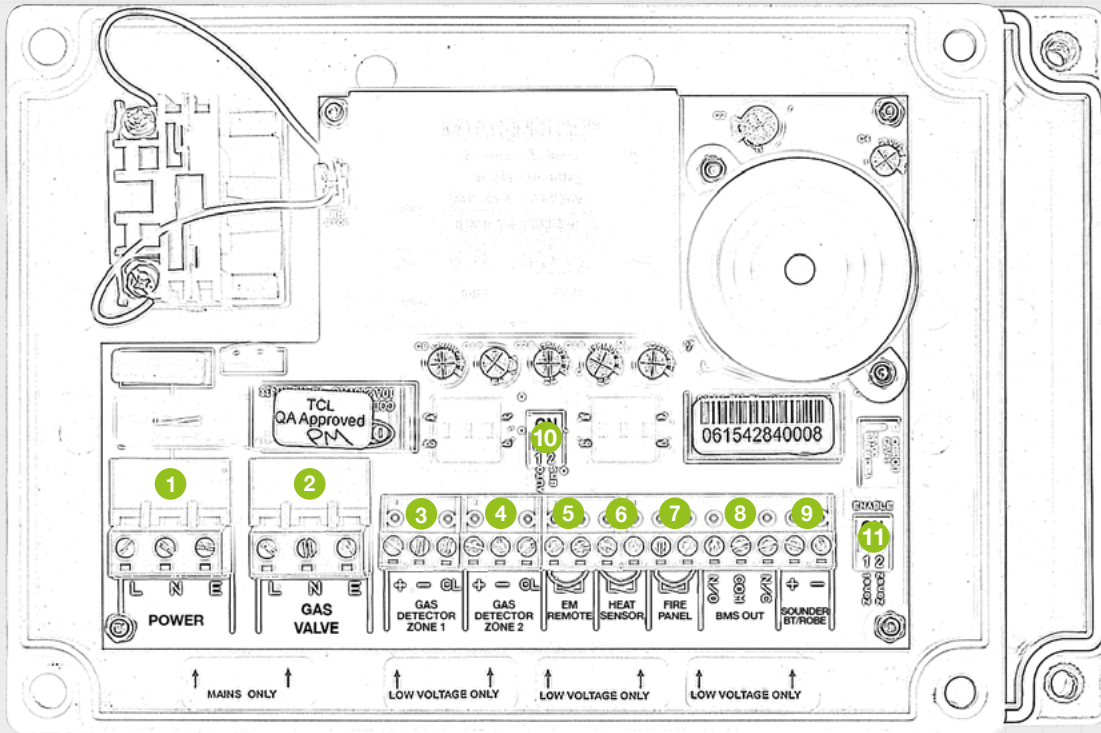

Detector Dimensions: H 3.7 inch x W 5.2 inch x D 1.3 inch

ADVANTAGES OF THE MERLIN GDP2 SYSTEM

✔ **Easy to install –** The use of clearly marked PCB connections, low voltage wiring and push-fit wiring connections makes the GDP2 very simple to install.

✔ **User friendly –** Digital LED design gives clear system indication at all times.

✔ **Easily Adaptive –** Will work with building management systems and remote fire panels.

✔ **Fitted with emergency stop as standard –** capable of accepting any number of additional emergency shut off buttons.

✔ **Covered by the American Gas Safety 3 year warranty.**

WIRING DIAGRAMS AND ANCILLARY PRODUCTS

BOX DIMENSIONS: H 4.4 INCH X W 6.4 INCH X D 2.4 INCH (EXCLUDING EM STOP)

