GENERAL
The SD300 and SD300T Addressable Photoelectric Detectors are used with the Fire•Lite MS-9200 Addressable Fire Alarm Control Panel. The SD300 and SD300T are also compatible with Fire•Lite’s new MS-9600 Addressable Fire Alarm Control Panel and can be used on retrofit applications where SD300 and SD300T detectors exist. 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
SLC Loop
• 2-wire loop connection.
• Easy wiring via removable 6-pin terminal block allows the detector to be removed from system without loss of power to remaining loop.

Addressing
• Addressable by device.
• Direct Decade 01-99 entry of address.

Architecture
• Unique optical sensing chamber.
• Compact, stylish design.
• Built-in functional test switch features push-in pin type activation.
• Integral communications and built-in device type identification.
• Built-in tamper-resistant feature.
• Removable cover and insect screen for field cleaning.

Operation
• Stable photoelectric operation.
• 1.6% nominal sensitivity for panel alarm threshold level.
• Visible LED “blinks” every time the unit is addressed, and illuminates steady on alarm.

Mechanicals
• Sealed against back pressure.
• Removable terminal block.
• Direct surface or electrical box mounting.
• Mounts to: single-gang box, 3.5” or 4” octagonal box, or 4” square electrical box (using a plaster ring).
• Separate mounting bracket for ease of installation and maintenance.

Other System Features
• Superior signal-to-noise ratio.
• Fully coated circuit boards and superior RF/transient protection.
• 94-V0 plastic flammability rating.
• Low standby current.

Options
• Integral 135°F (58°C) fixed-temperature thermal detector (SD300T).
• Remote LED output connection (Part No. RA400Z).

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.

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

SD300T SPECIFICATIONS
Includes 135°F (58°C) fixed-temperature thermal element.

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

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