



IK-B4731AV-F

Thermal Imaging Security Bullet Network Camera

Key Features

- 384 × 288 resolution, 17 μm, VOx UFPA, NETD ≤ 40 mK
- 9/15/25/35/50mm fixed thermal lens
- Supports human and vehicle detection
- Supports smoking detection, and fire spot detection
- Intelligent Analytics: intrusion, single line crossing, double line crossing, loitering, wrong-way, people counting, enter area, leave area
- Supports 3 temperature measurement rule types (spot, line, area)
- Temperature measurement range: -20°C to 150°C (-4°F to 302°F), accuracy: ±8°C
- Support 12VDC/24VAC/PoE power supply
- NDAA Compliance, IP66-rated protection

Specification

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Resolution	Sensor is 384×288. Image can be scaled up to 1280×720
Pixel Pitch	17 μm
NETD	≤ 40mK
Spectral Range	8 to 14 μm
Focus Control	Focus-Free
Focal Length	9 mm, 15 mm, 25 mm, 35 mm, 50 mm
Aperture	F1.0
Field of View (FOV)	9 mm, H: 37°, V: 28° 15 mm, H: 28°, V: 21° 25 mm, H: 14°, V: 11° 35 mm, H: 10°, V: 8° 50 mm, H: 7.4°, V: 5.6°
Intelligent Analytics	
Smart Detection	Human and Vehicle detection, Fire point detection, and Smoker detection.
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, and Leave area (these functions support accurate detection of human / vehicles)
People counting	Supported
Thermal Function	
Temperature Range	-20°C to 150°C (-4°F to 302°F)
Accuracy	±8°C
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).
Temperature Alarm	Temperature difference alarm, Threshold alarm, Temperature rise alarm
Temperature Display	Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature
Response Time	≤ 30ms
Video and Audio	
Main Stream	1280×720, 704×576, 384×288 @25fps
Sub Stream	704×576, 384×288, 352×240 @25fps
Bit Rate Control	CBR/VBR
Bit Rate	Main stream: 100 Kbps to 8 Mbps, Sub stream: 100 Kbps to 6 Mbps
Region of Interest	Off/On (8 Zone, Rectangle)
Audio Compression	G.711 A-law, G.711 μ-law, RAW_PCM

Audio Bit Rate	64 Kbps (G.711), 128 Kbps (RAW_PCM)
Image	
Image Setting	Brightness, Contrast, Sharpness
Mirror	Horizontal / Vertical / Horizontal + Vertical
Pseudo-color Setting	Up to 17 colors (White-hot / Black-hot / Rainbow / Iron red / HSV / Bone / Cool / Copper / Fire-hot / Pink / Spring / Summer / Autumn / Winter / Jet / Flame / Rose -Bengal)
FFC Control	Auto / Manual
Noise Reduction	2D/3D DNR
OSD	Up to 8 OSD
Privacy Masking	Up to 4 areas
Event	
Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection
Event Actions	Alarm record, Alarm output, FTP upload, SMTP upload, Audible alarm output
Network	
Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/ RTCP/RTP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, ICMP, IGMP, SMTP, 802.1x, SNMP, Multicast
Interoperability	ONVIF (Profile S/T/G/M), SDK, CGI
Max Concurrent Streams	10 channels
User/Host Level	32+ users, 3 levels: Administrator, Operator, Media user
Security	IP address filter, HTTPS, Illegal login lock, IEEE 802.1x
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Interface	
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Built-in Microphone	Supported
Built-in Speaker	Supported
Audio Interface	1ch Audio In, 1ch Audio Out
Alarm Interface	2ch Alarm In, 2ch Alarm Out
BNC Interface	1ch (CVBS output)
Control Interface	1ch RS-485
SD Card Slot	Built-in, up to 1TB
Reset Button	Supported
General	
Language	English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English

Power Supply	12 VDC / 24 VAC / PoE (802.3af)
Power Consumption	Max 4.5W
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Operating Humidity	< 90% RH (non-condensing)
Certifications	CE-EMC: EN 55032, EN IEC 61000-6-4, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC: 47 CFR Part 15 Subpart B
Ingress Protection	IP66
Material	Metal
Dimensions	φ120.5 × 315.9 ~ 352.6 mm (φ4.74" × 12.44" ~ 13.88")
Net Weight	1.62 kg (3.57 lb) with 9mm lens

