SMC sierra monitor corporation

Model 2050/2060
Ammonia and Halocarbon Gas Monitors

Cost effective gas alarm monitors for ammonia and halocarbon gases. Available as single channel monitors or part of multipoint alarm system

The Model 2050 Ammonia and Model 2060 Refrigerant/ Halocarbon Gas Monitors are continuous duty, low cost stationary monitors for detection of high levels (50-500 PPM) of ammonia and halocarbon refrigerant gases. These monitors are primarily used in and around freezers, refrigerators, and compressor rooms to warn of leaks and dangerous levels of these gases.

An alarm is activated when the concentration of gas exceeds the user-adjustable level. An alarm condition activates the alarm light on the front of the monitor and generates an output signal. An output signal can activate a remote alarm through the Model 2102 Alarm Panel. The Model 2102 Dual Channel can be connected up to 500 feet from the monitors. Each monitor also has a 0.5 amp, dry contact relay replaces the output signal.

The monitors are housed in a polystyrene enclosure that is suitable for installation in freezer, refrigerator or other applications. Test connections and adjustment controls are located on the outside of the enclosure and are easily used, even when the operator is wearing hand protection.

Alarms

These monitors have two indicator lights on the front of the unit, a green "safe" indicator and a red "alarm" indicator. Three alarm conditions are possible. These can be detected visually at both the monitor and controller at all times.

■ **Warm-up** - Interrupted (On/Off) "red/green" visual indication when power is first connected to the monitor, followed by a red light until warm-up is completed and the green light comes on.

■ **Gas Alarm** - Sustained solid red light indicating the presence of gas at, or above, the pre-set threshold.

■ **Sensor failure** - Interrupted (on/off) "red/green" visual indication after unit has been in operation, indicating either a failed sensor or that the monitor is not correctly calibrated.

The Model 2050 Ammonia monitor has a factory alarm setpoint of 100 ppm NH_3. This setpoint is user adjustable in the field over a range of 50 to 500 ppm NH_3. The Model 2050 calibration can be checked with Hydrogen gas.

The Model 2060 Halocarbon monitor can be calibrated with Carbon Monoxide and the factory setpoint varies for the specific type of halocarbon present. The factory setpoint for R12 is 500 ppm while the setpoint for R134a is 50 ppm. See the specifications for more details.

Temperature Range

The Model 2050 and 2060 have temperature compensated circuitry to provide stabilization in temperatures ranging from -4° to 158°F.

Semiconductor-Type Sensor

A solid-state semiconductor-type sensor and associated electronic circuitry ensure trouble-free, long-term operation. There are no pumps, filters, or chemical cells to replace or maintain. Except periodic calibration to verify the alarm setting, no periodic maintenance is required after installation. The user may adjust the alarm level by using a different calibration gas concentration.

SPECIFICATIONS

Indicators:	Green LED for Monitor "ON"/Safe
	Red LED for Alarm
Sensor Type:	Solid-state metal oxide semiconductor

Alarm Setpoint::

2050 Series   100 ppm NH_3

2060 Series
R11	500 ppm
R12	500 ppm
R22	50 ppm
R113	100 ppm
R123	70 ppm
R134a	50 ppm
R141b	40 ppm
R142b	40 ppm
R500	40 ppm
R502	70 ppm

User adjustable with calibration over range of 50 to 500 ppm

Calibration Gas:
2050 Series	80 ppm Hydrogen (H_2)
2060 Series	150 ppm Carbon Monoxide (CO)

Power: 9-24 VDC, 250 mA

Signal Output::

2050-00/2060-00   Nominal 5 volt DC, source 25 mA. SAFE and ALARM Signals
0.5 AMP dry contact, 100 VDC, 130 VAC and audible

Response Time: Less than 90 seconds

Operating Temperature Range:
-4° to 158°F (-20° to 70°C)

Enclosure Material: Polystyrene

Size: 5.6 x 3.1 x 2.1 in. (14.2 x 7.9 x 5.3 cm)

Weight: 0.3 lb (0.15 Kg)

ORDERING INFORMATION

2050-00   **Ammonia** Gas Monitor
2060-00   **Refrigerant/Halocarbon** Gas Monitor
1200-26   **Gas Sensor Calibrator** w/2 gas cylinders of calibration gas
1290-10   Gas Cylinder - Carbon Monoxide, 150 ppm
1290-11   Gas Cylinder - Hydrogen, 80 ppm

OTHER PRODUCTS

2102-00   **Dual Channel Alarm Panel**

ISO 9001
REGISTERED QUALITY SYSTEM

Outline and Dimensions of Model 2050/2060