



# Concept Pro

- BI-SPECTRUM
- ±2°C ACCURACY
- 100M SMART IR
- HUMAN & VEHICLE DETECTION

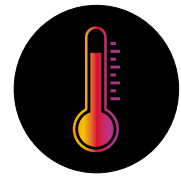
## THERMAL CAMERA

### BS28 SERIES BI-SPECTRUM BULLET Concept Pro 640x612 Bi-Spectrum Bullet Camera



#### Bi-spectrum Video

This camera supports both thermal and visible imaging, with up to 17 thermal colour palletes and image fusion capabilities to combine into a single image stream. 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 ±2°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.



#### NDA-Compliant

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

### KEY FEATURES

- Dual Vision Thermal & Visible Imaging
- 640x512 Thermal Resolution, scaled up to 1920x1080
- 2688x1520 Visible Resolution
- 9/15/25/35/50mm Lens
- 20°C to +150°C Temperature Measurement Range
- ±2°C/2% Measurement Accuracy
- 3 Temperature Detection Types
- Human & Vehicle Detection
- 100m White Light Illumination

### OTHER FEATURES

- x 2 Alarm in, x2 Alarm Out
- Built-in SD Card Slot
- IP66-rated
- NDAA-compliant

### ORDER CODES

- **CP-BS28BA09AI-IP4M/4** Concept Pro Bi Spectrum 28 Series 9MM Thermal Bullet Camera with 4MP 4MM Fixed Optical Lens
- **CP-BS28BA15AI-IP4M/6** Concept Pro Bi Spectrum 28 Series 15MM Thermal Bullet Camera with 4MP 6MM Fixed Optical Lens
- **CP-BS28BA25AI-IP4M-Z** Concept Pro Bi Spectrum 28 Series 25MM Thermal Bullet Camera with 10-30MM Motorised Zoom Optical Lens
- **CP-BS28BA35AI-IP4M-Z** Concept Pro Bi Spectrum 28 Series 35MM Thermal Bullet Camera with 4MP 10-30MM Motorised Zoom Optical Lens
- **CP-BS28BA50AI-IP4M-Z** Concept Pro Bi Spectrum 28 Series 50MM Thermal Bullet Camera with 4MP 10-30MM Motorised Zoom Optical Lens

