

2231 PHOTOELECTRIC SMOKE SENSOR

APPLICATIONS

The 2231 Analogue Photoelectric Sensor is designed for use with our addressable systems employing advanced protocol technology. The sensor utilises a unique Flat Response Technology, which enables it to be equally sensitive to a much wider range of combustible materials. The overall flat response removes the need to use ionisations sensors in the majority of applications making system design easier and overcoming the cleaning and disposal problems associated with ionisation sensors.



OPERATION

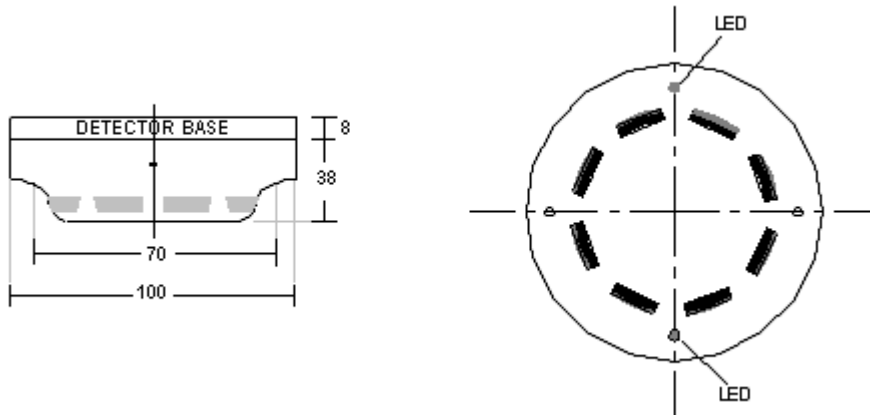
The 2231 Photoelectric Smoke Sensor detection chamber consists of an LED, which is the light source and a photo-diode, which is the sensing device. The chamber is designed so that light emitted cannot normally reach the photo-diode. When smoke particles enter the chamber the light is scattered and some of this light falls on the photo-diode. This is converted into an electronic signal, filtered and then transmitted as the analogue value. The chamber is easily removed or replaced for cleaning and utilises a unique baffle design which allows smoke to enter the chamber while blocking ambient light. The fire alarm panel adjusts the alarm threshold to compensate for contamination. A maintenance warning is displayed when the threshold can no longer be adjusted. The new response technology allows the sensor threshold level to be increased, thereby reducing susceptibility to false alarms. A 360° view of sensor status is achieved through twin LED's

The simple input or change of "address" is carried out on site. Extra integrity is promoted through a hand held programmer which also checks the analogue value / sensor integrity. Refer overleaf for compatible bases.

FEATURES

- Low Profile Design
- Covers 100M²
- Low Current Consumption
- Automatic Contamination Compensation
- Self Test Facility
- Dual Status LED's
- Simple to Clean
- Locking Option

APPROVALS : Tested and approved to EN54 Part 7 by the Loss Prevention Council



SPECIFICATION

Order Code	2231
Operating Voltage	Nominally 24v DC (17 – 41V DC)
Current Consumption	
Standby	Low Power Mode: 122uA (typical) Normal: 390uA (typical)
Polling	22mA +/- 20%
Alarm	5mA
Transmission Method	Advanced digital communications using ESP
Operating Temperature	-10 ⁰ C to +50 ⁰ C
Material	ABS
Colour	Ivory, also available in black (Quote ref 2231/B)
Weight	98g (without base)
Dimensions	100 Diameter x 38 Depth (46 Depth with base)
Ingress Protection	IP42
Maximum Humidity	95% RH – non condensing (at 40 ⁰ C)