

## PHOTOELECTRIC SMOKE DETECTOR

### DESCRIPTION

The Photoelectric Smoke Detector P/N 63-1024, can be used in all areas where Photoelectric Smoke Detectors are required. The wide range smoke chamber makes the 63-1024 well suited for fires ranging from smoldering to flaming fires.

The 63-1028 is a non-listed version of the photoelectric smoke detector. The detector is identical to the 63-1024, except the 63-1028 does not have the magnetic test reed switch.

The 4" and 6" smoke detector bases and the 63-1012, two wire auxiliary relay base may be used with the 63-1024 and 63-1028.

### ORDERING INFORMATION

Fike P/N	Mfg. Model	Description
63-1024	SLR-24V	Photoelectric Smoke Detector
63-1028	SLR-24VN	Photoelectric Smoke Detector, no Reed Switch
67-1034	NS6-224	6 Inch Base, 430 ohm
67-1035	NS6-220	6 Inch Base, 220 ohm
67-1036	NS4-224	4 Inch Base, 430 ohm
67-1037	NS4-220	4 Inch Base, 220 ohm
63-1012	HSC224R	6 Inch Base, 430 ohm, Base w/relay (DPDT)

### FEATURES

- Low profile, 1.8" high (with base)
- 2 or 4 wire base compatibility, relay bases available
- Highly stable operation, RF/Transient protection
- Low standby current, 45uA at 24VDC
- Two built-in power/sensitivity supervision/alarm LEDs
- Non-directional smoke chamber
- Vandal resistant security locking feature
- Built-in magnetic go/no go detector test feature
- Removable smoke labyrinth for cleaning or replacement
- Automatic Sensitivity window verification function meets outlined requirements in NFPA 72, Chapter 14, Inspection, Testing and Maintenance

### OPERATION

The 63-1024 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 that its sensitivity has drifted outside the UL listed sensitivity window the LEDs will flash Red every 3 seconds. When the detector senses smoke and goes into alarm the 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 LEDs light continuously during the alarm period.

### 63-1024 Sensitivity Test Feature

The 63-1024 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. Refer to Hochiki Technical Bulletin HA-97 for cleaning information



### APPROVALS:

- UL S4021
- FM
- CSFM 7272-0900:0124



## 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:	45mA @ 24 VDC
Surge Current:	160mA max. @ 24 VDC
Alarm Current:	150mA max. @ 24 VDC
Air Velocity Range:	0-4000 fpm
Ambient Temperature:	32 to 120°F (0 to 49°C)
Color & Case Material:	Bone PC/ABS Blend
Sensitivity Test Feature:	Automatic Sensitivity window verification test
Maximum Humidity:	95% RH, non-condensing