

# Velociti® Series 3, ASD-LS3

## High-Sensitivity Photoelectric Spot Detector

### General

The Velociti® Series 3, ASD-LS3 is a high-sensitivity photoelectric smoke detector designed for Very Early Warning Fire Detection. It is used to protect valuable assets and operations, where systems must remain functioning at all times.

The high-sensitivity detector features a smoke-sensing chamber and patented optic block designed to amplify signals from smoke, but diminish stray internal reflections that can cause false alarms. New LED technology allows the Velociti® Series 3, ASD-LS3 to achieve sensitivity levels from 0.02 percent-per-foot to 2 percent-per-foot obscuration – up to 25 times greater than a standard photoelectric detector. The extensive software processing includes multi-alert drift compensation, internal self-diagnostics, and superior transient signal rejection algorithms to produce unprecedented stability at ultra-high sensitivities across the full temperature range. The Velociti® Series 3, ASD-LS3 provides point identification of the fire location through addressability and offers complete supervision of both the wiring and detector.



ASD-LS3

The Velociti® Series 3, ASD-LS3 detector complies with the following UL Standards:

- UL® 268 listed for Open Air Protection (0.5%/ft. to 2.0%/ft. obscuration)
- UL® 268 listed for Special Applications (0.02%/ft. to 0.5%/ft. obscuration)
- UL® 268A listed for Duct Applications allowing both in duct and within System  
Sensor models DNR and DNRW duct smoke detectors

In addition, the new modern profile blends seamlessly with other Velociti Series 3 detectors, and offers expanded color options that support contemporary aesthetic demands.

The Velociti® Series 3, ASD-LS3, is the ideal detection solution for sensitive environments that cannot tolerate even small amounts of smoke:

- Telecommunications switching facilities
- Cellular telephone infrastructure
- Integrated circuit fabrication facilities
- Computer rooms
- Traffic control centers
- Data Centers

## FEATURES & BENEFITS

- |  |                                  |  |  |   |
|--|----------------------------------|--|--|---|
| • Provides superior EMI protection                           | • Supports Analog communications | • Contains rotary address switches     | • Uses Transient rejection algorithms                  | • Offers new modern profile with expanded color options |
| • Designed with Very Early Warning Fire Detection capability | • Applies a low standby current  | • Has dual LEDs for 360° visibility    | • Employs a Microprocessor design                      |   |
|  |                                  | • Includes On-board drift compensation | • Communicates using either Velociti® or CLIP protocol |   |

## Accessories



Figure 1 RA100Z (Remote LED Annunciator)



Figure 2 CK300-BL Color Kit



Figure 3 TR300 Trim Ring

## Ordering Information

Part Number			Description
White	Ivory	Black	
ASD-LS3			High sensitivity photoelectric smoke detector (laser replacement)
BASES			
B501-WHITE	B501-IV	B501-BL	4" Mounting base
B501-WHITE-BP			4" Mounting base, bulk pack
B300-6	B300-6-IV		6" Flanged mounting base
B300-6-BP			6" Flanged mounting base, bulk pack
B200S-WH	B200S-IV		Intelligent sounder base
B200S-LF-WH	B200S-LF-IV		Intelligent sounder base, low-frequency
B200SR-WH	B200SR-IV		Intelligent sounder base
B200SR-LF-WH	B200SR-LF-IV		Intelligent sounder base, low frequency
B224RB-WH	B224RB-IV		Relay base
B224BI-WH	B224BI-IV		Isolator base
Accessories			
	SMB600		Surface Mounting Kit (flanged)
TR300	TR300-IV		Trim ring
CK300	CK300-IV	CK300-BL	Color Kit (includes cover and trim ring)
	RA100Z		RA100Z Remote LED annunciator
M02-04-01			Detector test magnet
M02-09-00			Telescoping test magnet

# Velociti® Series 3, ASD-LS3 Technical Specifications

## SYSTEM

### Physical/Operating Specifications:

**Height:** 2.0 inches (51 mm) installed in B300-6 base

**Diameter:** 6.2 inches (156 mm) installed in B300-6 base

4.1 inches (104 mm) installed in B501-WHITE/-IV/-BL base

**Weight:** 3.4 oz (95 g)

**Operating Temperature Range:** 14°F to 140°F (-10°C to 60°C)

**Operating Humidity Range:** 10% to 93% relative humidity, non-condensing

**Air Velocity:** 0 to 4,000 fpm (0 to 1219 m/minute)

**Isolator Load Rating:** 0.0063\*

**Self Diagnostics:** Initiated by control panel  
Activated by test magnet

**Smoke Sensitivity:** 9 levels: 0.02, 0.03, 0.05, 0.10, 0.20, 0.50, 1.00, 1.50, 2.00%/ft. obscuration (0.06, 0.10, 0.16, 0.33, 0.66, 1.65, 3.24, 4.85, 6.41%/m obscuration)

**Drift Compensation:** High sensitivity maintenance alert signal

Low sensitivity maintenance alert signal

Maintenance urgent signal

### Electrical Specifications:

**Operating Voltage Range:** 15 to 32 VDC

**Operating Current:** @ 24 VDC 300 µA  
(one communication every 5 seconds with green LED blink on communication)

**Maximum Current:** 4.5 mA @ 24 VDC  
(one communication every 5 seconds with amber LED solid on)

**Maximum Alarm Current:** 2 mA @ 24 VDC  
(one communication every 5 seconds with red LED solid on)

## STANDARDS

The Velociti Series 3, ASD-LS3, High Sensitivity Photoelectric Spot Detector is designed to comply with the following standard:

### UL STANDARD

**UL Standard:** UL 864 9th Edition

### AGENCY LISTINGS AND APPROVALS

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

**UL Listed:** UL 268 listed for Open Air Protection (0.5%/ft. to 2.0%/ft. obscuration)  
UL 268 listed for Special Applications (0.02%/ft. to 0.5%/ft. obscuration)  
UL 268A listed for Duct Applications

**FM Approved:** 450564

**CSFM:** 7272-1703:0504

**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 3, ASD-LS3 and other products available by visiting [www.Gamewell-FCI.com](http://www.Gamewell-FCI.com)

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