1. Mains Input 100-120VAC

2. Gas Solenoid Valve Power Output,100-120VAC Max 3A

3. Remote Gas detector input, 24VDC power supply (sold separately)

4. Remote Gas detector input, 24VDC power supply (sold separately)

5. Remote EM Stop buttons (purchased separately). VOLT FREE INPUT

6. Fusible Links (purchased separately). VOLT FREE INPUT

7. Fire panel (Supplied by others). VOLT FREE INPUT

8. BMS output contacts. Normally Closed, Common & Normally Open

9. Sounder Alarm, 24VDC power supply (purchased separately)

10. BMS selection & Auto reset

11. Zone 1 & 2 enable/disable dip switches

MERLIN GDP2 SYSTEM WIRING DIAGRAM

THE MERLIN RANGE

GDP4 System

The Merlin GDP4 is a gas detection and shut off system that can be used with up to twelve Merlin gas detectors, Used in a variety of applications including boiler-houses, plant-rooms and factories.

The Merlin GDP4 can operate with Merlin gas detectors to monitor a variety of gases, the more common being Natural gas (Methane), Carbon Monoxide and LPG. Gas detectors are fixed remote from the GDP4 panel and are wired back to the GDP4 panel with three core low voltage cable.

The GDP4 can be used to monitor the same or a number of different gases. Remote emergency shut- off buttons and thermal links can also be connected to the Merlin GDP4 panel.
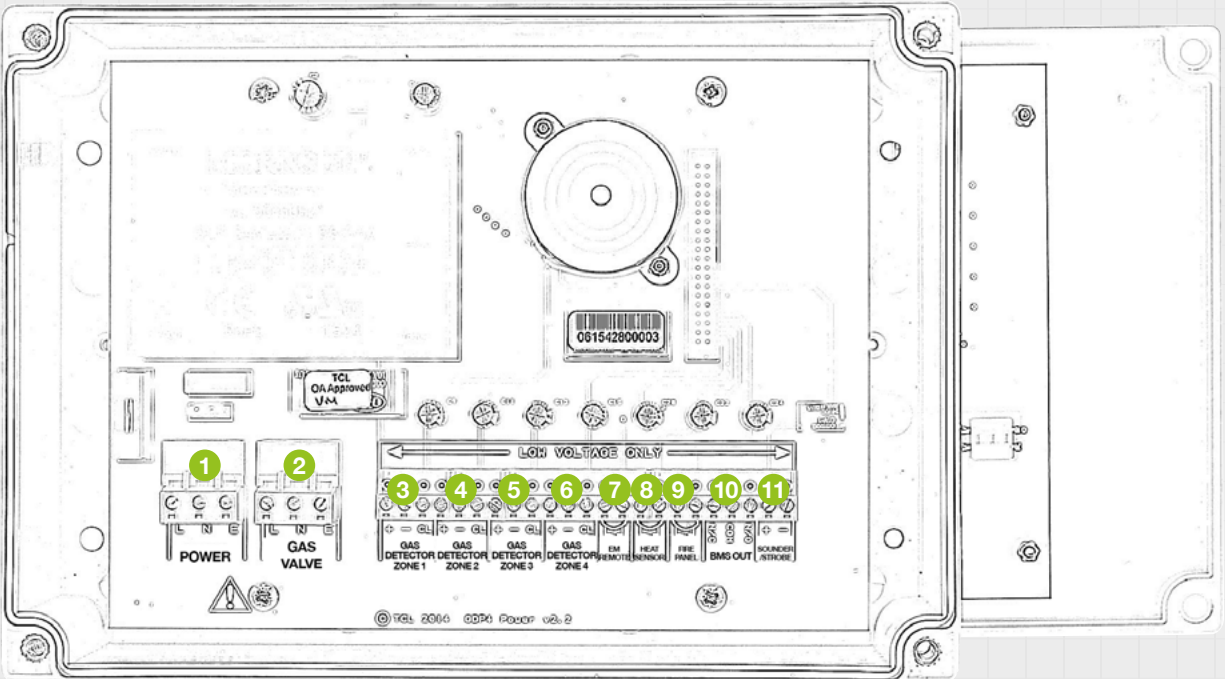
GDP Detector Dims: H 3.7 inch x W 5.2 inch x D 1.3 inch

ADVANTAGES OF THE MERLIN GDP4 SYSTEM

✔ **Easy to install –** The use of clearly marked PCB connections, low voltage wiring and push-fit wiring connections makes the GDP4 very simple to install.

