

TECHNICAL DATA SHEET

for use by Architects & Engineers

Fixed Temperature / Rate of Rise Heat Sensor

Model No: LE-ATJ-EA



Features

- Low profile - only 2.00" high, including base
- Simple and reliable device addressing method
- Uses the noise immune Digital Communication Protocol (DCP), which utilizes interrupts for fast response to fires
 - Rate of rise temperature threshold = 15°F/Min (determined by panel)
 - Adjustable threshold temperature = 135°F - 190°F (determined by panel)
 - UL maximum spacing of 70 feet

Description

The LE-ATJ-EA incorporates a highly linear thermistor circuit. The specially designed cover protects the thermistor while allowing maximum air flow. The thermistor circuit produces a voltage proportional to the temperature. This information is transmitted to the control panel as a digital value. When the ambient temperature exceeds a pre-programmed threshold (fixed temp or rate of rise), the sensor transmits an interrupt to the control panel indicating a fire alarm. The fire alarm control panel can adjust the sensor's fixed temperature threshold for different installation requirements. Up to 127 devices may be installed on each SLC loop. The sensor address may be set by a hand-held programming unit. The sensor mounts to an electronics -free base and incorporates a locking mechanism for security. The base provides mounting slots, terminals for field wiring and a third terminal for a remote indicator/LED. The sensor has dual LEDs for easy viewing of the sensor status.

Sensor Spacing

Heat sensor spacing shall be in compliance with NFPA 72. The distance between heat sensors shall not exceed their listed spacing or all points on the ceiling shall have a sensor within a distance equal to or less than 0.7 times the listed spacing. Heat sensors shall be located within a distance of one-half the listed 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.

Application

The LIFECO LE-ATJ-EA Sensor provides accurate temperature measurement data to the fire alarm control panel. This sensor is particularly suited to environments where smoke detectors are unsuitable because of the presence of system or cooking fumes such as in a kitchen.

Technical & Environmental Specification

Operating voltage	17-41 VDC
Standby current	350µA
Alarm current	500 µA
Transmission method	DCP
Maximum humidity	95% RH Non condensing
UL ambient installation temperature range	32°F to 115°F (0°C to 47°C)
Operating temperature range	135°F to 150°F (57.2°C to 65.6°C)
Color & case material	Bone PC / ABS blend
Weight	3.2oz (4.9oz with 4" base)
Bases	4" LE-YBN-NSA-4 6" LE-HSB-NSA-6

LIFECO heat sensors are installed in accordance with NFPA (National Fire Protection Association) 72, the UL Listed Spacing Requirements and the rules and regulations set forth by the local authorities having jurisdiction. Automatic heat sensors shall be Underwriters Laboratories listed. The base shall permit direct interchange with the LIFECO LE-AIE-EA ionization type smoke sensor, and the LE-ALN-V photoelectric smoke sensor. The vandal-resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be optional and can be implemented when required. It shall be possible to perform a functional test of the sensor without generating heat. The test method shall simulate the effects of heat on the device to insure testing of internal circuitry.

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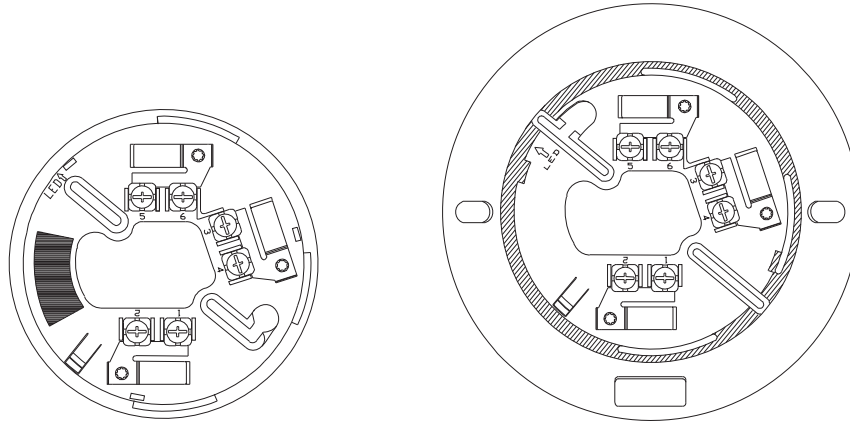
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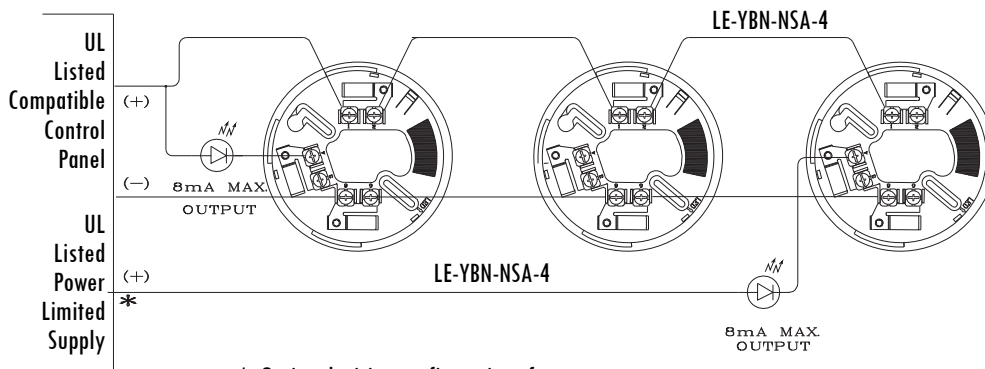


Wiring Details

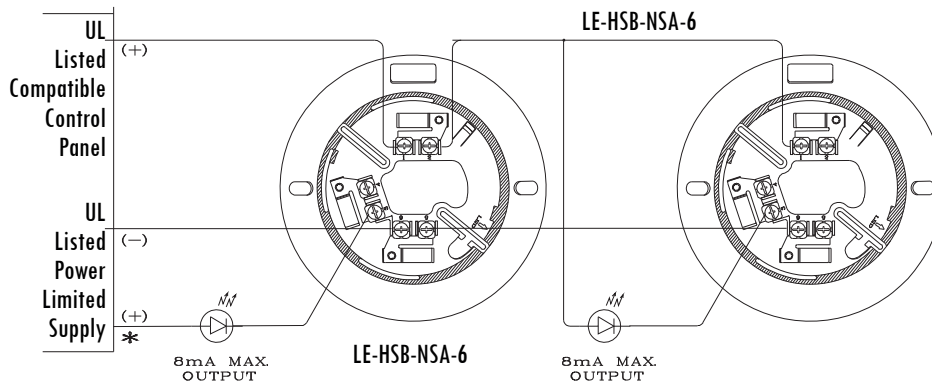


LE-YBN-NSA-4 Base

LE-HSB-NSA-6 Base



* - Optional wiring configurations for remote output



The LIFECO LE-HSB-NSA-6 and the LE-YBN-NSA-4 mounting bases are electronic free and are a simple rugged design with screw terminals for wiring connections. A common mounting base allows sensor interchange and maintains loop continuity when sensors are removed. A simple anti-tamper head locking system is provided which is enabled by removing a small plastic tab on the back of the sensor. Once locked, the head can be removed using a small diameter screw driver.

NOTE: Fire alarm control panel compatibility is required for DCP products. State-of-the-art communications protocol, DCP, allows system components (DCP sensors LE-AIE-EA, LE-ALG-V and LE-ATG-EA, bases and modules), to be used concurrently in a system's signal conditioning loop.