

Velociti® Series ABD-2F and ABD-RT2F

Single-Ended Reflected Type Beam Smoke Sensor

General

The Gamewell-FCI Velociti® Series, ABD-2F addressable projected beam smoke sensor is uniquely suited to sense smoke in hostile environments or open areas with high ceilings where spot-type sensors are unsuitable or difficult to install and maintain. It is intended for use in the signaling line circuits with the following sub-assemblies.

- E3 Series®, ILI-MB-E3 and ILI-S-E3 (Velociti mode only)
- S3 Series, SLC-PM (Signaling Line Circuit-Personality Module)

The ABD-2F consists of a combination transmitter/receiver unit and a reflector. When smoke enters the path between the unit and the reflector, it causes a reduction in the signal, and when the smoke level reaches the predetermined threshold, an alarm results.

A unique single-ended reflective design offers simpler installation than the traditional transmitter and receiver types of beam sensors. Alignment is swiftly accomplished via an optical sight and a 2-digit signal strength meter integral with the product. Listed for operation from -22° F to 131° F, the ABD-2F can be installed in garages, warehouses and other hostile environments where temperature extremes exceed the capability of spot-type sensors.

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 changes status, the panel's microprocessor stops the group poll and concentrates on the single device. The net effect is response speed up to five times greater than earlier designs.

The unit has four standard sensitivity selections along with two Acclimate settings. When either of the two Acclimate settings are selected, the sensor will automatically adjust its sensitivity using the advanced software algorithms to select the optimum sensitivity for the specific environment.

The ABD-RT2F is equipped with an integral sensitivity test feature consisting of a test filter attached to a servo motor inside the sensor optics. The ABD-RT2F requires an additional, external power supply. Using the remote test station Model RTS-151, the motor moves the filter in the path of the light beam, thereby serving as an accurate test of the receiver sensitivity. This test feature allows the user to quickly and easily meet the annual maintenance and test requirements of NFPA 72.

Ordering Information

ABD-2F: single-ended beam smoke detector

ABD-RT2F: Single-ended beam smoke sensor with integral sensitivity test

BEAMLRK: Long range accessory kit (required for applications with a range over 230 ft. (70m))

BEAMMMK: Multi-mount kit (provides ceiling or wall mount capability with increased angular adjustment)

BEAMSMK: Surface mount kit

RTS-151: Remote test station



ABD-2F / RT2F

FEATURES & BENEFITS

- Includes a single-ended, reflective design
- Has six user-selectable sensitivity levels
- Spans a 16 to 328 foot (4.9 to 99.9 m) detection range
- Compatible with the E3 Series® ILI-MB-E3 and ILI-S-E3 or the S3 Series, SLC-PM
- Contains an integral sensitivity test feature (ABD-RT2F)
- Designed with a digital display - no special tools required
- Provides a user-friendly alignment procedure
- Available with an optional Remote test station
- Offers an integral automatic gain control that compensates for signal deterioration from dust build-up

Velociti® Series ABD-2F and ABD-RT2F Technical Specifications

SYSTEMS

Operating Temperature Range: -22° F to 131° F
(-30° C to 55° C)

Operating Humidity Range: 10% to 93 RH non-condensing

Dimensions:

Detector: 10" H x 7.5" W x 3.3" D
(25.4 H x 19 W x 8.4 D cm)

Reflector: 16-230 ft. (4.9 x 70.1 m)
7.9" H x 9.1" W (20 H x 23 W cm)

Voltage Range: 15 to 32 VDC

Alarm Current: 8.5 mA max.

Standby Current: 2 mA max. avg. @ 24 VDC

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 Velociti Series ABD-2F and ABD-RT2F are 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: 7260-1703:0120

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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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

For more information

Learn more about Gamewell-FCI's Velociti® Series ABD-2F and ABD-RT2F and other products available by visiting www.Gamewell-FCI.com

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