✔ **Multi zone system -** Can be used with up to twelve gas detectors.

✔ **User friendly –** Digital LED design gives clear system indication at all times.

✔ **Easily Adaptive -** Will work with building management systems and remote fire panels.

✔ **Fitted with emergency stop as standard –** capable of accepting any number of additional emergency shut off buttons.

✔ **Covered by the American Gas Safety 3 year warranty.**

WIRING DIAGRAMS AND ANCILLARY PRODUCTS

BOX DIMENSIONS: H 7.1 INCH X W 10 INCH X D 2.5 INCH (EXCLUDING EM STOP)

1. Mains Input 100-120VAC

2. Gas Solenoid Valve Power Output, 100-120VAC Max 3A

3. Remote Gas Detector Input, 24VDC Power Supply (purchased separately)

4. Remote Gas Detector Input, 24VDC Power Supply (purchased separately)

5. Remote Gas Detector Input, 24VDC Power Supply (purchased separately)

6. Remote Gas Detector Input, 24VDC Power Supply (purchased separately)

7. Remote EM Stop Buttons (purchased separately). VOLT FREE INPUT

8. Fusible Links (purchased separately)

9. Fire Panel (Supplied by others). VOLT FREE INPUT

10. BMS Output Contacts. Normally Closed, Common & Normally Open.

11. Sounder Alarm 24VDC Power Supply (purchased separately).

MERLIN GDP4 SYSTEM WIRING DIAGRAM

THE MERLIN RANGE

500S System

500S+ System

The Merlin 500S panel is designed to provide the user with an effective means of isolating any utility, via a key switch or in the event of an emergency, by operation of the emergency EPO button.

The key operated 500S product carries a 3 year AGS warranty and is fully supported by our technical team.

The 500S has a fascia mounted emergency shut off button fitted as standard and the fascia mounted LEDs give simple and concise information to the operator. The panel is fully compatible with AGS remote emergency stop terminals allowing a large number of EPO terminals to be connected in series and wired back to the panel.

The 500S can be integrated with a BMS and fire alarm via a low voltage dry contact.

The 500S in an excellent isolation panel. Simple to fit with little maintenance required and is covered by the full support that comes with the entire range of Merlin products

The Merlin 500S+ is a two zone isolation panel with two outputs: Utility 1 & Utility 2. The 500S+ is designed to provide an effective way of isolating gas, water, electricity, oil, compressed air etc. by means of a key switch on the panel or by the operation of the emergency shut off button.

The key operated 500S+ product series carries a 3 year AGS warranty and is fully supported by our technical team.
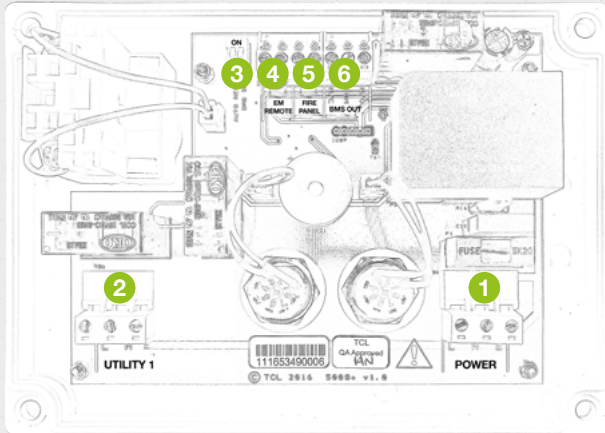
The 500S+ has a fascia mounted emergency shut off button fitted as standard and the fascia mounted LEDs give simple and concise information to the operator. The panel is fully compatible with AGS remote emergency stop terminals allowing a large number of EPO terminals to be connected in series and wired back to the panel.

The 500S+ can be integrated with a BMS and fire alarm via a low voltage dry contact.

