



AIR Intelligence™

Exceptional aspirated smoke detection system designed to protect from small to medium applications.

AIR-Intelligence ASD-320 has unmatched sensitivity potential, providing the very earliest warning of incipient fire with minimum nuisance alarms for small to medium applications.

Optimal Performance and Reliability

The ASD-320 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-320 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 328 feet (100 m) with 50 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 Comm 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 to medium 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.
- Two (2) sampling pipes; up to 328 feet maximum total length and 50 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

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|-------------------------------|---|
| Model Number | ASD-320 |
| Coverage Area | 10,000 sq. ft (929 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 μ to 10 μ |
| Sampling Pipe Inlets | Two (2) |
| Exhaust Pipe Outlets | One (1) |
| Total Sampling Pipe | 328 feet maximum |
| Sampling Pipe Diameter | 3/4" nominal bore (27 mm O/D) |
| Number of Sampling Holes | 25 per pipe (50 total) |
| 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 | 400 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 | 8.4 lbs (3.8 kg) |
| Size | 11.81" W x 8.66" H x 3.35" D (330 mm x 220 mm x 85 mm) |
| Operating Humidity Range | 0 - 90% (non-condensing) |
| Enclosure Protection | IP-50 |
| Agency Listings | UL, ULC, FM, CSFM |

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
- Hospitals
- Hotel Lobbies
- Metro Tunnels
- Museums
- Paper Mills
- Record Storage Facilities
- Recycling Centers
- Semiconductor Fabrication
- Telecommunications Facilities
- Textile Areas
- Tobacco Plants
- Warehouses and Distribution Centers
- Wood Recycling



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