FSC-851(A) IntelliQuad™

Advanced Multi-Criteria Detector with four unique sensing elements

NOTIFIER® by Honeywell

Intelligent / Addressable Devices

General

This latest addition to Notifier's Advanced Detection line combines four complementary technologies into one device to convey accurate fire sensing information for locations where absolute certainty is required.

It is designed for use with Notifier's ONYX series fire alarm control panels (FACPs).

Features

- Unique ability to detect all four major elements of a fire
- Highest nuisance alarm immunity
- Advanced algorithms interpret and respond to the multiple inputs
- Six levels of sensitivity
- CO sensing for fastest response to slow developing, smoldering fires
- Fully integrated infrared sensing to support the fire alarm decision
- Automatic drift compensation of smoke sensor and CO cell
- Superior EMI protection
- Twin LED indicators providing 360° visibility
- LEDs can be panel controlled to blink, latch on, latch off
- Built-in test switch

This plug-in fire detector combines four separate sensing elements in one unit:

1. Electrochemical cell technology that monitors carbon monoxide (CO) produced by smoldering fires
2. Infrared (IR) sensing that measures ambient light levels and flame signatures
3. Photo-electric smoke detection
4. Thermal detection for temperature monitoring

The integration of continual monitoring for all four major elements of a fire has enabled Notifier to create a detector that responds more quickly to an actual fire with the highest immunity to nuisances. This advanced multi-criteria detector operates at a high immunity level, changing to become very sensitive to identify those that should be ignored, reducing false alarms.

Its on-board intelligence runs advanced algorithms that dynamically adjust detection parameters to respond to the inputs from the sensors, enabling instant response as ambient conditions change.

The program changes sensor thresholds, sensor gain, time, delays, combinations, sampling rates, and averaging rates. If any sensor fails, the detector automatically adjusts the sensitivity of the remaining sensors. It also recognizes a fault condition.

The CO cell has an expected lifetime of approximately six years. It is not a field replaceable component. An internal timer signals the control panel to indicate the approach of the CO cell's end of life. Upon expiration, you should contact the system supplier to arrange for replacement of the unit. Detection is not compromised when the CO cell expires. The algorithms automatically adjust to properly weight the inputs from the photo-electric, heat, and IR sensors.



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NOTE: *The CO cell is specifically deployed as a component of smoke detection in this device. This device is not listed for applications in which standalone CO detection is required for life safety.*

The IR light sensor recognizes specific situations such as welding and makes adjustments rapidly to further reduce the potential for nuisance alarms. The thermal detection function uses thermistor technology with a software-corrected linear temperature response to offer exceptional nuisance alarm immunity and excellent fire detection.

Product Line Information

FSC-851: IntelliQuad Advanced Multi-Criteria Detector

FSC-851A: ULC-listed version

Accessories

B710LP: Flanged mounting base. 6.1" (15.5 cm) diameter.

B710LPA: Flanged mounting base, ULC Listed.

B710LPBP: Flanged mounting base. (Pack of 10)

B200S: Intelligent sounder base, capable of producing a variety of tone patterns including ANSI Temporal 3. Compatible with System Sensor sychronization protocol.

B200SA: Intelligent sounder base, capable of producing a variety of tone patterns including ANSI Temporal 3. Compatible with System Sensor sychronization protocol, ULC-listed.

B200SR: Intelligent sounder base, Temporal 3 or Continuous tone.

B200SRA: Intelligent sounder base, Temporal 3 or Continuous tone, ULC-listed.

B224RB: Relay base Screw terminals: up to 14 AWG (2.0 mm^2). Relay type: Form-C. Rating: 2.0 A @ 30 VDC resistive; 0.3 A @ 110 VDC inductive; 1.0 A @ 30 VDC inductive. Dimensions: 6.2" (15.748 cm) x 1.2" (3.048 cm)..

B224RBA: Relay base, ULC Listed.

B224BI: Isolator base. Dimensions: 6.2" (15.748 cm) x 1.2" (3.048 cm). Maximum: 25 devices between isolator bases.

B224BIA: Isolator base, ULC Listed.

Listings and Approvals

- **UL Listed:** S911
- **ULC Listed:** S1115 (FSC-851A)
- **FM Approved**
- **CSFM:** 7272-0028:0255

Specifications

GENERAL SPECIFICATIONS

Size: Height: 2.4" (6.1 cm), Diameter: 4.0" (10.16 cm)

Shipping Weight: 4.6 ounces

Color: Ivory

Operating Humidity Range: 10 to 93% relative humidity (non-condensing)

Application Temperature Range: 32°F to 100°F (0°C to 38°C)

ELECTRICAL SPECIFICATIONS

Operating Voltage Range: 15 to 32VDC

Maximum Standby Current: 200µA at 24VDC (no communications)

Maximum Alarm Current (LED on): 7mA at 24VDC

SENSITIVITY SETTINGS & SUGGESTED APPLICATION

Level 1: 1% per foot (30.48 cm) of smoke. Very clean environments - Laboratories.

Level 2: 2% per foot (30.48 cm) of smoke. Clean environments - Offices.

Level 3: 3% per foot (30.48 cm) of smoke. Moderately clean environments - Hotel Room, Dorm Room.

Level 4: 3% per foot (30.48 cm) of smoke with different algorithm processing and weighting of sensor elements. Hotel rooms near a shower, Boiler Rooms.

Level 5: 4% per foot (30.48 cm) of smoke. Equipment rooms, Kitchens, Paint Shops.

Level 6: Thermal alarm at 135°F (57°C).

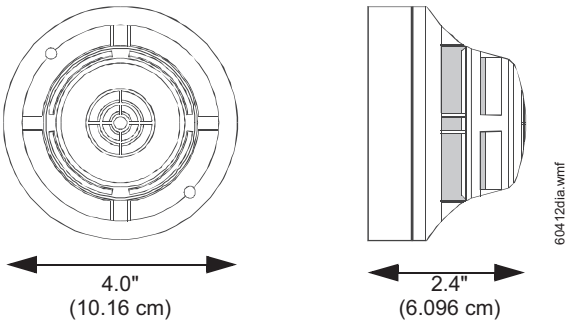
NOTE: *Once the CO cell has reached the end of life, any device set to Level 3 or Level 4 will default to Level 5 and Level 5 will drop to 3%. The following sensitivities apply to devices with expired CO cells:*

Level 1: 1% per foot (30.48 cm) of smoke. Very clean environments - Laboratories.

Level 2: 2% per foot (30.48 cm) of smoke. Clean environments - Offices.

Level 5: 3% per foot (30.48 cm) of smoke. Moderately clean environments - Hotel Room, Dorm Room.

Level 6: Thermal alarm at 135°F (57°C).



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Advanced Multi-Criteria Detector

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