

SLG-12

Photoelectric Smoke Detector

The Model SLG-12 incorporates new technology that is coupled with proven design features of previous models to give the most up-to-date detector on the market. Non-directional, dual ramp smoke chamber is protected from lint and insects by our micro-etched bug barrier. A revolutionary advance in design allows use of a chemically etched stainless steel ribbon only a few thousandths of an inch thick as an insect screen. The hex shaped openings give a ratio of 4:1 open area but still limits the size of the opening to 1/64 inch. See Fig. 1 for this patent pending bug shield.

Further developments allow the monitoring of the sensitivity alarm point without using smoke. A field monitor is shared with our other detectors.

BUILT BETTER BY DESIGN

1. We continue to lead the industry in the limited energy needed to operate the detector. Only $60\mu\text{A}$ current consumption. The Dual Pulsed lamp circuit also insures reliability through its comparison circuit which disregards spurious signals.
2. All of the circuits in the detector head are computer designed to provide the desired degree of operational efficiency and yet be trouble-free and not adversely affected by outside electrical interference. A built-in line filter is combined with time delay circuitry to further assure reliable, around-the-clock operation.
3. Head condition is easily tested by inserting a test probe into the "nose" of the detector. This interferes with the light balance as if smoke had entered and causes the detector to respond. This test may be done in the field or in the lab with equal results.



MODEL SLG-12

OPERATION

The unit is comprised of an LED light source and silicon photo diode receiving element. Normally, the receiving element receives no light from the pulsating light source. In the event of fire, smoke enters the detector and light is reflected from the smoke particles to the receiving element, where it is converted into an electronic signal. Signals are compared in the comparator and when two signals exceeding the basic level are received in series within a specified period of time, the time delay circuit triggers the SCR switch to activate the alarm signal.



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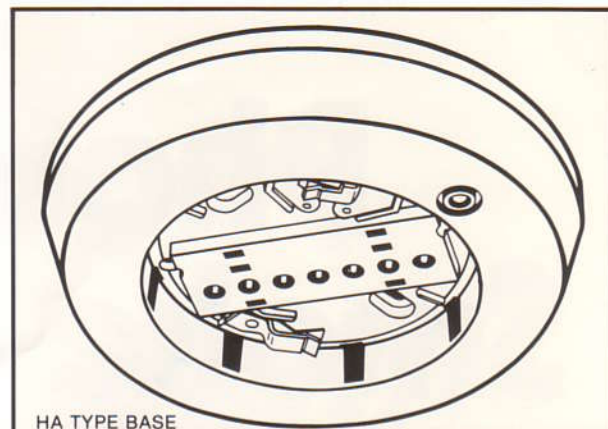
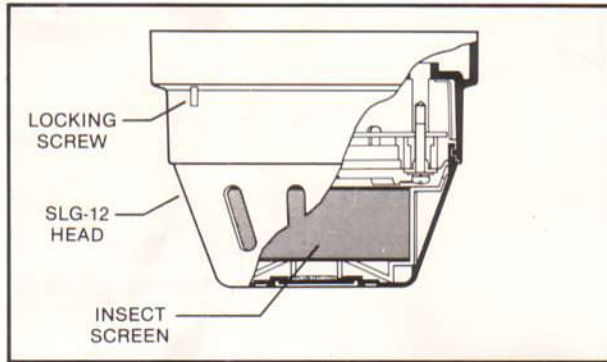
APPLICATIONS

SLG-12's responsive detection system enables it to display full performance in either a smoldering fire or to flaming fires. In addition, the construction makes it dew-proof and completely uninfluenced by high air velocity. Its high impedance combined with low power consumption characteristics and its high operational stability gives it an extremely wide range of uses. It can be connected to a fire alarm control panel using a 4-wire loop circuit in 12V applications. The Mounting Base makes it easily installed to standard electrical boxes.

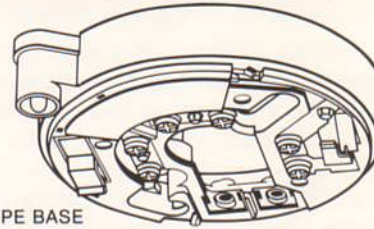
GENERAL DATA

VOLTAGE:	
RATED	11.8 — 16.2 VDC
WORKING	10-18 VDC
CURRENT:	
NORMAL	60 μ A @ 12 VDC
ALARM	.250 AMPS MAX. @ 18 VDC
LIGHT SOURCE:	INFRARED LED
AMBIENT TEMPERATURE:	+ 32°F — + 120°F (0°C · 49°C)
MOUNTING:	4" OCTAGONAL OUTLET BOX*
COLOR:	BONE WHITE

*When using an HA base or B-100 adapter with YBC base



HA TYPE BASE



YBC TYPE BASE



SLG-12 HEAD

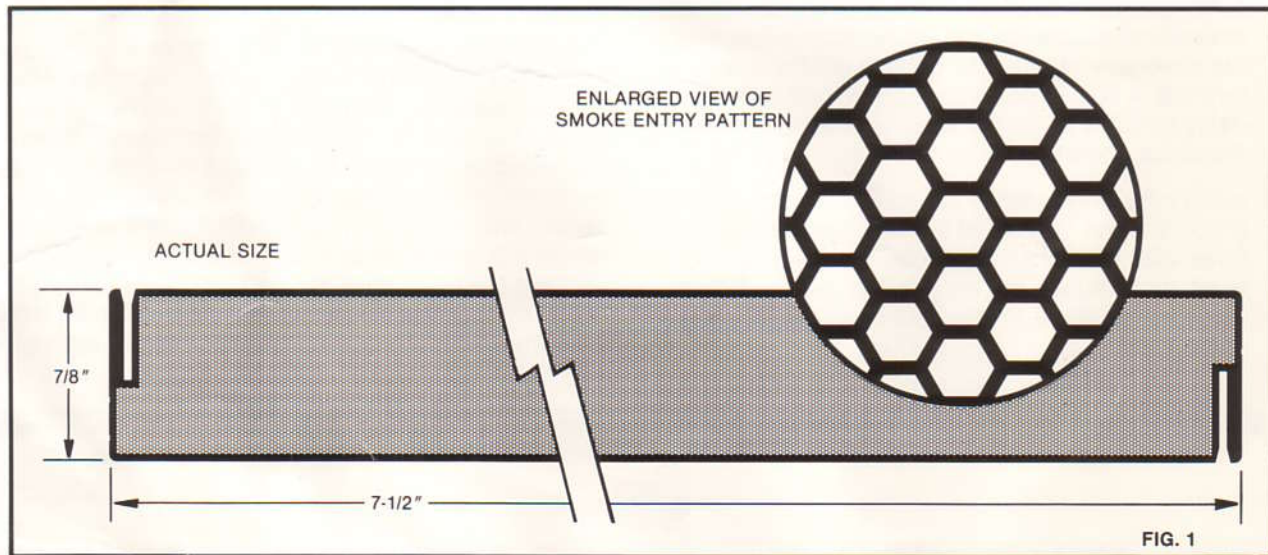


FIG. 1