FCO-851(A) IntelliQuad™ PLUS

Advanced Multi-Criteria Fire/CO Detector

NOTIFIER® by Honeywell

Intelligent/Addressable Devices

General

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

The IntelliQuad PLUS FCO-851(A) 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 CO_2. 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. and Canada. The FCO-851(A) is listed to the UL 268 standard for smoke detectors and the UL 2075 standard for system-connected life safety carbon monoxide monitoring.

The FCO-851(A) should be used in conjunction with the B200S(COA) intelligent sounder base, which can generate either a Temp 3 pattern for fire or a Temp 4 pattern for CO alarm indication.

The B200S(COA) recognizes the System Sensor synchronization protocol. This enables it to be used as a component of the general evacuation signal — along with other System Sensor horns, horn strobes, and chimes — when connected to a power supply or Fire Alarm Control Panel (FACP) output capable of generating the System Sensor synchronization pulses. With each sounder base carrying a unique address, the FACP can then command an indvidual sounder — or a group of sounders — to activate. The command set from the panel can be tailored to the specific event, allowing selection of volume, tone, and group.

NOTE: *The FCO-851(A) is compatible with the NFS-320(C), NFS-320SYS, NFS2-640, and NFS2-3030 operating with firmware version 17.0 (or higher) in FlashScan® mode; CLIP mode not supported.*

Features

- Unique ability to detect all four major elements of a fire.
- 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 (B200SCOA in Canada).
- CO cell end-of-life warning and fault.
- FlashScan operation.



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FCO-851(A) in B200S(COA) Sounder Base

Sensitivity Settings and Suggested Applications

- **Level 1:** 1% / ft of smoke. Suggested for very clean environments such as laboratories.
- **Level 2:** 2% / ft of smoke. Suggested for clean environments such as offices.
- **Level 3:** 3% / ft of smoke. Suggested for moderately clean environments such as hotel rooms, dorm rooms.
- **Level 4:** 3% / ft of smoke with different algorithm processing and weighting of sensor elements. Suggested for hotel rooms near a shower, boiler rooms.
- **Level 5:** 4% / ft of smoke. Suggested for equipment rooms, kitchens, paint shops.
- **Level 6:** Thermal alarm at 135°F (57°C).

Once the CO cell has reached end-of-life, the CO sensor no longer provides life safety protection; however, when the fire detector enters Photo, Thermal, Infrared (PTIR) mode, the following sensitivities apply:

- **Level 1:** 1% / ft of smoke. Suggested for very clean environments such as laboratories.
- **Level 2:** 2% / ft of smoke. Suggested for clean environments such as offices.
- **Level 3:** 3% / ft of smoke. Suggested for moderately clean environments such as hotel rooms, dorm rooms.
- **Level 6:** Thermal alarm at 135°F (57°C).

Specifications

PHYSICAL SPECIFICATIONS

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

Shipping weight: 4.6 oz. (130.41 g).

Color: Ivory.

Operating humidity range: 15% – 90% relative humidity (noncondensing**S**).

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

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 at 24 VDC (one communication every 5 seconds with LED blink enabled).

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

CO ALARM ACTIVATION LEVELS

Alarm activation levels as defined by UL Standard 2034:

Concentration of CO	Maximum Alarm Time Response
70 (+/- 5) PPM	240 min (not less than 60 min)
150 (+/- 5) PPM	50 min (not less than 10 min)
400 (+/- 10) PPM	15 min (not less than 4 min)

Ordering Information

NOTE: *"A suffix indicates ULC listed model.*

FCO-851: IntelliQuad PLUS Advanced Multi-Criteria Fire/CO Detector.

FCO-851A: IntelliQuad PLUS Advanced Multi-Criteria Fire/CO Detector, ULC listed.

BX-501 Intelligent Detectors/Sensors Base.

B501 Intelligent base.

B501BH Sounder base.

B501BH-2 Sounder base, steady tone.

B501BHT-2 Sounder base, temporal tone.

B200S/A Intelligent programmable, addressable sounder base.

B200SR/A Sounder base.

B200S-LF Addressable Low Frequency sounder base.

B200SR-LF Low Frequency sounder base.

B210LP/A Intelligent detector base.

B200SCOA: Intelligent programmable sounder base, ULC listed. Includes CO detector markings in English and French.

M02-04-00: Detector Test Magnet.

M02-09-00: Telescoping Test Magnet.

Agency Listings and Approvals

The listings and approvals below apply to the primary product. 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:** S1115 (FCO-851).
- **ULC:** SS527-11 (FCO-851A).
- **CSFM:** 7275-0028:0264.

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QUALITY SYSTEMS

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Country of Origin: USA

For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
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