The 500S+ in an excellent dual isolation panel. Simple to fit with little maintenance required and is covered by the full support that comes with the entire range of Merlin products.
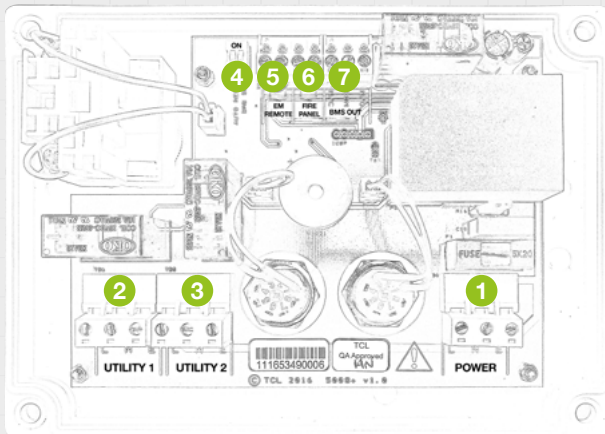
WIRING DIAGRAMS AND ANCILLARY PRODUCTS

1. Mains Input 100-120VAC

2. Utility Power Output, 100-120VAC Max 3A

3. BMS Selection & Auto Reset Dip Switch

4. Remote EM Stop Buttons (purchased separately). VOLT FREE INPUT

5. Fusible Links (purchased separately)

6. BMS Output Contacts. Normally Closed, Common & Normally Open

BOX DIMENSIONS: H 4.4 INCH X W 6.4 INCH X D 2.4 INCH (EXCLUDING EM STOP)

MERLIN 500S SYSTEM WIRING DIAGRAM

1. Mains Input 100-120VAC

2. Utility Power Output, 100-120VAC Max 3A

3. Utility Power Output, 100-120VAC Max 3A

4. BMS Selection & Auto Reset Dip Switch

5. Remote EM Stop Buttons (purchased separately). VOLT FREE INPUT

6. Fusible Links (purchased separately)

7. BMS Output Contacts. Normally Closed, Common & Normally Open.

BOX DIMENSIONS: H 4.4 INCH X W 6.4 INCH X D 2.4 INCH (EXCLUDING EM STOP)

