

KS22 - Trio Safestart for G621



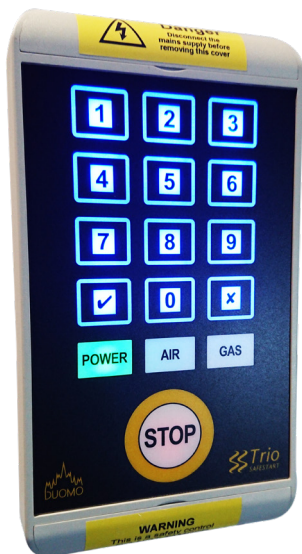
KS22 Trio Safestart for G621

Gas
Proving
System

Touchpad
Control

Access
Code

G621
Compatible



SPECIFICATION

Power

| | |
|------------------------------|----------------------------|
| Power Supply | 230VAC 50Hz/60Hz \pm 15% |
| Power Consumption | 7VA Maximum |
| Max out Current (All relays) | 3A resistive |
| Max out Switching Voltage | 250VAC / 100VAC |
| Max out breaking capacity | 2500VA |
| Out contact operations | > 100 x 103 |
| External limit contact | > 3A @250VAC |
| Line Fuse 5 x 20 | SNOWBLOW 3A |

Technical Specification

| | |
|---------------------|---|
| Dimensions | Width 200mm Height 110mm Depth 60mm |
| Display | N/A (Illuminated Touchpad) |
| Mounting | Wall mounted |
| Relative Humidity | Also condensing 90% max |
| Working Temperature | 0 to 60°C |
| Storage Temperature | 20 to 80°C |
| Protective Rating | IP66 |

Configuration

| | |
|--|--------|
| G621 Safestart Assembly max Operating Pressure | 50mbar |
|--|--------|

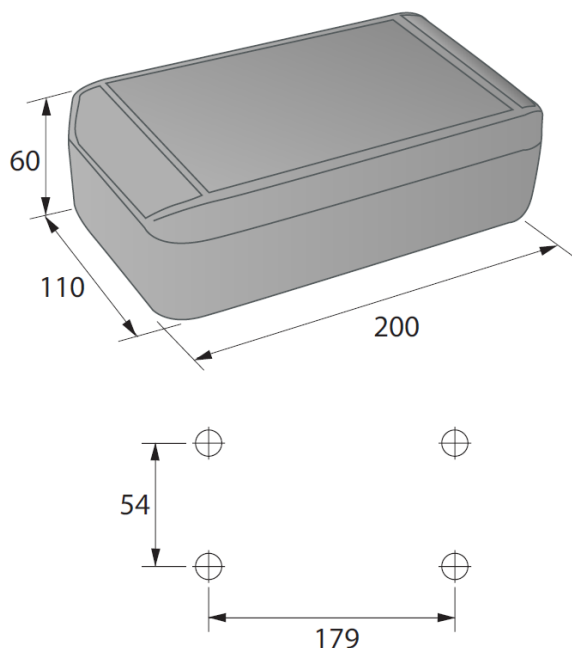
Approvals, Certifications and Guarantee

| | |
|-----------|---|
| Guarantee | 2 year as standard 3 year by registering at www.duomo.co.uk |
|-----------|---|

FEATURES

- Touchpad control panel suitable for use with G621
- Gas Safestart Gas proving system.
- Unique, programmable access code
- Starts ventilation, checks fan operation, starts Gas
- Visually displays failure type (Air or Gas)
- Automatically isolates gas supply at low pressure
- Checks downstream pipework before initiating gas supply.
- IGE/UP/2 Edition 2 and BS6173:2009 compliant
- 2 year guarantee - 3 year by registering at duomo.co.uk

Dimensions



Application

"Prior to light-up of manually operated plant, it is essential to ensure that all manual valves on burners or appliances are in the closed position. This can be performed by permitting a small, and controlled, flow of gas through a limiting orifice to by-pass the SSOVs. If any of the downstream valves are not closed, the pipework will not pressurise and, thus, the circuitry will prohibit the opening of the SSOVs."

IGEM/UP/2 Edition 2 Installation pipework on industrial and commercial premises.

