

AUTROFLAME IR FLAME DETECTOR BG-201

Interactive fire detection systems
Mounting instructions

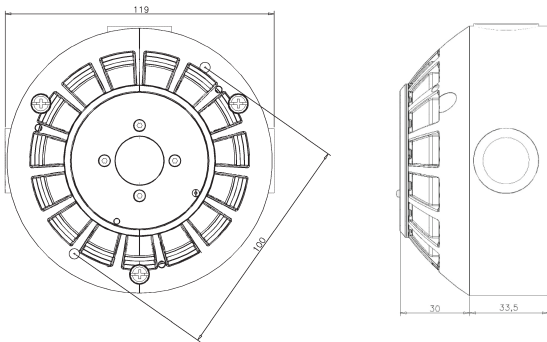


Avoid static discharges when mounting the detector

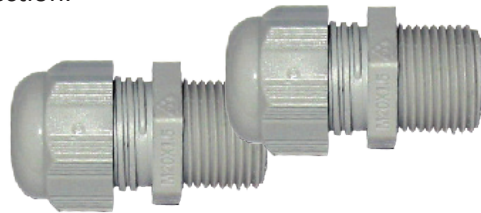
Dimensions

119 x 63,5 mm

Distance between fixing holes: 100 mm

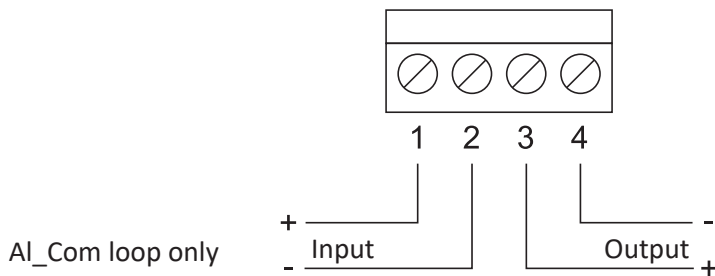


Glands suitable for cable sizes 6 – 12 mm. These must be used in order to maintain the degree of protection.

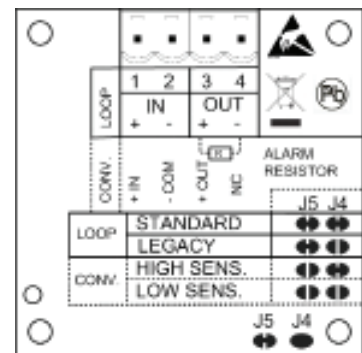


Connection

Wire: Max 2,5 mm² / 14 AWG



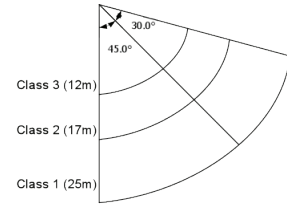
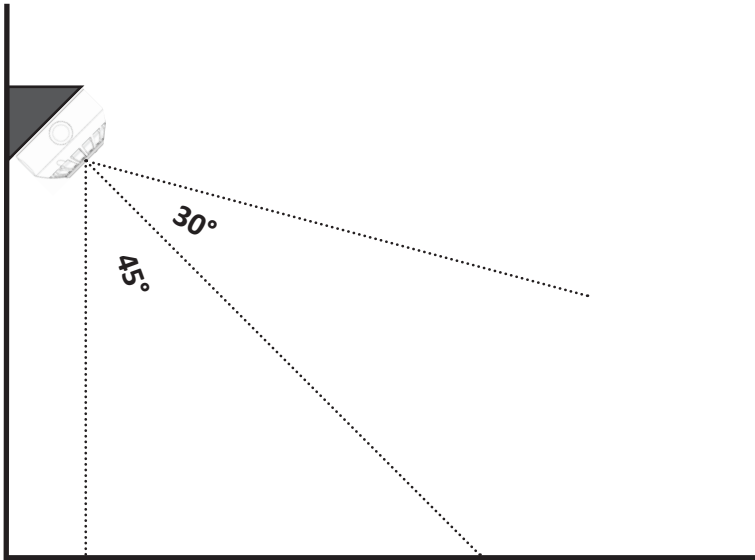
Terminals
1 2 3 4



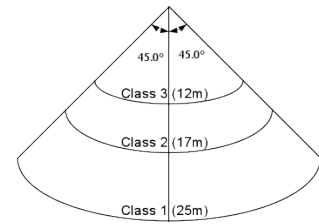
In case of screened loop cable, use Thorix to connect the screen in/out of detector. The screen should be connected to earth at one end only (by the panel).

