IndigoVision®

a Motorola Solutions Company

SP Thermal Cameras

Capture every detail with industry-leading thermal technology

The SP Thermal Camera is the perfect solution for low light, long range thermal applications. You also get maximum reliability with IndigoVision's Distributed Network Architecture, which removes the requirement for a central server, ensuring you never lose access to live video and benefit from minimal latency. The SP Thermal Camera delivers a different dimension of safety when combined with IndigoVision's Control Center.

Key Features & Benefits

ONVIF® COMPLIANT
Built on an open platform to allow integration with other security solutions, so you can expand your existing security system.

SMARTCODEC TECHNOLOGY
Reduce costs by maximizing bandwidth utilization and storage consumption without compromising image quality.

EXPANDABLE STORAGE
Use our slot for either SD or MicroSD memory card and get video recordings even during network interruptions.

IP AND IK RATED
Trust the robustness and reliability of your system with IP66/7 weather rating and IK10 impact rating for vandal resistance.

5 YEAR WARRANTY
Gain peace of mind with products backed by a 5-year, industry-leading warranty.

MULTIPLE LENS OPTIONS
Choose from various lens options, which allow human detection at distances of up to 310 meters.

RELAY I/O CONNECTIONS FOR FAST RESPONSE
Configure input actions (such as alarms) that trigger an external relay to perform an action (e.g., turn lights on).

AUDIO CAPABILITIES
Available ports for external audio including sirens, microphones and/or loudspeakers for audio talk-down situations.

NDAA COMPLIANT
Approach US government with confidence, knowing our cameras comply with the National Defense Authorization Act.

ONVIF is a trademark of Onvif, Inc.

Specifications

Image Performance

Image Performance	QVGA	VGA
Sensor	320x256 Uncooled VOx Microbolometer	640x512 Uncooled VOx Microbolometer
Pixel Pitch	12µm	
Spectral Range	8µm to 14µm	
Aspect Ratio	5:4	
Imaging Rate	8.6 fps	
Dynamic Range	-40 °C to 225 °C (-40 °F to 437 °F) [may vary based on operating temperature]	
Resolution Scaling	320x256, can be scaled up to 640x512	640x512, can be scaled down to 320x256
3D Noise Reduction Filter	Yes	
Sensitivity	NETD <60mK	
Image Uniformity Optimization	Automatic Flat Field Correction (FFC) - Thermal and Temporal	

Lens

Lens						
Lens	4.3 mm, F1.0, Athermalized	9.1 mm, F1.0, Athermalized	18.0 mm, F1.0, Athermalized	8.7 mm, F1.0, Athermalized	18.0 mm, F1.0, Athermalized	36.0 mm, F1.0, Athermalized
Angle of View (H x V)	45.9° x 36.5°	21.6° x 17.0°	10.8° x 8.4°	50.7° x 40.4°	24.3° x 19.3°	12.2° x 9.7°

Image Control

Image Control		
Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG	
Streaming	Multi-stream H.264 & MJPEG	
Bandwidth Management	Idle Scene Mode, SmartCodec Technology	
Motion Detection	Pixel and Classified Objects	
Tamper Detection	Yes	N/A
Privacy Zones	Up to 64 zones	
Audio Compression Method	G.711 PCM 8kHz	

Network

Network		
Network	100BASE-TX, RJ45 Connector, CAT5 Cabling	
ONVIF	ONVIF® compliant with Profile S, Profile G and Profile T (www.onvif.org)	ONVIF® compliant with Profile S and Profile G (www.onvif.org)
Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, CyberVigilant	
Protocol	IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP	
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP	
Device Management Protocols	SNMP v2c, SNMP v3	
Software Requirements	Control Center v17.2 or later	

Peripherals

Peripherals	
Onboard Storage	SD/SDHC/SDXC slot – minimum class 4; class 6 or better recommended
External I/O Terminals	Alarm In, Alarm Out
Audio Input/Output	Line level input and output

Mechanical (Dome)

Mechanical (Dome)			
Dimensions (LxWxH)		335 mm x 126 mm x 91 mm; 13.18" x 4.97" x 3.58" (including mounting bracket and fully extended sunshield overhang)	
Weight	Camera	1.72 kg (3.79 lbs)	1.92 kg (4.23 lbs)
	Mounting Bracket	0.21 kg (0.46 lbs)	
Body		Aluminium	
Housing		Surface mount, tamper resistant	
Finish		Powder coat, RAL 9003	
Adjustment Range		±175° pan, ±90° tilt, ±175° azimuth	

Electrical

Electrical		
Power Consumption	8W	9W
Power Source	VDC: 12V +/- 10%, 8W min. VAC: 24V +/- 10%, 15VA min. PoE: IEEE802.3af Class 3 compliant	VDC: 12V +/- 10%, 9W min. VAC: 24V +/- 10%, 15VA min. PoE: IEEE802.3af Class 3 compliant
RTC Backup Battery	3V manganese lithium	

