

DHI-HY-FT443HFP

Flame Detection Network Camera Pro



System Overview

The DHI-HY-FT443HFP Flame Detection Network Camera Pro is an intelligent thermal imaging product developed specifically to meet the needs of the fire protection industry. Adopts dual-channel design of visible light and thermal imaging, it supports triple IR flame detection, fulfilling the requirements for integrated security and fire protection. It supports 25 pseudo-color modes and multiple functions including real-time temperature detection, fire early warning, cold and hot spot alerts, temperature alarms, smoke and fire detection, smoking detection, and perimeter alarms.

Scene

It is applicable to a wide range of settings with fire emergency plan needs, such as schools, stadiums, airports, factories and warehouses.

Functions

Firefighting Thermal Imaging

Support real-time temperature detection, fire early warning, cold/hot spot alerts, and temperature alarms.

Offer adjustable 25 pseudo-color modes including Iron Red, Hot Iron, Medical, Arctic, Black Hot, Human Body Screening, Red Trace, Blue Hot, and Green Hot.

Infrared Pyroelectric

Support 3.8um + 4.5um + 5.0um triple IR flame detection, the core components are protected by nitrogen, with strong anti-interference ability.

Intelligent Detection

Support smart functions such as smoke and fire detection, smoking detection, and perimeter alarm.

- Industry leading uncooled VOx focal plane detector with high sensitivity
- Supports fire spot detection, cold and hot tracking and industrial temperature measurement
- Supports sound and LED indication, and supports binocular fusion
- AI functions: smoke and fire detection, smoking detection and perimeter protection
- Visible light adopts a 5MP 1/2.7 inch CMOS image sensor, which has good low illumination effect and high image clarity
- Support multi-level user management, humanized monitoring, and permission management
- Support H.265 encoding with high compression ratio, achieving ultra-low bitstream transmission
- Support 3-way alarm input and 2-way alarm output functions, support max. 256 G Micro SD card
- Built in MIC and high volume speakers, high decibel alarm sound 70dB $\geq 1m$ (A-weighted)
- Built in high-efficiency infrared illuminator and white light, with a maximum illumination distance of 50 meters
- Supports DC12V-24V/POE power supply
- IP67 Rated

Composite Detection

Support composite detection function, which can filter false alarms such as high temperature background objects and sunlight in complex scenes.

Intelligent Encoding (H.265+ & H.264+)

Dahua's intelligent encoding technology employs advanced sceneadaptive bitrate control algorithms to achieve higher encoding efficiency than (H.265 & H.264). It provides high-quality video while significantly reducing storage and transmission costs.

Audible and Visual Warning

Support alarm event linkage for light warning and sound warning (with multiple built-in voice options and support for user-defined voice import), achieving deterrence during the event and effective intervention.

Remote Intercom

The device is equipped with a built-in microphone (MIC) and speaker, enabling remote intercommunication through the platform and APP.

Alarm Output

The device is equipped with built-in alarm input and output interfaces, enabling linkage output.

