

# Velociti® Series ASD-PL2F, ASD-PTL2F and ASD-PL2FR

## Analog, Addressable Photoelectronic Smoke Sensor

### General

The Gamewell-FCI Velociti® Series, analog addressable plug-in smoke sensors with integral communication provide features that surpass conventional sensors. Sensitivity can be programmed in the control panel software, and is continuously monitored and reported to the panel. Point ID capability allows each sensor's address to be set, providing exact locations for selective maintenance when the chamber contamination reaches an unacceptable level.

The ASD-PL2F photoelectric sensor's unique optical sensing chamber is engineered to sense smoke produced by a wide range of combustion sources. Dual electronic thermistors add 135°F (57°C) fixed-temperature thermal sensing on the ASD-PTL2F model.

The Velociti® Series use a communication protocol that substantially increases the speed of communication between the sensors and certain 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 concentrates on the single device. The net effect is a response speed up to five times greater than earlier designs.

### Installation

The ASD-PL2F 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 bases).

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

With 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.

### Sensor Spacing

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

## FEATURES & BENEFITS

- |   |   |   |  |   |
|---|---|---|--|---|
| <ul style="list-style-type: none"> <li>• Offers a sleek, low-profile design</li> <li>• Includes visual rotary, decimal switch addressing (01-159)</li> <li>• Has a built-in functional test switch activated by an external magnet</li> </ul> | <ul style="list-style-type: none"> <li>• Displays bi-color LEDs flash green whenever the sensor is addressed, and light steady red on alarm*</li> <li>• Supports a low standby current</li> </ul> | <ul style="list-style-type: none"> <li>• Includes an optional relay, isolator, or sounder bases</li> <li>• Contains an optional remote, single-gang LED Indicator (RA100Z)</li> </ul> | <ul style="list-style-type: none"> <li>• Designed with an analog addressable communication</li> <li>• Provides a stable communication technique with noise immunity</li> </ul> | <ul style="list-style-type: none"> <li>• Compatible with Gamewell-FCI analog addressable panels</li> </ul> <p>Note: *Only the red LED is operative in panels that do not operate in Velociti® mode.</p> |
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ASD-PL2F/ASD-PTL2F



ASD-PL2FR

## Ordering Information

### 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 mm<sup>2</sup>)

**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

**Maximum:** 25 devices between isolator bases.

**B200S:** Intelligent sensor sounder base

**Dimensions:** : 6.875" (17.5 cm) diameter

**B200SR:** Standard sounder base, UL 8649th Edition compliant, ULC Listed

**Dimensions:** : 6.875" (17.5 cm) diameter

**RA100Z:** Remote LED Annunciator

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

**DNR:** Duct smoke housing

# Velociti® Series ASD-PL2F, ASD-PTL2F and ASD-PL2FR Technical

## SYSTEMS

### ASD-PL2F, ASD-PTL2F, ASD-PL2FR:

**Dimensions:** 2.1" (5.1 cm) height

**Diameter:** 4.1" (10.4 cm) installed in the B501 base  
6.1" (15.5 cm) installed in the B210LP base

**Shipping Weight:** 5.2 oz. (147 g)

### Operating Temperature:

**ASD-PL2F:** 32° F to 120° F (0° C to 49° C)

**ASD-PTL2F:** 32° F to 100° F (0° C to 38° C)

**UL®-Listed Velocity Range:** 0-4000 ft./min. (1,219.2 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 peak

**Standby Current:** (max. avg.): .0003 A @ 24 VDC

(One communication every 5 seconds with LED blink enabled)

**Maximum Alarm-Current:** .0065 A @ 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 Velociti Series, ASD-PL2F/PTL2F/PLSFR are designed to comply with the following standard:

**UL Standard:** 864 9th Edition

## 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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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 ASD-PL2F, ASD-PTL2F and ASD-PL2FR and other products available by visiting [www.Gamewell-FCI.com](http://www.Gamewell-FCI.com)

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