TURRET CAM AI

AI TURRET CAMERA

The SAFE Turret Cam AI is a versatile IP network camera that integrates fire protection, security, video verification, and other safety requirements. It features dual sensors and a range of advanced capabilities, including flame and temperature detection, high-resolution video verification, intercom functionality, intelligent visual and audible alerts, and IR night vision. The camera can operate fully autonomously, as part of a fire system within the FireSAFE application, or as part of an alarm system with the ProSAFE application, where it functions as a smart sensor.



Intelligent Flame Detection up to 10 m

SAFE Turret Cam AI offers advanced flame detection and tracking capabilities up to 10 meters, for flames as small as 10 × 10 cm.

Thermal Detection with Visible Temperature Spectrum

The thermal sensor can detect temperature differences in the monitored area from -10 °C to +200 °C, which is essential for identifying potential risks.

Video Surveillance and Verification

The sensor delivers a live image, making it ideal for standard surveillance monitoring of people, animals, vehicles, or other objects in real time.

Field of View Horizontal to 90°

The camera provides a wide viewing angle with a horizontal field of view of up to 90°.

High QHD 4MPx Resolution with 4mm Focal Length

The camera features a 1/2.7“ CMOS image sensor with a resolution of up to 2688 × 1520 pixels at 25 FPS, delivering high-quality images with detailed clarity.

Smart IR Illuminator with Automatic Adjustment

The camera features an adaptive infrared illuminator with a single IR LED, enabling monitoring even in complete darkness.

Vivid Images in Wide Dynamic Range Conditions

The camera supports DWDR, ensuring excellent image quality even in challenging lighting conditions with high contrast.

Intercom Function, Integrated Microphone and Speaker

The camera allows two-way voice communication between the user and the monitored area.

Voice Alert System

The device features a system of various voice warning messages delivered in a human voice.

Advanced Alarm Functions and Input/Output Port

The alarm input and output ports allow additional peripherals from the SAFE fire or security system to be connected to the camera.

Support PoE / 12V DC Power Supply

The camera supports flexible power options - either via PoE or standard 12V DC power.

IP66 Rated with Outdoor Installation

The camera is IP66 certified, offering full protection against dust and powerful water jets from any direction.

Technical Specifications - Turret Cam AI

Model Identification

SAFE 64220	White EAN code - 0728204234891

General Camera Features

Classification	Outdoor / indoor IP camera in turret design
Device Type	Wired
App Compatibility	FireSAFE, ProSAFE
Hardware Compatibility Hubs	FireSAFE - 50HUB-WRF, 100HUB-WLRF ProSAFE - Hub 2 Plus LTE SAFE 38300
Hardware Compatibility Network Video Record.	NVR
Temperature Detection	Yes
Flame Detection	Yes
Integrated Microphone	Yes - built-in digital microphone
Integrated Speaker	Yes - built-in speaker
Alarm indication	Acoustic and light (selectable)
Privacy Masking	Yes (4 areas)
Recording storage	NVR (HDD), FTP, NAS, SFTP
Connection	Ethernet, 100 Mbps
Power Supply	12 V DC (±30 %) / POE, basic
Power Consumption	Basic 1.8 W, maximum power 3 W
Interoperability	ONVIF, GB/T28181, CG, Dahua, Imou
Browser Support	IE: IE 9 and later (Edge is not supported) Chrome: 42 and older Firefox: 42 and older
Users/Guests	Connect up to 10 users or hosts simultaneously (available 100 MB bandwidth available)
Capacity	Up to 10 users
Security	Username and password authorization, connected MAC address, encrypted HTTPS protocol, IEEE 802.1x, controlled network access
Fault Detection	ICON network disconnection detection; IP address conflict detection

Audio a video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG
Visible Resolution	Main stream: 4M (2688 × 1520), 1080P (1920 × 1080), 1.3M (1280 × 960), 720P (1280 × 720), default: (1920 × 1080) Secondary stream: D1 (704 × 576), VGA (640 x 480), CIF (352 x 288), default: (704 x 576)
Visible Video Frame Rate	Main stream: 1 fps - 25 fps adjustable, default: 25 fps Side stream: 1 fps - 25 fps adjustable, default: 25 fps
Audio Compression	MPEG2-Layer2, G.711a, G.711mu, AAC, PCM, G.722.1, G.726
Image Encoding Format	JPEG
Audio Sampling	8K, 16K
Microwave Frequency	24 GHz
Sensitivity	Adjustable in 3 levels (PIR)

Environment

Operating Temperature	-10 °C to +55 °C
Operating Humidity	Up to 95 % relative humidity without condensation
Storage Conditions	Temperature: -20 °C to +70 °C Humidity: 5 % to 95 % relative humidity without condensation

A Smart Camera Is Smart Security

SAFE Turret Cam AI is a modern and versatile IP network camera designed to meet a wide range of security and fire protection needs. This camera is an ideal solution for users seeking a device that provides not only surveillance of the monitored area but also advanced features such as flame detection, temperature measurement, video verification, and intelligent alerts. With its advanced technologies and capabilities, SAFE Turret Cam AI is suitable for all types of applications, from industrial facilities and warehouses to commercial buildings, offices, and even homes.