Technical Specification			
General			
Appearance	Bullet	Visible AGC	Auto; Manual
Type	Industrial Temperature Monitoring	Visible Noise Reduction	2D NR; 3D NR
Triple IR Flame Detection	1.8μm,4.5μm,5.0μm	S/N Ratio	≥ 55 dB
Sensitivity	4-level settable	White Balance	Automatic/Indoor/Outdoor/Tracking/Manual/Daylight/Streetlights
Thermal		Electronic Shutter Speed	1 s to 1/30000 s (manual/auto)
Detector Type	Vanadium oxide uncooled focal plane detector	BLC	Yes
Effective Pixels	256 (H) × 192 (V)	WDR	DWDR
Pixel Pitch	12 μm	HLC	Yes
Spectral Range	8 μm–14 μm	Day/Night	Auto (ICR)
Sensitivity (NETD)	≤50mK@f/1,300K,30Hz	Iris Control	Fixed
Focal Length	3.2 mm (0.13")	Image Flip	Normal (0°), Flip (90°/270°), Reflection (180°)
Field of View	H: 57°; V: 44°	Exposure Compensation	Yes
Thermal Focus Control	Fixed-focal	Visible Focus Control	Fixed-focal
Close Focus Distance	0.5 m (1.64 ft)	Focal Length	4 mm (0.16")
Aperture	F1.1	Field of View	H: 78°; V: 41°
Flame Detection Distance	35 m (114.83 ft)	Close Focus Distance	1.7 m (5.58 ft)
Detectable Fire Spot Size	20 cm x 20 cm (7.87" × 7.87")	Aperture	F1.6
Thermal Noise Reduction	3D NR	Illuminator Type	Infrared
Image Flip	Normal, corridor mode, reflection	Illuminator On/Off Control	Auto; Manual
Color Palettes	25 (Iron Red/Hot Iron/Medical/Arctic/Rainbow 1/ Rainbow 2/Black Hot/Human Screening/Painting/ Blue Hot/Green Hot/Medical 1/Medical 2/Medical 3/Rainbow 3/Painting 2/Painting 3/Icefire/Reverse Icefire/Layer/Brown/Winter/Highlight/Amber)	Illumination Distance	50 m (160.04 ft)
Temperature Monitoring Distance	1 m-5 m (3.28 ft-16.4 ft)	Audio and Video	
Temperature Monitoring Range	-10°C to +500°C (+14°F to 932°F)	Video Compression	H.265; H.264; H.264H; H.264B; MJPEG
Temperature Monitoring Accuracy	MAX (±5°C, ±5%)	Resolution	Main Stream: 5M (2592×1944) 4M (2688×1520) / 1080P(1920×1080) (by default)/1.3M (1280×960)/720P (1280×720) Sub stream: D1 (704× 576)(by default)/VGA(640x480)/ CIF (352x288)
Temperature Detection Mode	1. Support real-time point temperature detection function 2. There are three rules for measuring temperature simultaneously: points, lines, and polygons 3. Supports temperature alarm function 4. Supports cold and hot spot alarm function 5. The temperature detection unit is Fahrenheit and Celsius, which can be set	Video Frame Rate	Main Stream:1fps~25fps adjustable, 25fps by default Sub stream: 1fps~25fps adjustable, 25fps by default
Visible		Audio Compression	MPEG2-Layer2; G.711a; G.711mu; AAC; PCM; G.722.1; G.726
Image Sensor	1/2.7" CMOS	Image Encoding Format	JPEG
Max. Resolution	2592(H)×1944(V)	Audio Sampling	8K; 16K
Pixel	5 MP	Function	
Scanning System	Progressive	Built-in MIC	Yes
Min. Illumination	Color: 0.005 lux B/W: 0.0005 lux 0 lux (IR on)	Built-in Speaker	Yes
		Sound and Light Alarm	Yes
		Indicator	Status for Fault, Power, and Alarm
		Network Protocol	HTTPS, HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/v6, SNMP, QoS, UPnP, NTP
		Privacy Masking	Yes (4 areas)
		Storage	FTP; NAS; SFTP
		Interoperability	ONVIF; CGI; Dahua SDK; Wisualarm

Browser	IE: IE 9 and later (Edge is not supported) Chrome: 42 and earlier Firefox: 42 and earlier
User/Host	Up to 10 (total bandwidth: 1000 MB)
Default	Support one-click restore
Error Detection	Network Disconnection; IP Address Conflict
Security	Username and password; MAC address; HTTPS; IEEE802.1x; network access control
User Management	Supports up to 10 users, with multi-level user permission management divided into 2 levels: management group and user group
Malfunction Detection	Network disconnection detection; IP conflict detection
Maximum Supported Micro SD Card	256 GB

Intelligence

Heat Detection	Yes
Heat Detection Distance (recommend)	20 m (65.62 ft)
Heat Detection Distance (farthest)	Alcohol flame: 22 m (72.18 ft) N-heptane flame: 28 m (91.86 ft)
Cold & Hot Spot Trace	Yes
Temperature Alarm	Temperature alarm (temperature, temperature difference, temperature rise), real-time temperature detection
Advance Intelligence	Smoke and Heat Detection Intrusion Smoking Detection

