DATASHEET

Concept Pro

THERMAL | ±8°C ACCURACY | FIXED LENS | HUMAN & VEHICLE DETECTION

THERMAL CAMERA

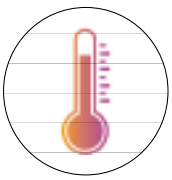
T33 SERIES THERMAL BULLET

384x288 IP Perimeter Protection Thermal Bullet Camera

The Concept Pro CP-T33xxAI-IP product is a thermal bullet camera designed specifically for perimeter protection and security applications. Available in a variety of fixed lens options, it supports 384x288 thermal imaging scaled up to 1280x720. It can measure temperatures ranging from -20°C to +150°C at an accuracy of ±8°C. It supports human and vehicle detection, people counting, fire point detection, and smoking detection rules. It also features a professional alarm and audio interface for connecting to auxiliary equipment on site. This product is ideal for performing perimeter protection for both indoor and outdoor sites, such as industrial parks, warehouses, and parks.

Thermal Imaging & Perimeter Protection

This camera supports powerful thermal imaging to detect infrared radiation in any weather or lighting condition, resulting in crisp images. Built-in AI algorithms can detect human or vehicle objects and trigger rules for effective perimeter protection no matter what weather conditions.



Temperature Measurement

This camera supports temperature measurement from -20°C to +150°C with accuracy of ±8°C. The camera can be configured to detect temperatures based on spot, line, or area configurations and can trigger alarms based on over temperature or temperature difference rules.

NDAA-Compliant

This product is NDAA-compliant and does not utilise any restricted components or chipsets.

KEY FEATURES

- Thermal Imaging
- 384x288 Thermal Resolution, scaled up to 1280x720
- Multiple Fixed Lens Options
- -20°C to +150°C Temperature Measurement Range
- ±8°C Measurement Accuracy
- 3 Temperature Detection Types
- Human & Vehicle Detection
- Fire Point & Smoking Detection

OTHER FEATURES

- x2/x2 Alarm In/Out
- RS485 Serial Interface
- Built-in MicroSD Card Slot
- PoE/DC12V/AC24V Power Input
- IP66-rated
- NDAA-compliant

ORDER CODES

CP-T3309AI-IP	Concept Pro 384x288 IP Perimeter Protection Thermal Bullet Camera (9mm)
CP-T3315AI-IP	Concept Pro 384x288 IP Perimeter Protection Thermal Bullet Camera (15mm)
CP-T3325AI-IP	Concept Pro 384x288 IP Perimeter Protection Thermal Bullet Camera (25mm)
CP-T3335AI-IP	Concept Pro 384x288 IP Perimeter Protection Thermal Bullet Camera (35mm)
CP-T3350AI-IP	Concept Pro 384x288 IP Perimeter Protection Thermal Bullet Camera 50mm)

VISIT THE Concept Pro WEBSITE

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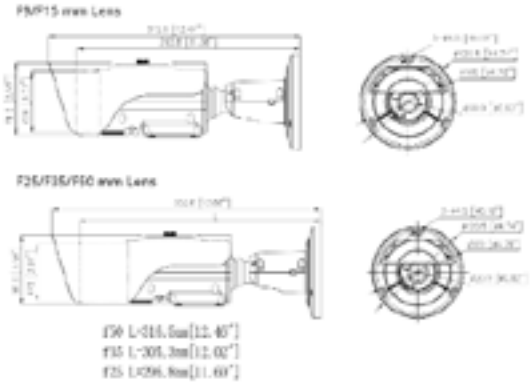
SPECIFICATION