MERLIN 500S+ SYSTEM WIRING DIAGRAM
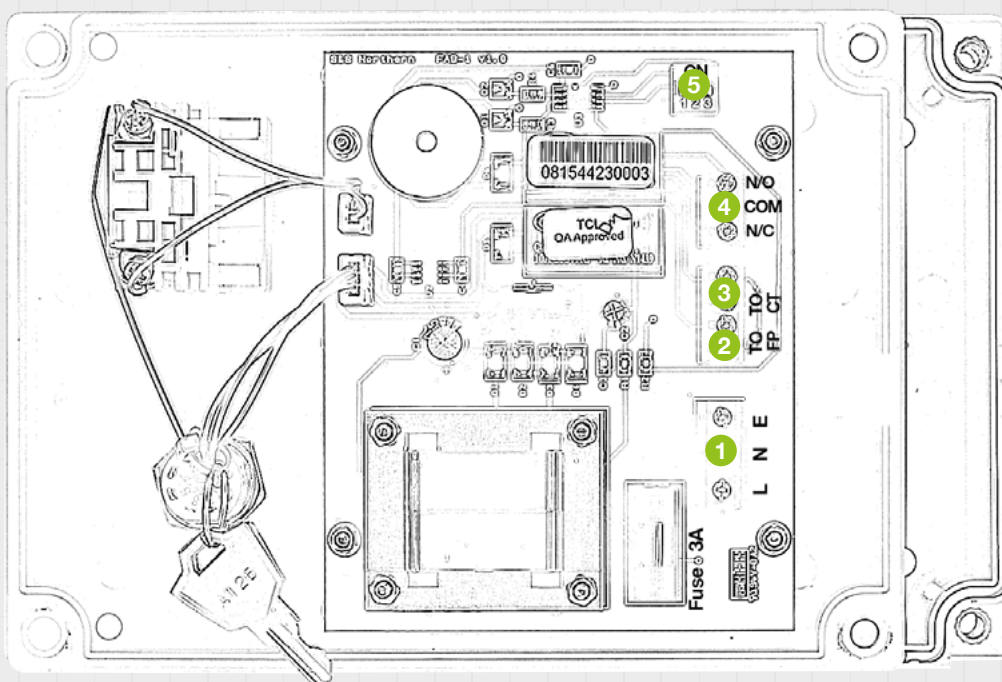
THE MERLIN RANGE

FAB1 System

The Merlin FAB 1 (Fire Alarm Bypass) system gives the user the ability to have use of the gas for a pre-set time whilst the fire alarm is being tested. Without a FAB-1 the Gas could be shut-off via the buildings BMS system during a fire alarm test.

With prior notice to a fire alarm test, the user can turn the key on the FAB1 to the on position, giving an uninterrupted gas supply for between 10 and 45 minutes. During this time the system controlling the gas will ignore shut-off signals from the buildings fire alarm system.

The bypass time can be adjusted using the dip switches inside the panel. During the bypass time gas can still be shut off, pressing the emergency gas shut off button will close the gas solenoid valve.

WIRING DIAGRAMS AND ANCILLARY PRODUCTS

BOX DIMENSIONS: H 4.4 INCH X W 6.4 INCH X D 2.4 INCH (EXCLUDING EM STOP)

1. Mains Input 100-120VAC
2. Fire alarm input
3. Connect to fire panel terminal in the merlin panel
4. BMS input
5. Switches for bypass time adjustments

MERLIN FAB1 SYSTEM WIRING DIAGRAM

Ancillary Equipment

American Gas Safety provide a comprehensive package, supplying not only gas detection and interlock panels but also a full range of ancillary equipment.

Gas Solenoid Valve

We only supply the best quality Gas Solenoid Valves which are design for safety and the control of various gases, including Natural gas, Propane and LPG. They are safety shut off valves – Normally closed, so when power is supplied to the gas solenoid valve it will automatically open and as soon as that power is taken away the gas solenoid valve will close.

The valves supplied are all covered by the American Gas Safety 3 year warranty and are tested and certified to UL standards. The valves are also rated to IP65 thus allowing them to be deployed in wet or dirty environments.

Merlin Gas Detector Range

American Gas Safety supplies a full range of remote gas detectors for detecting CO, CO2, natural gas and LPG to compliment the Merlin range of panels. The detectors are designed using modern European digital components. If the relative gas is detected on the sensor head this will trigger the isolation of the power supply to the solenoid and isolate the gas supply.

This can then be rectified by resolving the leak, allowing the sensor head to clear and resetting the attached Merlin panel. There is no need for on-site calibration or re-calibration saving time and money.

Emergency Knock-Off Button

We only supply the highest quality emergency knock-off buttons for increased longevity and reliability. The Emergency Knock-off button's can either be twist release type, twist key release type or use a resettable Perspex screen, whichever the governing code stipulates. Once the EM stop button has been depressed the Merlin panel will not function until the system has been reset both at the button and on the unit.