Port

Network Port	1 RJ-45 Port, supports 10M/100M/1000M
Alarm Input	3-way wet node, supports DC 3-5V, 5mA
Alarm Output	2-way (dry contact, supports maximum 30V 1A current/ maximum for AC50V potential, 0.5A current)
Audio Input	1 channel (RCA connector)
Audio Output	1 channel (RCA connector)
Alarm Linkage	Trigger switch Output / Email / Snapshot

Power

Operating Voltage	DC12-24V (±30%); POE (802.3af)
Power Supply	DC12V-24V/POE
Power Consumption	Basic: 4.2W (DC12V); Max.: 13.1W (DC12V)

Environment

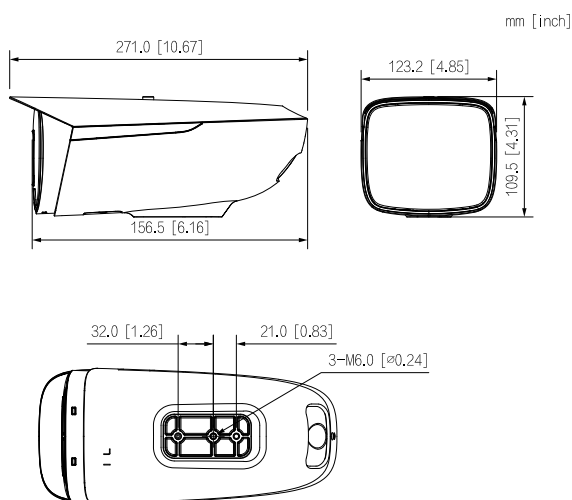
Operating Temperature	-40°C to +60°C (-40°F to +140°F)
Operating Humidity	≤ 95%

Construction

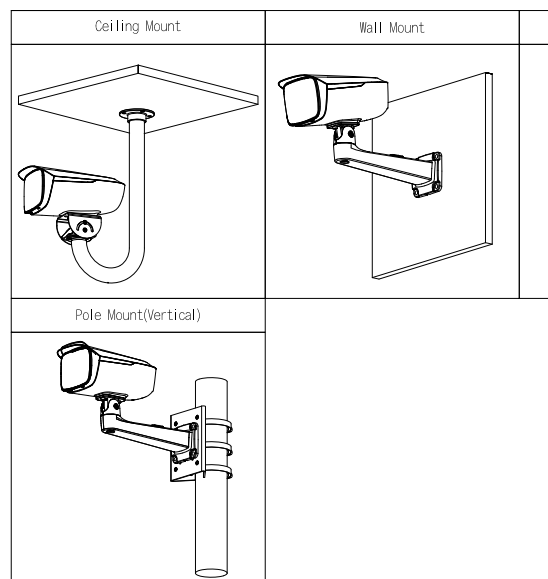
Protection	IP67
Product Dimensions	271.0 mm×123.2 mm×109.5 mm (10.67" × 4.85" × 4.31")
Packaging Dimensions	366.0 mm×176.0 mm×178.0 mm (14.41" × 6.93" × 7.01")(L × W × H)
Net Weight	1.71 kg (3.77 lb)

Gross Weight	1.99kg (24.39 lb)
Installation	Wall mount; Ceiling mount; Pole mount
Power Adapter	Optional
Lens	Standard

Dimensions (mm[inch])



Installation



Accessories

Optional



PFM300
Power Adapter



PFA150
Power Mount Bracket



PFB603C
Ceiling Mount Bracket



PFB605w
Wall Mount Bracket



PFM320D
Power Adapter



PFA160
Power Mount Bracket

Ordering Information

Type	Part Number	Description
Flame Detection Bullet Network Camera	DHI-HY-FT443HFP	Thermal: 3.2 mm lens Visible: 5 MP 4 mm lens
Accessories (optional)	PFM300	Power Adapter
	PFA160 PFA150 DH-PFB605W	Pole Mount Bracket
	PFB603C	Ceiling Mount Bracket
	PFB605W	Wall Mount Bracket
	PFM320D	Power Adapter