A PROACTIVE OPTION FOR INDUSTRIAL FIRE PREVENTION

Dahua Eureka Series Thermal Mini Hybrid Cameras

Early Detection of Temperature Anomalies

High Accuracy Alarm

Real-time Active Deterrent

Visualized Thermography

Background

Modern factories are carrying out massive production everyday. Spontaneous combustion of chemical fuels, high-temperature operations, direct sunlight and smoking behavior are all potential causes of fires in factories. If a fire is not stopped at its early stage, the consequences would include severe pollution, equipment damage and lengthy business interruptions. Therefore, an efficient early fire detection system must be used to detect fires and notify relevant personnel as soon as possible.

Pain Points

Lack of Early Fire Detection System

Early detection is the only way to ensure that small fires at early stage can be extinguished quickly and easily. Traditional detectors only generate an alarm when the fire, smoke or high temperature has reached the detector, which means that the fire itself has already developed and spread in the area.

No Visual Monitoring

After receiving a fire alarm through traditional detectors, security personnel cannot view a live video of the scene. The authenticity and status of the fire cannot be confirmed, and the possible cause of the fire cannot be obtained for evidence.

High-risk Smoking Behavior

Unregulated smoking behavior inside a waste transfer station poses safety risks. A lit cigarette is too small that traditional cameras and detectors cannot accurately detect it and send warning in time to deter smokers.

Equipment Anomalies Cannot Be Detected

Mechanical equipment (e.g. conveyer, bearing, motor, drive and pump) are prone to anomalies due to overheating. Thus, it is important to constantly monitor the quality of different machineries in the site to avoid accidents or damages. However, traditional cameras and detectors cannot detect heat and temperature of equipment.

Remote Location

Factories are usually located far away from urban areas, which poses challenges in terms of minimal lighting in its surrounding areas especially during bad weather conditions. Conventional cameras cannot fully achieve 24/7 intrusion detection with clear images.

Thermal Imaging for Fire Detection

Fire monitoring with infrared (thermal) systems is not fire detection, but temperature monitoring instead. Based on temperature measurement, this high-performance thermal camera can detect a potential fire hazard, such as sudden temperature rise or abnormal temperature exceeding a given threshold (e.g. 80°C). By giving early warning signals, it can help prevent occurrence of fire and allow timely response before a fire develops and spreads.

Dahua Thermal Solution Value
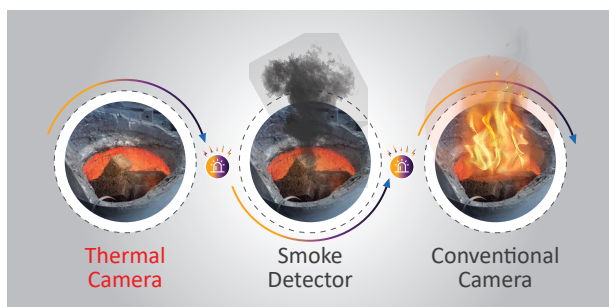
Early Heat Source Detection
With a pair of "thermal eyes", Eureka Series can find what traditional cameras can't see: heat source, which can spread and become fire. It is significantly faster than a regular smoke detector alarm, especially in a relatively large space where smoke takes a long time to reach the ceiling.

Real-time Fire Alert
The Dahua Eureka series activates the alarm as soon as an abnormal temperature is detected. Combined with the built-in active deterrence system of the camera, the on-site personnel will also be notified in time through white light and audible alarm.

No Smoking Warning
Eureka Series adopts deep-learning algorithm that can identify suspicious smoking behavior by analyzing human postures and cigarette temperature. In addition, the camera uses white light and audible alarms as active deterrents to directly warn the detected smoker.

Equipment Anomalies Monitoring
Eureka series is suitable for continuous temperature monitoring of mechanical equipment to ensure safe operation. When overheating machinery is detected, an alarm will be activated and sent to relevant personnel to inform them of any possible malfunctions and fire risks.

Recommended Products

DH(I)-TPC-DF1241 / DH(I)-TPC-DF1241-T
Mini Hybrid Eyeball Camera
- Thermal resolution: 256×192
- Thermal lens: 2/3.5/7mm
- Visible resolution: 4MP
- Visible lens: 3/4/8mm
- Temperature measurement range (-T Models):
  -20°C to 550°C (-4°F to 1,022°F)
- Temperature measurement accuracy (-T Models):
  Max (±2°C, ±2%)

