ADVANCED MULTI-CRITERIA FIRE/CO DETECTOR MIX-COSAP

Advanced Multi-Criteria Fire/CO Detector installed in APB200 sounder base

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
- RealTest® CO testing capability
- UL 268 and UL 2075 listed
- Separates audible signal for fire or CO alarm when used with the APB200 bases
- CO cell end-of-life warning and fault
- Compatible with Mircom's FleX-Net™ Series Control Units with firmware version 12.0 or higher, operating in AP mode; CLIP mode is not supported.

Description

The MIX-COSAP Advanced Multi-Criteria Fire/CO Detector is a plug-in, addressable device that provides both fire and carbon monoxide (CO) detection. 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.

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 increase across the U.S. and Canada. The MIX-COSAP is listed to the UL 2075 standard for system-connected life safety carbon monoxide monitoring.

The MIX-COSAP can only be used in conjunction with the APB200 or APB200-LF intelligent sounder bases, which can generate either a Temp 3 pattern for fire or a Temp 4 pattern for CO alarm indication. The APB200-LF low frequency sounder base is designed to meet the NFPA 72 sleeping space requirement to produce a fundamental frequency of 520 Hz +/– 10% with a square wave or its equivalent.

The APB200/APB-200-LF recognize 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.

Mircom's Advanced Protocol (AP) devices use a high speed communication protocol that greatly increases the speed of communication between the intelligent devices. Mircom's Advanced Protocol uses a superior group polling method as well as an interrupt feature that provide for a faster response to an alarm condition. In addition, the Advanced Protocol allows for greater system capacity with support for up to 318 devices per SLC circuit. The AP devices are backwards compatible to operate in CLIP mode for legacy system applications.

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CATALOG NUMBER 5937

Specifications

Physical Specifications		
Height	3.46″ installed in APB200 style base	
Diameter	6.875″ installed in APB200 style base	
Shipping Weight	4.6 oz	
Color	Ivory	
Material	Bayblend FR110	
Operating Humidity Range	15 to 90% relative humidity (non-condensing)	
Application Temperature Range	32°F to 100°F (0°C to 38°C)	
Air Velocity	0 to 4000 ft/min (0 to 20 m/sec)	
Electrical Specifications		
Operating Voltage Range	15 to 32 VDC	
Maximum Standby Current	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	
Sensitivity Settings and Suggested Applications		
Level 1	1% / ft of smoke	Very clean environments – laboratories
Level 2	2% / ft of smoke	Clean environments – offices
Level 3	3% / ft of smoke	Moderately clean environments – hotel rooms, dorm rooms
Level 4	3% / ft of smoke with different algorithm processing and weighting of sensor elements	Hotel rooms near a shower, boiler rooms
Level 5	4% / ft of smoke	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	Very clean environments – laboratories
Level 2	2% / ft of smoke	Clean environments – offices
Level 5	3% / ft of smoke	Moderately clean environments – hotel rooms, dorm rooms
Level 6	Thermal alarm at 135°F (57°C)	

CO Monitoring UL Standard Reference – Alarm Thresholds are as Follows:	
Parts Per Million	**Detector Response Time**
70 ± 5ppm	60 – 240 min.
150 ± 5ppm	10 – 50 min.
400 ± 10ppm	4 – 15 min.

Per UL standard 2075, the MIX-COSAP has been tested to the sensitivity limits defined in UL standard 2034.

Ordering Information

Model	Description
MIX-COSAP	Advanced Multi-Criteria Fire/CO Detector *(Add suffix "A" for ULC model)*
Bases	
APB200	Intelligent Sounder Base *(UL listed)*
APB200COA	Intelligent Sounder Base. Includes CO detector markings in English and French. *(ULC listed)*
APB200-LF	Intelligent Low Frequency Sounder Base *(UL listed)*

Note: *The MIX-COSAP and APB200/APB200-LF sounder bases are compatible with the FleX-Net™ intelligent fire alarm control units with firmware version 12.0 or higher operating in Advanced Protocol (AP) mode. CLIP mode is not supported.*

Product specifications subject to change without notice.

NOT TO BE USED FOR INSTALLATION PURPOSES.

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