

RPA Infrared Detection Ignis3D

Early Fire Detection System with Contactless Infrared Temperature Measurement



Distance measurement for more safety

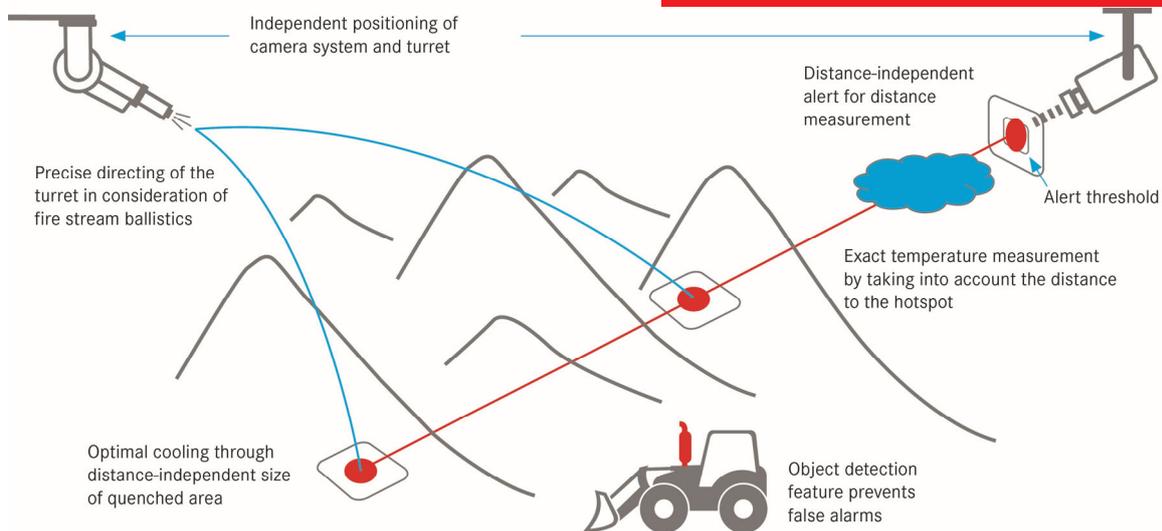
The RPA Infrared Detection Ignis3D combines an infrared camera for temperature surveillance with a laser for distance measurement. This means that the exact distances to the hotspots can be determined in addition to their spatial direction.

- Improved alerting due to distance measurement
- Precise directing of the turret in consideration of water stream ballistics
- Optimal cooling through distance-independent size of quenched area
- Exact temperature measurement by taking into account the distance to the hotspot
- Independent positioning of the camera system and turrets
- Prevention of false alarms through intelligent object recognition (e.g., incoming vehicles)



Advantages of distance measurement

The hotspot can be precisely located with the help of three-dimensional coordinate measurement.



The first early fire detection system with distance measurement

To monitor large areas, it must be ensured that the alarm works reliably regardless of the position of the hotspot. Depending on the distance, a hotspot will be displayed differently in the camera. In close proximity this would sooner exceed the triggering threshold of the sensor and trigger an alarm, while it would appear smaller and smaller with increasing distance and would lead to a delayed alarm.

Thanks to the built-in distance measurement, RPA Infrared Detection Ignis3D detects this difference and provides a constant detection sensitivity for the entire surveillance area. In addition, a uniform size of the quenched area can be ensured regardless of the distance.

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Independent positioning of camera system and turret

The direct mounting of a turret next to an infrared camera does not always have to be the most efficient arrangement. In order to achieve an optimum view of the surveyed area it often makes sense, to install them in separate locations. Costs can also be saved this way.

By measuring the hotspot coordinates, RPA Infrared Detection Ignis3D is able to control one or more turrets regardless of their positioning in the space. The number of infrared systems and turrets does not have to be the same.

- Cost savings by using a minimum number of camera systems
- Full flexibility for the set up
- Spatially separate mounting of turret and infrared camera

Industry standard for safety

Due to its very robust design, the system can also be used in harsh environments. In addition, operators can carry out minor cleaning work and regular checks themselves and thus reduce the external maintenance effort.

Technical data

Detector resolution	320 x 240 pixels
Detector type	Uncooled microbolometer as a Focal Plane Array (FPA)
Spectral range	7.5 µm - 13 µm
Measuring temperature ranges for black spotlights	-20 °C to 120 °C [-4 °F to 248 °F] 0 °C to 350 °C [32 °F to 662 °F] (standard for the RPA Infrared Detection Ignis3D)
Temperature accuracy	± 2 K or ± 2% of the reading value
Sensitivity/NETD	< 50 mK at 30 °C [86 °F]
Field of vision (FOV)	25° x 18.8°
Rotation range	0° to 350°
Environmental classes	-10°C to 55°C [14 °F to 131 °F] environmental class A -25 °C to 70 °C [-13°F to 158 °F] environmental class B (optional)
Tilt range	-90° to + 25°
Input voltage	24 VDC ± 25%
Power input	max. 120 W

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