There is no limit to the number of additional EM stops that can be fitted per Merlin panel and they are connected with low voltage cabling.
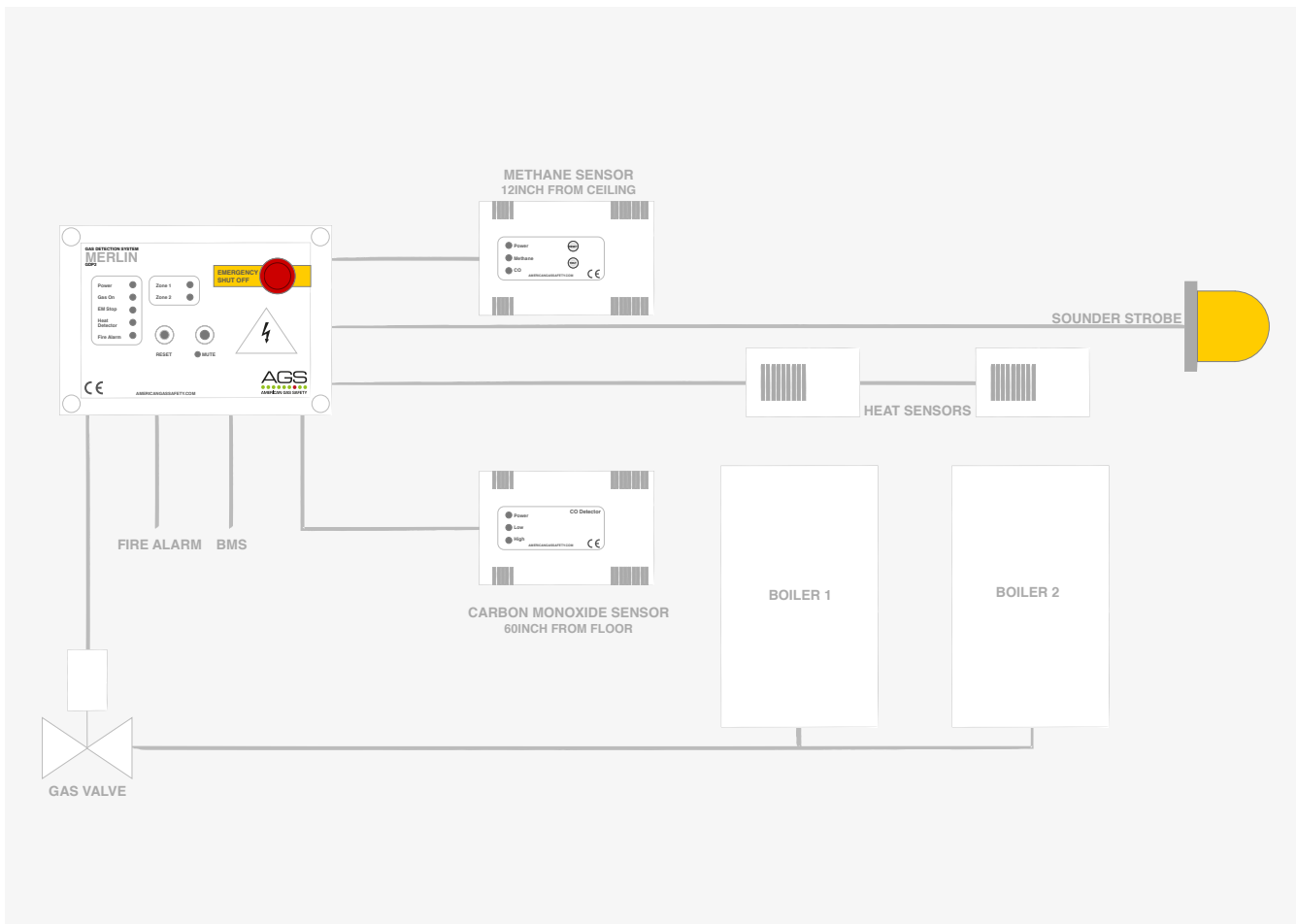
Heat detectors

All panels in the Merlin range will accept the connection of heat detectors (Fusible Links). It is recommended that heat detectors should be positioned over the heat source, whether it be a boiler or water heater. The heat detector will trigger the alarm state at temperature of 72 degrees centigrade.

THE MERLIN RANGE

A typical boiler room set up

METHANE SENSOR
12INCH FROM CEILING

SOUNDER STROBE

HEAT SENSORS

FIRE ALARM   BMS

CARBON MONOXIDE SENSOR
60INCH FROM FLOOR

BOILER 1

BOILER 2

GAS VALVE

The above diagram is an example of
a Merlin GDP2 Gas Detection System

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