Addressable Devices

Velociti® Series MCS-ACCLIMATE2F

Multi-Criteria Analog Addressable Sensor

General



MCS-ACCLIMATE2F

The Gamewell-FCI Velociti® Series, MCS-ACCLIMATE2F sensor is an analog, addressable, multi-sensing, low-profile sensor designed for use with the Gamewell-FCI analog addressable fire alarm control panels.

The MCS-ACCLIMATE2F sensor uses a combination of photoelectronic and thermal sensing technologies that are designed to increase immunity to false alarms. Unlike traditional addressable devices, the MCS-ACCLIMATE2F sensor has a microprocessor in the sensor head that processes alarm data. As a result, the MCS-ACCLIMATE2F sensor automatically adjusts its sensitivity, without requiring operator intervention.

Areas where the MCS-ACCLIMATE2F sensor is especially useful include office complexes, schools, college campuses, manufacturing and industrial facilities, and anywhere else where the use of a particular area may change. One day a conference room, tomorrow a kitchen, the next day a copy machine room — the MCS-ACCLIMATE2F sensor automatically adjusts its sensitivity to the environment!

The Velociti® Series uses a communication protocol that substantially increases the speed of communication between the sensors and Gamewell-FCI analog addressable fire alarm controls. These devices operate in a grouped fashion. If one of the devices in the group has a status change, the panel's microprocessor stops the group poll and identifies the single device with the status change. The net effect is response speed up to five times greater than earlier designs.

MCS-ACCLIMATE2F plug-in sensors use a separate base to simplify installation, service, and maintenance. A special tool allows maintenance personnel to plug-in and remove sensors without using a ladder.

Mount the base on a box which is at least 1.5" (3.8 cm) deep. Suitable mounting base boxes include:

- 4.0" (10.2 cm) square box
- 3.5" (8.9 cm) or 4.0" (10.2 cm) octagonal box
- Single-gang box (except relay or isolator base)

With the B200S or B200SR base, mounted on an octagonal or a 4.0" (10.2 cm) square box.

With the B224RB or B224BI base, mounted on a 3.5" (8.9 cm) octagonal box, or a 4.0" (10.2 cm) octagonal or square box.

NOTE: Because of the inherent supervision provided by the SLC, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring.

FEATURES & BENEFITS

- Compatible with the Gamewell-FCI analog addressable panels
- Designed with a sleek, low-profile design
- Suitable for installation in ducts
- Has a visual rotary, decimal switch addressing range of (01-159)
- Built-in functional test switch activated by an external magnet
- Low-temperature signal at 45°F (7.2°C) +/- 10°F (5.5°C)
- Displays bi-color LEDs flash green whenever the sensor is addressed, and light steady red on alarm*
- Offers the relay, isolator and sounder base options
- Provides microprocessor-based, combination photo and thermal technology
- Capable of heat-only alarm mode, enabled by a special command from the E3 Series® or S3 Series panel, and smoke alarms are then ignored
- Automatically adjusts sensitivity levels without the need for operator intervention or programming sensitivity increases with heat

Sensor Spacing

Gamewell-FCI recommends that the spacing sensors be used in compliance with NFPA 72.

Application Note

The MCS-ACCLIMATE2F sensor has the unique ability to adjust sensitivity according to the environment, based on heat and smoke levels. Avoid installing these sensors in locations that are susceptible to high or rapidly fluctuating temperatures. An example of an incorrect application would be near or in line with the output of a heating unit.

Ordering Information

MCS-Acclimate2F: Multi-Criteria Analog Addressable Sensor

Bases and Options

B501: Plug-in sensor base without flange
Dimensions: 4.1" (10.4 cm) diameter

B210LP: Flanged mounting base
Dimensions: 6.1 (15.5 cm) diameter

B210LPBP: Flanged mounting base bulk pack
Dimensions: 6.1" (15.5 cm) diameter

B224RB Relay Base: Plug-in sensor base with auxiliary relay, SPDT, rated 2 amps @ 30 VDC (resistive)

Screw Terminals: Up to 14 AWG (2.0 mm2)

2 coil latching relay 1 Form C contact UL/CSA
Rating: 0.9 A @ 125 VAC, inductive
0.9 A @ 110 VDC, inductive
3 A @ 30 VDC, resistive
Dimensions: 6.1"(15.5 cm) diameter

B224BI: Isolator Base Maximum: 25 devices between isolator bases
Dimensions: 6.1" (15.5 cm) diameter

B200S: Intelligent sensor sounder base
Dimensions: 6.875" (17.5 cm) diameter

B200SR: Standard sounder base,
Dimensions: 6.875" (17.5 cm) diameter

RA-100Z: Remote LED Annunciator

BCK-200: Black detector covers (box of 10)

Velociti® Series MCS-ACCLIMATE2F Technical Specifications

SYSTEM

MCS-Acclimate2F

Dimensions: 1.7" (45 mm) Height

Diameter: 4.1" (104 mm) installed in the B501 base
6.1" (155 mm) installed in the B210LP base
6.875" (17.46 cm) installed in the B200/B200SR base

Shipping weight: 5.0 oz. (142 g)

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

UL®-Listed Velocity: 0-4,000 ft./min. (1219.2 m/min.), suitable for installation in ducts

Relative Humidity: 10-93% (non-condensing)

Thermal Ratings: Fixed-temperature setpoint 135° F (57° C)

Electrical Specifications

Voltage Range: 15 – 32 volts DC

Standby Current: .0003A @ 24 VDC (One communication every 5 seconds with LED blink enabled)

Maximum Alarm Current: .0065A @ 24 VDC (LED lit)

TEMPERATURE AND HUMIDITY RANGES

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

Standards

The MCS-ACCLIMATE2F is designed to comply with the following standard:

UL Standard: UL 268

Agency Listings and Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

UL: S1913

FM: 3023594

MEA FDNY: COA-219-02-E Vol. VI

CSFM: 7272-1703-0121

ISO 9001 Certification

For a complete listing of all compliance approvals and certifications, please visit: http://www.gamewell-fci.com/en-US/documentation/Pages/Listings.aspx

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For more information

Learn more about Gamewell-FCI's Velociti® Series MCS-ACCLIMATE2F and other products available by visiting www.Gamewell-FCI.com

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