Typical installation

Use a stable bracket. The detector should be mounted on a plane surface to avoid deformation of the housing. Pointing the detector 45° down from the horizontal, will give vertical coverage as shown, and horizontal 45° coverage to each side of the centerline.



Vertical Field of View



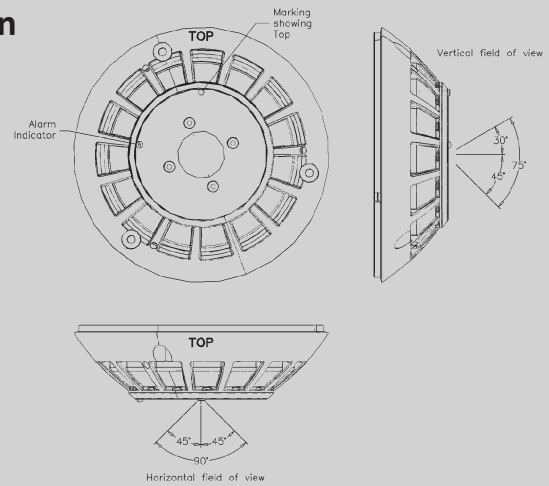
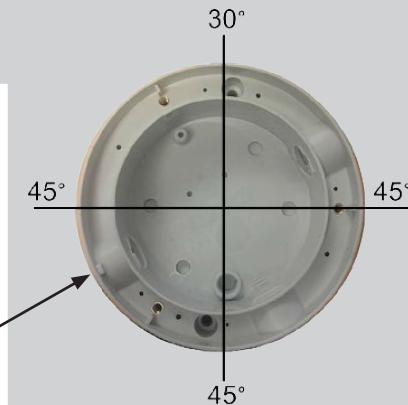
Horizontal Field of View

To comply with the directional dependence requirements for EN 54-10:2002 an angle of $\pm 30^\circ$ from 0° (0° = Orientation of detector in same axes as flame source) should not be exceeded, based on lab testing at a distance of approximately 5.0 ft (1.5 m).

Orientation of the base in a typical installation

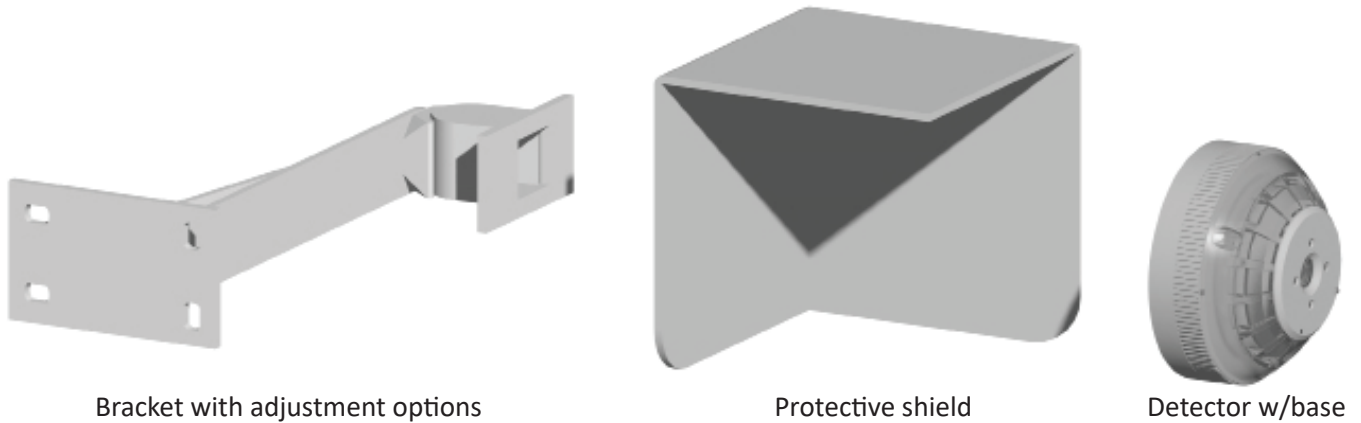
to place the 30° sector as shown in the righthand figure:

NOTE! The ONLY correct way to mount the detector head to the base, is to pair the widest notch on the head with this peg on the base.



