



GENESIS INTERNATIONAL, INC.

SHERLOCK 202

REFRIGERANT GAS LEAK MONITORING AND ALARMING SYSTEM



Model #	Nema/IP Rating	Size Inches (mm)	Electrical Category	Pollution Protection
SHER202	1	7.25 x 8.0 x 3 (184 x 203 x 76)	II	2

The SHERLOCK 202 (SHER202) Monitoring System was designed to monitor up to two SHERLOCK Refrigerant Gas Sensors, activating up to two alarms based upon user defined alarm level setpoints. The SHERLOCK 202 is compliant with ASHRAE 15-2004 and Mechanical Code requirements for refrigerant gas monitoring.

NEMA 1 Compliant Enclosure - This enclosure is intended for indoor use only primarily to provide a degree of protection against contact with the enclosed equipment. The enclosure is not designed to provide protection from water or to be placed in a hazardous environment. Mount only in Pollution Level 2 environments, ie. environmentally controlled offices, control rooms, or environmentally controlled machine rooms.

Power Universal Input Power Supply 90 to 250VAC, 50/60 Hz, 2 AMPS

Inputs Up to two *Sherlock* Sensors: *Cmos, Ir* or One *Sherlock* Sensor and One *Oxygen Deprivation* Sensor

Outputs Four (4) SPDT, 250V AC / 30V DC 3.15 Amp Relays.
Two 12V DC For Audible/Visual
Optional Four zone isolation Relays
Optional 4-20mA Analog Signal

Setback 24 Hour Time Clock, Two Dry Contact Digital Inputs

Alarms Two Alarm Levels, Two SPDT Relays per Level, Fuse On Common Terminal. One relay on each alarm level can be silenceable when in alarm.

Operating Environment

Temperature 35°F To 120°F (2°C To 50°C)

Humidity 0 To 95% RH Non-condensing

Display 2 Line By 20 Characters Alphanumeric Backlighted LCD display

Keypad 5 Tactile Pushbuttons - *Scroll Up*, *Scroll Down*, *Alarm Silent/Clear*, *Select/Edit/Change*, *Exit*

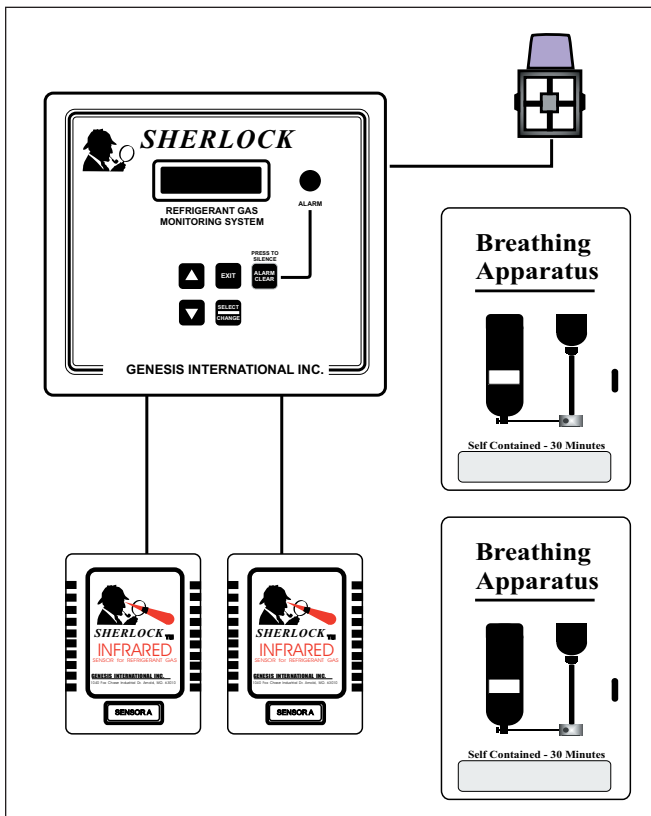
Alarm Indicators

Display Name And Current Reading Of Alarming Sensor

Buzzer Built-in Piezo-electric, 90db @10ft, Silenceable

Light Built-in Flashing red Light on the front panel.

Listings ETL, Conforms to UL Std. 61010B-1 Certified to CAN/CSA C22.2 Std. No. 1010.1-92



TYPICAL MACHINE ROOM INSTALLATION

Alarm Level Settings - The **SHERLOCK 202** allows you to set a unique Level 1 and Level 2 Alarm Setpoint and delay for each individual sensor. These relay can be active Normally Open (N.O.) or Normally Closed (N.C.). When an Alarm Setpoint is exceeded for a user set delay, the corresponding alarm relays will activate. Each Alarm Setpoint has a programable Delay of 1 to 120 minutes. The control provides two fused SPDT (Single Pole Double Throw) relay outputs for each alarm level that change state in the event of an alarm condition. Level 1 Alarm activates Relays #1 and #2 (REFR LEAK LEVEL 1, REFR LEAK LEVEL 1 SILENCEABLE). Level 2 Alarm activates Relays #3 and #4 (REFR LEAK LEVEL 2, REFR LEAK LEVEL 2 SILENCEABLE). Relays #2 and #4 can be silenced (returned to non-alarm state), when the ALARM CLEAR button on the front panel is pushed. Relays #1 and #3 remain active until the alarm condition is cleared. The Control can be programmed so the alarm can be cleared automatically (UNLATCHED) or remain on until manually reset (LATCHED).