"Systems that do not use a controlled by-pass are not considered to comply with this Appendix as the control of entry/leakage of gas into downstream plant may not be sufficient to ensure safety. The use of systems relying on the opening of a large SSOV to pressurise the downstream system may lead to excessive release of gas."

"The gas supply system shall be interlocked with any mechanical ventilation supply or extract system and this will normally require the fitting of an automatic valve."

BS6173:200 Installation of gas fired catering appliances for use in all types of catering establishments.

"Whenever an automatic electric isolation valve system is used, an automatic system for proving that all downstream gas supplies to the burners and pilots have been turned off shall be employed prior to the valve being re-energized to open."

In accordance with these requirements, the Trio Safestart securely isolates and safely re-establishes the gas supply to any area which relies on manual isolation of gas outlets (e.g. in hotels, fast food restaurants, schools, colleges and canteens).

Trio Safestart protects personnel and property from damage caused by gas leaks. Inadvertently or intentionally leaving manual gas taps open is dangerous, even when the gas supply is turned off.

If the supply is reinstated with taps open an undetected gas leak will exist. The Trio Safestart prevents this by checking the integrity of the downstream pipe work before allowing the main gas to be opened.

The control panel ensures that only authorized, competent personnel are able to initiate gas supply, thus preventing vandalism and misuse of gas equipments.

If the supply gas pressure drops below a preset threshold the system will automatically operate the low pressure cut off and the gas will be safely isolated.

Operation

1. Connect the Trio Safestart to a power supply. A self test procedure will run. If a failure is detected the green POWER light will blink and local buzzer will sound (1,5 Hz).
2. Enter numeric password (1 to 8 characters). At each press the active key will turn to red and a short tone will confirm the operation. Push the ✓ to confirm the code and run the proving test. (NOTE: In case of incorrect password the buzzer will make a single long tone (1,5 sec). If the password matches the buzzer will make 3 short tones. Press the X at anytime to halt the operation).
3. During the proving stage, the AIR light will flash waiting for the extract and supply air to be proven within 30 seconds. Once the air is proven the it will stay ON.
4. The GAS light will flash until the gas test is completed.
5. A failure on AIR or GAS will enter an alarm condition, the relevant light will blink and an alarm will sound. The gas valve will be turned off and the system will require a manual reset once the problem has been resolved.
6. At any time it is possible to close the GAS Valve and reach a standby condition pressing the STOP button.

Password Setup

The Default password is 1, 2, 3, 4.

1. To enter password configuration mode
Press and hold keys 1, 6 and 7 together for 5 seconds until the keypad backlight turns red.
2. Enter new numeric password (1 to 8 characters length). At each press the active key will turn off momentarily. Press the ✓ to confirm the code.
3. Press the CANCEL key to exit configuration mode at any time, leaving the password unchanged.