Mounting on bracket for façade safety

The flame detector is mounted on a discreet bracket protecting the detector against the weather. Limited by the walls of the protective shield, the detector field of view is 45°. The mounting arm is adjustable to adapt the detector’s cone of vision according to the needs, both horizontally and vertically. In this way, the flame detector is directed at the façade only, without interruption from the surrounding area.



Assembly



Mount the protective shield on the bracket with the provided screws, washers and nuts. Attach the detector base to the protective shield and finally fix the detector to its base.

Note that there is an extrusion in the plastics which indicates the 30° field of view point on the detector. The 30° field of view should be mounted facing the wall. The detector should face the wall with an angle of 45° with reference to the wall.

Adjustment

Class	Detection	Ground coverage *)	Mounting height
Class 1	1 x 1 foot at 25 m	20 m	max 15 m
Class 2	1 x 1 foot at 17 m	15 m	max 9 m
Class 3	1 x 1 foot at 12 m	10 m	max 7 m

Table 1: Class and coverage data

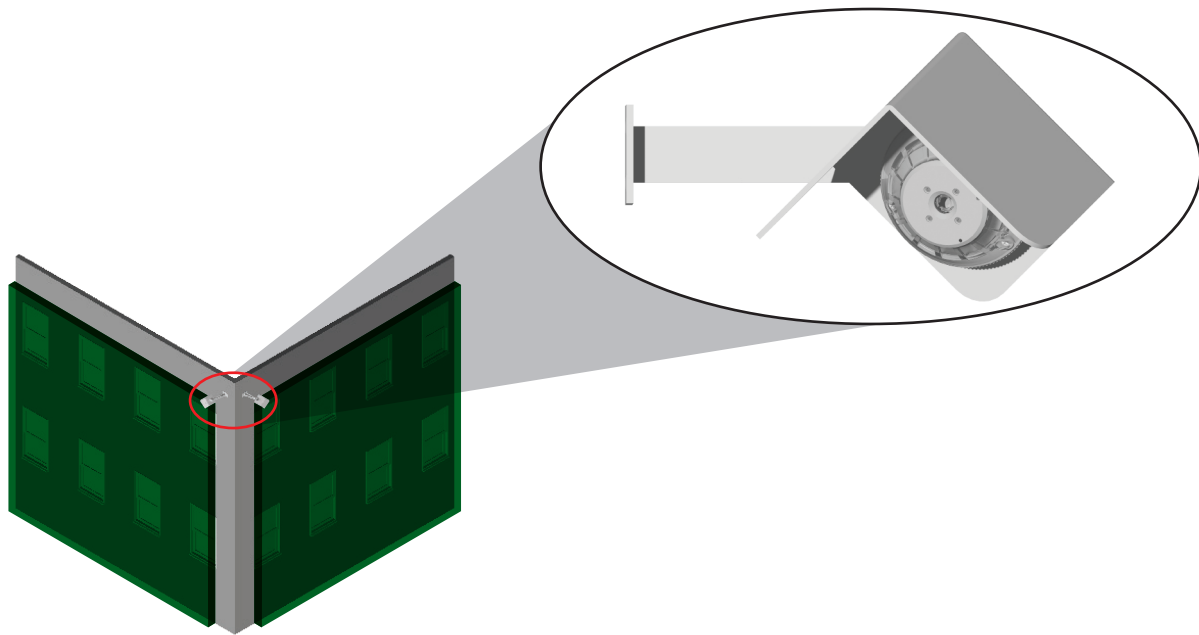
*) Detectors are able to detect fires at a longer distance than specified as ground coverage.

If distance to fire is doubled, the signal needs to be quadrupled (50 m demands 4 x 4 feet in class 1)

Mnemonic rule: *If you see the sensor, the sensor sees you.*

Please note that all parameters and guidelines are in line with Autronica’s standard of minimum 2 m coverage from the bottom of the wall and up.

From table 1, the given maximum detector mounting heights are provided. Our general recommendation is that the detector is mounted at a height between 4-6 m, due to practicality and area coverage.



Horizontal mounting

Our solution is best applied by tilting the mounting bracket 50° down horizontally. This ensures the protected area extends from behind the vertical axis all along the detector's field of view.

The bracket allows tilting inwards and outwards from the wall. Adjusting the bracket in this manner adjusts the covered ground area along the detector's axis. A 45° angle ensures that the outer line of view runs along the wall.