# IntelliQuad™ Multi-Criteria Fire Sensor
# Frequently Asked Questions

### What is the advantage of having a multi-criteria fire sensor?

Multi-criteria fire sensors use at least two fire signatures to verify an actual fire and reduce nuisance alarms.

### Why is it important to reduce nuisance alarms?

Nuisance alarms carry a great risk and cost in buildings such as surgical centers, intensive care units, financial trading centers, high security facilities, and research and development laboratories. An unnecessary evacuation could result in severe consequences.

### Which elements of a fire are detected by the fire sensor?

Carbon monoxide (CO), smoke (photoelectric), heat, and infrared (IR) light are detected by the sensor. All of these elements are common to most fires.

### How do these elements differ from one another?

CO results from incomplete combustion, common in smoldering fires. Photo sensors detect smoke particles. IR readings measure ambient light levels and flame signatures. Thermal measurements read temperature and rate of rise (ROR).

### How do the different elements work together to improve fire detection, yet reduce nuisance alarms?

Based on the sensor signals, the on-board algorithm continually changes the sensor thresholds, time delays, sensor combinations, and sampling rates to detect fires faster and with superior false alarm immunity.

### Does the heat sensing element of the sensor respond to both ROR and fixed temperature?

Yes, the alarm is triggered by either ROR or a fixed temperature heat reading.

### Can this multi-criteria device be used as a CO detector?

No. CO is used as one of the decision making criteria for a fire, not for CO detection alone.

### How long does the CO cell last?

The CO cell has an expected lifetime of approximately six years. The detector sends a signal to the panel when the CO cell is approaching its end of life and then again when the end of life has been reached, leaving the CO cell fully expended.

### Is the CO sensor life span timer activated on first power up or from date of manufacture?

The CO sensor is activated on first power up. It measures accumulated time from the moment it is powered up and operating. If it is disconnected for any period, the timer stops until it receives power again.

### Is the CO cell replaceable?

No, the CO cell is not a field replaceable component.

### Will the multi-criteria fire sensor continue to function after the CO cell stops working?

Yes. The on-board intelligence of the device will adjust and the three remaining detection elements will continue to function.

### Where is the best location to use the Multi-criteria fire sensor?

A good choice would be a site where occupant evacuation carries a significant health, security, or financial consequence. Would research results be ruined? Would a patient in critical care be jeopardized? Would lack of access to a work environment translate to a sizeable financial loss? For the highest level of nuisance alarm immunity, it can be used in a location where a photoelectric sensor is normally installed.

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