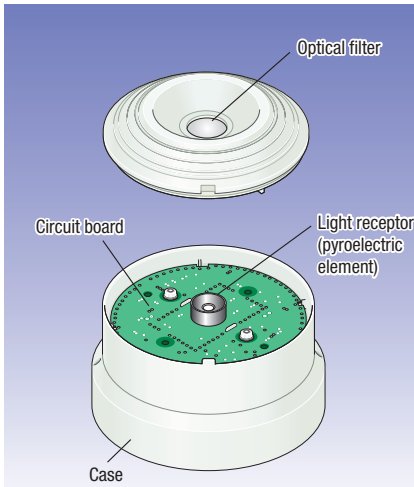


What is Flame Detector (Spot Type Infrared Flame Detector)?



DRC-13RLK



This is the detector.

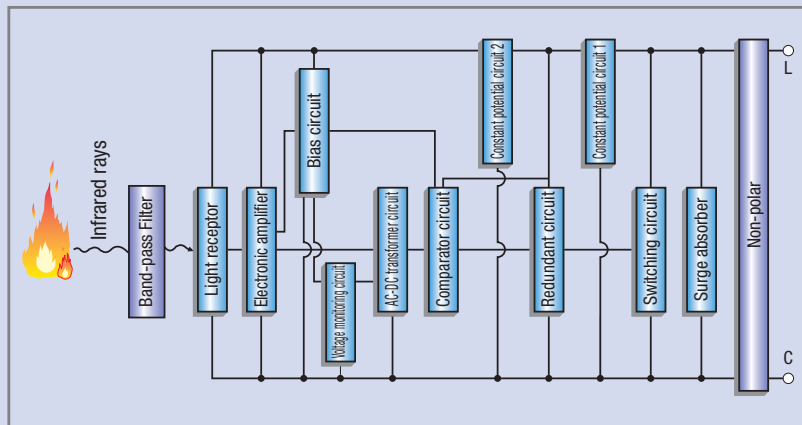
The IR detector triggers a fire alarm when the infrared rays emitted from flames exceed a pre-determined value. There is also an UV detector that can detect the ultraviolet rays emitted by flames.

Suitable for these places.

- For buildings with high ceilings such as theatres, atria, warehouses and gymnasiums.
- For buildings with ventilation from the outside such as car parks and factories in which conventional fire detectors cannot function effectively.

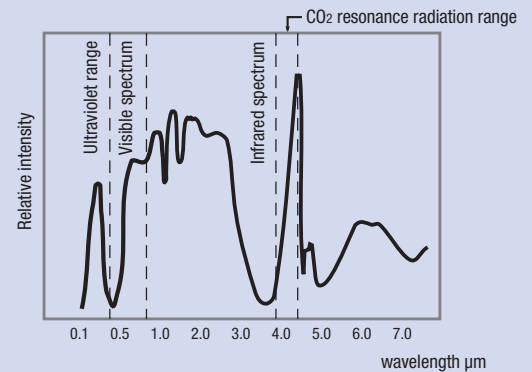
Mechanism of the Flame Detector (Spot Type Infrared Flame Detector)

Functions by capturing the specified wavelength of the infrared spectrum from the flame. During a fire, a phenomenon called the "CO₂ resonance radiation" occurs. The light receptor (pyroelectric element) will receive light of the wavelength of the "CO₂ resonance radiation" through its optical filter to determine if the alarm will be triggered.

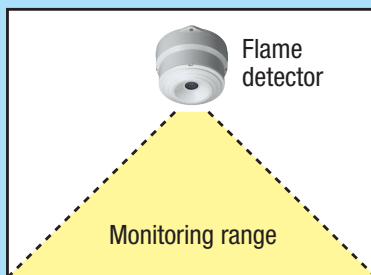


CO₂ resonance radiation (fluctuating)

In the flames of a fire, there is a phenomenon of infrared rays radiated by large amounts of carbon gases peaking at a wavelength of 4.3μm~4.5μm with a 2~15H fluctuation. This is caused by the combustion of materials and is known as CO₂ resonance radiation as indicated in the diagram below.



Normal conditions

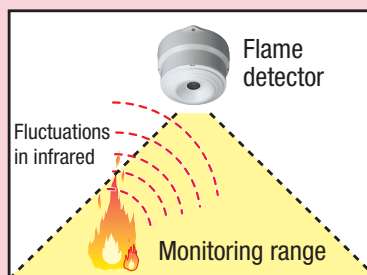


Detector does not activate if no infrared in monitoring range.

Warning

False alarm might occur with sunlight (direct or reflected), movement of light emitting objects (lamps etc.) and light from welding etc.

During fire



Triggers fire alarm when the captured level of infrared fluctuation (CO₂ resonance radiation) of burning objects exceeds the pre-determined level in a fire.

Nominal monitoring distance and monitoring angle

The monitoring angle will differ from the characteristics of the light receptor. Set the area to be monitored within the nominal monitoring distance.

