

# HD Bullet Camera with Self-Learning Video Analytics



Avigilon offers the broadest range of high definition cameras in the industry – 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 the best solution for your security needs.

The innovative HD Bullet camera is just one way Avigilon can help provide the very best monitoring and protection.



The HD Bullet camera with self-learning video analytics brings together Avigilon's world renowned camera technology with video analytics. The combination of instant and accurate object detection and classification alerts, with the identification performance of high-definition video, provides users with an unmatched level of perimeter protection to keep both personnel and assets safe. Equipped with built-in adaptive infrared (IR) illumination, our HD Bullet cameras increase in-the-dark detection and visibility without using a visible light source.

## KEY FEATURES

Patented Advanced Video Pattern Detection and Teach by Example Technology
Self-Learning Video Analytics
Available with 3-9 mm or 9-22 mm P-Iris lens with remote focus and zoom
Up to 30 images per second
Triple Exposure Ultra Wide Dynamic Range (3 Megapixel)
Avigilon's LightCatcher™ technology provides unsurpassed image quality in low light environments
SD card slot for onboard storage support
Integrated IR (Infrared) LEDs provide uniform illumination in the dark, even at 0 lux, up to maximum of 200 ft (60 m) away
Zoom and content adaptive IR provides the most effective illumination at all zoom positions, while maintaining optimum scene illumination
PoE (Power over Ethernet) enables operating temperatures of -40°C to 50°C (-40°F to 122°F) with no auxiliary power required.
Additional configuration Ethernet port for easy installation
Vandal resistant construction and IP66 compliant
ONVIF compliant with version 2.2.0 of the Analytics Service Specification