Specifications

Environmental	
Operating Temperature	-40 °C to +65 °C (-40 °F to 149 °F)
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)
Humidity	0 - 93% non-condensing

Certifications		
Certifications/ Directives	UL, cUL, CE, ROHS, Reach (SVHC), WEEE, RCM, EAC	UL, cUL, CE, ROHS, Reach (SVHC), WEEE, RCM, EAC
Safety	UL 62368-1, CSA 62368-1, IEC/EN 62368-1	
Environmental	UL/CSA/IEC 60950-22, IEC 60529 IP66 Weather Rating, IK10 Impact Rating (including window)	UL/CSA/IEC 60950-22, IEC 60529 IP66 and IP67 Weather Rating, IK10 Impact Rating (enclosure only)
Electromagnetic Emissions	FCC Part 15 Subpart B Class B, IC ICES-003 Class B, EN 55032 Class B, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3	
Electromagnetic Immunity	EN 55035, EN 61000-6-1, EN 50130-4	EN 55035, EN 61000-6-1

Lens	Resolution	Viewing Angle (H x V)	Human	Vehicle
4.3 mm	320 x 256	45.9° x 36.5°	68m (224')	80m (263')
9.1 mm	320 x 256	21.6° x 17.0°	150m (493')	160m (525')
18 mm	320 x 256	10.8° x 8.4°	220m (722')	225m (739')
8.7 mm	640 x 512	50.7° x 40.4°	120m (394')	142m (466')
18 mm	640 x 512	24.3° x 19.3°	210m (689')	225m (739')
36 mm	640 x 512	12.2° x 9.7°	310m (1017')	319m (1047')

The detection ranges may vary in different weather conditions.

Analytics Specifications

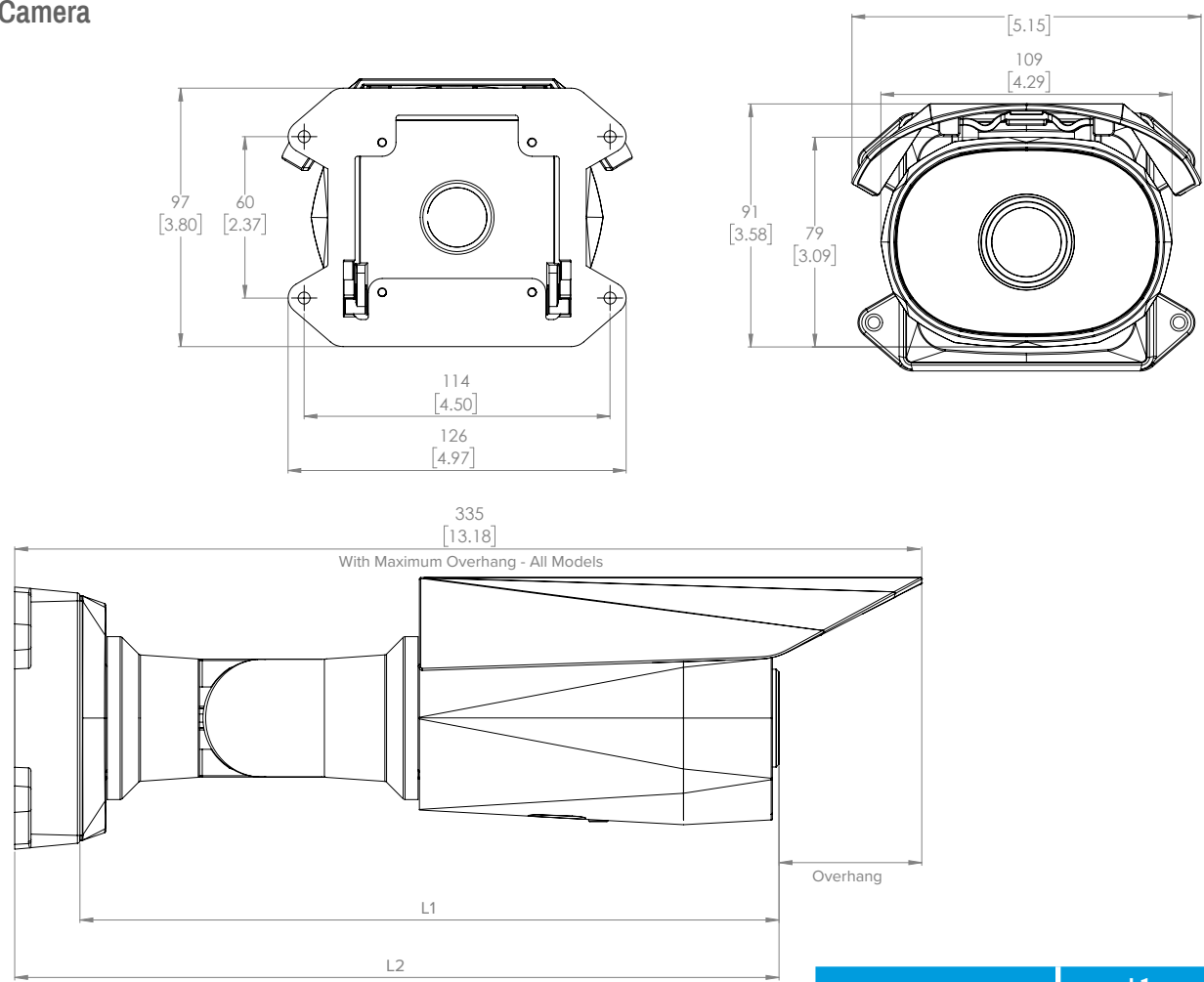| Supported Analytics Events	
Objects in Area	The event is triggered when the selected object type moves into the region of interest.
Object Loitering	The event is triggered when the selected object type moves into the region of interest and then stays for an extended amount of time.
Objects Crossing Beam	The event is triggered when the specified number of objects have crossed the directional beam that is configured over the camera's field of view. The beam can be unidirectional or bidirectional.
Objects Enter Area	The event is triggered when the specified number of objects have entered the region of interest.
Objects Leave Area	The event is triggered when the specified number of objects have left the region of interest.
Object Stops in Area	The event is triggered when an object moves into a region of interest and then stops moving for the specified threshold time.
Direction Violated	The event is triggered when an object moves in the prohibited direction of travel.
Object Appears or Enters Area	The event is triggered by each object that enters the region of interest. This event can be used to count objects.

