For Better Protection

DET-C631

Conventional type Optical Smoke Detector

1148b/01

22831-CPR-F4866

Feature and Benefits

It is suitable for general smoke detection, particularly effective in detecting large visible smoke particles such as those produced by smouldering wood, paper, PVC or polyurethane foam.

Location of Smoke Detectors should result from an evaluation based upon engineering judgement or field test. Ceiling shape and surfaces, ceiling height, configuration of contents, burning characteristics and ventilation are some of the factors that must be considered by the Engineer when designing a Fire Alarm System.

The smoke detector detects fire by the scattering of infrared beam, which circuits are consisted of a infrared beam emitter and receiver. The emitting and receiving lens are in the optical sensing chamber, screening any interference from outside lights, without preventing the entrance of smoke particles. In a smokeless condition,

it only receives very weak infrared light. When smoke particles enter the chamber, the received light signal will increased due to scattering. When the smoke reaches a predetermined density, it will trigger an alarm signal.

To reduce interference and power consumption, pulsed circuits are used to increase the life of the emitting lens.

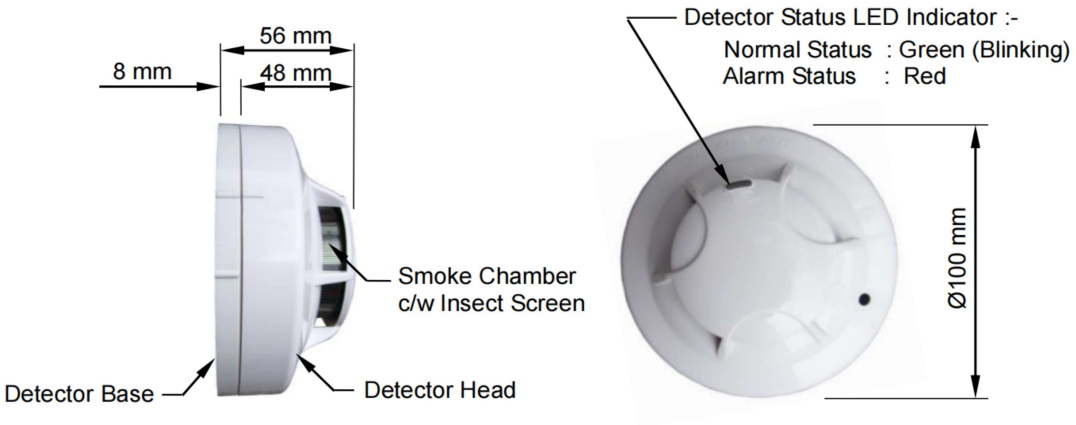
Overview

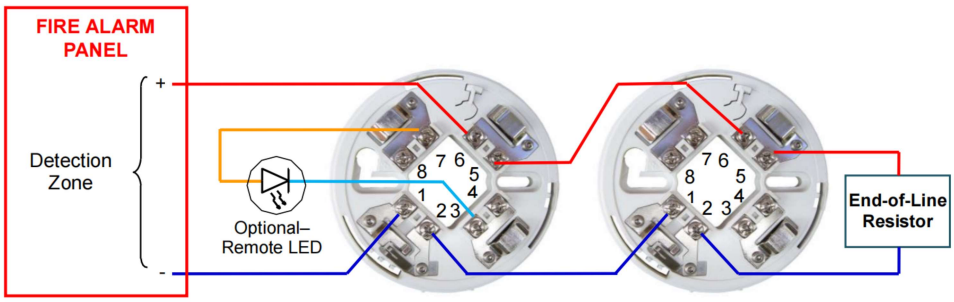
DET-C631 conventional type Optical Smoke Detector (hereinafter called the detector) is suitable to be used in both Commercial and Industrial Buildings. The detector is designed to be compatible with most major brands of Conventional Fire Alarm Panels

Technical Specification

Operating voltage	9.6 VDC to 30 VDC
Quiescent Current	≤ 65uA
Alarm Current	18 to 22mA (Typical 20mA)
Remote LED Drive Current Output	Max. 20mA
Maximum Air Velocity	7.6 m/s
Weight	102g (160g with Base DB-6)
Operating Temp. Range	10° C to +50° C
Relative Humidity	95%RH, Non Condensing @ 40° C
Alarm LED Indication	Red (Continuous)
Normal LED Indication	Green (Blinking)
Ingress Protection	IP42
Material of Body	ABS Plastic (To UL94V-0 Flammability Test Standards)
Colour of Body	White
Standards	EN54-7 :2018

Appearance and Dimension





Typical Detector Termination Diagram

Recommended Wiring : Colour Coded PVC Cable, Cross Section of not less than 1.0mm².

Terminal 1 :- Zone `In' (Interrupted for fault detection upon removal of detector head)
Terminal 2 :- Zone `Out' (Interrupted for fault detection upon removal of detector head)
Terminal 3 :- Remote LED `Out -' (Cathode)
Terminal 4 :- Remote LED `Out -' (Cathode)
Terminal 5 :- Zone `In'
Terminal 6 :- Zone `Out'
Terminal 7 :- Remote LED `Out +' (Anode)
Terminal 8 :- Remote LED `Out +' (Anode)