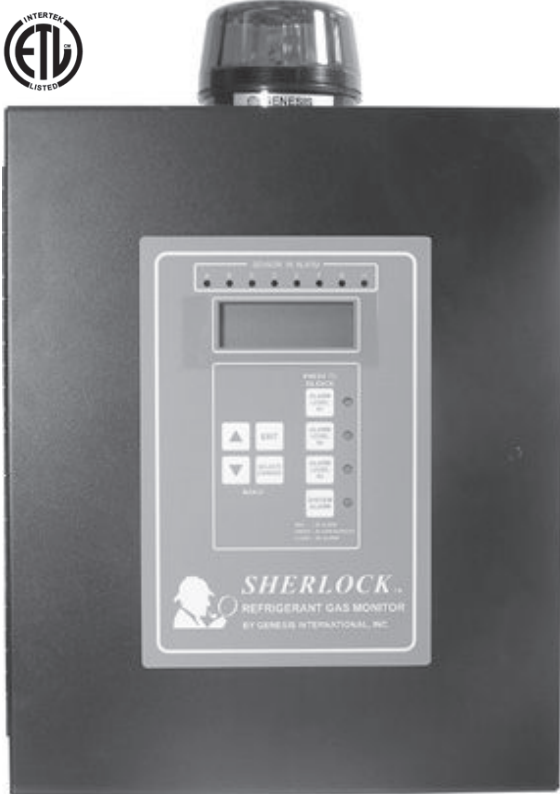




GENESIS INTERNATIONAL, INC.

SHERLOCK 804 CONTROL MODULE



The **SHERLOCK 804** (SHER804) Control Module is compliant with ASHRAE 15-2013 and Mechanical Code requirements for refrigerant gas monitoring.

The **SHERLOCK** is a hardwired, electronic control panel that is capable of monitoring the analog output signal of up to eight **SHERLOCK** Refrigerant Gas Sensors or **SHERLOCK** Oxygen Depletion Sensors and four digital dry-contact switches. The Control Module will activate eight relays, with an option of eight additional relays based upon the programmed alarm level setpoints of each sensor. Add an optional 4-20ma Output Signal Generator for DDC monitoring applications. The Control Module can be located in the area to be monitored, or in a separate location, typically outside of the monitored room.

NEMA 1 (IP10) Compliant Enclosure - Enclosure is intended for indoor use, 41° - 104°F (5° - 40°C), 25 to 85% relative humidity, non-condensing. Will provide a degree of protection against outside contaminants. The enclosure is not designed to provide protection from water or to be placed in hazardous environments. Mount only in pollution level 2 environments, ie. environmentally controlled machine rooms, offices, or control rooms at altitudes of up to 6,562 Ft (2,000 M).

POWER 100 to 240vac, 50/60 hz, 2.5 Amps

INPUTS Up to 8 **SHERLOCK** sensors *Cmos, Infrared(IR), Electro-Chemical (O₂, NH₃), 4 dry contacts: Setback, User Force Alarm, Alarm Silence & Alarm Clear*

OUTPUTS Eight (8) SPDT, 1 Form C, 250VAC/30V DC, 5.0 Amp Dry Contact relays
Eight (8) 12V DC, 0.7 Amp Max. "Horn/Strobe", Alarm Outputs
12V DC Auxiliary to Power External Alarms

Optional: 4-20mA DC signal (SHER804-A)

Optional: Auxilliary (Zone cutoff) relays (SHER804-R)

Optional: Modbus RS485 RTU Communications

ALARMS System fault (2 relays)
Three alarm levels (2 Relays per level)

DISPLAY 4 lines by 20 characters
Alphanumeric LCD with back light

KEYPAD 8 tactile pushbuttons, Scroll up, Scroll down, Select/Edit/Change, Exit Function, Alarm level silence

ALARM INDICATORS

LCD Name, description, and current reading of alarming sensor

STROBE Built-in, blue, 60-90 fpm, 100,000 candle power (Stays on for duration of alarm condition)

