

# H4 HD Bullet Camera with Self-Learning Video Analytics

AVIGILON

Avigilon offers a broad range of high definition cameras – from 1 – 5 MP and 4 – 7K (based on horizontal resolution) – and are available in a variety of formats, including dome, panoramic and fixed. Whether it's a small storefront that requires a few cameras or a large complex system requiring complete coverage of numerous areas, you can trust that you're getting an exceptional solution for your security needs.

The innovative H4 HD Bullet camera is just one way Avigilon can help provide effective monitoring and protection.



The H4 HD Bullet camera from Avigilon is ideal for seeing objects and activity in complete darkness. Embedded with self-learning video analytics, the H4 HD cameras seamlessly integrate with Avigilon Control Center (ACC)<sup>™</sup>, allowing security personnel to respond proactively and mitigate an incident before damage is done. With unique adaptive IR technology, this camera provides both wide and narrow illumination, enabling consistent illumination in complete darkness to enhance image quality regardless of scene conditions. Avigilon bullet cameras are equipped with new Triple Exposure Ultra-Wide Dynamic Range (WDR) and patented LightCatcher<sup>™</sup> technology, ensuring you receive excellent image detail. Onboard storage capabilities let you manage storage directly on the camera using a standard SD memory card. The bullet camera is effective at monitoring a variety of environments that require discreet nighttime coverage, including parking lots, campuses and industrial yards.

## KEY FEATURES

1-5 megapixel and 4K Ultra HD (8 MP ) resolution
Patented Advanced Video Pattern Detection and Teach by Example Technology
Self-learning video analytics
Patented High Definition Stream Management (HDSM) <sup>™</sup> Technology
Available with 3-9 mm F1.3, 4.3-8 mm F1.8, or 9-22 mm F1.6 P-Iris lens with remote focus and zoom
Wifi camera configuration support
Avigilon LightCatcher technology provides exceptional image quality in low light environments
Triple Exposure Ultra Wide Dynamic Range (1-3 MP models)
Integrated IR (Infrared) LEDs provide uniform illumination in the dark, even at 0 lux, up to maximum of 70 m (230 ft) away
Zoom and content adaptive IR provides effective illumination throughout zoom positions, while maintaining the best scene illumination
Factory pre-configured image preset modes for maximum image performance in variety of lighting conditions
Idle Scene Mode lowers bandwidth and storage usage if there are no motion events detected in the scene
Vandal resistant construction and IP66 compliant
ONVIF compliant with version 2.2.0 of the Analytics Service Specification
Full Feature or High Framerate camera operating modes (4K Ultra HD model)

