



## Product Data Sheet

# FHSD8010-xx

## LaserSense Nano High Sensitivity Smoke Detector

### Description

LaserSense Nano is designed to provide reliable aspirating smoke detection in a small, easy to install package.

The detector is supplied in a robust polycarbonate enclosure. An internal DIL switch enables simple onsite programming without the need for a special programmer or laptop PC.

ClassiFire Perceptive Artificial Intelligence ensures that the detector operates at optimum sensitivity for the protected environment, without the need for complex setup. This means the product will configure itself to provide high sensitivity in a computer room or reduced sensitivity in a smoky area.

Interfacing to Fire panels or BMS systems via integral Pre- Alarm, Fire and Fault relays.



### Typical Applications

- Data storage units
- Prison cells
- Plant rooms
- Air conditioning units
- Equipment racks
- Computer rooms
- Air duct protection
- Heritage property protection
- Critical equipment
- Anti-smoking enforcement
- Motor rooms

### Standard Features

- Ultra small low cost aspirating smoke detector for easy and discreet installation
- High sensitivity provided by laser based forward light scatter for reliable early warning
- Single sampling pipe up to 50m in length (still air)
- Unique ClassiFire® Perceptive Artificial Intelligence system that dynamically adjusts the detector's operating parameters, allowing for day to day changes in the protected environment and dust separation system contamination
- Unwanted alarms from dust are avoided using patented Dual Technology LDD 3D3 Laser Dust Discrimination and elimination system

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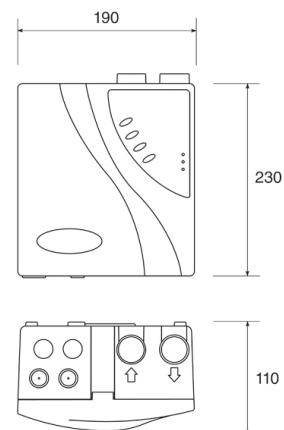
## LaserSense Nano High Sensitivity Smoke Detector

### Specifications

Supply	
Voltage	21.6 to 26.4 Vdc
Current	350 mA
Environmental	
Operating temperature	-10°C to +60°C (EN54-20)
Relative humidity	0 to 90% RH (non condensing)
IP Rating	IP50
Mechanical	
Size	190mm (W) x 230mm (H) x 110mm (D)
Weight	1.2Kg
Colour	Cream
Material	Polycarbonate
Cable entries	4 x M20
Detection	
Detection principle	Laser light scattering mass detection and particle evaluation
Particle sensitivity range	0.003 $\mu$ to 10 $\mu$
Measurement range (%Obs/m)	0.3% to 25%
Alarm levels	4 (Aux, Pre-alarm, Alarm and Alarm 2)
Sampling pipework	
Inlets	1
Length	50m maximum run (25m in moving air)
Diameter	27mm OD
Holes	up to 10 holes
Exhaust	1 (optional)
Input	
Standard	1 - PSU fault or ClassiFire override
Outputs	
Standard	3 - Pre-Alarm, Alarm (n/o) and Fault (n/c)
Rating	500mA @ 30V
User interface	
Indicators	LED

### Options Available

- Command Module available for central monitoring and display
- SenseNet compatible - up to 127 detectors per loop
- Remote Display units available
- Suitable for MatrixScan, a patented software system which provides virtual addressable location detection - e.g. 10 physical detectors would provide up to 45 unique addressable locations
- RS485 communications for networking and remote communications available through add-on option board.



### Ordering Information

Part No.	Description
FHSD8010-xx	LaserSense Nano High Sensitivity Smoke Detector
FHSD8510	Communication card for LaserSense Nano
FHSD8522	LaserSense Nano/25/100 Dust Filter

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