

# Merlin Utility Control

## Tri Output Control Panel



### Key Features

- Automatic Control of the gas, water and electricity supply
- Clear LED status display
- Panel Mounted EM Stop Button
- Clearly Labelled Printed Circuit Board
- Built-in connectivity to existing BAS and fire alarms
- Additional external gas detection sensors available
- Key lock for authorization control

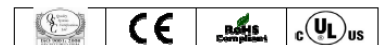
### Overview

The Merlin 1000SW+i utility control panel gives the user complete automatic control over the gas, water and electricity within the room whilst providing a convenient connection centre for additional systems. Utilizing solenoid valves and electrical contactors the Merlin 1000SW+i provides a keyed authority switch for all the utilities. The emergency knock off button is shrouded to ensure no accidental shutdowns occur. All the Merlin utility controls come with clearly labelled Printed Circuit Boards to ensure easy installation. Additional gas detection sensors can be wired to the unit for extra

safety. Built-in connectivity to existing BAS systems and inputs for existing fire alarms make the unit perfect for renovation projects as well as new build. Dip switches on the reverse side of the fascia panel allow for on-site adjustments of various parameters including, how the unit communicates with the BAS system and the time-out function. The water and electricity can be selected to stay on in the event of an emergency shutdown. As the unit is a simple On-Off control other utilities can be added to the selector outputs.

### Application

- K-12 and Higher Ed Science Classrooms.
- Designed to meet NSTA guidelines.
- Isolation of the gas supply in the event of high CO or CO2 concentrations.
- Commercial industrial spaces.
- Automatic isolation of the gas supply upon EM stop or gas detection.



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### Technical Specifications

Power supply – 100/240vac 50/60Hz

Protection – Overvoltage, overcurrent, surge protection (3amp)

Enclosure – Wall mounted Fully UL certified enclosure. Flush Mount kit available.

Dimensions – W255 x H180 x D77 mm

Control Signal Output 1 – 100/240VAC 50/60HZ

Control Signal Output 2 – 100/240VAC 50/60HZ

Control Signal Output 3 – 100/240VAC 50/60HZ

BAS Output - N/c, Com, N/o Max 1A @ 120VAC

EM Stop Input – Volt Free\*

Fan Switch Output – Volt Free\*

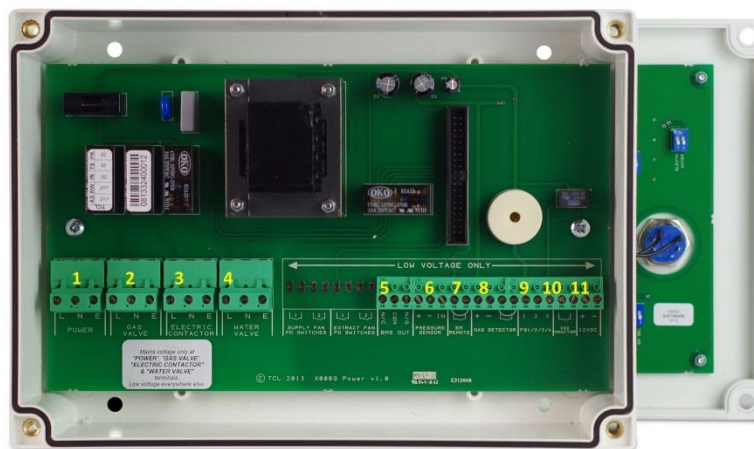
Sensor Power Output – 24VDC  
Sensor Signal Input – Volt Free\*

CO<sup>2</sup> Monitor Signal Input – Volt Free\*

Adjustable Time-out period – 2hr, 4hr or 8hr or disabled

Adjustable BAS Signal Output – Alarm “on” or Gas “on” / Gas “off”

\* Volt Free. Do Not connect any device which generates a separate source of voltage on this circuit. Any voltage applied to these connections will damage the microcontroller.



1. Mains Supply Input
2. Control Signal Output 1
3. Control Signal Output 2
4. Control Signal Output 3
5. BAS Output Contacts. Common, Normally Closed and Normally Open.
6. Not Applicable
7. Remote Emergency Stop Button and Fire Alarm input (wired in series) Volt Free
8. Gas Detector (Nat Gas, CO, LPG or NOX) power supply and returned signal.
9. Fan Switch Output (purchased separately) see Fan Switch User Manual for Wiring Diagram.
10. CO<sup>2</sup> Monitor Signal Return
11. Not Applicable