# Specifications

		1.0 MP	2.0 MP	3.0 MP	5.0 MP	4K ULTRA HD (8.0 MP)	
<b>IMAGE PERFORMANCE</b>	Image Sensor	1/2.8" progressive scan CMOS			1/1.8" progressive scan CMOS	1/2.3" progressive scan CMOS	
	Aspect Ratio	16:9			4:3	16:9	
	Active Pixels (H x V)	1280 x 720	1920 x 1080	2048 x 1536	2592 x 1944	3840 x 2160	
	Imaging Area (H x V)	4.8 mm x 2.7mm; 0.189" x 0.106"			5.12 mm x 3.84 mm; 0.202" x 0.151"	6.22 mm x 4.66 mm; 0.245" x 0.183"	5.95 mm x 3.35 mm; 0.234" x 0.132"
	IR Illumination (high power 850 nm LEDs)	3 - 9 mm lens:	50 m (164 ft) max. distance at 0 lux; 30 m (98 ft) at -25 °C (-13 °F) or lower			N/A	N/A
		4.3 - 8 mm lens:	N/A			50 m (164 ft) max. distance at 0 lux; 25 m (82 ft) at -25 °C (-13 °F) or lower	30 m (98 ft) max. distance at 0 lux; 15 m (49 ft) at -25 °C (-13 °F) or lower
		9 - 22 mm lens:	70 m (230 ft) max. distance at 0 lux; 50 m (164 ft) at -25 °C (-13 °F) or lower				N/A
	Minimum Illumination	3 - 9 mm lens:	0.04 lux (F1.3) in color mode; 0 lux (F1.3) in monochrome mode with IR			N/A	N/A
		4.3 - 8 mm lens:	N/A			0.033 lux (F1.8) in color mode; 0 lux (F1.8) in monochrome mode with IR	0.29 lux (F1.8) in color mode; 0 lux (F1.8) in monochrome mode with IR
		9 - 22 mm lens:	0.08 lux (F1.6) in color mode; 0 lux (F1.6) in monochrome mode with IR			0.026 lux (F1.6) in color mode; 0 lux (F1.6) in monochrome mode with IR	N/A
	Image Rate (Full Resolution)	30 fps		30 fps (20 fps with WDR enabled)	30 fps	20 fps (30 fps in High Framerate mode)	
	Dynamic Range	67 dB			83 dB	91 dB	
	Dynamic Range (WDR enabled)	120 dB triple exposure (20 fps or less); 100 dB dual exposure (30 fps)			N/A	N/A	
Resolution Scaling	Down to 768 x 432			Down to 1792 x 1344	Down to 3072 x 1728		
Camera Operating Mode	N/A				Full Feature or High Framerate mode (HDSM 2.0 and analytics disabled in High Framerate mode)		
<b>LENS</b>	Lens	3 - 9 mm lens:	F1.3, P-Iris, remote focus and zoom				
		4.3 - 8 mm lens:	F1.8, P-Iris, remote focus and zoom				
		9 - 22 mm lens:	F1.6, P-Iris, remote focus and zoom				
	Angle of View	3 - 9 mm lens:	30° – 91°	32° – 98°		N/A	
		4.3 - 8 mm lens:	N/A	N/A		46° – 86°	
9 - 22 mm lens:		14° – 29°	15° – 31°	18° – 41°	44° – 81°		
<b>IMAGE CONTROL</b>	Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG					
	Streaming	Multi-stream H.264 and Motion JPEG					
	Bandwidth Management	(1.0 - 3.0 MP) HDSM; (5.0 MP and 4K Ultra HD) HDSM 2.0; (ALL) Idle Scene Mode					
	Motion Detection	Pixel and classified objects					
	Camera Tampering Detection	Yes					
	Electronic Shutter Control	Automatic, Manual (1/6 to 1/8000 sec)					
	Iris Control	Automatic, Manual					
	Day/Night Control	Automatic, Manual					
	Flicker Control	50 Hz, 60 Hz					
	White Balance	Automatic, Manual					
	Backlight Compensation	Adjustable					
	Privacy Zones	Up to 64 zones					
	Audio Compression Method	G.711 PCM 8 kHz					
	Audio Input/Output	Line level input and output					
	External I/O Terminals	Alarm In, Alarm Out					
	USB Port	USB 2.0					
	<b>NETWORK</b>	Network	100BASE-TX				
		Cabling Type	CAT5				
Connector		RJ-45					
ONVIF		ONVIF compliant with version 1.02, 2.00, Profile S and 2.2.0 of the Analytics Service Specification ("bounding boxes" and scene descriptions not available with third-party VMS)					
Security		Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication					
Protocol		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					
<b>MECHANICAL</b>	Dimensions (LxWxH)	126 mm x 280 mm x 91 mm; 4.97" x 11.04" x 3.58" (including mounting bracket)					
	Weight	Camera:	1.71 kg (3.77 lbs)				
		Mounting Bracket:	0.21 kg (0.46 lbs)				
	Body	Aluminum					
	Housing	Surface mount, tamper resistant					
	Finish	Powder coat, RAL 9003					
	Adjustment Range	±175° pan, ±90° tilt, ±175° azimuth					
	Onboard Storage	SD/SDHC/SDXC slot – minimum class 4; class 6 or better recommended					
<b>ELECTRICAL</b>	Power Consumption	13 W					
	Power Source	VDC: 12 V ± 10%, 13 W min	VAC: 24 V ± 10%, 19 VA min		PoE: IEEE802.3af Class 3 compliant		
	RTC Backup Battery	3V manganese lithium					
<b>ENVIRONMENTAL</b>	Operating Temperature	-40 °C to +55 °C (-40 °F to 131 °F) (8.0 MP only) -35 °C to +50 °C (-31 °F to 122 °F)					
	IR Illuminator Behavior	IR illuminator will not turn on if temperature is 45 °C (113 °F) or higher					
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)					
	Humidity	0 - 95% non-condensing					