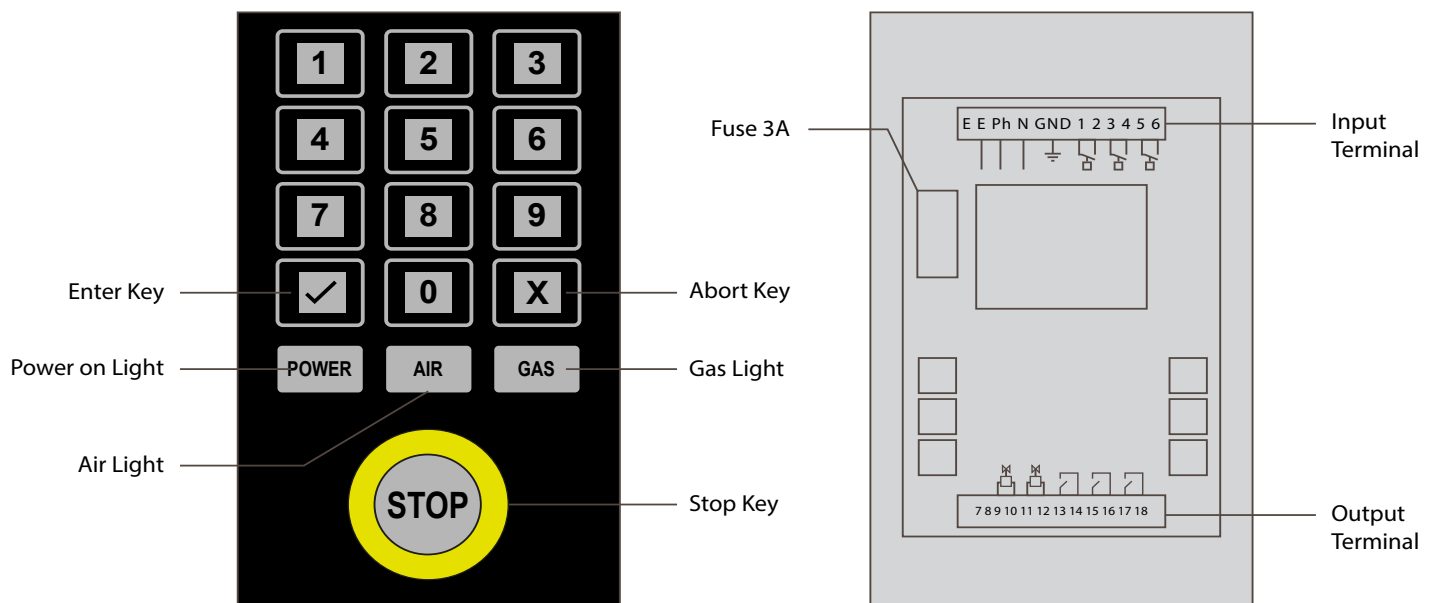
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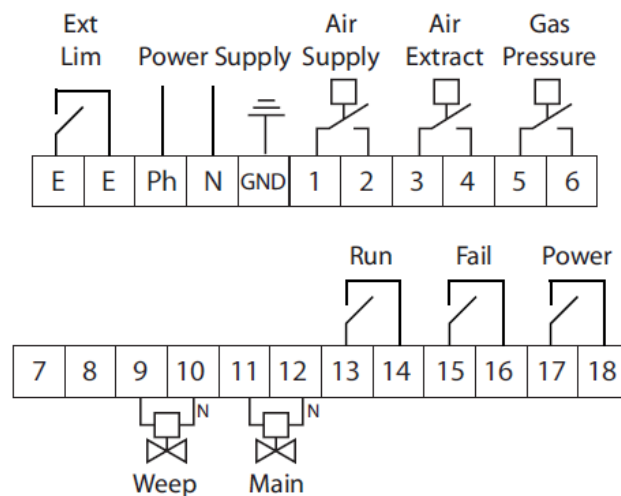
Fault Memory

The Trio Safestart features a unique 'fault memory' system. When the unit goes into alarm, the cause is logged in an internal memory. The next time the unit is powered up, the last cause of alarm (either Power, Air or Gas) will flash during the self diagnostic stage allowing an engineer to quickly diagnose the fault on site.