DH(I)-TPC-BF1241 / DH(I)-TPC-BF1241-T
Mini Hybrid Bullet Camera
- Thermal resolution: 256×192
- Thermal lens: 3.5/7/10mm
- Visible resolution: 4MP
- Visible lens: 4/8/12mm
- Temperature measurement range (-T Models):
  -20°C to 550°C (-4°F to 1,022°F)
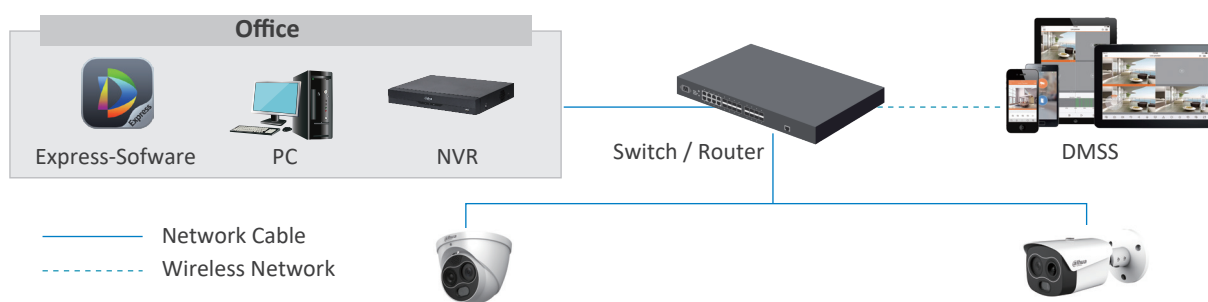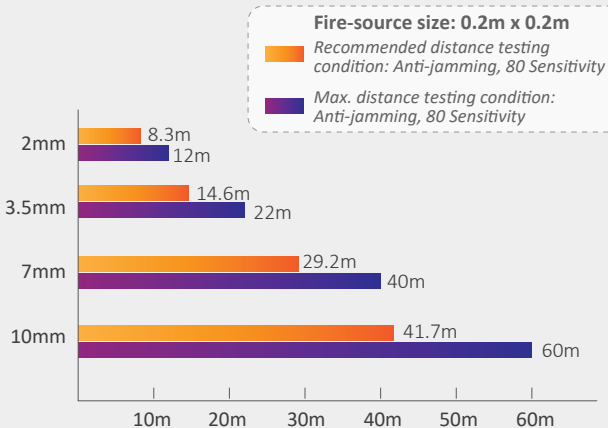- Temperature measurement accuracy (-T Models):
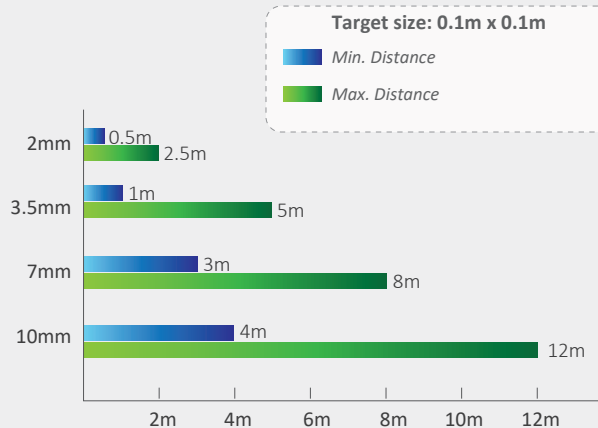 Max (±2°C, ±2%)

Recommended Solution

Office

Express-Sofware · PC · NVR

Switch / Router

DMSS

— Network Cable
---- Wireless Network

Effective Coverage

Fire Detection

Fire-source size: 0.2m x 0.2m
Recommended distance testing condition: Anti-jamming, 80 Sensitivity
Max. distance testing condition: Anti-jamming, 80 Sensitivity

Lens	Recommended	Max
2mm	8.3m	12m
3.5mm	14.6m	22m
7mm	29.2m	40m
10mm	41.7m	60m

10m 20m 30m 40m 50m 60m

Temperature Measurement

Target size: 0.1m x 0.1m
Min. Distance
Max. Distance

Lens	Min. Distance	Max. Distance
2mm	0.5m	2.5m
3.5mm	1m	5m
7mm	3m	8m
10mm	4m	12m

2m 4m 6m 8m 10m 12m

PS: 1. Test ambient temperature: 23°C; Relative humidity: < 60%
2. The data is only used to reflect the maximum performance of the camera. The performance of intelligent function depends on the actual conditions on the site

---

Design and specifications are subject to change without notice.

Ver. 1, Oct. 2021

DAHUA TECHNOLOGY

Add: No.1199 Bin'an Road, Binjiang District, Hangzhou, China. 310053
Email: overseas@dahuatech.com
Website: www.dahuasecurity.com

YouTube · LinkedIn · Partner App · Website