

## ATJ-EA FIXED TEMP/RATE OF RISE HEAT SENSOR



### STANDARD 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

### SPECIFICATIONS

Operating Voltage	24 - 41 VDC
Standby Current	350µA
Alarm Current	500µA
Transmission Method	DCP - Digital Communication Protocol
Rate of Rise	15° F/Min. (8.3° C/Min.)
UL Temperature Range	135° F to 190° F (57.2° C to 87.8° C)
Operating Temperature Range	14° F to 122° F (-10° C to 50° C)
UL Maximum Spacing	70 feet
Maximum Humidity	95% RH Non-Condensing
Color & Case Material	Bone - ABS blend
Weight	3.2oz (4.9oz. with 4" base)
Bases	YBN-NSA-4, HSB-NSA-6, ASB, SCI-B4, SCI-B6, ASBL

Specifications subject to change without notice.

### APPLICATION

The Hochiki ATJ-EA Fixed Temperature / Rate of Rise sensors provide accurate temperature measurement data to the fire alarm control panel. These sensors are well-suited for environments where dust, cooking fumes or other factors make the use of smoke sensors impractical.

### OPERATION

The 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.

### PRODUCT LISTINGS



California State  
Fire Marshal  
7270-0410:0203

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### ENGINEERING SPECIFICATIONS

Heat sensors are installed in accordance with NFPA 72, the UL Listed spacing requirements and the rules and regulations set forth by the local authorities having jurisdiction. The contractor shall furnish and install, where indicated on the plans, fixed temp / rate of rise automatic heat sensors.

The heat sensor head and twist lock base needs to be UL Listed compatible with a UL Listed fire alarm control panel.

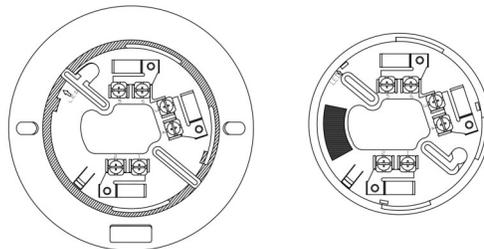
The base permits direct interchange with the Hochiki AIE-EA ionization type smoke sensor, ALG-V, ALK-V/ALK-V2 photoelectric type smoke sensors, ATG-EA, ATJ-EA heat sensors and the ACA-V, ACC-V multi-criteria sensors.

The sensitivity of the sensor is capable of being measured by the control panel.

The vandal-resistant, security locking feature is used in those areas as indicated on the drawing. The locking feature is optional and can be implemented when required.

### BASES

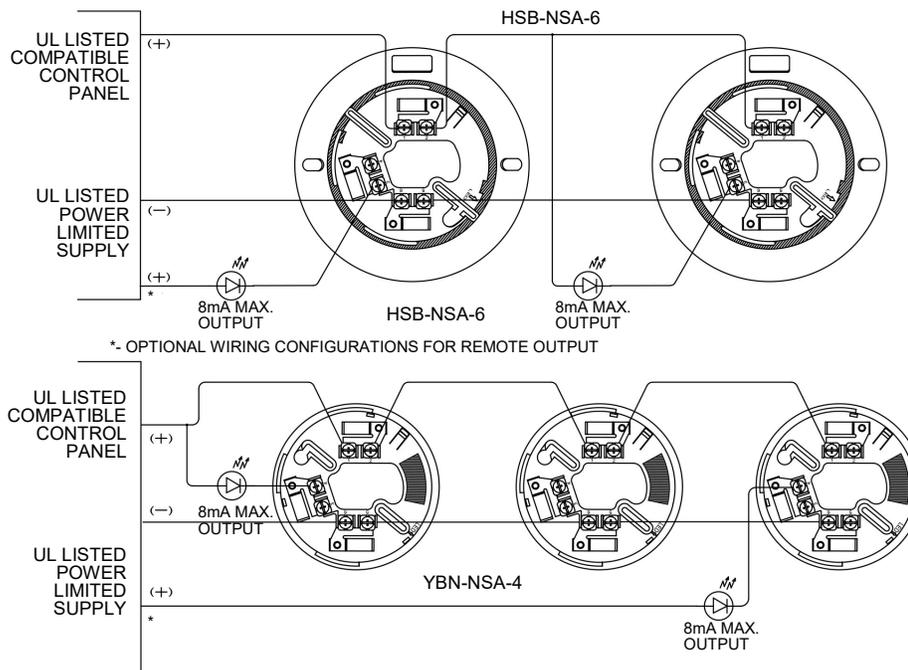
The Hochiki HSB-NSA-6 and the YBN-NSA-4 mounting bases are electronic free and are a simple, rugged design with screw terminals for wiring connections. A common mounting base allows sensor interchange and maintains loop continuity when sensors are removed. A simple anti-tamper head locking system is 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 screwdriver.



### TYPICAL WIRING DIAGRAMS

HSB-NSA-6 Base

YBN-NSA-4 Base



**NOTE:** Fire alarm control panel compatibility is required for DCP products. DCP communications protocol allows system components (DCP sensors AIE-EA, ALG-V, ACA-V, ACC-V, ALK-V, ALN-V, ATJ-EA and ATG-EA, bases and modules) to be used concurrently on a system's SLC (Signaling Line Circuit).