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System Overview

Together with Visible and Thermal technology, this flame detection network camera provides an all-in-one solution for video surveillance. This camera has the ability to detect flame from long range, supports flame tracking and positioning, and provides intelligent visual and audible warning. Featuring remote intercom and alarm input/output functionality, it realizes convenient linkage.

Functions

Flame Detection

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Smart H.265+ & Smart H.264+

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Visible and Audible Alarm Notification

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Flame Tracking

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Remote Intercom

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Alarm Output

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Scene

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DHI-HY-FT431LDP-MB

Flame Detection Network Camera

Technical Specification

General		Visible	
Appearance	Eyeball	Image Sensor	1/2.7" CMOS
Type	Radiometry	Max. Resolution	2688(H)×1520(V)
Thermal		Pixel	4 MP
Detector Type	Vanadium oxide uncooled focal plane detector	Scanning System	Progressive
Effective Pixels	120 (H) × 90 (V)	Min. Illumination	Color: 0.0052 lux B/W: 0.0028 lux 0 lux (IR on)
Pixel Pitch	17 μm	Visible AGC	Auto; Manual
Spectral Range	8 μm–14 μm	Visible Noise Reduction	2D NR; 3D NR
Sensitivity (NETD)	< 60mK (@f/1.0, 300K)	S/N Ratio	≥ 55 dB
Focal Length	1.2 mm	White Balance	Auto/indoor/outdoor/track/manual/natural/street lamp
Field of View	Horizontal: 90° Vertical: 67.5°	Electronic Shutter Speed	1/3 s–1/100000 s (manual/auto)
Thermal Focus Control	Fixed-focal	BLC	Yes
Close Focus Distance	0.5 m (1.65 ft)	WDR	DWDR
Aperture	F1.1	HLC	Yes
Flame Detection Distance	10m, flame size of 10 cm x 10 cm	Day/Night	Auto (ICR); Color and B/W
Thermal Noise Reduction	3D NR	Iris Control	Fixed
Image Flip	Normal, corridor mode, reflection	Image Flip	Normal (0°), corridor mode (90°/270°), Mirror/Flip (180°)
Color Palettes	Supports 12 adjustable pseudo colors including White Heat, Lava, Iron Red, Hot Iron, Medical, Arctic, Rainbow, Black Heat, Human Screening, Red Paint, Blue Heat, and Green Heat	Exposure Compensation	Yes
Temperature Detection Range	-10°C to +200°C (+14°F to 392°F)	Visible Focus Control	Fixed-focal
Temperature Detection Accuracy	MAX (±5°C, ±5%)	Focal Length	4 mm
Temperature Detection Mode	1. Support real-time point temperature detection function 2. There are three rules for detecting 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	Field of View	H: 85° V: 44° D: 99°
		Close Focus Distance	1 m (3.28 ft)
		Aperture	F1.6
		Illuminator Type	1 (IR LED)
		Illuminator On/Off Control	Auto; Manual
		Illumination Distance	15 m (49.21 ft)

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Flame Detection Network Camera

Audio and Video

Video Compression	H.265; H.264; H.264H; H.264B; MJPEG
Resolution	Visible: Main stream: (4M (2688×1520)/1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720), default (1920 × 1080) Sub stream: (D1 (704 × 576)/VGA (640×480)/CIF (352×288)), default (704×576)
Video Frame Rate	Visible: Main stream: 1 fps–25 fps adjustable, 25 fps by default Sub stream: 1 fps–25 fps adjustable, 25 fps by default
Audio Compression	MPEG2-Layer2; G.711a; G.711mu; AAC; PCM; G.722.1; G.726
Image Encoding Format	JPEG
Audio Sampling	8K; 16K

Function

Built-in MIC	Yes
Built-in Speaker	Yes
Sound and Light Alarm	Yes
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; GB/T28181; CGI; Imou
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: 100 MB)
Default	Support one-click restore
Security	Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access
User Management	Up to 10 users
Malfunction Detection	ICON network disconnection detection; IP conflict detection

Intelligence

Heat Detection	Yes
Heat Detection Distance (recommend)	10 m (32.81 ft)

Port

Network Port	1 RJ-45 PoE 10M/100M Ethernet ports
Alarm Input	1 channel in: 5mA 3V–5V DC
Alarm Output	1 channel out: 300mA 12V DC
Alarm Linkage	Trigger switch output/email/snapshot

Power

Power Supply	DC12V(±30%)/POE
Power Consumption	Basic: 1.8 W Max.: 3 W

Environment

Operating Temperature	–10°C to +55°C (+14°F to +131°F)
Operating Humidity	≤ 95%
Storage Temperature	–20°C to +70°C (–4°F to +158°F)

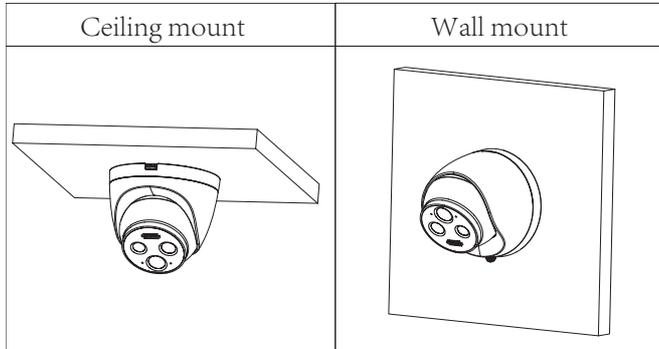
Construction

Protection	IP66
Product Dimensions	φ109.9 mm × 90.1 mm (φ4.32" × 3.54")
Packaging Dimensions	157 mm*157 mm*138 mm (6.17" × 6.17" × 5.43")(L × W × H)
Net Weight	0.35 kg (0.78 lb)
Gross Weight	0.5 kg (1.12 lb)
Installation	Wall mount; Ceiling mount; Vertical pole mount
Power Adapter	Optional
Lens	Standard
Certifications	CE

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Flame Detection Network Camera

Installation



Ordering Information

Type	Model	Description
Flame Detection Network Camera	DHI-HY-FT431LDP-MB	Flame Detection Network Camera
Accessories (optional)	PFM300-E	DC Adapter
	PFM301-E	Power
	DH-PFB205W-E	Wall mounted bracket

Accessories

Optional:



PFM300-E
DC Adapter



PFM301-E
Power

Dimensions (mm[inch])

