

# SK-FIRE-CO-W

## Multi-Criteria Fire/CO Detector

**SK-FIRE-CO-W is a plug-in, addressable device that provides both fire and carbon monoxide (CO) detection.**

The detector combines four separate sensing elements to sense multiple components of a fire: smoke, CO, light/flame, and heat. This approach enables enhanced sensitivity to real fire with heightened immunity to nuisance particulates. For CO, the detector's electrochemical sensing cell creates a separate signal for life safety CO detection.

Multiple sensors and communication can greatly reduce nuisance alarms compared to single sensing methods. Sophisticated algorithms maximize the advantages of all four sensor types creating our best detection strategy offering heightened immunity to nuisance particulate and enhanced sensitivity to real fire.

- Photoelectric sensors detect airborne particles associated with smoke.
- Thermal sensors detect heat and rate-of-rise (135°F fixed temperature threshold).
- Infrared sensors discern light patterns in the environment as an additional data point for alarm determination.

This ability to reject certain nuisance alarm triggers, such as theater smoke, supports the use of the fire/CO detector in applications where moderate to heavy nuisance conditions exist that might cause single sensing detectors to false alarm.

UL models meet UL 268 7th edition and UL 521 listing requirements for fire detection and UL 2075 standard for system-connected life safety carbon monoxide detection.

Released through the incomplete burning of various fuels, CO is a colorless, odorless and deadly gas that is virtually impossible to detect with the human senses. 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 grow.

B200S series intelligent sounder bases are recommended for use with the SK-FIRE-CO-W. These bases can generate either a Temp 3 pattern for fire or a Temp 4 pattern for CO alarm indication. The B200S series bases recognize the System Sensor synchronization protocol for use as a component of the general evacuation signal — along with other System Sensor Audible/Visible devices — when connected to a power supply or Fire Alarm Control Panel (FACP) output capable of generating the System Sensor synchronization pulses.



*SK-FIRE-CO-W in B200S-WH sounder base*

## FEATURES AND BENEFITS

- Detects all four major elements of a fire
- Separate CO detection signal
- Separate audible signal for fire or CO alarm when used with a B200S series base
- Highest nuisance alarm immunity
- Automatic drift compensation for smoke and CO sensors
- RealTest® CO testing capability
- New modern profile with expanded color options
- Uses only one address on the SLC loop
- UL 268 7th edition, UL 521, and UL 2075 listed
- 10-year CO cell with end-of-life warning

## ORDERING INFORMATION

- SK-FIRE-CO-W: Advanced multi-criteria fire/CO detector, white

### Bases

- B501-WHITE: 4" Mounting base, white
- B501-WHITE-BP: 4" mounting base, white, 10-pack
- B501-IV: 4" Mounting base, ivory
- B501-BL: 4" Mounting base, black
- B300-6: 6" Flanged mounting base, white
- B300-6-BP: 6" Flanged mounting base, white, 10-pack
- B300-6-IV: 6" Flanged mounting base, ivory
- B200S-WH: Intelligent addressable sounder base, white
- B200S-IV: Intelligent addressable sounder base, ivory
- B200S-LF-WH: Intelligent addressable sounder base, low-frequency, white
- B200S-LF-IV: Intelligent addressable sounder base, low-frequency, ivory
- B224BI-WH: Isolator base, white
- B224BI-IV: Isolator base, ivory
- B224RB-WH: Relay base, white
- B224RB-IV: Relay base, ivory

### Accessories

- SMB600: Surface mounting kit (flanged)
- TR300: Trim ring, white
- TR300-IV: Trim ring, ivory
- CK300-IR: IR color kit (includes cover and trim ring), white, 10 pack
- CK300-IR-IV: IR color kit (includes cover and trim ring), ivory, 10 pack
- CK300-IR-BL: IR color kit (includes cover and trim ring), black, 10 pack
- RA100Z: Remote LED annunciator
- M02-04-00: Detector test magnet
- M02-09-00: Telescoping test magnet

# SK-FIRE-CO-W TECHNICAL SPECIFICATIONS

## PHYSICAL/OPERATING

- Dimensions:  
Height: 2.7" (69 mm) installed in B200S series sounder base  
Diameter: 6.875" (175 mm) installed in B200S series sounder base  
Weight: 3.4 oz. (95 g)
- Operating Humidity Range: 15% to 90% Relative Humidity, Non-condensing
- Operating Temperature Range: 32°F to 100°F (0°C to 38°C)
- Air Velocity: 0 to 4000 ft./min. (0 to 1219.2 m/min.)

## ELECTRICAL

- Operating Voltage Range: 15 to 32 VDC
- Operating Current @ 24 VDC: 200  $\mu$ A (one communication every 5 seconds with green LED blink on communication)
- Maximum Alarm Current: 2 mA @ 24 VDC (one communication every 5 seconds with red LED solid on)
- Maximum Current: 4.5 mA @ 24 VDC (one communication every 5 seconds with amber LED solid on)
- Isolator Load Rating: 0.0063

## CO MONITORING UL STANDARD REFERENCE

Alarm thresholds (in parts per million) are as follows for:

- 70  $\pm$  5ppm:  
Detector response time 60 – 240 min.
- 150  $\pm$  5ppm:  
Detector response time 10 – 50 min.
- 400  $\pm$  10ppm:  
Detector response time 4 – 15 min.

## STANDARDS

Per UL standard 2075, the SK-FIRE-CO-W has been tested to the sensitivity limits defined in UL Standard 2034.

UL Standard: UL 268 7th Edition

## AGENCY LISTINGS AND APPROVALS

The listings and approvals below apply to the SK-FIRE-CO-W. 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:** S6173

**FM Approved**

**CSFM:** 7272-0559:0517

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