

# CP355(A)

## Intelligent Addressable Ionization Smoke Detectors



### Addressable Devices

### General

The **CP355(A)** addressable, low-profile, plug-in ionization detector uses a state-of-the-art ionization sensing chamber to provide open-area protection and is used exclusively with Fire-Lite's addressable Fire Alarm Control Panels (FACPs). The ionization detector is used to sense products-of-combustion and report the measured level of such products to the fire alarm control panel. Since this detector is addressable, it 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, PN RA100Z(A).

### Features

#### SLC loop

- Two-wire loop connection.
- Unit uses base for wiring.

#### Addressing

- Addressable by device.
- Rotary, decimal addressing: 01 – 99 with MS-9200, MS-9200UD and MS-9200UDLS(C) and 01 – 159 with MS-9600 and MS-9600UDLS.

#### 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 1,200 feet-per-minute (6.1 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.
- Base 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).

### APPLICATIONS

Use ionization detectors in life-safety applications to provide a broad range of fire-sensing capability, especially fast, flaming fires. Where smoldering fires are anticipated, a photoelectric sensor may provide faster response.

### CONSTRUCTION

These detectors are constructed of off-white plastic. CP355(A) plug-in, low-profile smoke detectors are designed to commercial standards and offer an attractive appearance.



B210-1951.jpg

CP355(A) in B210LP(A) Base

### Installation

CP355(A) plug-in detectors use a detachable mounting base to simplify installation, service and maintenance.

Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see DF-60059.

**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 CP355(A) uses one of 99 possible addresses on the MS-9200, MS-9200UD, and MS-9200UDLS(C), or up to 318 (159 on each loop) on the MS-9600 Series Signaling Line Circuit (SLC). It responds to regular polls from the system and reports its type and status.

The CP355(A) addressable ionization sensor's unique unipolar chamber responds quickly and uniformly to a broad range of smoke conditions and can withstand wind gusts up to 1,200 feet-per-minute (6.01 m/sec.) without sending an alarm level signal. Because of its unipolar chamber, the CP355(A) is approximately two times more responsive than most ionization sensors. This makes it a more stable detector.

### Specifications

**Voltage range:** 15 – 32 VDC (peak).

**Standby current:** 300  $\mu$ A @ 24 VDC.

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

**Air velocity:** 1,200 ft./min. (6.1 m/sec.) maximum.

**Size:** 2.0" (51 mm) high; base determines diameter.

- **B210LP(A):** 6.1" (15.5 cm) diameter.
- **B501(A):** 4.1" (10.4 cm) diameter.
- **B200SR(A):** 6.875" (17.46 cm) diameter.
- **B224RB(A):** 6.2" (15.748 cm) diameter.

**Weight:** 3.6 oz. (102 g).

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

**Relative humidity:** 10% – 93%, noncondensing.

## Listings and Approvals

Listings and approvals below apply to the CP355(A) detector. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S1059.
- **ULC Listed:** S1059.
- **CSFM:** 7271-0075:0193.
- **MEA:** 319-02-E.
- **FM approved.**

## Product Line Information

**NOTE:** “A” suffix indicates ULC Listed model.

**CP355:** Addressable ionization detector; B210LP base included.

**CP355A:** Same as above with ULC Listing; B210LPA base included.

### INTELLIGENT BASES

**NOTE:** “A” suffix indicates ULC Listed model.

**NOTE:** The detector’s plug-in base can be changed off for special applications. For details about intelligent bases and their mounting, see DF-60059.

**B210LP(A):** Plug-in detector base (included); standard U.S. flanged low-profile mounting base.

**B210LPBP:** Bulk pack of B210LP; package contains 10.

**B501(A):** Standard European flangeless mounting base.

**B501BP:** Bulk pack of B501; package contains 10.

**B200SR(A):** Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Replaces B501BH series bases in retrofit applications.

**B224RB(A):** Plug-in System Sensor **relay** base. Screw terminals: up to 14 AWG (2.0 mm<sup>2</sup>). Relay type: Form-C. Rating: 2.0 A @ 30 VDC resistive; 0.3 A @ 110 VDC inductive; 1.0 A @ 30 VDC inductive.

**B224BI(A):** Plug-in System Sensor **isolator** detector base. Maximum 25 devices between isolator bases. (See DF-52389.)

### ACCESSORIES

**F110:** Retrofit flange to convert B210LP(A) to match the B350LP(A) profile, or to convert older high-profile bases to low-profile.

**F110BP:** Bulk pack of F110; package contains 15.

**F210:** Replacement flange for B210LP(A) base.

**RA100Z(A):** Remote LED annunciator. 3 – 32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B210LP(A) bases only.

**SMB600:** Surface mounting kit.

**M02-04-00:** Test magnet.

**M02-09-00:** Test magnet with telescoping handle.

**XR2B:** Detector removal tool. Allows installation and/or removal of detector heads from bases in high ceiling applications.

**XP-4:** Extension pole for XR2B. Comes in three 5-foot (1.524 m) sections.

**T55-127-010:** Detector removal tool without pole.

**BCK-200B:** Black detector covers; box of 10.

**WCK-200B:** White detector covers; box of 10.

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For more information, contact Fire•Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105.  
[www.firelite.com](http://www.firelite.com)