SD355CO

Addressable Photoelectric Smoke/CO Detector

General

World-class fire and carbon monoxide (CO) detection combined in a single addressable device provides a practical solution for today’s market.

The SD355CO Advanced Multi-Criteria Fire/CO Detector is a plug-in, addressable device that provides both fire and carbon monoxide (CO) detection. For fire, the detector combines four separate sensing elements in one unit (smoke, CO, light/flame, and heat) to sense multiple components of a fire. This approach enables enhanced sensitivity to real fire with heightened immunity to nuisance particulate. For CO, the detector’s electrochemical sensing cell creates a separate signal for life safety CO detection.

CO is a colorless, odorless, and deadly gas that is virtually impossible to detect with the human senses. It is released whenever carbon-based fuels (from fossil fuels to firewood) burn without enough oxygen to form CO₂. Because the potential exists for dangerous levels of CO to accumulate in almost any building, legislation mandating the use of CO detection in commercial spaces continues to increase across the U.S. The SD355CO is listed to the UL 268 standard for smoke detectors and the UL 2075 standard for system-connected life safety carbon monoxide monitoring.

The SD355CO should be used in conjunction with the B200S intelligent sounder base, which can generate either a Temporal 3 pattern for fire or a Temporal 4 pattern for CO alarm indication.

The SD355CO can also be used with the B210LP 6” standard base, the B501 4” standard base, the B224BI base, or the B224RB relay base.

NOTE: The SD355CO is compatible with the ES-50X(C) and ES-200X(C) fire alarm control panels.

Features

• Unique ability to detect all four major elements of a fire: smoke, CO, heat, and light/flame
• Separate CO detection signal
• Highest nuisance alarm immunity
• Automatic drift compensation of smoke sensor and CO cell
• Uses only one address on the SLC
• RealTest® CO testing capability
• Separates audible signal for fire or CO alarm when used with the B200S base
• CO cell end-of-life warning and fault
• LiteSpeed™ operation

Specifications

PHYSICAL SPECIFICATIONS

Size: 3.46” (8.79 cm) high x 6.875” (17.46 cm) diameter installed in B200S base

Shipping weight: 4.6 oz. (130.41 g)

Color: Ivory

Operating humidity range: 15% – 90% relative humidity (non-condensing)

Operating temperature: 32°F to 100°F (0°C to 38°C)

Air velocity: 0 – 4000 ft./min. (0 to 20 m/sec.)

ELECTRICAL SPECIFICATIONS

Operating Voltage range: 15 – 32 volts VDC.

Standby current (max. avg.): 300 µA @ 24 VDC (one communication every 5 seconds with LED blink enabled).

Maximum Alarm Current (LED on): 7.2 mA @ 24 VDC.

CO ALARM ACTIVATION LEVELS

Alarm activation levels as defined by UL Standard 2034:

<table>
<thead>
<tr>
<th>Concentration of CO</th>
<th>Maximum Alarm Time Response</th>
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<tbody>
<tr>
<td>70 (+/- 5) PPM</td>
<td>240 min (not less than 60 min)</td>
</tr>
<tr>
<td>150 (+/- 5) PPM</td>
<td>50 min (not less than 10 min)</td>
</tr>
<tr>
<td>400 (+/- 10) PPM</td>
<td>15 min (not less than 4 min)</td>
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</tbody>
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Ordering Information

• SD355CO: Advanced Multi-Criteria photoelectric smoke/CO detector
• B210LP: Standard base
• B200S: Sounder base
• B224RB: Relay base
• B244BI: Isolator base
• B501: Base without flange
• M02-04-00: Detector test magnet
• M02-09-00: Telescoping test magnet

Agency Listings and Approvals

The listings and approvals below apply to the SD355CO. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult the factory for the latest listing status.

• UL: S1059
• CSFM: 7275-0075:0505