MODEL/FEATURE		CP-T33 Series
Thermal Camera	Detector Type	Vanadium Oxide Uncooled Focal Plane Arrays
	Thermal Resolution	384x288, scaled up to 1280x720
	Pixel Pitch	17μm
	Spectral Range	8-14μm
	Thermal Sensitivity	NETD ≤40mK
	Focus Control	Fixed
	Focal Length	CP-T3309AI-IP: f=9mm CP-T3315AI-IP: f=15mm CP-T3325AI-IP: f=25mm CP-T3335AI-IP: f=35mm CP-T3350AI-IP: f=50mm
	Aperture	F1.0
	Angle of View	CP-T3309AI-IP: H: 37° / V: 28° CP-T3315AI-IP: H: 28° / V: 21° CP-T3325AI-IP: H: 14° / V: 11° CP-T3335AI-IP: H: 10° / V: 8° CP-T3350AI-IP: H: 7.4° / V: 5.6°
Visible Camera	Image Sensor	N/A
	Resolution	N/A
	Shutter Speed	N/A
	Min. Illumination	N/A
	S/N Ratio	N/A
	Focal Length	N/A
	Aperture	N/A
	Angle of View	N/A
Built-in Illumination	Illuminator	None
	Illumination Range	N/A
Video & Audio	Main Stream	Max. 25FPS @ 1280x720
	Second Stream	Max. 25FPS @ 704x576
	Video Compression	H.265, H.264, MJPEG
	Bit Rate Control	CBR/VBR
	Bit Rate	Main Stream: 100-8,000Kbps Sub Stream: 100-6,000Kbps
	Region of Interest	Supported, x8 zones
	Audio Compression	G.711 A-law, G.711 μ-law, RAW PCM
Image	Image Adjustment	Brightness, sharpness, contrast
	Image Setup	Mirror
	Noise Reduction	2D/3D-DNR
	Colour Palettes	x17 (thermal), 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
	Privacy Masking	Supported (max. x4 areas)
Temperature Detection	Rule Types	Spot/Line/Area Temperature Measurement Rules (total x20)
	Alarm Types	Temperature Difference Alarm, Threshold Alarm, Temperature Rise Alarm
	Accuracy	±8°C
	Response Time	≤30ms
	Temperature Range	-20°C to +150°C
	Display	Lower left corner, follow cursor display of highest/lowest/average temperature
	Distance	See table below
Event Detection	Motion Detection	Supported
	AI Video Analytics	Human/Vehicle Detection (intrusion, line crossing, loitering, wrong way, enter/leave area detection); People Counting
	Alarm Input	Supported
	System	Disk Alarm, Network Anomaly Alarm
	Abnormal Sound	Supported
	Fire Spot Detection	Supported
	Smoking Detection	Supported
	Event Triggers	Alarm Out, Recording, Email Notification, FTP Upload, Audio Alert
Network	Interface	x1 RJ-45 10/100 Base-T Ethernet
	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), CGI, SDK
	Security	IP address filter, encrypted HTTPS, Illegal login lock, IEEE 802.1x
	Max. Users	x10
Interface	Video	x1 BNC Video Out
	Alarm	x2 Alarm In, x2 Alarm Out
	Audio	x1 Line Audio In, x1 Line Audio Out
	Serial	x1 RS485
	Edge Storage	MicroSD, max. 512GB
	Reset Button	Supported
General	Power Supply	PoE (IEEE802.3af)/DC12V/AC24V
	Power Consumption	Max. 4.5W
	Operating Conditions	-40°C to +60°C, 0-90% RH (non-condensing)
	Dimensions	120.5 × 315.9-352.6mm
	Weight	1.62kg
	Materials	Metal
	Ingress Protection	IP66
	Vandal Resistance	None
	Certifications	CE-EMC (EN 55032:2015+A1:2020, EN 55035:2017+A11:2020, EN 50130-4:2011+A1:2014, EN IEC 61000-63:2021, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A2:2021) FCC (FCC 47 CFR 15, Subpart B, ANSI C63.4-2014)
	NDAA-compliant	Yes

DIMENSIONS

All measurements are in mm.



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ACCESSORIES

CP-T33 SERIES
CP-T43 SERIES
CP-T53 SERIES

CP-TH-BASE-2
Junction Box

CP-TH-POLE-1
Pole Mount

CP-TH-CM-1
Corner Mount

CP-TH-POLE-1
Pole Mount

CP-TH-CM-1
Corner Mount

THERMAL DRI DISTANCE

Thermal Lens	9mm	15mm	25mm	35mm	50mm
Detection (Human: 1.8x0.5m)	265m	441m	735m	1,029m	1,471m
Detection (Vehicle: 4x1.5m)	812m	1,353m	2,255m	3,157m	4,510m
Recognition (Human: 1.8x0.5m)	66m	110m	184m	257m	368m
Recognition (Vehicle 4x1.5m)	203m	338m	564m	789m	1,127m
Identification (Human 1.8x0.5m)	33m	55m	92m	129m	184m
Identification (Vehicle 4x1.5m)	101m	169m	282m	395m	564m

Note: This table is for reference only and actual performance may vary according to installation 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 (human, vehicle, etc.) the object must be covered by 6 or more pixels.
Identification Range: In order to identify the object ad describe it in detail, the object must be covered by 12 or more pixels.

EVENT DETECTION DISTANCE

Thermal Lens	9mm	15mm	25mm	35mm	50mm
Detection (Human: 1.8x0.5m)	50m	86m	243m	350m	500m
Detection (Vehicle: 4x1.5m)	100m	180m	300m	400m	630m
Temperature Measurement (1x1m	106m	176m	294m	412m	588m
Temperature Measurement (0.2x0.2m)	21m	35m	59m	82m	118m
Fire Detection (1x1m)	265m	441m	735m	1,029m	1,471m
Fire Detection (0.2x0.2m)	53m	88m	282m	206m	294m

Note: This table is for reference only and actual performance may vary according to installation environment.