

SS01A

# OPTICAL SMOKE DETECTOR



## Description

Optical smoke detector for use with our range of Windowmaster® smoke control panels.

The SS01A Optical Smoke Detector has a moulded self-extinguishing white polycarbonate case with wind resistant smoke inlets. Nickel plated stainless steel wiper contacts connect the detector to the base. Inside the case a printed circuit board has the optical system mounted on one side and the signal processing electronics on the other. The sensing chamber is a black moulding configured as a labyrinth which prevents penetration of ambient light.

### Detector Type:

Point type smoke detector for fire detection and alarm systems for buildings

### Detection Principle:

Photo-electric detection of light scattered in a forward direction by smoke particles

### Chamber Configuration:

Horizontal optical bench housing an infra-red emitter and sensor arranged radially to detect forward scattered light

### Supply Wiring:

Two wire monitored supply, polarity insensitive

### Terminal Functions:

L1 IN and L2: supply in connections (polarity insensitive).  
L1 OUT and L2: supply out connections (polarity insensitive).  
-R: remote indicator negative connection

Specifications	
Supply voltage	9-33v DC
Ripple voltage	2vpp
Quiescent current	30-50µA @ 24vDC
Switch on surge	115µA @ 24vDC
Alarm current	52mA @ 24vDC
Alarm indicator	Red LED
Operating conditions	-20°C to +60°C (No condensation or icing)
Detector type	Photo-electric detection of light scattered in a forward direction by smoke particles

Smoke Control Solutions Ltd - Faraday Court, Faraday Road, Crawley, West Sussex RH10 9PU

Tel: 0845 500 9000 Fax: 0845 500 7000

Email [info@smokecontrolsolutions.com](mailto:info@smokecontrolsolutions.com) - Web: [www.smokecontrolsolutions.com](http://www.smokecontrolsolutions.com)

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## Mounting base details

The detector fits into the included standard mounting base. The bases are of 100mm diameter and have five terminals marked according to their function: Line 1 in, line 1 out, line 2 in and out, remote indicator negative, earth. Detectors are polarity insensitive, so that identification of positive and negative lines is only required if a remote LED is fitted.

An earth connection is not required for either safety or correct operation of detectors. The earth terminal is provided for tidy termination of earthed conductors or cable screens and to maintain earth continuity where necessary. Bases have a wide interior diameter for ease of access to cables and terminals and there are two slots for fixing screws at a spacing of 51 to 69mm. Detectors fit into bases one way only and require clockwise rotation without push force to be plugged in. They can be locked into the base by a grub screw using a 1.5mm hexagonal driver.

## Typical connection detail

