

EN54 Camera USP - English

Product Position: A certified flame detection camera that bridges Fire Safety and CCTV

Core Value: Bridging professional fire-grade flame detection with modern video surveillance, the solution goes beyond simply detecting fire — it enables you to see the situation, verify the alarm, assess the risk, and respond faster.

1. EN 54-10 Certified Multi-Spectral Flame Detection

Certified Flame Detection. Multi-Spectral Intelligence.

Combining **Triple-IR flame detection, thermal imaging and visible-light imaging** in a single camera, the system brings together proven flame detection technology with advanced visual intelligence.

Built around a mature multi-band infrared detection approach widely adopted in industrial fire protection, the camera is **EN 54-10 certified** and supports **Class 1, Class 2 and Class 3** performance, providing flexible detection capabilities for different protection distances and application requirements.

Unlike conventional thermal imaging cameras, which are primarily designed for temperature monitoring, the solution combines **certified flame detection capability with video surveillance**, enabling seamless integration into professional fire detection applications.

Key Benefits

- EN 54-10 certified flame detection
- Triple-IR + Thermal + Visible Light
- Class 1 / Class 2 / Class 3
- Designed for industrial and high-risk fire applications
- Combines fire detection with visual monitoring

2. Multi-Spectral Fusion for Enhanced Detection Accuracy

Detect. Verify. Reduce False Alarms.

Fire detection environments can be complex, with heat sources, reflections, lighting conditions and other environmental factors potentially affecting individual detection technologies.

To improve detection reliability, the camera combines **thermal, Triple-IR and visible-light information** to provide multi-spectral verification.

Under the configured composite detection logic, a thermal event must be supported by at least one additional detection channel before a fire alarm is triggered. This

multi-channel approach helps reduce false alarms caused by isolated environmental interference while maintaining reliable fire detection performance.

By reducing unnecessary alarms, the system can help minimise associated operational impacts such as **unplanned shutdowns, production interruptions and unnecessary emergency responses**.

Key Benefits

- Multi-spectral event verification
- Thermal + Triple-IR + visible-light analysis
- Reduced risk of false alarms
- Improved detection reliability
- Reduced operational disruption

3. Fire Detection Meets Video Verification

Detect the Fire. See the Situation. Respond Faster.

Traditional flame detectors can provide rapid alarm signals, but they typically offer limited information about what is actually happening at the scene.

This solution combines **professional flame detection with high-definition video surveillance**, enabling remote visual verification when an alarm occurs.

Personnel can remotely assess the scene, understand the development of the incident and make faster, more informed decisions — even when they are not physically present.

The camera can also provide video evidence from **before, during and after a fire event**, supporting:

- Fire investigation
- Incident analysis
- Root-cause assessment
- Risk prevention
- Safety improvement
- Insurance claims

From Fire Detection to Fire Intelligence

Traditional approach:

Detect → Alarm

Integrated approach:

Detect → Verify → Assess → Respond → Investigate

The result is more than a fire detector or a security camera — it is an integrated solution for **fire detection, visual verification and incident management**.

4. Comprehensive Alarm, Fault & Fail-Safe Monitoring

Monitor the Fire — and the Health of the System.

The camera provides **two integrated alarm outputs** for connection to fire alarm panels, suppression systems, sounders or other external equipment.

For applications requiring additional interfaces, an optional alarm expansion module can increase the number of alarm outputs to **up to 10**, providing greater flexibility for complex fire protection and control systems.

Beyond fire alarms, the system also supports monitoring of **fault and abnormal conditions**, helping operators maintain visibility of the system's operational status.

With **Fail-Safe functionality**, abnormal conditions such as power loss can be communicated to the receiving system, allowing monitoring and maintenance teams to identify equipment issues at an early stage.

Key Benefits

- 2 integrated alarm outputs
- Expandable to up to 10 outputs
- Fire alarm and fault monitoring
- Fail-Safe functionality
- Flexible integration with external systems
- Improved system availability and maintenance response

5. Flexible Power for Fire Safety & CCTV Applications

One Camera. Multiple Power Options.

Designed to bridge the **Fire Safety and CCTV markets**, the camera supports both **PoE and DC 12–24 V power inputs**.

PoE provides a convenient solution for CCTV and IP network environments, allowing power and data to be delivered through network infrastructure.

DC 12–24 V supports integration into traditional fire protection and industrial environments where DC power supplies and backup power systems are commonly used.

This flexible power architecture makes the camera easier to integrate into existing infrastructure across different application environments.