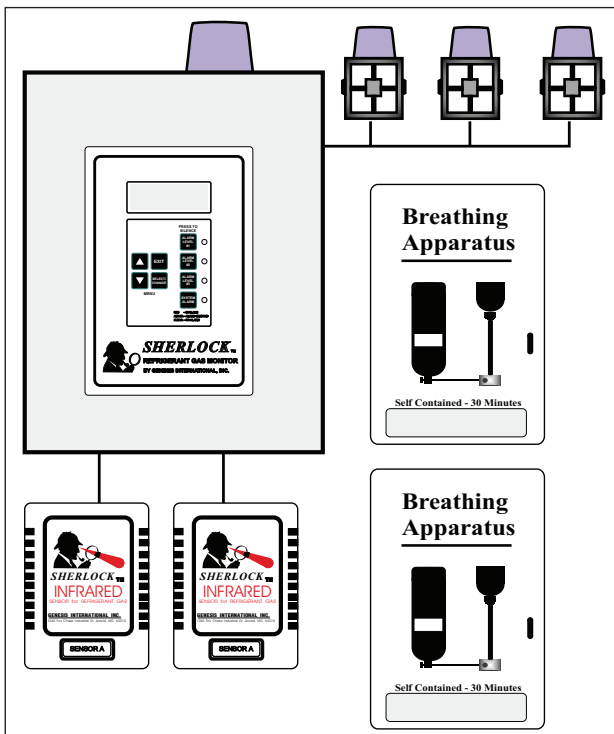
BUZZER piezo-electric, 90db @10ft (3.05M), silenceable

STATUS LED Up to 8 Individual Sensor in Alarm LED's on top of front panel of control. Four (4) Indicates alarm level status Red -- active; Amber -- silenced; No light--not in alarm

LISTINGS ETL, Conforms to UL Std. 3111-1
Certified to CAN/CSA, C22.2 Std. No. 1010.1

WARRANTY 15 Month Limited

Model#	Nema/IP Rating	Size Inches (mm)	Electrical Category	Pollution Protection
SHER804	1	12 x 14 x 7 (305 x 356 x 178)	II	2



TYPICAL MACHINE ROOM INSTALLATION

Alarm Level Settings - The *SHERLOCK* 804 allows for three unique **Alarm Setpoints** for each individual sensor throughout the operating range. When an **Alarm Setpoint** is exceeded, a corresponding set of alarm relays activate. Each **Alarm** has a programmable **Delay** of 1 to 120 minutes. Sensor readings must exceed the Setpoint for the delay before the control activates the corresponding alarm relays. Alarm level #1 and Alarm Level #2 on every sensor has the option of using the Time Weighted Average (TWA) reading as the input reading. TWA is the average reading of a sensor input over a period of time.

Alarm Indication - All alarms are logged to indicate which sensor went in and out of any of the three alarm levels, the time and date of the alarm. The alarm log stores the last 32 alarms. When a sensor is in alarm, an individual LED on top of the panel lights up red indicating which sensor and another indicates the alarm level, the on-board beeper will be sound and the display will go into "IN ALARM" every five seconds. The individual sensor causing the alarm also displays the "ALARM" message.

Alarm Relay Contacts - The 804 provides two fused SPDT (Single Pole Double Throw) relay outputs for each alarm level that switch positions in the event of an alarm. The 'B' relay for each alarm level can be temporarily or permanently silenced by pushing the respective alarm silence button on the front panel. The relay will re-activate after a programmed period, if the alarm condition is not cleared. The 'A' relay remains active until the alarm condition is cleared. The 804 can be programmed so that the alarm clears automatically when the sensor reading goes below the alarm setpoint (UNLATCHED) or be manually reset (LATCHED). Each alarm level can be configured so the relays are "Energized to Alarm" (where the C-NO contacts close on alarm) or "De-Energized to Alarm" (where the relay is energized during normal operations and the C-NC contacts close on alarm).

Dedicated Horn/Strobe Outputs - Outputs for Up to 8 Dedicated 12V DC Horn/Strobes. Each Horn/Strobe can be assigned to a specific sensor. Other 12V DC devices may be used. Please check Max. current output.

Systems Fault Monitoring - In addition to the three alarm levels the control is also equipped with a SYSTEM FAULT ALARM. This alarm is triggered when the system malfunctions (i.e. The sensor wire or inter-connect cable lose connection). The 804 constantly monitors the wiring to each sensor. Should any of the activated sensor wires lose connection, "OPEN" will appear on the SHERLOCK display, the alarm #1 and system alarm are activated and the condition is logged.

