

# Merlin Utility Control



## Key Features

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

## 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 facia 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.
- Decorative gas powered fire pits.
- Gas BBQ's installations.
- Commercial industrial spaces.
- Automatic isolation of the gas supply upon EM stop or gas detection.



## Gas Safety Systems

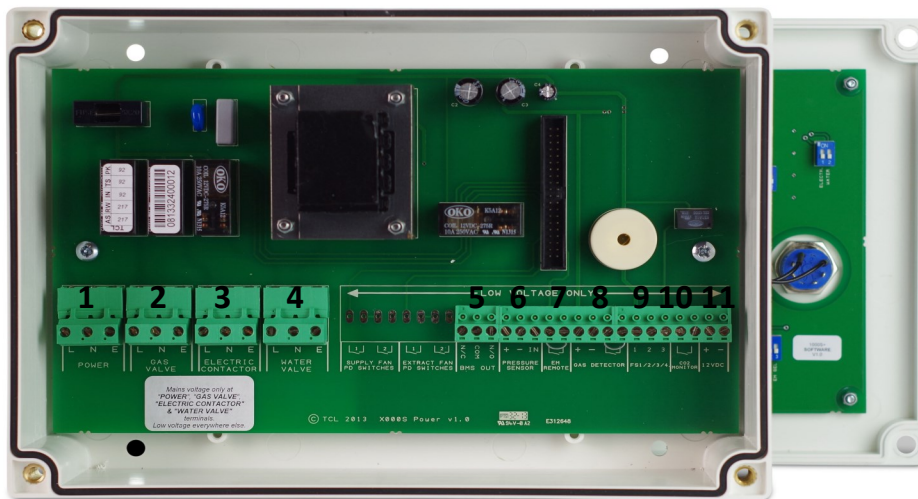
American Gas Safety, LLC. 4500 140<sup>th</sup> Ave N. Suite 101. Clearwater, FL 33672 T.(727) 608-4375 F.(727) 538-4237 [www.americangassafety.com](http://www.americangassafety.com)

## Utility Control

## 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
Gas Solenoid Control Signal Output	100-240vac, 50/60HZ
Electric Control Signal Output	100-240vac, 50/60HZ
Water Solenoid Control Signal Output	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	2 hour, 4 hour, 8 hour 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, Single phase 100/240VAC 50/60HZ
2. Gas Solenoid Valve Power Output, Single phase 100/240VAC 50/60HZ
3. Electrical Contactor Output, Single phase 100/240VAC 50/60HZ
4. Water Solenoid Valve Power Output, Single phase 100/240VAC 50/60HZ
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, CO<sup>2</sup>, 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

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