

TECHNICAL DATA SHEET

For Use By Architects & Engineers



Combined Smoke and Heat Detector

Part No.: LE-SLR-24H

LIFECO-227

HFC-227-EA Gas Extinguishing System



FEATURES

- Low profile, 2.2" high (with base)
- 2 or 4 wire base compatibility.
- 135°F Fixed Temperature heat sensor (Latching)
- Heat sensor protected by a built-in guard
- Highly stable operation, RF/Transient protection
- Low standby current, 45µA at 24VDC
- Two built-in power/sensitivity supervision/alarm LEDs
- Non-directional smoke chamber
- Vandal resistant security locking feature
- Built-in magnetic go/no go detector test feature
- Removable smoke labyrinth for cleaning or replacement
- Automatic Sensitivity window verification function meets outlined requirements in NFPA 72, Chapter 2 & 7, Inspection, Testing and Maintenance



APPLICATION

The LE-SLR-24H can be used in all areas where Photoelectric Smoke Detectors are required. The wide range smoke chamber makes the LE-SLR-24H well suited for fires ranging from smoldering to flaming fires. LE-NS-4 Series, or LE-NS-6 Series Style bases may be used with the LE-SLR-24H. Current interchangeable/compatible devices are LE-SLR-24V photoelectric detector and the LE-DCD-135/190 heat detectors.

The smoke detector shall have two flashing status LED's for visual supervision. When the detector is in standby condition the LED's will flash Green. When the detector is outside the UL listed sensitivity window the LED's will flash Red. When the detector is actuated, the flashing LED's will latch on Red. The detector may be reset by actuating the control panel reset switch.

The sensitivity of the detector shall be capable of being measured. It shall be possible to perform a functional test of the detector without the need of generating smoke. The sensitivity of the detector shall be monitored automatically and continuously to verify that it is operating within the listed sensitivity range.

To facilitate installation, the detector shall be non-polarized. Voltage and RF transient suppression techniques shall be employed to minimize false alarm potential. Auxiliary SPDT relays shall be installed where indicated. The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field removable when not required.

DESCRIPTION

The LE-SLR-24H photoelectric smoke detector utilizes two bicolored LED's for indication of status. In a normal standby condition the LED's flash Green every 3 seconds. When the detector senses that its sensitivity has drifted outside the UL listed sensitivity window the LED's will flash Red every 3 seconds. When the detector senses smoke and goes into alarm the status LED's will latch on Red.

The detector utilizes an infrared LED light source and silicon photo diode receiving element in the smoke chamber. In a normal standby condition, the receiving element receives no light from the pulsing LED light source. In the event of a fire, smoke enters the detector smoke chamber and light is reflected from the smoke particles to the receiving element. The light received is converted into an electronic signal.

Signals are processed and compared to a reference level, and when two consecutive signals exceeding the reference level are received within a specified period of time, the time delay circuit triggers the LE-SCR switch to activate the alarm signal. The status LED's light continuously during the alarm period.

SENSITIVITY FEATURE

LE-SLR-24H Photoelectric Smoke Detector sensitivity test feature.

1. In normal condition, both LED's flash green.
2. When the sensitivity drifts outside of its sensitivity limits, both LED's flash red.
3. In the alarm state both LED's are red continuously.
4. When the sensitivity drifts outside of its sensitivity limits and both LED's flash red, the device needs to be cleaned or returned to the factory for cleaning.

In line with our policy of continuous product improvement LIFECO reserves the right to modify specifications without prior notice.



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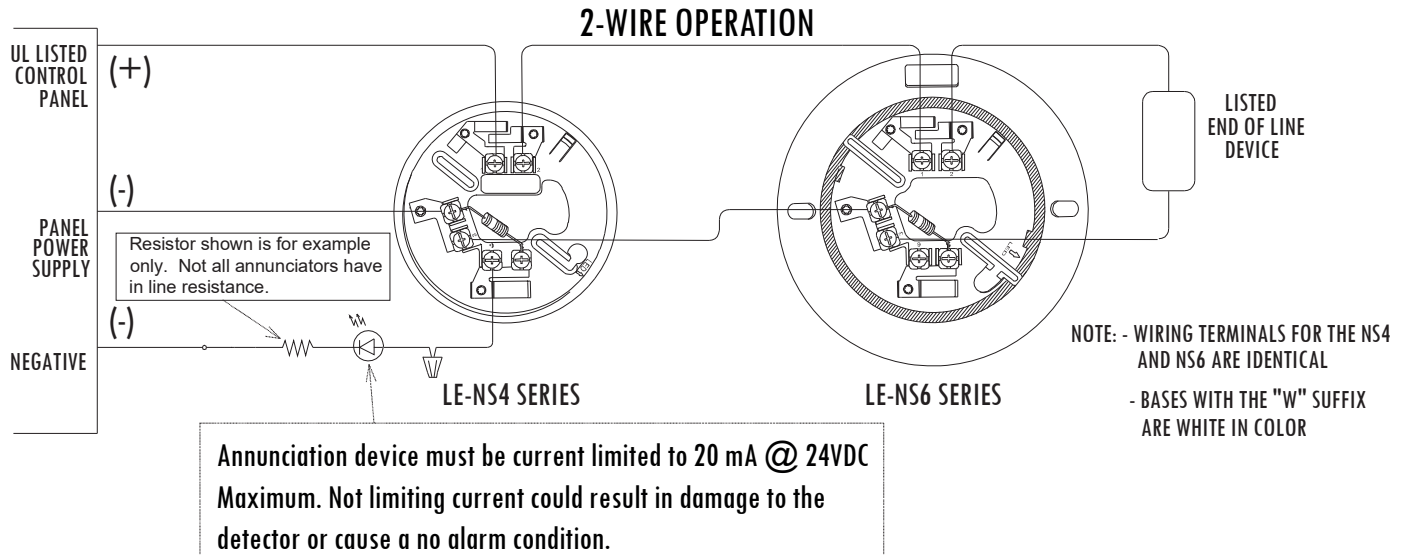
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WIRING DETAILS



2-wire relay wiring diagram is also available

FEATURES

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| Part No.: LE-SLR-24H |
| Light Source: GaAlAs Infrared Emitting Diode |
| Rated Voltage: 17.7 - 30.0 VDC |
| Working Voltage: 15.0 - 33.0 VDC |
| Maximum Voltage: 42 VDC |
| Heat Sensor: 135°F |
| Supervisory Current: 45µA @ 24 VDC |
| Surge Current: 160µA max. @ 24VDC |
| Alarm Current: 150mA max. @ 24 VDC |
| Air Velocity Range: 0-4000 fpm |
| Maximum Humidity: 95% RH Non-Condensing |
| Ambient Temperature: 32°F to 120°F (0°C to 49°C) |
| Color & Case Material: Bone PC/ABS Blend |
| Sensitivity Test Feature: Automatic Sensitivity window verification test |
| Mounting: Refer to LE-NS Conventional Detector Base Data Sheet |

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