



## Specifications

Light Source	GaAIAs Infrared Emitting Diode
Nominal Rated Voltage	12 or 24 VDC
Working Voltage	8 - 35.0 VDC
Maximum Voltage	42 VDC
Supervisory Current	59µA @ 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

## Sensor Spacing

Smoke sensor spacing shall be in compliance with NFPA 72. For smooth ceilings and in the absence of specific performance-based design criteria, the distance between smoke sensors shall not exceed a nominal spacing of 30 ft. (9.1m) or all points on the ceiling shall have a sensor within a distance equal to or less than 0.7 times the nominal 30 ft. (9.1m) spacing. Sensors shall be located within a distance of one-half the nominal spacing, measured at right angles from all walls or partitions extending upward to within the top 15 percent of the ceiling height. For additional instructions see NFPA 72.

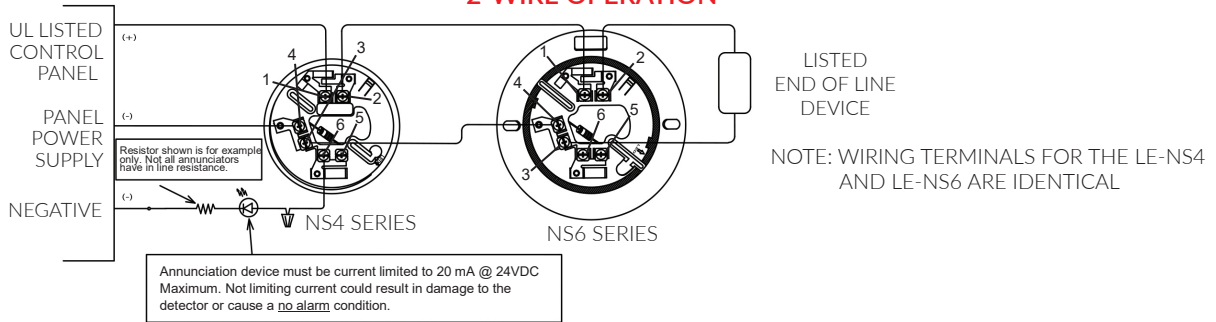
## Engineering Specification

The contractor shall furnish and install where indicated on the plans, LIFECO Model LE-SOC-24V photoelectric smoke detectors. The combination detector head and twist-lock base shall be UL listed compatible with a UL listed fire alarm panel. The base shall permit direct interchange with LIFECO LE-SOC-24V photoelectric smoke detector. The base shall be appropriate twistlock base LE-NS-4 Series, LE-NS-6 Series, LE-HSC-4R, or LE- HSC-R. In the event of partial or complete retrofit, the LE-SOC-24V maybe used in conjunction with, or as a replacement for, LIFECO detectors (LE-SLR-24V, LE-SLK-24 and the LE-SLR-24H) on LE-HSC-220R and LE-HSC-4R base applications.

The smoke detector shall have two flashing status LEDs for visual supervision. When the detector is in standby condition the LEDs will flash Green. When the detector is outside the UL listed sensitivity window the LEDs will flash Red. When the detector is actuated, the flashing LEDs 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. 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.

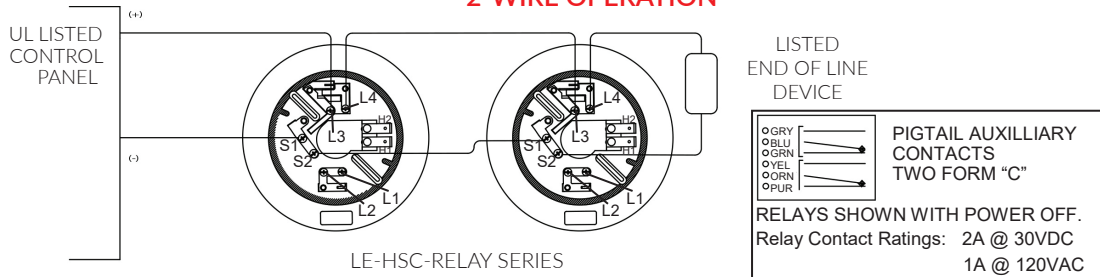
**Wiring Diagram**

**2-WIRE OPERATION**



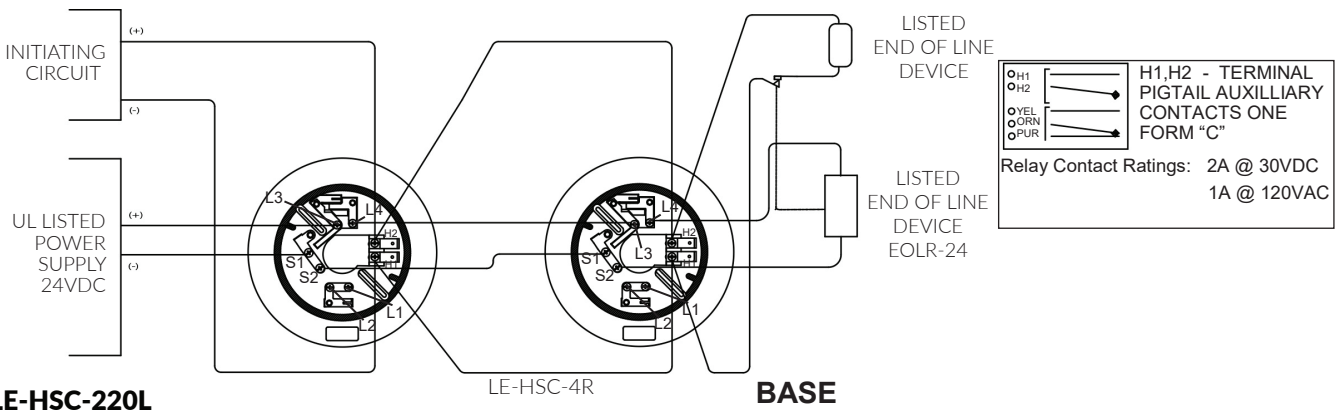
**LE-HSC-220R**

**2-WIRE OPERATION**



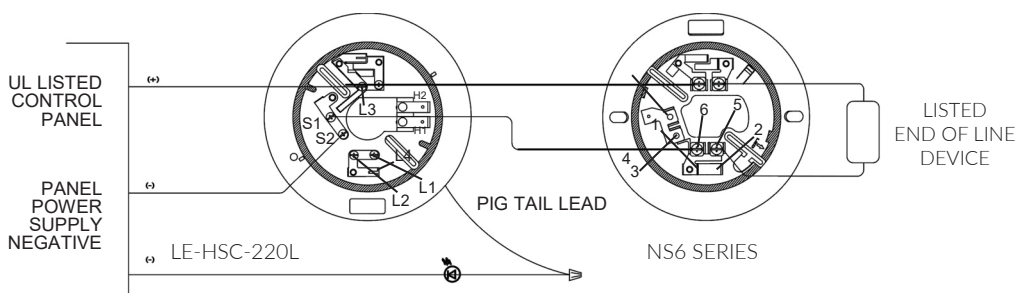
**LE-HSC-4R**

**4-WIRE OPERATION**



**LE-HSC-220L**

**2-WIRE OPERATION**



**Sensitivity Test Pressure**

The LE-SOC-24V Photoelectric Smoke Detector has a built-in automatic 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 or calibration.