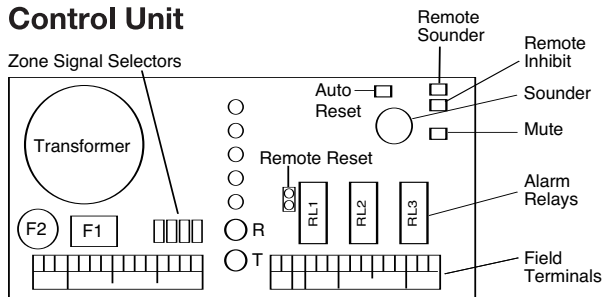
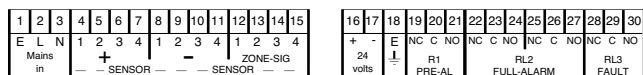


TECHNICAL

Control Unit



Field Terminals



CONTROL UNIT

Power Supply	230/115vAC or 24vDC $\pm$ 15%
	The two voltages may be used at the same time (standby battery)
Power Output	24vDC-200mA max. - auxiliary equipment
Frequency	50/60 Hz
Consumption	3 watts
Detector Head	Standard I to 10 (Auxiliary power supply - 1 to 20) Toxic and/or flammable sensors
Indicators	Power - (Green LED) Pre alarm - (Flashing red alarm LED and intermittent sounder) non latch Full alarm - (Constant red alarm LED and sounder) - latching (optional non-latch) Fault - (Amber LED and sounder) Fault monitoring - sensor/sensor cable/control unit - non latching
Sensor Cable	3 core 1 mm ² Cable length - 200m max
Alarm Relays	Pre alarm S.P.C.O. (R1) Full alarm D.P.C.O (R2) Fault alarm S.P.C.O (R3) Relays are de energised in non-alarm state (option-energised) All contacts rated - 5A @ 230v AC (none inductive loads only)
Relay Inhibit:	Front panel access
Remote Reset	Option
Protection:	IP65
Weight :	920 gms
Dimensions:	L 200mm x H 120mm x D 58mm

SENSOR

Power Supply	12 to 30v DC
Consumption	1.2 W
Indicators	Power (Green LED) Gas Alarm (Green LED to red and sounder) - non latching Flammable Gas
F200	Carbon Monoxide
Alarm Threshold	F200 1% CH4 Adjustable - Red ident.
T200	Refrigerant Gas
Alarm Threshold	T200 50ppm Adjustable - Yellow ident.
R200	Refrigerant Gas
Alarm Threshold	R200 Adjustable - Green ident.
Ambient Temperature	Operation: -5 to +45°C Storage: +10 to +60°C
Protection	IP42

INSTALLATION

Warning: No termination or wire connections should be made while the system is powered up.

Control Unit: The control unit should be mounted in a position which is accessible and in the field of vision and not directly above cooking appliances or sinks.

Mains supply should be from a 1A fused unswitched outlet to BS5733. Internal wires should be routed away from electronic components.

Sensors: The positioning of sensors depends upon the type of gas to be monitored and its density with respect to air. Heavy gases (LPG, Propane, Butane, Refrigerant Gases) - Locate at 15 to 20 cm from the floor. Lighter Gases (Methane, Natural Gas, Town Gas) - Locate at 5 to 10cm from the ceiling. Carbon Monoxide - Locate at 1.5 to 2 metres from the floor. All equipment should be mounted away from direct heat, Sensors should not be located outside or where temperatures are outside the operational specification.

For further information see website - www.gds-technologies.co.uk

SETTING UP

Having terminated all cables the following link adjustments should be made:

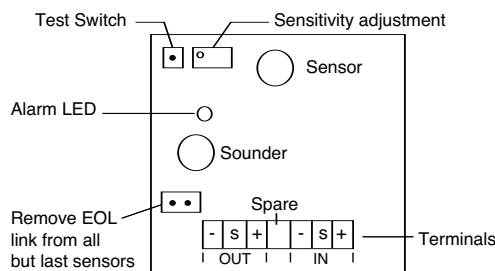
- Controller - signal in selection
Remove the link from the selected sensor sig input Z1, Z2, Z3, Z4
- Sensor end of line link
End of line link (EOL) should be removed from all but the end sensor board, (each sensor line used).

This document is non contractual and the equipment specification and detail may be modified at any time without prior notice.

