

# ASD-160H



**AIR**  
Intelligence™

## Exceptional aspirated smoke detection system designed to protect small or localized applications.

AIR-Intelligence ASD-160H has unmatched sensitivity potential, providing the very earliest warning of incipient fire with minimum nuisance alarms for small, localized and discrete applications.

### Optimal Performance and Reliability

The ASD-160H embodies many unique features to maximize performance and increase reliability compared to other aspirated smoke detection systems. It utilizes ClassiFire, a patented Perceptive Artificial Intelligence system which ensures that it operates at optimum sensitivity for the protected environment. As an example, the detector adjusts to become highly sensitive in a computer room or reduces sensitivity for a flour mill.

ClassiFire automatically configures the detector during initial setup and in operation, automatically adjusting the sensitivity to optimum levels for changes in the protected environment. The Laser Dust Discrimination (LDD) and Elimination System makes it suitable for a wide range of environments, including those extremely dusty or dirty.

The ASD-160H provides four alarm levels and has sensitivity ranges extending from “hypersensitive” to “low” sensitivity (0.00046 to 7.62% obscuration/ft. or 0.0015 – 25% obscuration/m). The rugged steel enclosure mounts to a docking station which permits the connection of sampling pipes and cables without the detector in place to preclude any damage to it during the installation process. Recommended maximum sampling pipe length is 164 feet (50 m) with 10 sample ports.

The on-board “fault” and “fire” relays can be augmented with an Optional Input Relay Card, which provides four levels of alarm, fault and three programmable inputs for interface with fire alarm panels and BMS systems. Addressable Protocol Interface Cards (APIC) are available for various manufacturers’ fire panels.

### Options Available:

- Optional Relay Card.
- Stand-alone detector or external Command Module for central monitoring and display.
- SenseNet remote monitoring compatible - up to 127 detectors per loop.
- Remote Display Units available.

### Approvals

Approved/listed by cULus and FM. Other major North American certification agency approvals in process.



### Key Features:

- Ideal for small, localized and discrete applications.
- High sensitivity provided by laser-based forward light scatter for reliable early warning.
- Unique ClassiFire™ Perceptive Artificial Intelligence system dynamically adjusts operating parameters.
- Patented Dual Technology LDD 3D3™ Laser Dust Discrimination and Elimination System precludes unwanted alarms due to dust.
- Built-in RS-485 communications for networking and remote communications.
- One (1) sampling pipes; up to 164 feet maximum total length and 10 sampling ports.

### PC Remote Software

All AIR-Intelligence detectors are supplied with PC remote software, permitting easy system configuration, viewing of event log, diagnostic checking of system and the ability to view ClassiFire Artificial Intelligence in real-time.



## Key Application Factors:

- Mission critical – very early detection is required.
- High air flow is present.
- Environment is hostile.
- Concealment is required.
- Areas subject to smoke stratification.
- Maintenance access is impractical.



## Specifications

Model Number	ASD-160H
Coverage Area	2,500 sq. ft. (232 sq. m)
Detection Principle	Laser forward-light scattering mass detection and particle evaluation
Dust Discrimination Principle	3D3 Laser Dust Discrimination (LDD)
Sensitivity Range	0.00046% to 7.62% Obs/ft. 0.0015% to 25% Obs/m
Particle Sensitivity Range	0.003 $\mu$ to 10 $\mu$
Sampling Pipe Inlets	One (1)
Exhaust Pipe Outlets	One (1)
Total Sampling Pipe	164 feet maximum
Sampling Pipe Diameter	3/4" nominal bore (27 mm O/D)
Number of Sampling Holes	10
Programming	Command Module or PC via RS-232/RS-485
Alarm Levels	4 (Aux, Pre-alarm, Fire 1 and Fire 2)
Network Data Bus	RS-485
Maximum Data Bus Length	4,000 ft. between detectors
Supply Voltage	21.6V - 26.4 VDC
Current Consumption	250 mA @ 24 VDC
Operating Temperature Range	ANSI/UL 268: 14° to 100°F (-10° to 38°C) CEA 4022: 14° to 140°F (-10° to 60°C)
Weight	3.7 lbs (1.7 kg)
Size	5.71" W x 8.66" H x 3.35" D 145 mm x 220 mm x 85 mm
Operating Humidity Range	0 - 90% (non-condensing)
Enclosure Protection	IP-50

## Applications

- Aircraft Hangars
- Airport Terminals
- Anti-Smoking Enforcement
- Atria
- Cable Tunnels
- Ceiling Voids & Raised Floors
- Cleanrooms
- Coal Conveyers
- Computer Cabinets
- Computer Rooms
- Corrections Facilities
- Electronic Data Processing (EDP) Centers
- Engine Rooms
- Escalators
- Flour Mills
- Food Preparation Areas
- Freezer Warehouses
- Heritage Buildings
- High-End Residential



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