



**Fire-Lite® Alarms**  
Incorporated

February 7, 1997

E-100

## **SD300(A)/SD300T(A)** **Addressable Photoelectric Detectors**

Section: Addressable Devices

### **GENERAL**

The SD300 and SD300T Addressable Photoelectric Detectors are used exclusively with the **Fire-Lite MS-9200** Addressable Fire Alarm Control Panel. Since these detectors are addressable, they will help emergency personnel quickly locate a fire during its early stages, potentially saving precious rescue time while also reducing property damage. The SD300T offers the same features as the SD300 while adding a 135°F internal thermal element.

### **FEATURES**

- Unique optical sensing chamber.
- Optional integral 135°F (58°C) fixed-temperature thermal detector (SD300T).
- Superior signal-to-noise ratio.
- Stable photoelectric operation.
- 1.6% nominal sensitivity for panel alarm threshold level.
- Fully coated circuit boards and superior RF/transient protection.
- Addressable by device.
- Direct DECADE 01-99 entry of address.
- 2-Wire loop connection.
- Visible LED "blinks" every time the unit is addressed, and illuminates steady on alarm.
- Integral communications and built-in device type identification.
- Compact, stylish design.
- Built-in functional test switch features push-in pin type activation.
- Low standby current.
- Listed to UL 268.
- Built-in tamper-resistant feature.
- Designed for direct surface or electrical box mounting.
- Sealed against back pressure.
- Removable terminal block.
- Easy wiring via removable 6-pin terminal block allows the detector to be removed from system without loss of power to remaining loop.
- Mounts to: single-gang box, 3.5" or 4" octagonal box, or 4" square electrical box (using a plaster ring).
- Utilizes separate mounting bracket for ease of installation and maintenance.
- 94-V0 plastic flammability rating.
- Removable cover and insect screen for field cleaning.
- Remote LED output connection.



S1059



ML369  
(SD300A  
SD300TA)



California  
State Fire  
Marshal

7272-0075:157  
(SD300 only)

**MEA**

3-94-E (SD300)  
326-94-E (SD300T)



0Y1A1.AY (SD300)  
0Y6A3.AY (SD300, SD300T)



### **APPLICATIONS**

Photoelectric detectors are often faster than ionization detectors in sensing smoke from slow smoldering fires. Ionization detectors are often better than photoelectric detectors at sensing fast, flaming fires.

### **CONSTRUCTION**

These detectors are constructed of LEXAN® in an off-white color.

The SD300 Series of direct-wire smoke detectors is designed to commercial standards and offers an attractive appearance.

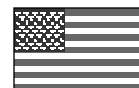
**LEXAN®** is a registered trademark of GE Plastics, a subsidiary of General Electric Company.

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact **Fire-Lite**. Phone: (203) 484-7161 FAX: (203) 484-7118



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**ISO-9001**  
Engineering and Manufacturing  
Quality System Certified to  
International Standard ISO-9001



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## INSTALLATION

The SD300 Series direct-wire detectors use a separate mounting bracket to simplify installation, service and maintenance.

Mount the base on a box which is at least 1.5 inches (3.81 cm) deep. Suitable boxes include:

- 4" (10.16 cm) square box with plaster ring.
- 4" (10.16 cm) octagonal box.
- 3.5" (8.89 cm) octagonal box.
- Single-gang box.

**NOTE:** *Because of the inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring.*

## OPERATION

Each SD300/SD300T uses one of 99 possible addresses on the SLC loop. It responds to regular polls from the control panel and reports its type and status. It blinks its LED when polled, and turns the LED on when commanded by the panel.

The detector uses the light scattering principle. It represents the latest in smoke sensing technology.

## COMMON SPECIFICATIONS

<b>Voltage range:</b>	15 - 28 VDC (peak).
<b>Standby current:</b>	150 $\mu$ A @ 24 VDC.
<b>LED current:</b>	7 mA @ 24 VDC (latched "ON").
<b>Air velocity:</b>	3000 ft./min. (15 m/sec.) maximum.
<b>Diameter:</b>	5.0 inches (12.7 cm).
<b>Height:</b>	3.0 inches (7.6 cm).
<b>Temperature:</b>	0° - 49°C (32° - 120°F).
<b>Relative humidity:</b>	10% - 93% non-condensing.

## SD300T SPECIFICATIONS

Includes 135°F (58°C) fixed-temperature thermal element.

## PRODUCT LINE INFORMATION

<b>Model</b>	<b>Description</b>
<b>SD300</b>	Addressable Photoelectric Sensor with mounting bracket and removable terminal block.
<b>SD300A</b>	Same as above with ULC listing.
<b>SD300T</b>	Addressable Photoelectric Sensor with built-in 135°F (58°C) fixed-temperature thermal element.
<b>SD300TA</b>	Same as above with ULC listing.
<b>RA400Z</b>	Remote LED. Mounts to a single-gang box.