

BOILERGUARD LITE

4 CHANNEL GAS DETECTION SYSTEM



| OVERVIEW |

The New BoilerGuard Lite system provides a cost-effective boiler plant room safety system, and includes interfaces for the common safety interlocks, including Fire Alarm Systems, Thermal Fusible Links, Remote Emergency Stop Buttons, and Gas Sensors.

With a traffic light backlit display providing clear indication of system status, the BoilerGuard Lite can power and monitor up to 4 Flamefast Gas Sensors, and the simple channel number selection makes commissioning easy.

It has the option to be mounted to the front of a third-party control panel, and has a dual power supply of 230VAC or 24VAC/DC, so is ideal for BMS integration.

| KEY FEATURES |

- 4 Channel Gas Detection System
- BMS Panel Mountable
- Auto-reset following Fire Alarm
- Auto-reset following Power Failure
- 24VDC auxiliary power output
- Interfaces for:
 - Thermal Links
 - Remote Emergency Stop Buttons
 - Fire Alarm Systems
- Fault relay for external interlocking
- **5 Year Warranty**
- **UK MANUFACTURED**

DIMENSIONS

Height	180mm
Width	130mm
Depth	65mm / 70mm including Stop Button

TECHNICAL SPECIFICATION

Power Supply	85 ~ 300VAC 50/60Hz	
	24V AC/DC \pm 10%	
Power Consumption	10W Max (Panel Only)	
Outputs	Gas Solenoid	Switched Mains
	Fault	SPST - 5A @ 250V Max
Operating Conditions	Temp	0 ~ 50°C
	Humidity	0 ~ 95% (NC)
IP Rating	IP65	
Housing Material	PC/ABS	
Colour	Dark Grey	
Approval	CE, UKCA	

EXTERNAL DEVICE INTERFACES

24V Out	24V DC Power Out (4 FGS Max)
Gas Sensor	BACnet Interface for FGS Range (4 Max)
Thermal Link	24V Signal to monitor external VFC
Fire Alarm	24V Signal to monitor external VFC
Remote Stop	24V Signal to monitor external VFC

INSTALLER SELECTABLE OPTIONS

Fire Alarm Auto-reset	ON / OFF
Power Failure Auto-reset	ON / OFF
No. Connected Sensors	1~4

PART NUMBERS & COMMON ACCESSORIES

PART NO	DESCRIPTION
BG-LT	BoilerGuard Lite (4 Channel)
BG-LT-PM	BoilerGuard Lite Panel Mount Kit
FGS-NG	Flamefast Gas Detector - Natural Gas
FGS-LPG	Flamefast Gas Detector - Propane
FGS-CO	Flamefast Gas Detector - Carbon Monoxide
TFL	Thermal Fusible Link (70°C) - Auto-reset
RSTOP	Remote Emergency Stop - Twist Release
CABLE1	Belden 8723 Equivalent (100m)

INSTALLATION & OPERATION

BOILERGUARD LITE

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IMPORTANT – Please read carefully:

1. This product must be installed by a competent/qualified person in accordance with all relevant regulations and legislations.
2. This product must be mounted flush to the wall (or similar) using secure fixings to prevent access to the rear, unless using the panel mount kit.
3. Be sure to isolate the mains supply before removing the unit fascia.
4. If there is any question over the application, please contact to discuss.
5. This product must be connected to an accessible 5A fused spur.
6. If this equipment is used in a manner not specified by the manufacturer, protection provided may be impaired.
7. This product is designed for indoor use with standard atmospheric conditions.

The information contained within this guide is to cover typical installations, however allowances must be made for the site-specific requirements. If in doubt always contact Flamefast for further guidance.

MOUNTING

The control panel should be mounted at a readily accessible height (typically 1.2 – 1.6m from the finished floor level) ensuring that the panel mounted Emergency Stop Button is easily accessible. The panel should ideally be located next to the exit with any additional exits covered by remote stop buttons.

For securing the panel to the wall there are four mounting holes, one in each corner; these should be used to ensure that the IP rating of the unit is not compromised.

Please see specific guide for mounting BoilerGuard Lite in the BMS panel fascia.

ELECTRICAL CONNECTIONS

All electrical connections are to be made as indicated on the wiring diagram (overleaf) and the maximum cable size should not be exceeded.

Any alarm (volt free) inputs must be wired using a dedicated volt free contact and where more than one device is used these MUST be wired in SERIES.

VOLT FREE INPUTS

There are inputs for the below, which must be linked out when not in use:

- Remote Emergency Stop buttons (Flamefast **RSTOP**)
- Thermal Fusible Links (Flamefast **TFL**)
- Fire Alarm Systems (Providing N/C Volt free Contact).

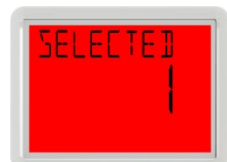
QUICK SETUP GUIDE

The BoilerGuard Lite simply looks for the correct number of sensors and channels:

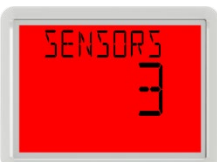
1. Wire the sensors as one continuous circuit as shown on the wiring diagram.
2. Address Sensors 1~4 – Addresses must start at 1.

If there are any addressing issues or the number of sensors connected does not match the panel jumper position, the panel will provide an alarm condition:

MORE SENSORS PRESENT THAN SELECTED



SENSOR NOT FOUND



BASIC OPERATION

The BoilerGuard Lite will provide a traffic light indication for the overall panel status, along with details of any faults or alarms.

Following an alarm condition, the display will latch showing details of the alarm and requires the MUTE button to be pressed, followed by the RESET button.

If the MUTE button is pressed and the alarm condition has cleared, the panel will be in Idle Mode, or the alarm will still be displayed if it has not cleared.

NORMAL OPERATION



IDLE MODE (REQUIRES RESETTING)



GAS SENSORS

During a Gas Alarm, or if a sensor cannot be found, the panel will display the details and advise the channel affected:

ALARM 1



ALARM 2



ENGINEER MODE

Pressing the Engineer Button can be used to temporarily inhibit any alarms and view the sensor data, including Calibration and End of Life days with each press cycling through any live channels before returning to normal operation:



TROUBLESHOOTING

The LED will provide an overview of the panel condition, including any alarms, with the LCD providing details of any alarm.

TFL ALARM



EM. STOP ALARM



FIRE ALARM



ALARM	LCD	DESCRIPTION
Idle Mode	White	Panel requires resetting
Power	Green	Flashing = Previous Power Failure (Panel Auto-reset)
Gas ON	Green	Gas Live
Alarm, TFL	Red	Thermal Fusible Link Activated
Alarm, FIRE	Red	Fire Alarm Activated
Alarm, FIRE	Amber	Previous Fire Alarm (Panel Auto-reset)
Alarm, STOP	Red	Remote Stop Pressed (Constant Tone) Panel Stop Pressed (Intermittent Tone)

If you are not getting Power out to the Gas Solenoid, but the Gas ON light is Green, please check the PCB mounted fuse for continuity.

If any of the inputs are showing alarm, link them out to prove the functionality of the panel. If the panel then shows as healthy, investigate the item connected.

DO NOT LEAVE LINKED OUT.

CONNECTION & CONFIG

BOILERGUARD LITE

