Panasonic

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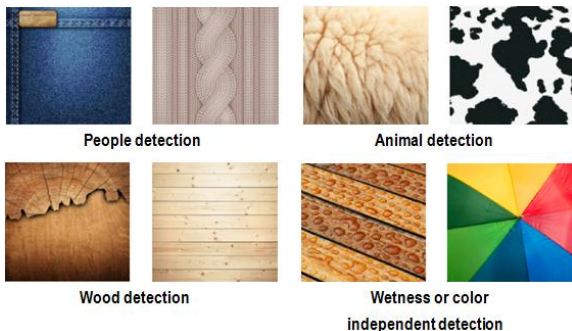Tel.:+49 (0) 8024-648-0 ● Fax: +49 (0) 8024-648-111

Trigonometric photoelectric sensors for color, surface and material independent detection

Detecting people with triangulation technology– an alternative to thermal imaging

Detecting people and animals have very similar technical application requirements. People wear clothes in various colors or with varying structures, animals may have long or short fur or feathers; they can also be dirty or wet.

Here the triangulation technology offers a solution that combines a multitude of technical features. It allows the detection of objects independent of the color, the material, and the surface structure. With the help of the integrated background suppression function, it is even possible to detect moving objects that are behind the detection area.

The triangulation technology has been implemented by Panasonic in different product series. Depending on the actual application, each series offers advantages regarding the sensing range and sensor size.

People detection   Animal detection

Wood detection   Wetness or color
                       independent detection

be detected.

This is how triangulation works:

The sensor's emitter and receiver are incorporated together in one housing. The emitting element sends light that will be reflected diffusely on a surface and the reflected light will be captured by a receiving element in the sensor.

Depending on the distance between the sensor and the object, the angle of the captured light changes, which in turn helps the sensor to determine the distance. The sensor switches on/off according to the distance measured and not according to the light quantity, as this may vary depending on the color, appearance, or structure of the object to

Complete automation solutions by Panasonic

For a complete solution, combine the sensors with other Panasonic automation products. A typical example: The statistical information on customer flow in retail shops or fast food chains collected by the sensors can be transmitted automatically with the exact dates and times via internet to a central station. There they will be evaluated and serve as a basis for strategic decisions. Apart from sensors, the broad product range comprises programmable logic controllers, touch panels, servo drives and motors, laser markers, and other automation components.

EQ-500 series   **EQ-30 series**

EQ-500 is a multi-purpose sensor with a sensing range of up to 2.5 meters.

With its dimensions of 68 x 40 x 20 mm, the EQ-30 series is the best solution for applications that require a compact sensor.