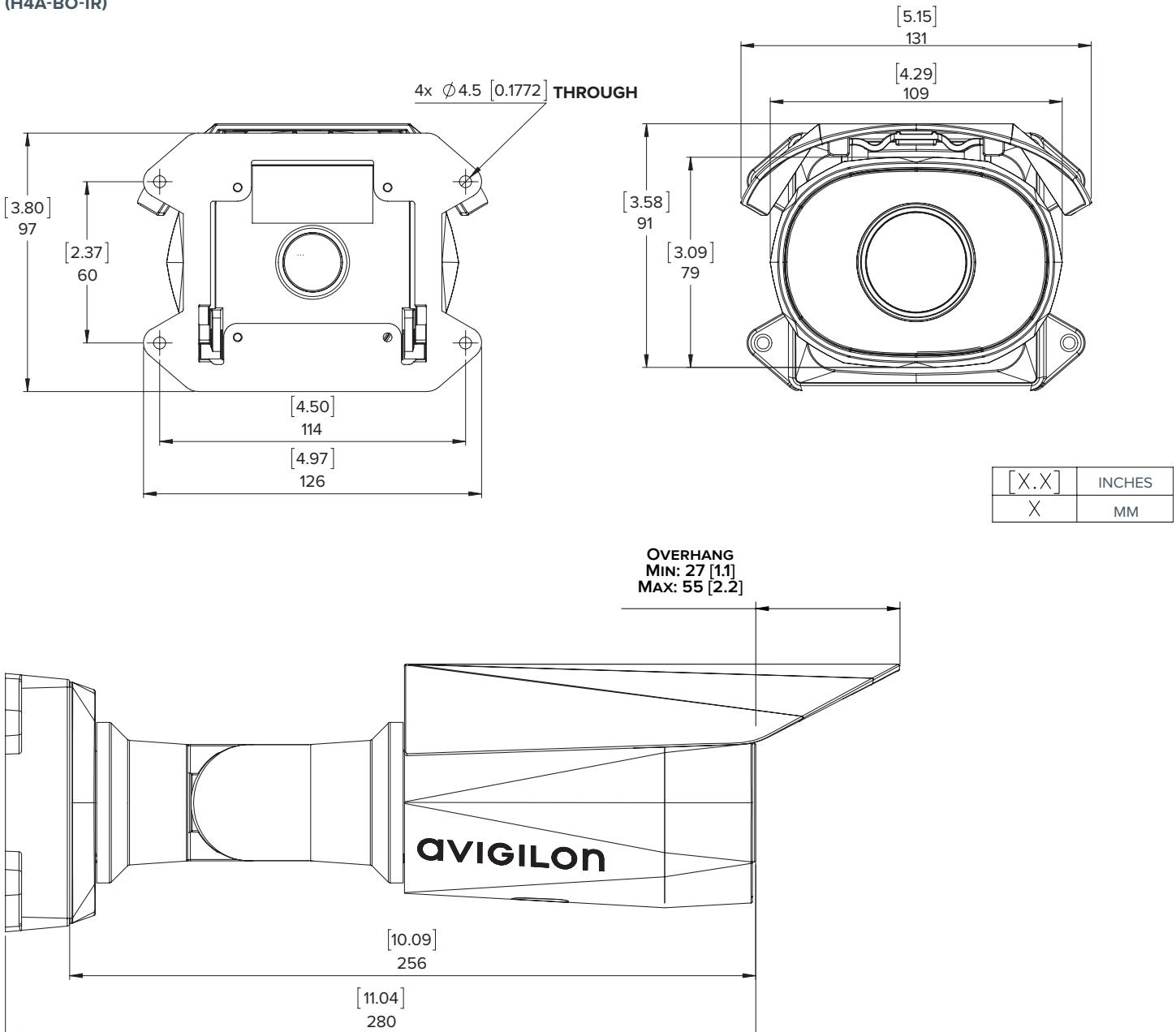
CERTIFICATIONS	Certifications/Directives	UL	cUL	CE	ROHS	WEEE	RCM	KC	EAC
Safety	UL 60950-1			CSA 60950-1		IEC/EN 60950-1	IEC 62471		
Environmental	IK10 Impact Rating			UL/CSA/IEC 60950-22		IEC 60529 IP66 Rating			
Electromagnetic Emissions	FCC Part 15 Subpart B Class B			IC ICES-003 Class B		EN 55022 Class B	EN 61000-6-3	EN 61000-3-2	EN 61000-3-3 KN 32
Electromagnetic Immunity	EN 55024					EN 61000-6-1		KN 35	

