

## TECHNICAL INFORMATION

### Applications

- storehouses of oil, benzine, petroleum derivatives etc
- paint storehouses
- paper storehouses
- wood storehouses
- chemical laboratories
- flammable gases storehouses

### Features

- easy installation
- short response time
- little frequent and inexpensive maintenance
- possibility of remote testing
- immunity to false alarms
- immunity to electric interferences



The IR flame detector FL20A detects a flame caused by a fire inside its field of vision within a few seconds.

This detector is specially suitable for applications where a fire can develop quickly. The FL20A is particularly suitable for the protection of storehouses of oil, gasoline, benzine, paints, plastics, alcohol, etc.

The technical operation principle of FL20A is based on detection of the infrared radiation emitted by a flame.

The internal circuit and the advanced technology used, makes the apparatus easy to use, precise and very efficient. It has also high immunity to false alarms which are usually produced by natural noises in the protected areas.

The FL20A box is made of autoextinguishing polycarbonate plastic, has notable sturdiness and it's very simple to install.

### Detector's Operations

The detector FL20A has a special optical head that controls the protected area and it's particularly sensible to the infrared radiation. The optical head is provided of two infrared optosensors each with a different sensitivity range in the infrared frequency spectrum.

So it operates safely and it has a very high immunity to false alarms. Some special optical filters are provided to have transparency for IR radiations and to stop other luminous radiation. The FL20A is not sensible to sunlight, lamplight, UV radiations, X and gamma rays.

When a flame develops in the protected area, this produces a powerful infrared radiation, that is not constant, but variable and fluctuating. The internal circuit is able to elaborate the width, frequency and time of radiation and if it is recognized like a flame. Then it automatically drives the output relay which can control an opportune optical and acoustic alarm system.

The FL20A has an internal circuit that permits to regulate the sensibility and the alarm time delay.

The detector contains a special circuit that simulates the flame action and permits to remotely perform a working TEST of the detector.

### Technical Data

- Power supply: 12 V dc (FL20/12) or 24 V dc (FL20/24)
- Current: 18mA
- Protection against the inversion of polarity
- Distance of flame detection: 20 m (gasoline fire 20x20 cm - height 20 cm)
- Optical angle of vision: 120 degrees
- Internal trimmer for the regulation of the sensibility
- Internal trimmer for regulation of the alarm time delay
- Output terminal blocks for remote electrical Test of the detector
- Output alarm relay: 1/A/24 V dc
- Box: autoextinguishing polycarbonate plastic (class V0 - UL94-IEC695-IEC707)
- Protection: IP 65 (IEC 529-144)
- Dimensions: 247x146x114 mm
- Weight: 900 gr.