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Sensors



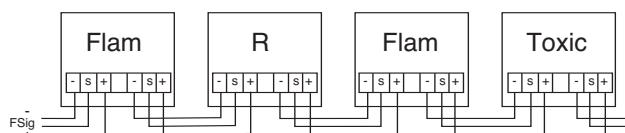
OPERATION

On power up, the green power indicator will flash for 3 minutes, indicating that the sensors are stabilising, during this timed period all alarm functions are held in the off condition.

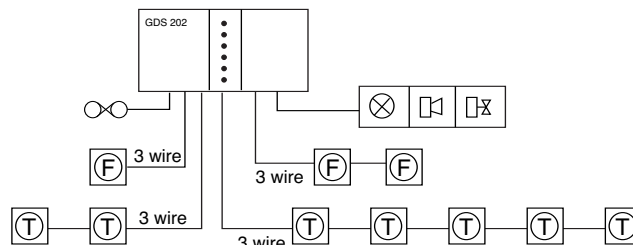
After the stabilisation period, any sensor detecting gas will provide a local visual (red LED) and audible alarm, at the same time transmitting a signal to the control unit where a pre alarm is indicated by an intermittent audible alarm and the red alarm LED flashing with the pre alarm relay changing state. Should the gas surrounding the sensor clear within 45 seconds the system will return to the normal operating condition. However, if the gas remains for longer than 45 seconds, full alarm condition will occur and be indicated by the red alarm LED and sounder going constant as well as the full alarm relay activating.

The audible alarm may be silenced at any time but full alarm indication will be latched until the gas has cleared after which the system may be reset by pressing the reset pad.

Sensors 3 wire



Typical Sensor Groupings



TESTING

The system may be electrically tested by pressing the test pad located on the control unit for 15 seconds, after which the pre-alarm state will be initiated (with the exception of relay. By maintaining pressure on the test pad for a further 15 seconds a full alarm condition will result (including the operation of both alarm relays).

Each sensor has an individual test switch which when pressed simulates gas present and turns the green LED to red and switches the sounder on.

To ensure that the system responds correctly to the presence of gas, each sensor should be exposed to test gas. It is advisable to carry out this test at least every six months.

During test periods alarm relays may be inhibited by pressing the reset pad for 15 seconds after which the fault indicator will illuminate and maintain all relays in the normal non-alarm state, pressing the reset pad again for 15 seconds will remove the inhibit.

Optional normally energised relays

Relays may be individually set to be normally energised or de-energised. Press and hold the test button, within 2 seconds press and hold the reset button, after 15 seconds all alarm L.E.D's will turn on, release both buttons immediately.

Relay Set-up status

Red zone alarm L.E.D. FLASHING - Normally de-energised
Red zone alarm L.E.D. ON CONSTANT - Normally energised
Z1 indicator - pre-alarm relay
Z2 indicator - Full alarm relay
Z3 indicator - Faulty alarm relay

