INSTALLATION & OPERATION VENTGUARD+

TECHNICAL SPECIFICATION

| Power Supply | 100 – 240V AC 50/60Hz | | |
|----------------------|-------------------------------|--------------|--|
| Power Consumption | 3W Max (excluding Valve) | | |
| Fan Current Rating | 0.1–20.0A @ 230V AC | | |
| Power Output | Gas Solenoid – Switched Mains | | |
| VFC Output | SPST – 5A @ 230V Max | | |
| Operating Conditions | Temp | 0 - 50°C | |
| | Humidity | 0 - 95% (NC) | |
| Material | PC | | |
| Colour | Grey (RAL7035) | | |
| IP Rating | IP65 | | |
| Approval | CE, UKCA | | |
| | | | |

DIMENSION

Height - 180mm Width - 130mm Depth - 60mm / 65mm inc. Key & Stop

IMPORTANT – Please read carefully:

- 1. This product must be installed by a competent/qualified person in accordance with all relevant regulations and legislations.
- This product must be mounted flush to the wall (or similar) using secure fixings to prevent access to the rear.
- 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.
- 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.
- 8. To comply with the relevant legislation, commercial kitchen interlock must be fitted with a CO2 Monitor

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.

PANEL 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.

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 dedicated inputs for:

- Remote Emergency Stop buttons (Flamefast RSTOP-C)
- CO2 Monitors (Flamefast CO2M)
- Intake Fan Air Differential Pressure Switch (Flamefast AIRDPS)
- Extract Fan Air Differential Pressure Switch (Flamefast AIRDPS)

When not use, these should be linked out, otherwise the panel will raise an alarm.

FAN CURRENT MONITORING

There are two integral current monitors to provide a BS 6173 and IGEM/UP/19 compliant ventilation interlock. These work by monitoring the fan power absorption, and assuming that the current consumption is proportionate to the fan/air speed, alarm thresholds can be set to isolate the gas supply if the fan current is deemed outside of the acceptable range.



QUICK SETUP GUIDE

The below guide provides details on how to setup the current monitoring.

Prior to power-up of the panel:

- Use the configuration jumpers to select which functions are to be used by moving the jumper between ON and OFF:
 - a. **EXTRACT** to enable/disable the Extract fan current monitoring interface
 - b. **INTAKE** to enable/disable the Intake fan current monitoring interface. *NOTE: If the current monitoring is not being used, move the Intake and Extract jumpers to the OFF position.*
 - c. OVERCURRENT to enable/disable the Overcurrent function (isolates the gas supply if a high current threshold is detected – such as from a motor failure).
- 2. Move the SENSITIVITY jumper to the desired percentage. This will select the acceptable tolerance before an alarm condition. As an example, if the Undercurrent is set to 4A, the Overcurrent set to 10A, and the sensitivity set to 10%, the VentGuard will alarm at 3.6A (10% below 4A) for Undercurrent, and 11A (10% above 10A) for the Overcurrent. This allows for fluctuations in current draw and some tolerance for other affecting factors such as filter deterioration.
- 3. To allow the over and undercurrent to then be set, move the **SETUP** jumper to the **ON** position to enable the commissioning buttons.

You are now in position to power up the system. Then once powered:

- Set the fans running to what is deemed the minimum acceptable running speed, and leave for at least 1 minute to allow the fans to stabilise.
- Once settled, Press the UNDERCURRENT button, at which point the LEDs on the PCB will flash Green ten times.
- Then set the fans running to what is deemed the maximum acceptable running speed, and leave running for at least 1 minute to allow the fans to stabilise.
- Once settled, press the OVERCURRENT button, at which point the LEDs on the PCB will flash Green ten times.

Once complete, move the **SETUP** jumper back to the **OFF** position. Whilst the setup jumper is in the on position the unit will not enter normal operating mode.

CURRENT MONITOR INDICATION

The PCB mounted LEDs will provide an indication of the current state:

| Green | Current between setpoints | |
|----------------|---------------------------|--|
| Amber | Undercurrent Alarm | |
| Red | Overcurrent Alarm | |
| Flashing Amber | Undercurrent not set | |
| Flashing Red | Overcurrent not set | |
| Off | Channel disabled | |

TROUBLESHOOTING

The LEDs on the front of the panel provide details of any alarm conditions:

| LED | BEHAVIOUR | AUDIBLE | DESCRIPTION |
|------------------|------------------|----------|----------------------------------|
| Power | Flashing Slowly | | Previous Power Loss |
| Power | Flashing Quickly | | SETUP Jumper fitted |
| Extract Fan Fail | Solid Red | Constant | Extract DP Fault or Undercurrent |
| Extract Fan Fail | Flashing Red | Веер | Overcurrent |
| Intake Fan Fail | Solid Red | Constant | Intake DP Fault or Undercurrent |
| Intake Fan Fail | Flashing Red | Веер | Overcurrent |
| Emergency Stop | Solid Red | Constant | Remote Stop Button Pressed |
| Emergency Stop | Flashing Red | Веер | Panel Stop Button Pressed |
| CO2 Monitor | Solid Red | Constant | High CO2 Levels |

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 at healthy, investigate the item connected. **DO NOT LEAVE LINKED OUT.**

CONNECTION & CONFIG VENTGUARD+



