Fire•Lite Alarms

www.firelite.com

SD355(A)/ SD355T(A)
Addressable Photoelectric Smoke Detectors
Section: Addressable Devices

UL LISTED S1059

ULC

MEA

California State Fire Marshal
7272-0075:194

FM APPROVED

GENERAL

The Fire•Lite Alarms **SD355** and **SD355T** addressable, low-profile plug-in photoelectric detectors use a state-of-the-art photoelectric sensing chamber with communications to provide open area protection and are used exclusively with Fire•Lite's **MS-9200**, **MS-9200UD**, and **MS-9600** Addressable Fire Alarm Control Panels (FACPs). The SD355T adds thermal sensors that will alarm at a fixed temperature of 135°F (57°C). 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. Two LEDs on each sensor light to provide a local, visible sensor indication. Remote LED annunciator capability is available as an optional accessory (P/N **RA400Z**).

FEATURES

SLC loop:

• Two-wire loop connection.

• Unit uses base for wiring, detector head plugs-in.

Addressing:

• Addressable by device.

• Direct Decade 01 – 99 (MS-9200, MS-9200UD) and 01 – 159 (MS-9600) entry of address.

Architecture:

• Unique single-source, dual-chamber design to respond quickly and dependably to a broad range of fires.

• Sleek, low-profile design.

• Integral communications and built-in type identification.

• Built-in tamper-resistant feature.

• Removable cover and insect-resistant screen for simple field cleaning.

Operation:

• Withstands air velocities up to 1,500 feet-per-minute (7.6 m/sec.) without triggering a false alarm.

• Factory preset at 1.5% nominal sensitivity for panel alarm threshold level.

• Visible LED "blinks" when the unit is addressed (communicating with the fire panel) and latches on in alarm.

Mechanicals:

• Sealed against back pressure.

• Direct surface mounting or electrical box mounting.

• Mounts to: single-gang box, 3.5" (8.89 cm) or 4.0" (10.16 cm) octagonal box, or 4.0" (10.16 cm) square electrical box *(using a plaster ring — included).*

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SD355 with B350LP base

6935pho1.jpg

SD355T with B350LP base

Other system features:

• Fully coated circuit boards and superior RF/transient protection.

• 94-V0 plastic flammability rating.

• Low standby current.

Options:

• Remote LED output connection (P/N RA400Z).

APPLICATIONS

Use photoelectric detectors in life-safety applications to provide a broad range of fire-sensing capability, especially where smoldering fires are anticipated. Ionization detectors are often better than photoelectric detectors at sensing fast, flaming fires.

ISO 9001 CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

CONSTRUCTION

These detectors are constructed of off-white LEXAN®. SD355(T) plug-in, low-profile smoke detectors are designed to commercial standards and offer an attractive appearance.

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

INSTALLATION

SD350(T) plug-in detectors use a detachable mounting base to simplify installation, service and maintenance. Mount base on box which is at least 1.5 inches (3.81 cm) deep. Suitable boxes include:

- 4.0" (10.16 cm) square box with plaster ring.
- 4.0" (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 only.

OPERATION

Each SD355(T) uses one of 99 possible addresses on the MS-9200 and MS-9200UD Signaling Line Circuit (SLC), or up to 318 (159 on each loop) on the MS-9600 SLC. It responds to regular polls from the system and reports its type and status.

The SD355(T) addressable photoelectric sensor's unique unipolar chamber responds quickly and uniformly to a broad range of smoke conditions and can withstand wind gusts up to 1,500 feet-per-minute (7.6 m/sec.) without sending an alarm level signal. Because of its unipolar chamber, the SD355(T) is approximately two times more responsive than most photoelectric sensors. This makes it a more stable detector.

DETECTOR SENSITIVITY TEST

Each detector can have their sensitivity tested (required per NFPA 72, Chapter 7 on *Inspection, Testing and Maintenance*) when installed/connected to an MS-9200, MS-9200UD, or MS-9600 addressable fire alarm control panel. The results of the sensitivity test can be printed off the MS-9200, MS-9200UD, or MS-9600 for record keeping.

SPECIFICATIONS

Voltage range: 15 – 32 VDC (peak).

Standby current: 300 µA @ 24 VDC.

LED current: 6.5 mA @ 24 VDC (latched "ON").

Air velocity: 1,500 ft./min. (7.6 m/sec.) maximum.

Diameter: 6.1" (15.5 cm) installed in B350LP base.

Height: 2.1" (5.33 cm) installed in B350LP base.

Weight: 3.6 oz. (102 g).

Operating temperature range: *for SD355:* 0°C to 49°C (32°F to 120°F) SD350; *for SD355T:* 0°C to 38°C (32°F to 100°F).

Temperature: 0°C – 49°C (32°F – 120°F).

Relative humidity: 10% – 93%, non-condensing.

PRODUCT LINE INFORMATION

NOTE: "A" suffix indicates ULC-Listed model.

SD355 Addressable photoelectric detector *(B350LP base included)*.

SD355A Same as SD355 with ULC Listing *(B350LPA base included)*.

SD355T Same as SD355 but with *thermal* element *(B350LP base included)*.

SD355TA Same as SD355T with ULC Listing *(B350LPA base included)*.

RA400Z(A) Remote LED. Mounts to a single-gang box.

B350LP(A) Plug-in detector base (included). *Dimensions:* 6.1" (15.5 cm). *Mounting:* 4.0" (10.16 cm) square box with or without plastic ring, 4.0" (10.16 cm) octagonal box, 3.5" (8.89 cm) octagonal box, or single-gang box. All mounting boxes have a minimum depth of 1.5" (3.81 cm).

B224RB(A) Plug-in System Sensor *relay* detector base. *Diameter:* 6.2" (15.75 cm). *Mounting:* 4.0" (10.16 cm) square box with or without plastic ring, 4.0" (10.16 cm) octagonal box, or 3.5" (8.89 cm) octagonal box. All mounting boxes have a minimum depth of 1.5" (3.81 cm).

B224BI(A) Intelligent isolator base, isolator SLC from shorts on the loop.

B501BH(A) Plug-in System Sensor *sounder* detector base. *Diameter:* 6.0" (15.24 cm). *Mounting:* 4.0" (10.16 cm) square box with or without plastic ring. Mounting box has a minimum depth of 1.5" (3.81 cm).

B501BHT(A) Same as B501BBH(A), but includes temporal sounder.

Accessories:

RA400Z(A) Remote LED annunciator. 3 – 32 VDC. Fits U.S. single-gang electrical box. *For use with B501(A) and B350LP(A) bases only.*

SMK400 Surface mounting kit provides for entry of surface wiring conduit. *For use with B501(A) base **only**.*

RMK400 Recessed mounting kit. *For use with B501(A) base **only**.*

M02-04-01 Test magnet.

XR-2 Detector removal tool. Allows installation and/or removal of detector heads from bases in high ceiling applications.

XP-4 Extension pole for XR-2. Comes in three 5-ft. (1.524 m) sections.