Velociti® Series MCS-4-Warn

Description

The latest addition of the Gamewell-FCI's Advanced Detection product line integrates four complementary technologies into one device to convey accurate fire sensing information to locations where fire fighter response-time is critical. The Gamewell-FCI MCS-4-Warn is an advanced multi-criteria plug-in detector that assembles four unique sensing elements into one unit.

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

It is designed to be used with the Gamewell-FCI's E3 Series® and S3 Series fire alarm control panel only.

The integration of continuous monitoring for all four major elements of a fire allows Gamewell-FCI 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. It is designed to detect changing elements, identify nuisance interference and adjust the sensor accordingly to reduce 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 panel automatically 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 and produces 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 signal 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 adjusts to properly weigh the inputs from the photo-electric, heat, and IR sensors.

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Advanced Multi-Criteria Detector with Four Unique Sensing Elements



MCS-4-Warn

Features

- Applies four separate sensing elements.
- Has the highest nuisance alarm immunity.
- Employs advanced algorithms that interpret and respond to multiple inputs.
- Uses six levels of sensitivity.
- Incorporates CO sensing for the fastest response to slow developing, smoldering fires.
- Comprises fully integrated infrared sensing to support a quick fire alarm response.
- Provides the automatic drift compensation of a smoke sensor and a CO cell.
- Offers superior EMI protection.
- Includes twin LED indicators that provide 360 visibility.
- Programs LEDs to be panel controlled to blink, latch-on, or latch-off.
- Contains a built-in test switch.

SIGNALING
UL LISTED
S1195

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ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

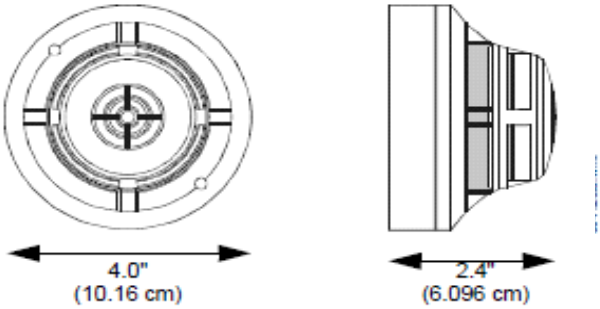
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Description (Continued)

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 the 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.



MCS-4-Warn Advance Multi-Criteria Detector

Specifications

Physical Specifications

Base Diameter: 4.0” (10.16 cm)
Base Height: 2.4” (6.1 cm)
Shipping Weight: 4.6 ounces
Operating Temperature Range: 32° F to 100° F (0° C to 38° C)
Operating Humidity Range: 10 to 93% relative humidity (non-condensing)

Electrical Specifications

External Supply Voltage: 15 to 32 VDC
Standby Current: 200 µA at 24 VDC (no communications)
Alarm Current (LED on): 7 mA at 24 VDC

Sensitivity Settings & Suggested Applications

Level 1: 1% per foot (30.48 cm) of smoke. Very clean environments: Used in Laboratories.
Level 2: 2% per foot (30.48 cm) of smoke. Clean environments: Used in offices.
Level 3: 3% per foot (30.48 cm) of smoke. Moderately clean environments: Used in hotel rooms, dorm rooms.
Level 4: 3% per foot (30.48 cm) of smoke with different algorithm processing and weighting of sensor elements. Used in hotel rooms near a shower or boiler rooms.

Sensitivity Settings & Suggested Applications (Continued)

Level 5: 4% per foot (30.48 cm) of smoke. Used in equipment rooms, kitchens, paint shop.
Level 6: Thermal alarm at 135° F (57° C)

Note: After 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: Used in Laboratories.
Level 2: 2% per foot (30.48 cm) of smoke. Clean environments: Used in offices.
Level 5: 3% per foot (30.48 cm) of smoke. Moderately clean environments: Used in hotel rooms, dorm rooms.
Level 6: Thermal alarm at 135° F (57° C)

Ordering Information

Part Number	Description
MCS-4-Warn	Advanced multi-criteria detector with four unique sensing elements.

Accessories

B210LP	Flanged mounting base
B200S	Intelligent sounder base, capable of producing a variety of tone patterns including ANSI Temporal 3. Compatible with the System Sensor synchronization protocol.
B200SR	Intelligent sounder base, Temporal 3 or Continuous tone.
B224BI	Isolator base, maximum of 25 devices between isolator bases.
B224RB	Relay base