Key Benefits

- PoE support for CCTV/IP environments
- DC 12–24 V support for fire and industrial applications
- Flexible system integration
- Compatible with existing infrastructure
- One platform for both Fire Safety and Security applications

EN54 相机亮点-中文版本

产品定位：融合消防级火焰探测与智能视频监控的多光谱火焰探测相机

核心价值：将传统消防级火焰探测能力与现代视频监控技术融合，让系统不仅能够更可靠地发现火灾，更能够看见、验证、判断并快速响应。

1. EN 54-10 消防级多光谱火焰探测

消防级认证探测，多光谱智能融合

将三波段红外（Triple-IR）火焰探测、热成像与可见光成像融合于一台设备，在专业火焰探测能力的基础上，进一步融入现代视频监控与智能视觉技术。

基于成熟的多波段红外火焰探测技术，该产品已获得 EN 54-10 认证，支持 Class 1、Class 2 和 Class 3 性能等级，可满足不同探测距离及应用场景的消防防护需求。

区别于主要用于温度监测的传统热成像设备，本产品将经过消防标准认证的火焰探测能力与视频监控能力融合于同一设备，实现从专业火焰探测到现场视频可视化的统一。

核心优势

- EN 54-10 消防级火焰探测认证
- Triple-IR + 热成像 + 可见光
- 支持 Class 1/ Class 2/ Class 3
- 适用于工业及高风险火灾防护场景
- 火焰探测与视频监控一体化

2. 多光谱融合，提升探测准确性

多重验证，降低误报警

复杂的火灾探测环境中，热源、反射、光照变化以及其他环境因素，都可能对单一探测技术产生干扰。

为提升探测可靠性，本产品融合热成像、Triple-IR 与可见光多维信息，通过多光谱信息进行交叉验证。

在设定的复合探测逻辑下，热成像通道检测到异常后，还需要至少一个其他探测通道同时提供有效响应，系统才会触发火灾报警。通过多通道协同判断，有助于降低由单一环境干扰因素引起的误报警风险，同时保持可靠的火焰探测性能。

减少不必要的报警，也有助于降低由误报警带来的运营影响，例如非计划停机、生产中断以及不必要的应急响应。

核心优势

- 多光谱事件交叉验证
- 热成像 + Triple-IR + 可见光协同分析
- 降低误报警风险
- 提升火灾探测可靠性
- 减少误报警造成的运营干扰

3. 消防探测与视频监控深度融合

发现火灾，看见现场，快速响应

传统火焰探测器能够快速输出报警信号，但通常只能告诉用户“发生了报警”，而无法提供现场正在发生什么的直观信息。

本产品将专业火焰探测与高清网络视频监控融合，使用户在发生报警时能够进行远程视频核实。

即使人员不在现场，也可以通过视频远程了解现场情况、判断事件发展，并据此做出更加快速、准确的响应决策。

同时，摄像机还能够提供火灾事件发生前、发生中及发生后的视频证据，为后续的：

- 火灾调查
- 事件分析

- 起火原因分析
- 风险预防
- 安全管理优化
- 保险理赔

提供可视化依据。

从火灾探测到火灾智能管理

传统方式：

发现 → 报警

一体化方式：

发现 → 验证 → 判断 → 响应 → 调查

这不仅是一台火焰探测器，也不仅是一台安防摄像机，而是将火灾探测、视频核实、风险判断与事件管理融合于一体的综合解决方案。

4. 全面的报警、故障与 Fail-Safe 监测

不仅监测火灾，更实时掌握系统状态

摄像机内置 2 路报警输出，可连接火灾报警控制器、灭火系统、声光报警器以及其他外部设备。

对于需要更多接口的复杂消防系统，可选配报警扩展模块，将报警输出扩展至最多 10 路，为不同消防联动及控制需求提供更大的配置灵活性。

除了火灾报警，系统还支持对故障及异常状态进行监测，帮助管理人员实时掌握设备运行状态。

通过 Fail-Safe（故障安全）功能，当发生断电等异常情况时，系统可将相关状态传递至接收端，使监控及维护人员能够及时发现设备异常并采取相应措施。

核心优势

- 2 路内置报警输出

- 最多可扩展至 10 路报警输出
- 支持火灾报警及故障监测
- Fail-Safe 故障安全功能
- 灵活对接外部消防及控制系统
- 提升系统可用性及维护响应效率

5. 兼容消防与 CCTV 的灵活供电方式

一台设备，多种供电选择

针对 Fire Safety 与 CCTV 两大应用领域设计，本产品同时支持 PoE 和 DC 12–24 V 两种供电方式。

PoE 可满足 CCTV 及 IP 网络环境下的部署需求，通过网络基础设施同时实现数据与供电，简化设备安装与布线。

DC 12–24 V 则更加适用于传统消防及工业应用环境，可与常见的 DC 供电及备用电源系统配合使用。

灵活的供电架构使产品能够更便捷地融入不同应用场景下的现有基础设施，降低系统改造及部署难度。

核心优势

- 支持 PoE，适用于 CCTV / IP 网络环境
- 支持 DC 12–24 V，适用于消防及工业应用
- 灵活的系统集成方式
- 可适配现有基础设施
- 一个平台融合 Fire Safety 与 Security 应用