KS22 Keypad Layout



Terminal Connections

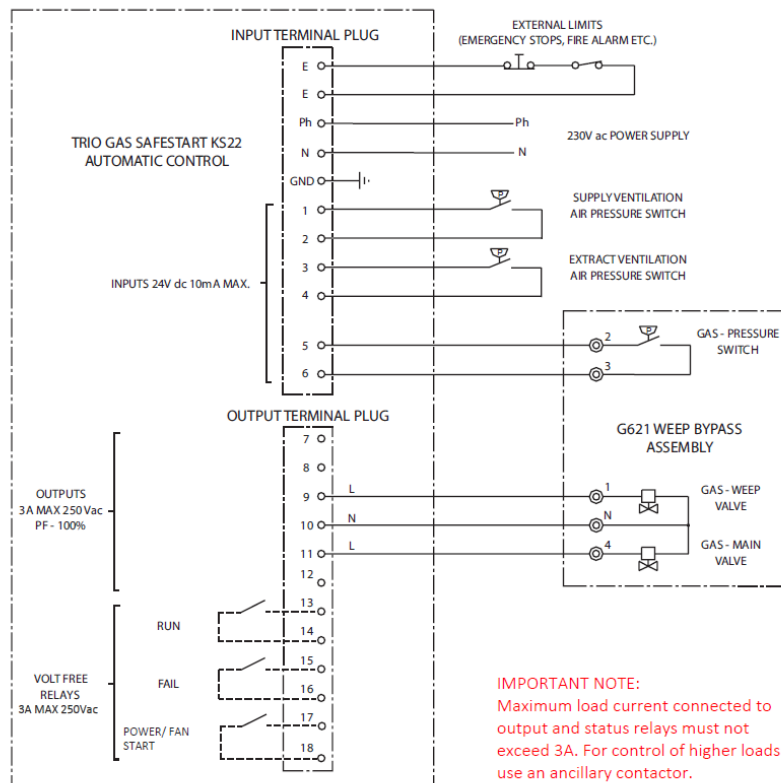


E - External limit/interlock (Out)
 E - External limit/interlock (Return)
 Ph - Power supply phase
 N - Power supply neutral
 GND - Protection ground
 1 - Supply air pressure switch (Out)
 2 - Supply air pressure switch (Return)

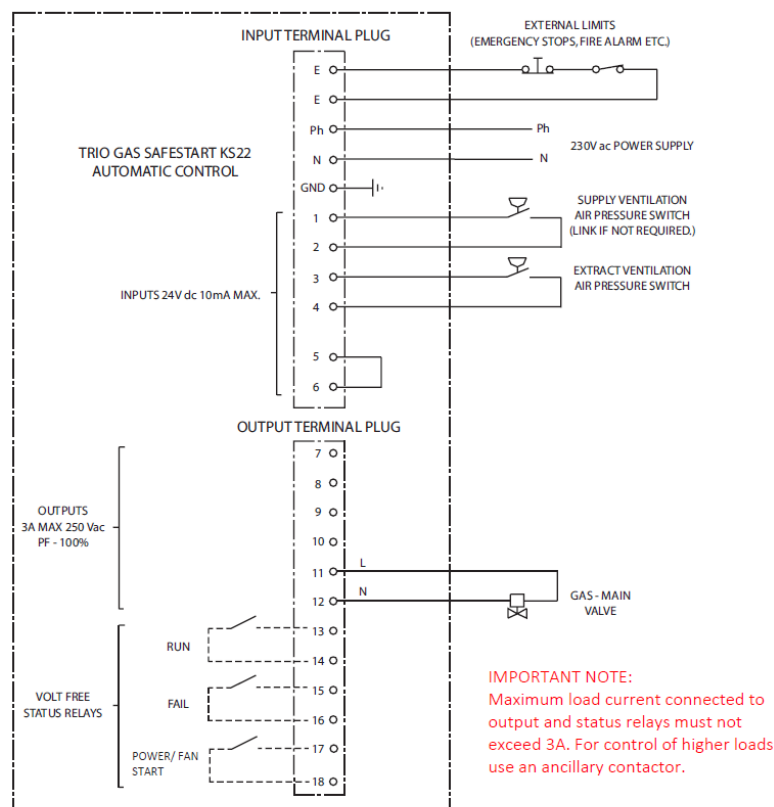
3 - Extract air pressure switch (Out)
 4 - Extract air pressure switch (Return)
 5 - Gas pressure switch (Out)
 6 - Gas pressure switch (Return)
 7 - N/A
 8 - N/A

9 - Weep gas valve (Phase)
 10 - Weep gas valve (Neutral)
 11 - Main gas valve (Phase)
 12 - Main gas valve (Neutral)
 13 - Run SPST contact
 14 - Run SPST contact
 15 - Failure SPST contact
 16 - Failure SPST contact
 17 - Power on SPST contact
 18 - Power on SPST contact

Wiring Diagrams



A Typical electrical connection schematic for a commercial catering kitchen. Flame failure devices ARE NOT fitted to all A Typical electrical connection schematic for a commercial catering kitchen. Flame failure devices ARE NOT fitted to all gas appliances. This system shows Ventilation proved using ADP10 air pressure switches (Fig. 2)



A Typical electrical connection for a commercial catering kitchen when flame failure devices are fitted to all gas appliances. This system shows ADP10 air pressure switches for supply and extract (Fig. 3)

Troubleshooting

| The Problem | The Solution |
|---------------|---|
| Blank display | If no E stop fitted. Link out E & E Terminals |
| | |
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| | |
| | |

Still experiencing difficulties?

If you have made the checks above and are still experiencing difficulties then please call **Duomo (UK) Ltd** on **+441905 797989** for technical assistance.

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KS22 Trio Safestart 11032021 rev2

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