Systems Sensor Open Monitoring - The **SHERLOCK 202** constantly monitors the wiring to the sensors. Should any of the activated sensor wires be cut or disconnected, "SENSOR ALARM" will appear on the **SHERLOCK** display, the #1 (REFR LEAK LEVEL 1) and #2 (REFR LEAK LEVEL 1 SILENCEABLE) relays will be activated and the condition is logged.

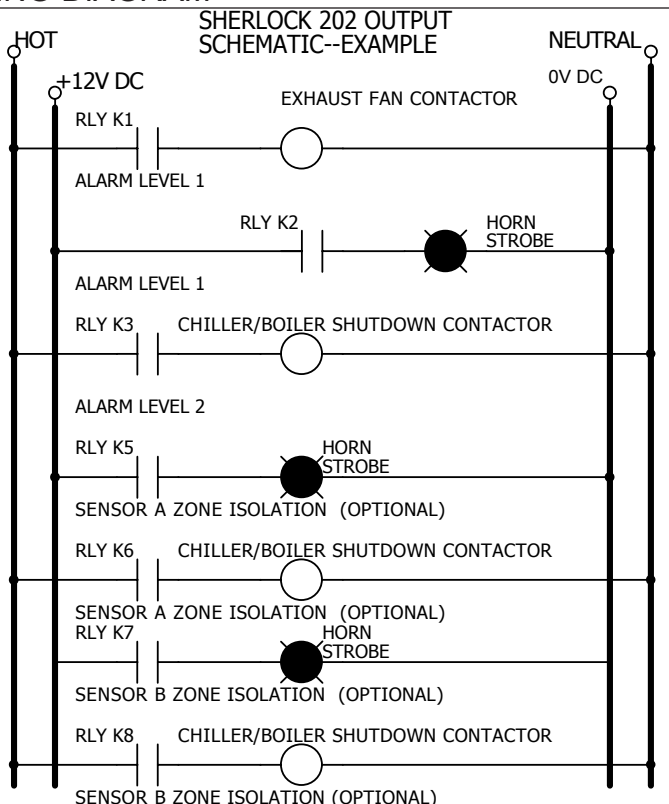
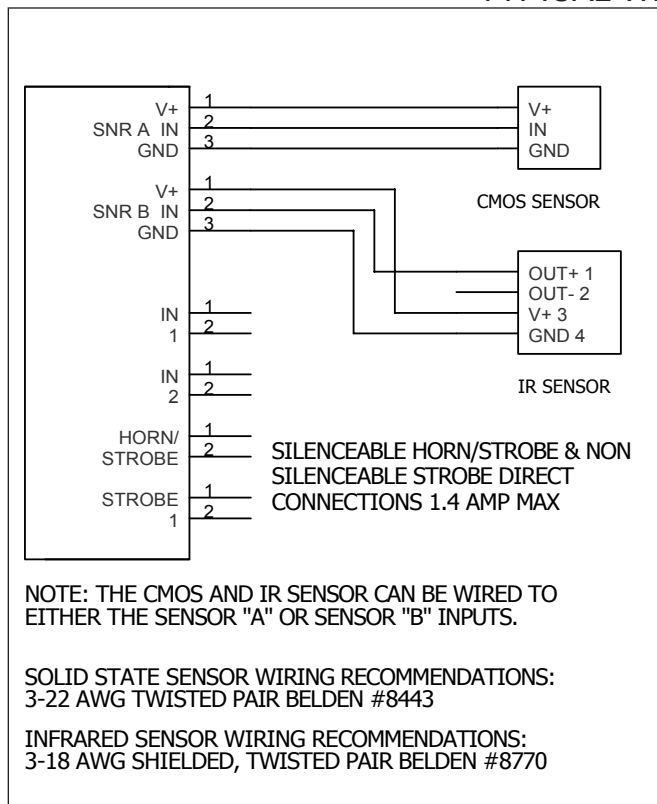
Alarm Logging - Alarms are logged to indicate which sensor went in alarm and when for any of the two alarm levels. The alarm log stores the last 10 alarms. When an alarm occurs, the red alarm light on the panel will flash and an on-board beeper will sound. The display will state the alarm condition.

Setback Alarm Settings - In some locations the sensor may be expected to function in two different environments. The **SHERLOCK 202** 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.

Zone Isolation Relays (SHER202-R, Factory Installed Option) - Optional zone isolation alarm relay (#5 **SENSOR A ZONE**, #6 **SENSOR A ZONE SILENCE-ABLE**, #7 **SENSOR B ZONE**, #8 **SENSOR B ZONE SILENCE-ABLE**). Each relay can be programmed to activate by level 1 or level 1 & 2 alarm. One relay is silenceable and one is non-silenceable.

Analog Signal Generator (SHER202-A, Factory Installed Option) - The **SHERLOCK 202** has an optional 4-20 mA analog output generator for each sensor which can be incorporated to any commercially used monitoring and alarming system or in-house Data Management System.

TYPICAL WIRING DIAGRAM



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