

Smart 3D Sensor



Description

The Smart 3D from Janus is a door protection system that provides enhanced 3D detection in the landing zone. The system uses Panachrome+ infrared 2D detection and microwave radar technology for its 3D detection. The system is fully compliant to the 2019 update to ASME A17.1.



Key features:

- Significant reduction in false 3D triggers by using microwave radar technology
- Meets new requirements of 2019 ASME A17.1
- Surface mount
- Suitable for center opening and side opening doors
- Offers full passenger protection when combined with Panachrome+ 2D safety edges from Janus

Technical Specifications:

Mounting Height: 71" - 110"

Transmitter frequency: 24.150 GHz

Transmitter power density: <5mW/cm²

Minimum detection range (from door face): 8" to 19.5"

Detection width: 59" side opening and 70" center opening

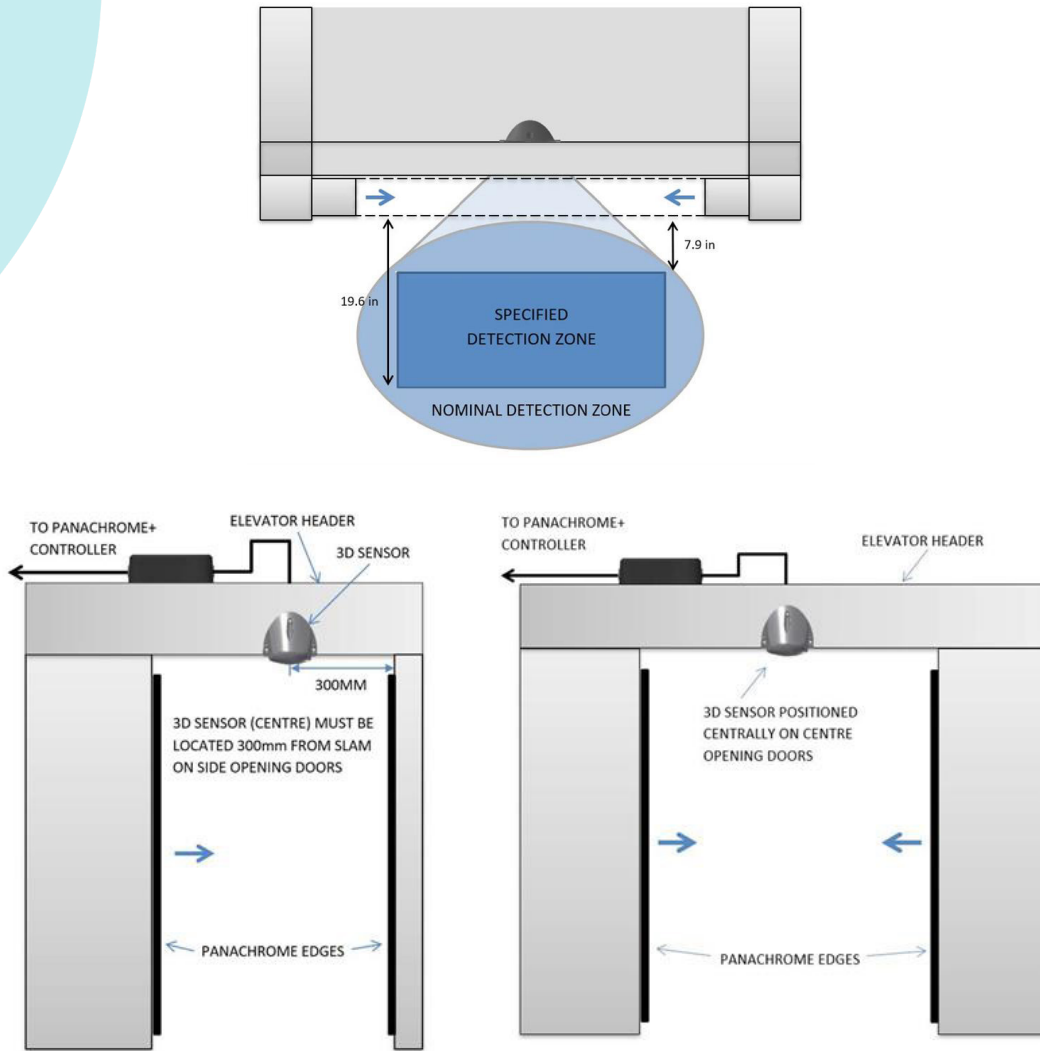
Detection mode: Motion

Min detection speed: 20 cm/s

Operating distance: With door separations > 11.81" (adjustable on Panachrome+)

The Smart 3D uses microwave radar technology which results in a significant reduction in these three main causes of false triggers:

1. It is not affected by reflected ambient light.
2. The sensor is able to ignore stationary objects within the 3D zone while still detecting if/when someone approaches the doors.
3. The sensor can discriminate between people passing through the 3D zone from the sides and people who are approaching the doors.



MOUNTING OF SMART 3D:

Fig 1. The operating principle of the Janus Smart 3D showing the sensitive zone projected into the landing.

Note: Traditional 3D technology is based on reflected infrared light which has some inherent limitations. Infrared light is unable to understand the difference between passing passenger traffic and passengers wanting to travel in the elevator. The technology is also unable to ignore stationary objects left in the detection zone and false triggers can often occur where there is a highly polished floor. All of these issues affect the people flow in the building and can result in increased call outs for the elevator contractors.