Ordering Information

Model	Product Code	Resolution	NETD	Lens	SmartCodec
SP-320-BO-4	759683	320 x 256	< 60 mK	4.3 mm	✓
SP-320-BO-9	759684	320 x 256	< 60 mK	9.1 mm	✓
SP-320-BO-18	759685	320 x 256	< 60 mK	18 mm	✓
SP-640-BO-9	759680	640 x 512	< 60 mK	8.7 mm	✓
SP-640-BO-18	759681	640 x 512	< 60 mK	18 mm	✓
SP-640-BO-36	759682	640 x 512	< 60 mK	36 mm	✓

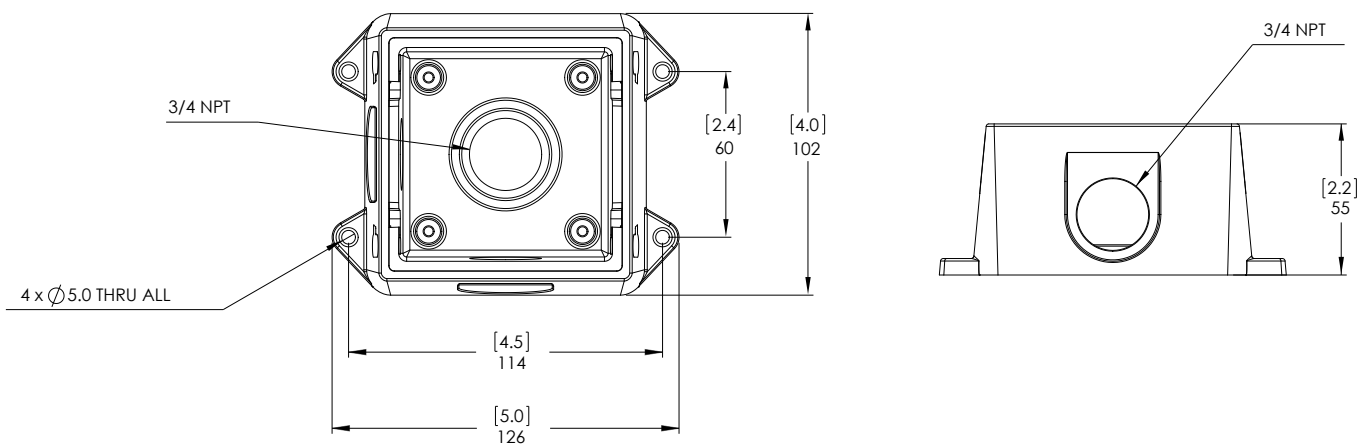| Display Part Number	Product Code	Description
BO-JCT-BOX	150300	Junction box for bullet cameras
POLE-MNT	150506	Aluminum pole mounting bracket
CRNR-MNT	150507	Aluminum corner mounting bracket

Outline Dimensions

Camera

Top view:
97 [3.80]
60 [2.37]
114 [4.50]
126 [4.97]

Front view:
[5.15]
109 [4.29]
91 [3.58]
79 [3.09]

Side view:
335 [13.18]
With Maximum Overhang - All Models
Overhang
L1
L2

	L1	L2
SP-640-BO-36	276 mm (10.87")	300 mm (11.81")
All other models	257 mm (10.14")	281 mm (11.08")

Junction Box

3/4 NPT
4 x ⌀ 5.0 THRU ALL
[2.4] 60
[4.0] 102
[4.5] 114
[5.0] 126
3/4 NPT
[2.2] 55