

LPSD-12

12 Volt Photoelectric Smoke Detector

STANDARD FEATURES

- Low Profile Design
- 2 or 4 Wire Base Compatible
- Highly Stable Operation
- Superior RF/Transient Protection
- Low Standby Current, 55 uA Nominal
- Non-directional Smoke Chamber
- Tamper Proof Security Locking Feature
- Magnetic Detector Operation Check

APPLICATIONS

The Fire-Lite LPSD-12 can be used in all areas where Photoelectric Smoke Detectors are required. The LPSD-12 is designed for smoldering and flaming fires which are typically caused by such fuel sources as wood, paper and fabric. The BLP series base is designed for this detector and is available in either a two or four wire version.

OPERATION

The unit is comprised of an LED 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 detector 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 circuitry, 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. An LED is contained in the detector base and continuously illuminates to indicate an alarm condition.

COMPATIBLE CONTROL PANELS

- Fire-Lite MS-4412B
- Fire-Lite MS-5012



S1059



California
State Fire
Marshal
7272-0075:165



Fire-Lite LPSD-12



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PRODUCT SPECIFICATIONS

Light Source	GaAL As infrared Emitting Diode
Line Voltage	Rated Voltage: 9.4 - 15.4 VDC Working Voltage: 8.0 - 17.0 VDC
Wave Form	Filtered DC
Supervisory Current	55uA (average at 12 VDC)
Surge Current	200uA (maximum)
Maximum Allowable Current	250mA @ 77°F
Minimum Alarm Trip Current	6mA
Ambient Temperature UL Rated	32°F - 100°F
Height	Detector: 1.3" (with Base: 1.75")
Diameter	Detector: 4" (with Base: 6")
Weight	2.5 Ounces
Test Feature	Use magnetic: equivalent to 4%/ft - 6%/ft obscuration

ENGINEERING SPECIFICATIONS

The contractor shall furnish and install where indicated on the plans, photoelectric smoke detectors Firelite Model LPSD-12. The combination head and twist-lock base shall be UL listed compatible with a UL listed fire alarm panel. Detector head dimensions shall be 1.3" in height, and 4" in diameter.

The base shall limit the alarm current available to the detectors. Base shall be appropriate twist-lock base Model BLP-12 (4W). 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 as indicated on the drawings. The locking feature shall be field removable when not required.

It shall be possible to perform an operational test of the detector without the need of generating smoke. The test method shall simulate the 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.

PRODUCT LINE INFORMATION

LPSD-12	Photoelectric Smoke detectors, 12VDC. Requires a BLP Series Base.
BLP-12	Low profile two-wire base.
BLP-12-4W	Low profile two-wire base.
BLP-12-R	Low profile four-wire base with resistor. Allow use with FireLite MP-12 and MS-4012 panels.