

FLAME DETECTOR

Intellia base mounted flame detectors

The Intellia base mounted Flame Detectors are designed to protect areas where open fires may be expected.

The Intellia series of products are all compatible with the ALC-board of an FX-panel.

There are three types of flame detectors available

1. UV Flame Detector
2. UV/Dual IR Flame Detector
3. Triple IR Flame Detector

Features

UV

The detector has a single UV sensor with a narrow spectral response in order to discriminate between flames and most spurious sources of radiation.

- Responds to stationary flames with no flicker
- Sensitive to UV radiation emitted by flames during combustion
- Compact flame detector which can fit into Discovery or XP95 bases
- Loop-powered

UV/Dual IR

The detector has a UV and dual IR sensors responding to different wavelengths in order to discriminate between flames and spurious sources of radiation.

- Responds to stationary flames with no flicker
- Sensitive to UV and low-frequency flickering IR radiation emitted by flames during combustion
- Compact flame detector which can fit into Discovery or XP95 bases
- Loop-powered
- False alarms due to electrical discharges from lightning or arc welding and flickering sunlight are minimised

Triple IR

The detector has three IR sensors that respond to different IR wavelengths in order to discriminate between flames and spurious sources of radiation.

- Responds to stationary flames with no flicker
- Sensitive to low-frequency flickering IR radiation emitted by flames during combustion
- Compact flame detector which can fit into Discovery or XP95 bases
- Loop-powered
- False alarms due to factors such as flickering sunlight are avoided by a combination of filters and signal processing techniques



Applications

UV

UV flame detectors are used when detection is required to be unaffected by convection currents, draughts or wind. These include engine rooms in ships, factories affected by draughts or wind and warehouses.

They are fast reacting and respond to a flame more than 25 m away. The UV flame detector is affected by arc welding, electrical sparks, lightning, nuclear radiation and UV light sources. For applications where these phenomena are present a UV flame detector should not be used.

UV/Dual IR

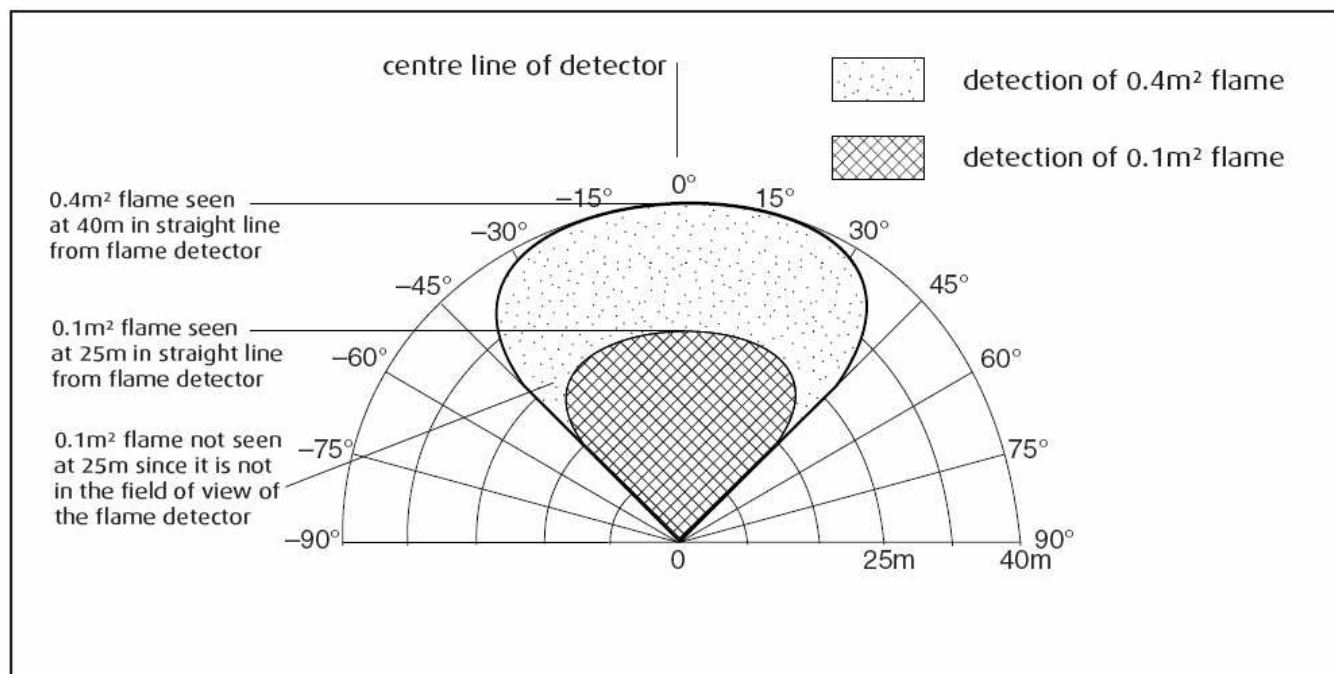
This detector is not affected by any of the sources mentioned above. They are used in aircraft hangers, generator rooms (diesel and gas turbines) and paint works.

Triple IR

The triple IR flame detector is also fast reacting but is also tolerant of fumes, vapours, steam, dust and mist, while being unaffected by the phenomena listed above. It may, however, be affected by modulated IR radiation. Triple IR flame detectors are used in waste handling, colour printing and paper manufacturing.

Field of view

The field of view of the flame detector is shown in Figure below. This also provides information on the size of fire detectable at various distances.



Technical data

	UV	UV/Dual IR	Triple IR
Operating voltage	17–28 VDC		
Quiescent current	2,3 mA	2,8 mA	2,5 mA
Alarm Current	4,2mA		
Max. Remote output current through 4,5kΩ	5mA		
Field of view	90°Cone		
Operating Range	0.1m ² n-heptane at 25m		
Spectral response	UV 185 to 260 nm	UV 185 to 260 nm, IR 0,75 to 2,7 μm	0,75 to 2,7 μm
Sensitivity	Class 1 or 3, EN54-10		
IP Rating	IP66		
Operating temperature	–40°C to +70°C (no condensing or icing)		
Storage temperature	–40°C to +85°C	–40°C to +70°C	– 40°C to +70°C
Relative humidity (no condensation)	95 %		
Dimensions	100 mm x 40 mm (Detector only) 100 mm x 48 mm (Detector and base)		
Weight	Detector 150 g Detector and base 210 g		
Housing material	White Polycarbonate, V-0 rated to UL94		
Sensing window	2 mm Quartz	2 mm Quartz	2 mm Float Glass
Terminals	Nickel plated stainless steel		
Product codes	06725283	06725284	06725285

Pelco reserves the right to modifications.