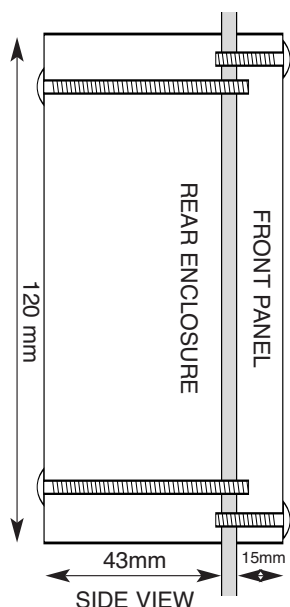
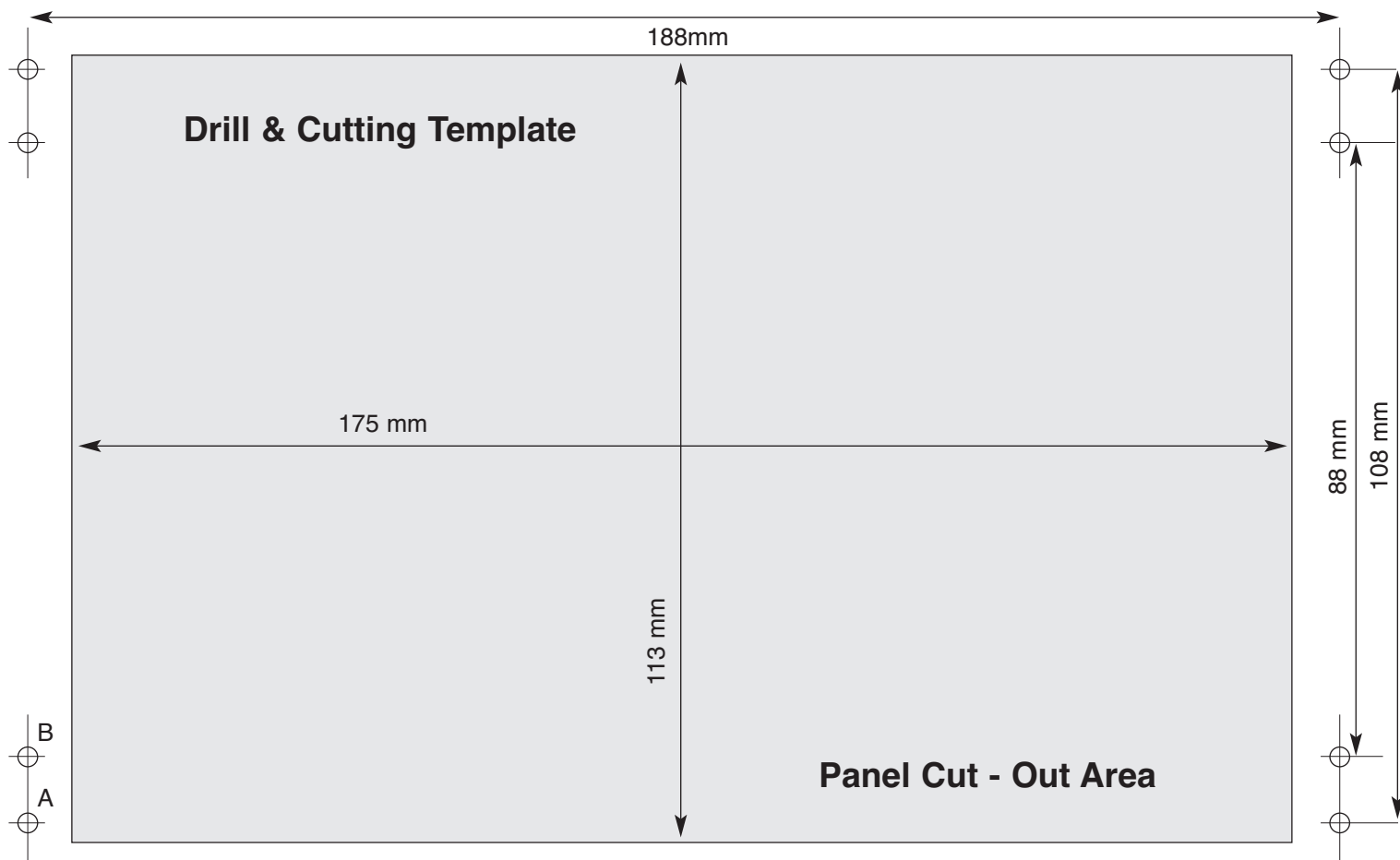
The zone 1 L.E.D. will now be ON. Press the test button for selection of either energised or de-energised - see relay status above.

When selection is made press the reset button, Z2 full alarm relay selection may now be carried out repeat for Z3. Having pressed the reset button on completion of the fault alarm relay setting the unit will be in normal operating mode.

Action to be taken if the apparatus alarm sounds:-

- a Extinguish all naked flames, including all smoking materials.
- b Turn off all gas appliances
- c Do not switch on or off any electrical lights or appliances
- d Turn off the gas supply at the gas emergency control and/or (with L.P.G supply) the storage tank
- e Open doors and windows to increase ventilation.

If the alarm continues to operate, even after an alarm re-setting action where appropriate, and the cause of the leak is not apparent and/or cannot be corrected, vacate the premises and immediately notify the gas supplier and/or the gas emergency 24 hour service in order that the installation may be tested and made safe and any necessary repair carried out.

CONTROL UNIT PANEL MOUNT OPTION**For front panel mounting**

drill holes A x4 - 3mm, mount using No.6 20mm self tapping screws

Should the rear enclosure be required

drill holes B x4 - 3.5mm, mount using No.8 50mm self tapping screws

W/O :-		Date :-	
Type	Gas	Range	Alarm
Flammable			
Toxic			
Refrigerant			