Setback Alarm Settings - In some locations the sensor may be expected to function in two different environments. The 804 provides a feature called SETBACK to accommodate alternative conditions. SETBACK provides a secondary ALARM SETPOINT and DELAY. The control switches to the setback parameters when a dry contact (i.e. air flow switch, sail switch or timer switch) closes or on a daily time schedule.

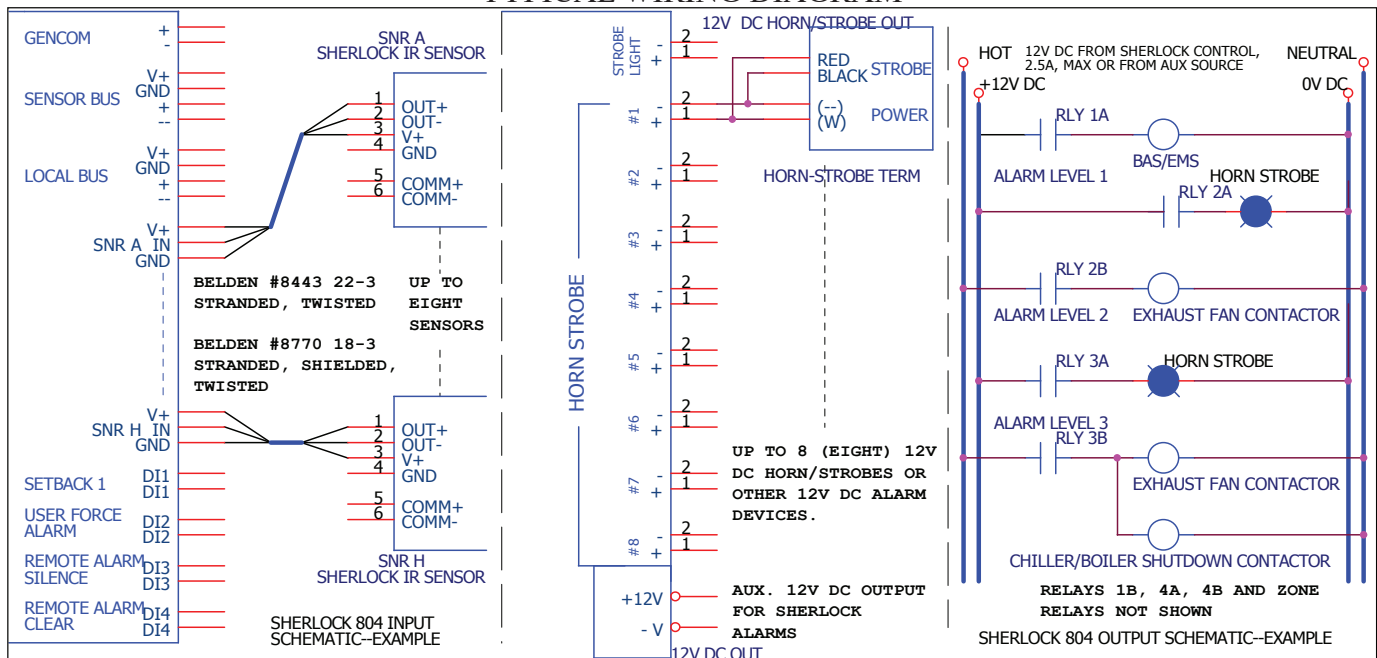
OPTIONAL: Analog Outputs (SHER204-A) - This option adds a 4-20 mA analog output for each sensor. This signal can be incorporated to any commercially used monitoring and alarming system or in-house Data Management System.

OPTIONAL: Auxiliary Relay Board (SHER204-R) - This option adds (1) relay corresponding to each installed sensor. The relays can be set in the software as non-silenceable or silenceable during an alarm condition.

OPTIONAL: Modbus RTU - This option adds an RS485 output that can communicate with a BAS.

These options are factory installed and tested prior to shipment. They can not be field retrofitted.

TYPICAL WIRING DIAGRAM



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