DRI Distance Table

Focal Length	9 mm	15 mm	25 mm	35 mm	50 mm
Detection Distance (Humans: 1.8×0.5m)	265 m (869.4 ft)	441 m (1,446.9 ft)	735 m (2,411.4 ft)	1,029 m (3,376.0 ft)	1,471 m (4,826.1 ft)
Detection Distance (Vehicles: 4×1.5m)	812 m (2,664 ft)	1,353 m (4,439 ft)	2,255 m (7,398.3 ft)	3,157 m (10,357.6 ft)	4,510 m (14,796.6 ft)
Recognition Distance (Humans: 1.8×0.5m)	66 m (216.5 ft)	110 m (360.9 ft)	184 m (603.7 ft)	257 m (843.2 ft)	368 m (1,207.4 ft)
Recognition Distance (Vehicles: 4×1.5m)	203 m (666 ft)	338 m (1,109 ft)	564 m (1,850.4 ft)	789 m (2,588.6 ft)	1,127 m (3,697.5 ft)
Identification Distance (Humans: 1.8×0.5m)	33 m (108.3 ft)	55 m (180.4 ft)	92 m (301.8 ft)	129 m (423.2 ft)	184 m (603.7 ft)
Identification Range (Vehicles: 4×1.5m)	101 m (331.4 ft)	169 m (554.5 ft)	282 m (925.2 ft)	395 m (1,296 ft)	564 m (1,850.4 ft)

Note: The table is only for reference and the performance may vary according to different environment.

Note: The optimal detection, recognition, and identification distances are calculated according to Johnson's Criteria.

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

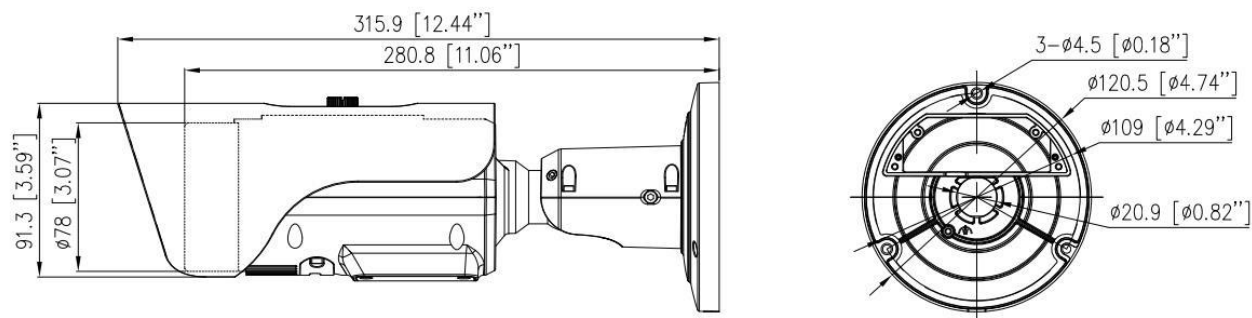
Smart Detection Range Table

Focal Length	9 mm	15 mm	25 mm	35 mm	50 mm
Temperature Measurement (Object: 1 × 1m)	106 m (347.8 ft)	176 m (577.4 ft)	294 m (964.6 ft)	412 m (1,351.7 ft)	588 m (1,929.1 ft)
Temperature Measurement (Object: 0.2 × 0.2m)	21 m (68.9 ft)	35 m (114.8 ft)	59 m (193.6 ft)	82 m (269 ft)	118 m (616.8 ft)
Fire Detection (Object: 1 × 1m)	265 m (869.4 ft)	441 m (1,446.9 ft)	735 m (2,411.4 ft)	1,029 m (3,376 ft)	1,471 m (4,826.1 ft)
Fire Detection (Object: 0.2 × 0.2m)	53 m (173.9 ft)	88 m (288.7 ft)	147 m (482.3 ft)	206 m (675.9 ft)	294 m (964.6 ft)

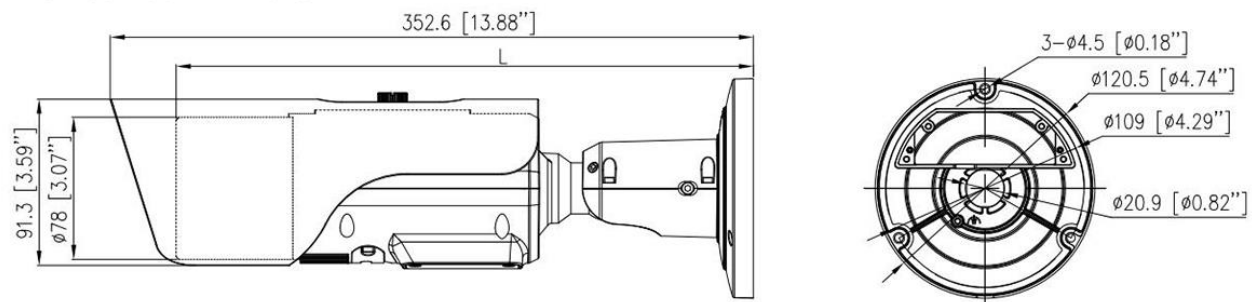
Note: The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.

Dimensions (mm)

F9/F15 mm Lens



F25/F35/F50 mm Lens



Accessories

Optional:

IK-AJ45G Junction Box	IK-AP01A Pole Mount	IK-ACR02A Corner Mount
		

