

SLV-24N PHOTOELECTRIC SMOKE DETECTOR



Shown without base

STANDARD FEATURES

- Low profile, 2.0" high (with base)
- 2 or 4 wire base compatibility, relay bases available
- Highly stable operation, RF/Transient protection
- Low standby current, 45 μ A at 24VDC
- Two built-in power/alarm LEDs
- Non-directional smoke chamber
- Vandal resistant security locking feature
- Removable smoke labyrinth for cleaning or replacement
- Compatible with SIJ-24 ionization detectors
- Backwards compatible with Hochiki SLK and SIH detectors
- Highly resistant to false alarms caused by steam

SPECIFICATIONS

Light Source	GaAlAs Infrared Emitting Diode
Rated Voltage	17.7 - 30.0 VDC
Working Voltage	15.0 - 33.0 VDC
Maximum Voltage	42 VDC
Supervisory Current	45 μ A @ 24 VDC
Surge Current	160 μ A max. @ 24VDC
Alarm Current	150mA max. @ 24 VDC
Air Velocity Range	0-300 fpm
Ambient Temperature	32°F to 120°F (0°C to 49°C)
Color & Case Material	Bone PC/ABS Blend
Sensitivity Range	0.5 - 3.8%/ft
Mounting	Refer to NS Conventional Detector Base Data Sheet

APPLICATION

The SLV-24N can be used in all areas where Photoelectric Smoke Detectors are required. The patented smoke chamber makes the SLV-24N well suited for fires ranging from smoldering to flaming fires.

NS-4 Series, NS-6 Series, HSC-4R or HSC-xxx R Style bases may be used with the SLV-24N. Current interchangeable/compatible devices are the SIJ-24 ionization detector, the SLR-24H photoelectric detector with heat sensor, and the DCD-135/190 heat detectors.

All NS conventional devices are mechanically compatible with Hochiki America HSB, HSC and YBA type bases which may have been used in previous installations. Please check individual panel listings for compatible bases.

OPERATION

The SLV-24N photoelectric smoke detector utilizes two bicolored LEDs for indication of status. In a normal standby condition the LEDs flash Green every 3 seconds. When the detector senses smoke and goes into alarm the status LEDs 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 SCR switch to activate the alarm signal. The status LEDs light continuously during the alarm period.

PRODUCT LISTINGS

SIGNALING



California
State Fire
Marshal
7272-0410:174

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ENGINEERING SPECIFICATIONS

The contractor shall furnish and install where indicated on the plans, Hochiki America Model SLV-24N 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 Hochiki America SLR-24H combination photoelectric/heat detector, SIJ-24 ionization type smoke detector and/or DCD-135/190 fixed temperature/rate-of-rise heat detectors. The base shall be appropriate twist-lock base NS-4 Series, NS-6 Series, HSC-4R, or HSC-xxx R. In the event of partial or complete retrofit, the SLV-24N may be used in conjunction with, or as a replacement for, Hochiki America detectors (SLK-24, SLK-24FH and the SIH-24) on most HSB and HSC 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 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.

To facilitate installation, the detector shall be non-polarized. Voltage and RF transient suppression techniques shall be employed in the detector 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.

