

Kidde Graviner

Series 60 Fire Detectors

Introduction

The Kidde Series 60 range of fire detectors comprises ionisation and optical smoke detectors and give grades of heat detector, all with enhanced performance, high reliability and aesthetically pleasing appearance. Each type incorporates an application specific chip, using technology originally developed for analogue addressable detectors.



Benefits

- * Designed to meet world wide approvals
- * Polarity insensitive
- * Ease of installation
- * Aesthetically pleasing design
- * ASICS for increased reliability
- * High environmental performance
- * Positive, one-way fit base

Series 60 Ionisation Smoke Detector

The sensing part of the detector consists of two chambers - an open, outer chamber and a semi-sealed reference chamber within.

As smoke enters the detector, it causes a reduction of the current flow in the outer chamber and hence an increase in the voltage measured at the junction between the two chambers. The voltage increase is monitored by the electronic circuitry, which triggers the detector into the alarm state at a preset threshold. An externally visible LED will light up when the detector changes to alarm state.

Part No 23900-K031

An integrating ionisation detector, suitable for use in areas where transient high levels of smoke may be expected, is also available.
Part No 23900-K032

Series 60 Optical Smoke Detector

Optical smoke detectors incorporate a pulsing LED located in a labyrinth within the housing of the detector. The labyrinth is designed to exclude light from any external source. At an angle to the LED is a photo-diode, which normally does not register the column of light emitted by the LED.

In the event of smoke from a fire entering the labyrinth the light pulse from the LED will be scattered and hence registered by the photo-diode. If the photo-diode "sees" smoke on the two following pulses, the detector changes to the alarm state. The indicator LED which is clear in quiescent state, changes to red light in alarm.

Part No 23900-K034

Optical smoke detectors incorporate a pulsing LED located in a labyrinth within the housing of the detector. The labyrinth is designed to exclude light from any external source. At an angle to the LED is a photo-diode, which normally does not register the column of light emitted by the LED.

In the event of smoke from a fire entering the labyrinth the light pulse from the LED will be scattered and hence registered by the photo-diode. If the photo-diode "sees" smoke on the two following pulses, the detector changes to the alarm state. The indicator LED which is clear in quiescent state, changes to red light in alarm.

Part No 23900-K034

Series 60 Heat Detector

Series 60 heat detector exposed to the ambient temperature, the other is sealed. In normal conditions the two thermistors register similar temperature. On the development of a fire, the temperature recorded by the exposed thermistor will increase rapidly, resulting in an imbalance of the thermistors and causing the detector to change to the alarm state.

Rate of rise detectors are designed to detect a fire as the temperature increases. They also have a fixed upper limit at which the detector will go into alarm if the rate of temperature increase has been too slow to trigger the detector earlier.

Fixed heat detectors only change to the alarm state at a preset temperature.

Part Nos 23900-K035 Grade 1
23900-K036 Grade 2
23900-K037 Grade 3

Part Nos 23900-K038 Range 1
23900-K039 Range 2