Two Sensors and Double Protection

One of the key features of this camera is its ability to combine multiple functions into a single device, making it highly versatile and effective for a variety of applications. The SAFE Turret Cam AI is designed to meet the demanding requirements of modern security technology, thanks to its innovative design and advanced capabilities. The camera is equipped with two sensors—visible and thermal—allowing it to provide not only standard area monitoring but also advanced features such as flame detection and temperature measurement. In this way, the camera delivers comprehensive surveillance while helping to prevent hazardous situations, including fires or other thermal anomalies.

Visible Sensor for Detailed Monitoring

It is used to capture high-resolution images, enabling detailed monitoring of the area. This sensor delivers a vivid image, ideal for standard surveillance purposes such as real-time tracking of people, animals, vehicles, or other objects. The high resolution makes it easy to identify details that can be critical, for example, in the investigation of specific incidents.

Technical Specifications - Turret Cam AI

Optical Chip Features

Image Sensor	1/2.7" CMOS
Resolution	Up to 2688 ×1520 px @ 25 FPS
Optical Sensor Features	4 Mpx
Focal Length	4 mm
Lens Type	Fix
Visible Focus Control	Fixed focus
Image flipping	Normal (0°), Corridor mode (90°/270°), Mirror image (180°)
Exposure Compensation	Yes
Field of View	H: 85°, V: 44°, D: 99°
Minimum Focusing Distance	1 m (3.28 ft)
Aperture	F1.6
Scanning System	Progressive
Lowest Light Level	Color: 0.0052 lx, Black & White : 0.0028 lx, 0 lx (active IR)
Visible AGC	Automatic or manual
Visible Noise Reduction	2D NR, 3D NR
S/N Ratio	≥55 dB
White Balance	Automatic, outdoor, indoor, tracking, manual, natural, street lighting
Electronic Shutter Speed	1/3 sec to 1/100000 sec (manual/automatic)
BLC Function	Yes
WDR Function	Yes - DWDR
HLC Function	Yes
Day/Night Modes	Automatic (ICR); color and black & white
Type of Illumination	Adaptive IR illumination (1 IR LED)
Illumination Control	Automatic / Manual
Illumination Distance	Up to 15 m (49.21 ft)

Ports

Network port	1x RJ-45 PoE 10M/100M Ethernet port
Alarm Input	1x input channel: 5 mA, 3V - 5 V DC
Alarm Output	1x output channel: 300 mA, 12 V DC
Alarm Connection	Switch activation - output / email / images

General

Dimensions	ø109.9 mm × 90.1 mm
Degree of Protection	IP66
Weight	350 g
Compliance	CE FCC EN 50291-1:2018 EN 50291-1:2018/AC:2021
Warranty	36 months

Flame Detection for Locating Incipient Fires

The SAFE Turret Cam AI is a modern IP camera that features advanced flame detection and tracking capabilities, detecting flames up to 10 meters away with a size of 10 × 10 cm. This allows it to reliably identify even relatively small flames over a considerable distance. The camera is therefore an ideal tool for monitoring and preventing fires in various environments where flame detection and movement are critical, particularly in situations where a fire must be quickly located and an immediate response to emerging danger is required.

Turret Cam IA Can Cope even Where Others Fail

The SAFE Turret Cam AI thermal sensor is one of the most advanced and effective tools available for monitoring and security today. Its capabilities are particularly valuable in situations with severely reduced visibility, such as at night, in heavy fog, rain, or other adverse weather conditions. Unlike standard IP surveillance cameras that rely on lighting or where the human eye is limited, the thermal sensor provides an invaluable advantage. Using thermal radiation detection technology, it can reliably identify heat-emitting objects, even in complete darkness or environments with zero visibility.

Thermal Sensor for Monitoring Temperature Anomalies

The second sensor, thermal, adds a whole new dimension to monitoring. This sensor can detect temperature differences in the monitored area, which is critical for identifying potential risks such as overheating equipment, batteries, heat leaks, or even early-stage fires. Thermal imaging enables the detection of temperature anomalies that would otherwise be invisible to the naked eye or standard visible-light sensors. This feature is particularly valuable in areas where PV battery storage, storage or charging of electric vehicles, e-bikes, e-scooters, batteries, or similar equipment takes place.