



Flame sensor for Machine Protection

IR + UV MF - 10

TECHNICAL INFORMATION

TECHNICAL ADVANTAGES

- quick response- early detection
- large surveillance area
- immunity to false alarms
- possibility of safe operation in environments with large perturbations in the visual field

APPLICATIONS

- operating machines
- painting booths
- Conveyors
- ovens - burners
- chemical laboratories
- automatic laboratories



The flame sensor on the machine MF-10 has been designed as a flame sensor for small distance where the speed of intervention and safety are paramount.

It is very sensitive and reveals the presence of even small flames.

For example, it is able to detect a flame produced by a simple candle between 1 and 5m depending on the sensitivity setting.

This detector finds particular application in places where it is assumed that a flame can develop rapidly, such as on machines, paint booths, conveyor belts for flammable products, etc.

The principle of operation of the detector is the detection of the infrared component IR and ultraviolet UV of the flame.

The flame in fact emits a very wide spectrum of radiation ranging from ultraviolet UV to infrared IR.

The detection of the two infrared and ultraviolet components is a reliable test of flame presence.

The UV sensor and the IR sensor, through an appropriate viewing window, "watch" the monitored area.

When a flame is generated within this zone, the IR and UV radiations emitted by the flame itself are readily detected by the sensors and the associated electronics will trigger an output relay to send the alarm signal.

The necessary presence of UV and IR radiation to activate the detector and the use of microprocessor electronics equipped with a particular algorithm, gives it a very high immunity to false alarms.

The detector is equipped with sensitivity adjustment and intervention delay.

Sensitivity is independent for the IR and UV channels in order to allow a perfect adaptation to the environmental conditions.

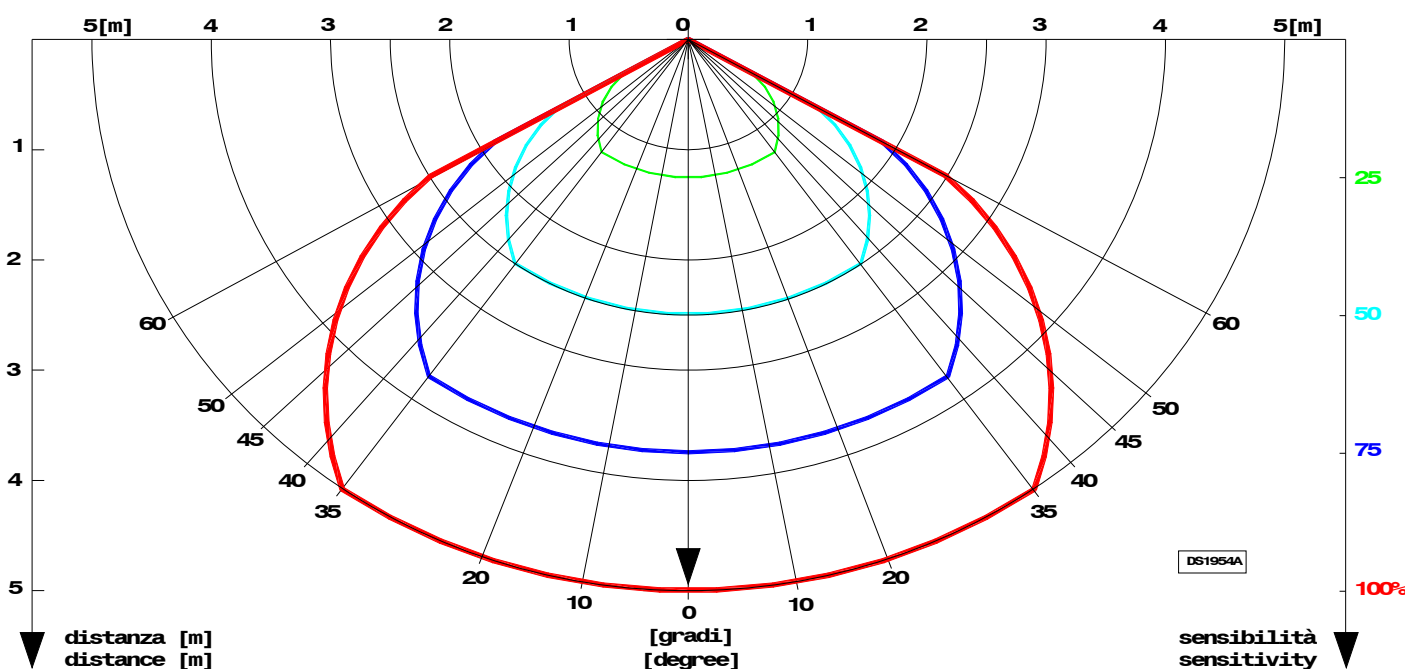
The sensor can be equipped with a bracket (optional) for orientation that facilitates pointing in small machines.

MF - 10 TECHNICAL DATA

- supply voltage: 11 - 30 VDC
- protection against polarity inversion
- current: 45 mA
- sensors: 1 UV sensor and 1 IR sensor
- UV spectral range: 185-260nm
- IR spectral range: 0.8-1.2µm
- maximum detection distance: 5m - bunsen burner flame
H = 10cm
- viewing angle: 120°
- independent IR and UV sensitivity adjustment
- adjustable intervention delay: 2-10-20-30sec
- analogue output: 0-5V stepped
- 2 alarm output relay and fault: 0.5A / 24Vcc - full exchange
- LED: Alarm, Fault, IR and UV (active)
- enclosure: made of plastic material
- temperature: -10 + 55 ° C
- protection: IP65
- electromagnetic immunity: complies with EN50130 standards
- dimensions: 142x82x54mm
- weights: 350gr
- option: fixing bracket with joint for wall or ceiling installation and for easy orientation

made in Italy

MF- 10 COVERAGE AREA (bunsen burner)



MF-10 AVAILABLE MODELS

MF10-X-X-X-X