SUPPORTED VIDEO ANALYTICS EVENTS	Objects in Area
Object Loitering	The event is triggered when the selected object type stays within the region of interest 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.
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.
Object Not Present in Area	The event is triggered when no objects are present in the region of interest.
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 in a region of interest stops moving for the specified threshold time.
Direction Violated	The event is triggered when an object moves in the prohibited direction of travel.
Tamper Detection	The event is triggered when the scene unexpectedly changes.

# Outline Dimensions

## Bullet Camera

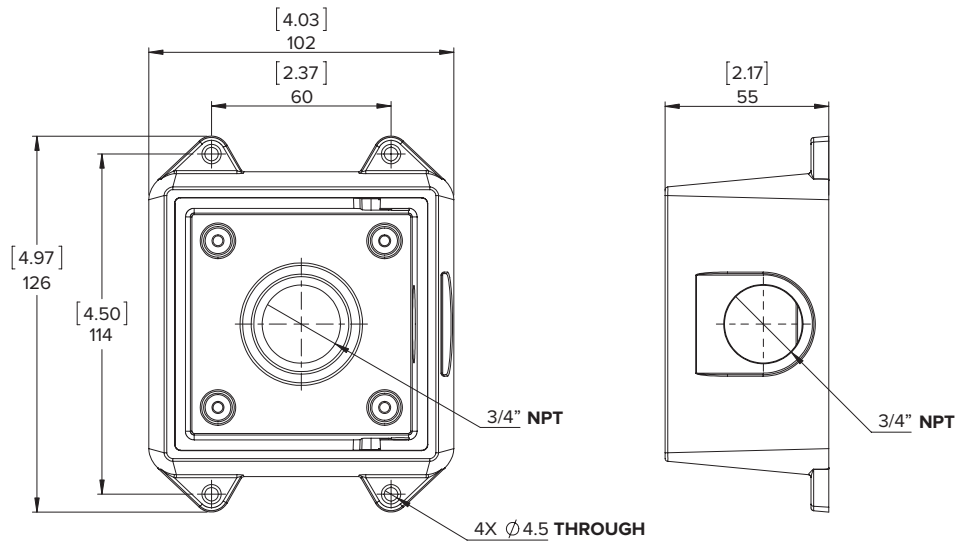
(H4A-BO-IR)



# HD Bullet Camera Junction Box

(H4-BO-JBOX1)

H4 HD CAMERA SERIES



## Ordering Information

	MP	WDR	LIGHTCATCHER	ANALYTICS	LENS	IR
1.0C-H4A-BO1-IR	1.0	✓	✓	✓	3 - 9 mm	✓
1.0C-H4A-BO2-IR	1.0	✓	✓	✓	9 - 22 mm	✓
2.0C-H4A-BO1-IR	2.0	✓	✓	✓	3 - 9 mm	✓
2.0C-H4A-BO2-IR	2.0	✓	✓	✓	9 - 22 mm	✓
3.0C-H4A-BO1-IR	3.0	✓	✓	✓	3 - 9 mm	✓
3.0C-H4A-BO2-IR	3.0	✓	✓	✓	9 - 22 mm	✓
5.0L-H4A-BO1-IR	5.0		✓	✓	4.3 - 8 mm	✓
5.0L-H4A-BO2-IR	5.0		✓	✓	9 - 22mm	✓
8.0-H4A-BO1-IR	8.0			✓	4.3 - 8 mm	✓
H4-BO-JBOX1	Junction box for H4A-BO-IR H4 HD Bullet Cameras					
H4-MT-POLE1	Aluminum pole mounting bracket for H4 HD Pendant Dome Cameras and H4 HD Bullet Cameras					
H4-MT-CRNR1	Aluminum corner mounting bracket for H4 HD Pendant Dome Cameras and H4 HD Bullet Cameras					
H4-AC-WIFI1-NA	USB Wifi Adapter					