

CGS Merlin CT1250X Datasheet

Gas Ventilation Interlock & Shut Off



**Two In-Built
Current Monitors**



**Clear LEDs Display
System Indications**



**Keyed ON/OFF
Authority Over
Utilities**



**BMS & Fire Panel
Connectivity**



**Interlock With
Up To 2 Fans**



**Automatic Emergency
Utility Shutdown In
Alarm**



**Front Mounted
Panic Button For
Quick Shutdown**



**Protects kitchen
employees from
exposure to harmful
gases**

Product Overview

The Merlin CT1250X ventilation interlock system acts as an interlock between the ventilation system and the gas solenoid valve. It ensures the gas solenoid cannot be opened unless the ventilation system is proven to be working and working at such a speed that is effective to exhaust the fumes from the appliances.

The fans can be monitored through two built-in current monitors or external air pressure switches. To operate the Merlin CT1250X, the key on the panel should be turned to the 'on' position and this will open the gas solenoid valve. If the fans should fail or are not operational, the 'fan fail' LED on the panel will illuminate and the gas solenoid will close. Additional sensors and safety shut off buttons can be wired into the panel, as well as a 12 vdc output for external alarms.

In-built connectivity allows the system to communicate system status to BAS systems.

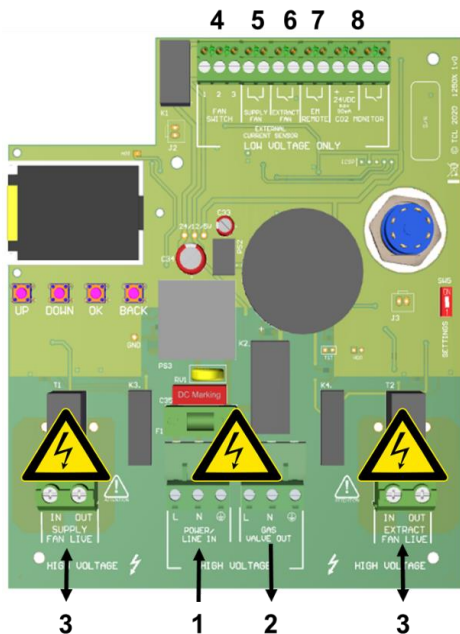
Popular Applications:

- ✓ Keyed utility control with Emergency Shutdown
- ✓ Automatic Isolation Of Utilities Supply Upon Gas Detection, Fire Alarm or Emergency Panic Button Activation
- ✓ Designed specifically for commercial kitchens
- ✓ Carbon Monoxide Monitoring

Product Specifications

Model:	1250X
Display	1.8" Screen TFT (located inside)
Power Input Voltage	100-120Vac
Gas Valve Output Voltage	100-120Vac
Single phase AC current monitor calibration range	0.1 – 18 Amps
Single phase AC current monitor display	0 - 22Amps
Power Consumption	4.6 W (Panel), 5W max (fully loaded)
Internal Fuse	3.15A
Ingress Protection	IP54
Operating Temperature & RH	0 – 50°C (32 – 122°F) 30-85%RH Non-Condensing
Approvals	CE
Audible Alarm Buzzer dB	70 dB (300mm distance in quiet conditions)
O/All Dimensions (H x W x D) mm	255 x 180 x 77mm

PCB Wiring Specifications



(1) POWER / LINE IN.

120Vac power input should be supplied and fused at 3A.

(2) GAS VALVE OUT.

120Vac power output is supplied from the [GAS VALVE OUT] terminal using a 3 core cable can be connected to a gas solenoid valve. The gas valve will shut off the supply in any error condition. Refer to your valve manual for more information.

(3) CURRENT MONITOR [INTAKE FAN LINE] & [EXHAUST FAN LINE].

The line voltage supply feed from the fan controller should be connected to either the intake or exhaust side depending on which fan/s are being monitored. Each will monitor its own independent fan. From a fan controller the line voltage supply feed should be taken to the [IN] terminal and the [OUT] terminal should wire to the fan motor controller. **Max 18A.**

(4) Fan Switch 1, 2, 3

This terminal switches when the key is turned on and off. This can be linked to an FS1 (panel supplied separately) which can provide power to the fans when the control panel is switched on.

(5) (6) EXTERNAL CURRENT SENSORS [INTAKE FAN] & [EXHAUST FAN]

These terminals are used to receive an input signal from external air pressure switches or external current monitors. These are linked out as a factory setting to represent a closed circuit.

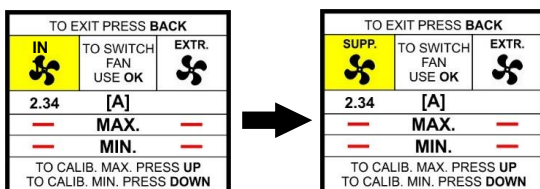
(7) EM REMOTE

Open/Close circuit connections for external devices is marked as [EM STOP] and can shut off the gas supply when activated. This is fitted with a factory link to represent a closed circuit.

(8) 24V DC for CO MONITOR & OPEN/CLOSE CIRCUIT

This is a permanent power output for CO Monitor. (Sold Separately)
Max output: 90mA. A Merlin CO monitor can shut off the gas supply if high concentrations of Carbon Monoxide is detected.

Fan Calibration



Select [**FANS CALIB.**] in the settings menu.

- Press [OK] to switch to intake (INT.) or exhaust (EXTR.) fan. Fan selection highlighted yellow.
- Wait for the current value to appear (A). Press [UP] button to calibrate highest fan current. If successful, 'OK' appears on screen (MAX.)
- Press [DOWN] button to calibrate low fan current. If successful, 'OK' appears on screen (MIN.) Fan icons switch from black to green.



If calibration is unsuccessful then alter fan dropout thresholds in the settings menu and repeat.

Find out more

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