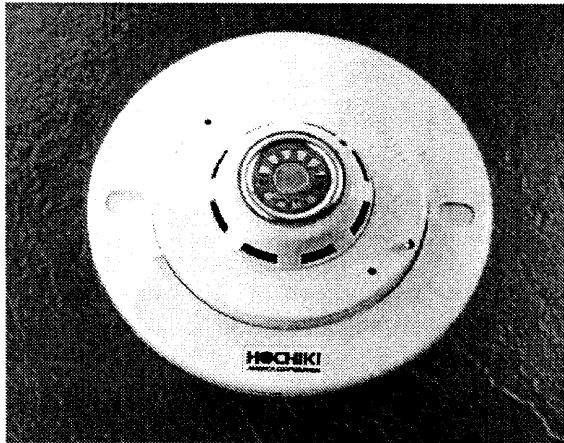


## SLK-24FH PHOTOELECTRIC/HEAT SMOKE DETECTOR



### STANDARD FEATURES

- Self-restoring integral 135°F heat sensor, 50' rating
- Low Profile, 1.8" high
- 2 or 4 wire base compatibility, relay bases available
- Highly stable operation, RF/transient protection
- Low standby current, 45µA nominal
- Built-in power/alarm LED
- Non-directional smoke chamber
- Vandal resistant security locking feature
- Built-in magnetic detector sensitivity feature
- Compatible with SIH-24F ionization detectors
- Meets outlined requirements in the NFPA 72 Inspection Testing and Maintenance, Chapter 7

### PRODUCT SPECIFICATIONS

Heat Detector	135°F Self-Restoring, Fixed Temperature
Light Source	GaAlAs Infrared Emitting Diode
Rated Voltage	17.6 - 33.0 VDC
Working Voltage	15.0 - 36.3 VDC
Maximum Allowable Voltage	42VDC
Supervisory Current	45µA @ 24 VDC
Surge Current	200µA @ 24 VDC
Alarm Current	150mA @ 24 VDC
Ambient Temperature	32°F to 120°F (0°C to 49°C)
Color & Case Material	Ivory ACS
Sensitivity Test Feature:	Magnetically activated dual reed switch sensitivity test
Mounting:	Refer to HA 24 Volt Conventional Detector Base Data Sheet

### APPLICATIONS

The SLK-24FH can be used in all areas where Photoelectric Smoke Detectors are required. It is best suited for smoldering or flaming fires.

The 135°F heat sensor can initiate an alarm independently. The heat detector is UL listed for 50' spacing.

HSB, HSC-4R, HSC-R, or YBA-M style bases may be used with the SLK-24FH. Current compatible devices are SLK-24F, SLK-24FL and SIH-24F.

### OPERATION

The unit is comprised of an LED light source and silicon photo diode receiving element. In a normal standby condition, the receiving element receives no light from the pulsing light source. In the event of a fire, smoke enters the detectors and light is reflected from the smoke particles to the receiving element. The light received is converted into an electronic signal. Signals are processed in the comparator, and when two consecutive signals exceeding the basic level are received within a specified period of time, the time delay circuit triggers the SCR switch to activate the alarm signal. The Status LED lights continuously during the alarm period, if the alarm is activated by smoke. When the alarm is activated by heat the Status LED will *not* light.

The fixed temperature heat element operates independently from the smoke sensing chamber, and causes an alarm at the control panel when the air temperature reaches approximately 135°F, whether or not smoke is present.

### ENGINEERING SPECIFICATIONS

The contractor shall furnish and install where indicated on the plans, the combination detector head and twist-lock base shall be UL listed as compatible with a UL listed fire alarm panel.

The base shall permit direct interchange with HOCHIKI America SLK-24F Photoelectric Detector,

### PRODUCT LISTINGS

Underwriters Laboratories: S1383  
 Factory Mutual: OQ3AO.AY, OV5A8.AY or OX3A4.AY (Depending on base specified)  
 CSFM #: 7272-0410:107

**ENGINEERING SPECIFICATIONS, continued**

SLK-24FL low sensitivity photoelectric smoke detector, SIH-24F ionization type smoke detector, and/or DFE-135/190 fixed temperature heat detector. The base shall limit the alarm current available to detectors. Base shall be appropriate twist-lock base HSB, HSC-4R, HSC-R, or YBA-M style.

The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady at full brilliance. The detector may be reset by actuating the control panel reset switch. The sensitivity of the detector shall be capable of being measured.

The vandal-resistant, security locking feature shall be used in those areas specified. The locking feature shall be field removable when not required.

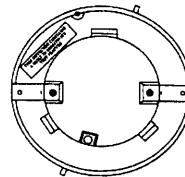
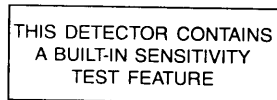
It shall be possible to perform a functional test of the detector without the need of generating smoke. The test method shall simulate effects of products of combustion in the chamber to ensure testing of detector circuits.

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.

**SLK-24FH SENSITIVITY TEST PROCEDURE**

**NOTE:** This method of sensitivity testing is only intended for HOCHIKI America smoke detector models SIH-24F, and SLK Series that contain a label which identifies this specific feature. See Figure 1. DO NOT attempt to use this method of sensitivity testing on detectors without this label.

**Figure 1**  
Bottom View of  
Identifying Label

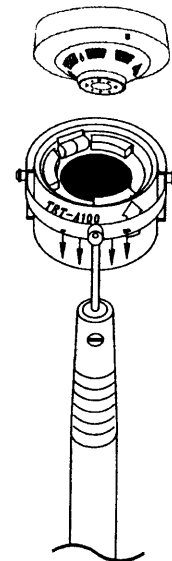


**TEST DEVICES** Sensitivity testing is performed with the Hochiki America Alarm Test Magnet, Part Number 0700-00960, (Figure 2A) **or** the Hochiki America TRT-A100 Smoke Detector Tester/Removal Tool (Figure 2B).

**Figure 2A:** Alarm Test Magnet



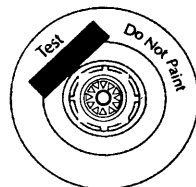
**Figure 2B**  
TRT-A100 Sensitivity  
Test Procedure



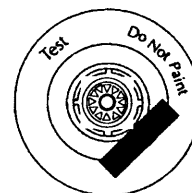
**TEST PROCEDURE**

1. With detector wired to appropriate initiating circuit or current limited power source and with normal applied power, place a magnet as shown in Figure 3.
2. Wait at least six seconds. Detector SHOULD alarm and LED should light.
3. Place magnet on detector as shown in Figure 4 (opposite side).
4. Wait at least six seconds. Detector SHOULD NOT alarm.
5. If detector does not alarm when magnet is positioned as in Figure 3 or does produce an alarm when magnet is positioned as in Figure 4, detector is not within specified sensitivity limits and may require service. See Technical Bulletin HA-88 (November '96) for more information.

**Figure 3**  
SLK-24FH: Placing  
the Magnet



**Figure 4**  
SLK-24FH: The Magnet  
on the Opposite Side



**WARNING:** Conduct testing only under Normal Standby conditions. Abnormal or Low Power conditions may affect sensitivity. Always reset power prior to testing of next unit. Magnet placement identical for all detectors with built-in sensitivity test feature.