fire protection TECHNOLOGIES

Orglmeister Infrarot-Systeme

PYROsmart® one

Infrared early fire detection for small areas and conveyor systems

PYROsmart® one is the system of choice for infrared temperature monitoring of objects that can be viewed at a fixed distance and with a fixed image section. Examples are small areas, systems, and transfer points on conveyor belts.

Monitoring of free-falling material and belt transfer points gives significant advantages. At these points, material gets turned over and comes into contact with oxygen. Any hotspots here can therefore become particularly hot.

PYROsmart® one protects against fires breaking out by quickly detecting any hot materials and hotspots entering the plant and thereby preventing fires from happening. PYROsmart® one is currently undergoing the VdS certification process.

The PYROsmart® principle: Fire prevention and targeted extinguishing

By monitoring elevated temperatures, PYROsmart® one can detect potential fire hazards at an early stage before a fire breaks out. If a critical temperature is detected, the system triggers an alarm, reports it to a fire alarm control panel and stops the conveyor. Automatic cooling or extinguishing of the hotspot is also possible, e.g., via water mist nozzles on the belts.

Instant detection and independent alarm triggering

With fast-moving volumes of material, hotspots require split-second detection. PYROsmart® one therefore uses an infrared thermal imaging camera with an extra high measurement repetition rate (“frame rate”). This ensures that the system never misses a detail. The compact device performs the evaluation itself making this step lightning fast.

Alarm triggering and the optional direct control of different extinguishing systems takes place independently of any operating or control computers – another plus in matters of security.

PYROsmart® one always keeps belt transfer points in view and detects critical temperatures in free-falling material.

Benefits and advantages

- Early detection of potential fire hazards
- Also deployable in dusty environments
- Electronics and sensors undergo continuous compressed-air cleaning, so that no dirt enters the device interior to ensure PYROsmart® always provides clear images
- Detecting critical temperatures and triggering alarms take place autonomously within PYROsmart®
- PYROsmart® can route alarms directly to a fire alarm control panel, stop the conveyor and control targeted cooling and/or extinguishing of the hotspot

PYROsmart® – properties and characteristics

	PYROsmart® FS pro	PYROsmart® FS eco	PYROsmart® one
Areas of application	indoors & outdoors, large areas	indoors, medium sized areas	small areas, conveyor systems
Autofocus (infrared autofocus)	✓	x	x
Video camera with zoom	✓	x	x
Fully tiltable	✓	✓	x
Panoramic evaluation/display	✓	✓	x
FACP compatible alarm outputs	✓	✓	✓
Extinguishing control	✓	✓	✓
VdS device approval	✓	✓	✓
FM approval	✓	✓	✓
Permissible ambient temperatures	-25° C – 70° C	-25° C – 70° C	-25° C – 70° C
Dimensions (height x width x lenght) / weight	39 x 24 x 39 cm / 7,7 kg	39 x 24 x 39 cm / 7,3 kg	16 x 16 x 24 cm / 3,3 kg

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