VISIT THE  
**Concept  Pro**  
  
**WEBSITE**

# BS28 SERIES BI-SPECTRUM BULLET

Concept Pro 640x612 Bi-Spectrum Bullet Camera

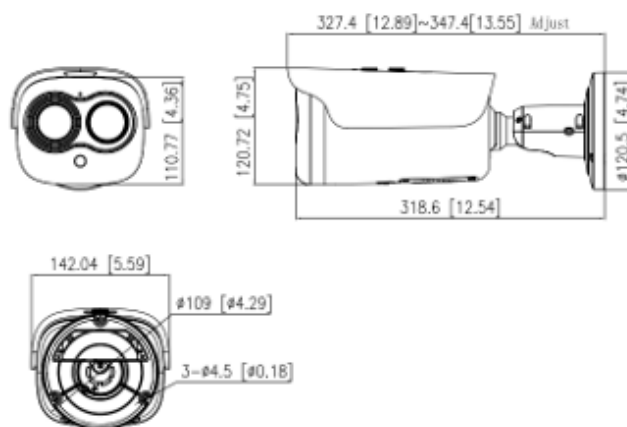
# Concept Pro

## SPECIFICATION

MODEL/FEATURE	BS28 Series Bullet Camera	
<b>Thermal Camera</b>	Detector Type	Vanadium Oxide Uncooled Focal Plane Arrays
	Thermal Resolution	Sensor is 640x512, Image can be scaled up to 1920x1080
	Pixel Pitch	12µm
	Spectral Range	8-14µm
	Thermal Sensitivity	NETD ≤40mK
	Focal Length	9 mm, 15 mm, 25 mm, 35 mm, 50 mm
<b>Visible Camera</b>	Aperture	F1.0
	Angle of View	CP-BS28BA09AI-IP4M/4: H: 48° / V: 38° CP-BS28BA15AI-IP4M/6: H: 29° / V: 23° CP-BS28BA25AI-IP4M-Z: H: 17° / V: 14° CP-BS28BA35AI-IP4M-Z: H: 12° / V: 10° CP-BS28BA50AI-IP4M-Z: H: 8° / V: 7°
	Image Sensor	1/1.8" CMOS
	Resolution	2688(H) × 1520(V)
	Shutter Speed	1/5 to 1/20,000s
	Min. Illumination	Color: 0.005Lux @(F1.6, AGC ON), B/W: 0.001Lux @(F1.6, AGC ON), 0Lux with IR
<b>Built-in Illumination</b>	Focal Length	4mm, 6mm, 10 to 30mm optional
	Aperture	F1.6
	Angle of View	4mm = H: 87° / V: 47° 8mm = H: 55° / V: 30° 10-30mm = H: 43.4° / V: 15.5° to H: 23.8° / V: 8.8°
	Illuminator	Smart IR
	Illumination Range	Max. 100m
	Main Stream	Visible: Max. 30FPS @ 2688x1520 Thermal: Max. 30FPS @ 1920x1080
<b>Video &amp; Audio</b>	Second Stream	Visible: MaxDI, 640x360, CIF @25/30fps Thermal: Max. DI, VGA, 640x512, CIF @25fps
	Video Compression	H.265, H.264, MJPEG
	Bit Rate Control	CBR/VBR
	Thermal Bit Rate	Main Stream: 100 Kbps to 8 Mbps, Sub Stream: 100 Kbps to 6 Mbps
	Visible Bit Rate	Main Stream: 200 Kbps to 12 Mbps Sub Stream: 100 Kbps to 6 Mbps
	Audio Compression	G.711 A-law, G.711 µ-law, RAW PCM
<b>Image</b>	Image Adjustment	Brightness, sharpness, contrast Saturation (visible only)
	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 (thermal only)
	Gain Control	Auto/Manual (visible only)
	White Balance	Auto/Tungsten/Fluorescent/Daylight/Shadow (visible only)
	Day & Night	Auto (ICR)/Day/Night/Schedule (visible only)
	Image Enhancement	WDR, HLC, BLC (visible only)
	Noise Reduction	2D/3D DNR
	Wide Dynamic Range	True WDR, 120dB (visible only)
	OSD	Up to 8 OSD
	Privacy Masking	Supported upto 4 areas
	IR Range	IR Range: -4 mm: Up to 70 m (229.6 ft) -6 mm: Up to 80 m (262.5 ft) -10 to 30 mm: Up to 100 m (328.0 ft)
<b>Temperature Detection</b>	Alarm Types	Temperature Difference Alarm, Threshold Alarm, Temperature Rise Alarm
	Accuracy	±2°C/2%
	Temperature Range	-20°C to +150°C
	Image Fusion	Fusion view of thermal view and overlaid details of the optical channel
	Display	Lower left corner, follow cursor display of highest/lowest/average temperature
	Distance	See table below
<b>Event Detection</b>	Motion Detection	Supported, including human/vehicle classification (thermal & visible stream)
	AI Video Analytics	Intrusion, Single Line Crossing, Double Line Crossing, Loitering, Wrong-Way Detection, Enter Area, Leave Area, Smart Motion Detection
	System	Disk Alarm, Network Anomaly Alarm
	Abnormal Sound	Supported
	Fire Spot Detection	Supported (thermal stream)
	Smoking Detection	Supported (thermal stream)
<b>Network</b>	Smoke and Flame Detection	Supported (visible stream)
	Event Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sound detection
	Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
	Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/RTMP/RTCP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, 802.1x, SNMP, Multicast
	Interoperability	ONVIF (Profile S/T/G/M), CGI, SDK
	Security	IP address filter, HTTPS, Illegal login lock, IEEE 802.1x
Max. Users	x32	

## DIMENSIONS

All measurements are in mm.



<b>Interface</b>	Video	No
	Alarm	x2 Alarm in, x2 Alarm Out
	Audio	x1 Line Audio In, x1 Line Audio Out
	Serial	x1 RS485
	Edge Storage	MicroSD, max. 1TB
	Reset Button	Supported
<b>General</b>	Power Supply	12 VDC / 24 VAC / PoE+ (802.3at)
	Power Consumption	Max. 25W
	Operating Conditions	-40°C to 60°C (-40°F to 140°F) Less than 90% RH
	Dimensions	(327.4 to 347.4) × 140.04 × 120.72 mm
	Weight	2.0kg
	Materials	Metal
	Ingress Protection	IP66
	Vandal Resistance	None
	Certifications	CE-EMC - EN 55032, EN IEC 61000-6-3, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 FCC 47 CFR Part 15 Subpart B
	NDA-compliant	Yes

# BS28 SERIES BI-SPECTRUM BULLET

Concept Pro 640x612 Bi-Spectrum Bullet Camera



## DORI DISTANCE

Lens	9mm	15mm	25mm	35mm	50mm
Human Detection (1.8x0.5m)	Max. 375m	Max. 625m	Max. 1042m	Max. 1456m	Max. 2083m
Vehicle Detection (1.5 x 4m)	Max. 1150m	Max. 1917m	Max. 3194m	Max. 4472m	Max. 6389m
Human Recognition (1.8 x 0.5m)	Max. 36m	Max. 156m	Max. 260m	Max. 365m	Max. 521m
Vehicle Recognition (1.5 x 4m)	Max. 94m	Max. 479m	Max. 799m	Max. 1118m	Max. 1597m
Human Identification (1.8 x 0.5m)	Max. 47m	Max. 78m	Max. 130m	Max. 182m	Max. 260m
Vehicle Indetificaiton (1.5 x 4m)	Max. 144m	Max. 240m	Max. 399m	Max. 559m	Max. 799m

## THERMAL SMART DETECTION RANGE TABLE

Lens	9mm	15mm	25mm	35mm	50mm
VCA Detection Distance (Human: 1.8 × 0.5 m)	TBC	TBC	TBC	TBC	TBC
VCA Detection Distance (Front/Rear of Vehicle: 1.5 × 4 m)	TBC	TBC	TBC	TBC	Max. TBC
Temperature Measurement (Object: 1 × 1 m)	Max. 150m	Max. 250m	Max. 417m	Max. 583m	Max. 833m
Temperature Measurement (Object: 0.2 × 0.2 m)	Max. 30m	Max. 50m	Max. 83m	Max. 117m	Max. 167m
Fire Detection (Object: 0.2 × 0.2 m)	Max. 375m	Max. 625m	Max. 1042m	Max. 1458m	Max. 2083m
Smoking Detection	Max. 75m	Max. 125m	Max. 208m	Max. 292m	Max. 417m

Note: this table is for reference only. The distances are subject to actual conditions, including target size, installation location, atmospheric conditions, and more.

## ACCESSORIES