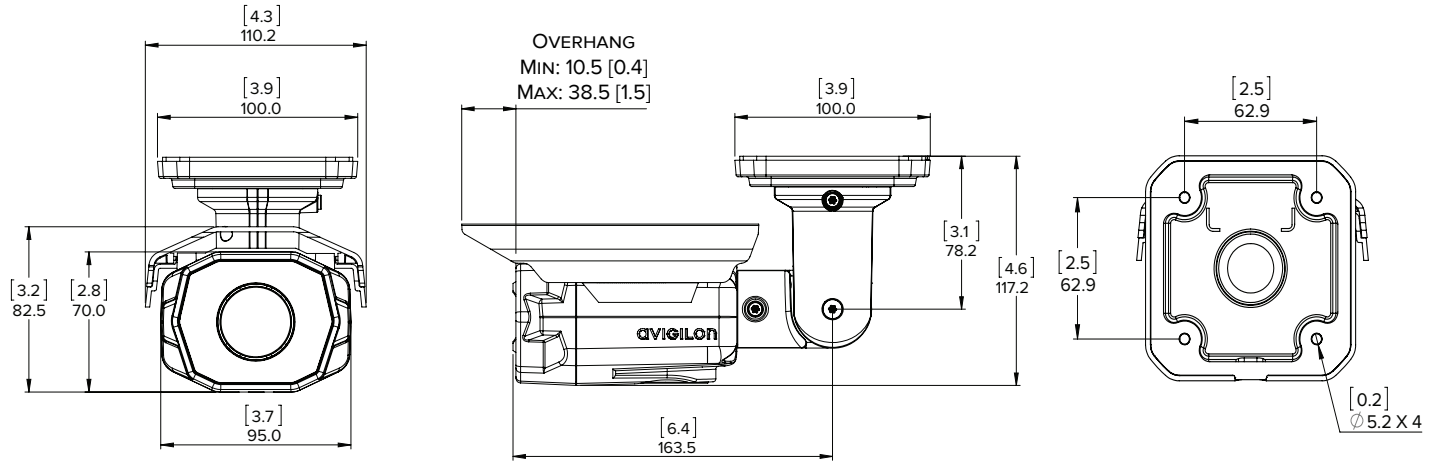
# Specifications

		1.0 MP	2.0 MP	3.0 MP						
<b>IMAGE PERFORMANCE</b>	Image Sensor	1/2.8" progressive scan CMOS								
	Active Pixels	1280 (H) x 720 (V)	1920 (H) x 1080 (V)	2048 (H) x 1536 (V)						
	Imaging Area	4.8 mm (H) x 2.7 mm (V); 0.189"(H) x 0.106"(V)		4.92 mm (H) x 3.69 mm (V); 0.194" (H) x 0.145" (V)						
	Illuminator Technology	High-power IR LEDs								
	IR Illumination	3-9 mm lens: 850 nm wavelength, 30 m (100 ft) max. distance of IR illumination at 0 lux with auxiliary power or PoE 9-22 mm lens: 850 nm wavelength, 60 m (200 ft) max. distance of IR illumination at 0 lux with auxiliary power or PoE								
	Minimum Illumination	3-9 mm lens: 0.1 lux (F1.2) in color mode; 0 lux in monochrome mode with IR 9-22 mm lens: 0.2 lux (F1.6) in color mode; 0 lux in monochrome mode with IR								
	Dynamic Range	100 dB Dual Exposure True WDR		120 dB Triple Exposure Ultra WDR						
	Image Rate	30 fps (all resolutions)		20 fps (at full resolution); 30 fps (at 1920 x 1080 or smaller)						
	<b>LENS</b>	Lens	3-9 mm, F1.2, P-Iris, remote focus and zoom 9-22 mm, F1.6, P-Iris, remote focus and zoom							
		Angle of View	3-9 mm lens: 32° - 91° 9-22 mm lens: 13° - 28°		33° - 94° 15° - 31°					
<b>IMAGE CONTROL</b>	Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG								
	Streaming	Multi-stream H.264 and Motion JPEG								
	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								
<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, 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								
<b>MECHANICAL</b>	Dimensions (LxWxH)	241.7 mm x 95.0 mm x 70 mm; 9.5" x 3.7" x 2.8"								
	Weight	1.15 kg (2.5 lbs)								
	Body	Aluminum								
	Housing	Surface mount, tamper resistant								
	Finish	Powder coat, cool gray 2								
	Adjustment Range	±175° pan, -45° to +90° tilt, ±175° azimuth								
	Onboard Storage	SD/SDHC/SDXC slot – minimum class 4; class 6 or better recommended								
<b>ELECTRICAL</b>	Power Consumption	22 W with external power or IEEE802.3at Class 4 PoE Plus	12.95 W with IEEE 802.3af Class PoE							
	Power Source	VDC: 12 V +/- 10%, 22 W min	VAC: 24 V +/- 10%, 28 VA min	PoE: IEEE802.3af Class 3 compliant	PoE+: IEEE802.3at Class 4 PoE Plus					
	RTC Backup Battery	3V Manganese Lithium								
<b>ENVIRONMENTAL</b>	Operating Temperature	-40 °C to +50 °C (-40 °F to 122 °F)								
	Storage Temperature	-40 °C to +70 °C (-40 °F to 158 °F)								
	Humidity	0 - 95% non-condensing								
<b>CERTIFICATIONS</b>	Certifications/Directives	UL	cUL	CE	ROHS	WEEE	RCM	EAC	KC	
	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
	Electromagnetic Immunity	EN 55024				EN 61000-6-1				
<b>SUPPORTED VIDEO ANALYTICS EVENTS</b>	Objects in Area	The event is triggered when the selected object type moves into the region of interest. If the number of objects is exceeded, a new event is not triggered until the number of objects falls below the defined value.								
	Object Loitering	The event is triggered when the selected object type stays within the region of interest for an extended amount of time. The event is reset when the object leaves the region of interest.								
	Objects Crossing Beam	The event is triggered when the specified number of objects have crossed the directional beam that has is configured over the camera's field of view. The beam can be unidirectional or bidirectional. If the number of objects is exceeded, a new event is not triggered until the event timeout.								
	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

## HD Bullet Camera

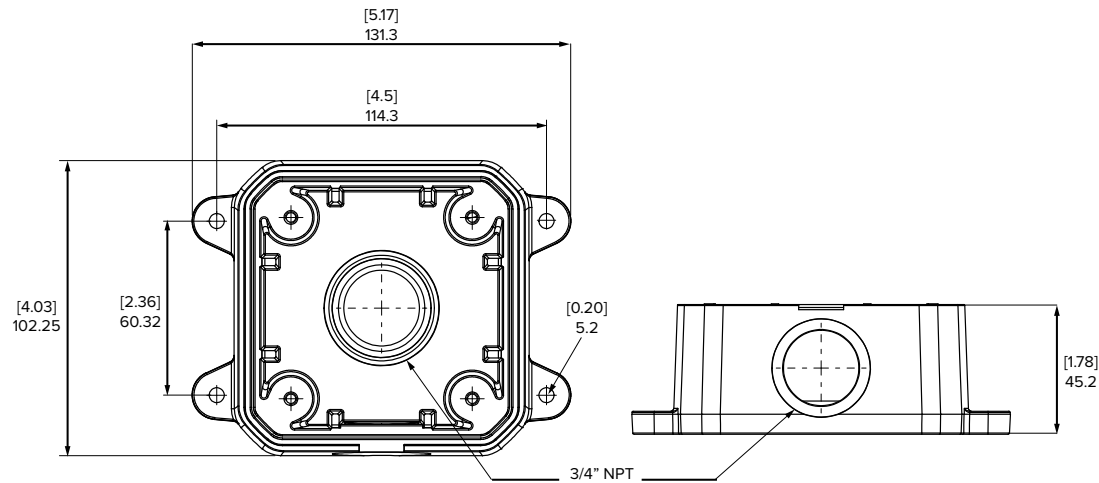
(H3A-BO-IR)



[X.X]	INCHES
X	MM

## HD Bullet Camera Junction Box

(H3-BO-JB)



## Ordering Information

1.0C-H3A-BO1-IR	1.0 Megapixel WDR 3-9 mm HD Bullet Camera with Self-Learning Video Analytics and LightCatcher Technology
1.0C-H3A-BO2-IR	1.0 Megapixel WDR 9-22 mm HD Bullet Camera with Self-Learning Video Analytics and LightCatcher Technology
2.0C-H3A-BO1-IR	2.0 Megapixel WDR 3-9mm HD Bullet Camera with Self-Learning Video Analytics and LightCatcher Technology
2.0C-H3A-BO2-IR	2.0 Megapixel WDR 9-22 mm HD Bullet Camera with Self-Learning Video Analytics and LightCatcher Technology
3.0C-H3A-BO1-IR	3.0 Megapixel WDR 3-9 mm HD Bullet Camera with Self-Learning Video Analytics and LightCatcher Technology
3.0C-H3A-BO2-IR	3.0 Megapixel WDR 9-22 mm HD Bullet Camera with Self-Learning Video Analytics and LightCatcher Technology
H3-BO-JB	Junction box for the H3-BO-IR HD Bullet Cameras
MNT-AD-POLE-B	Aluminum pole mounting bracket for Dome Cameras and HD Bullet Cameras using Pendant Mount Brackets
MNT-AD-CORNER	Aluminum corner mounting bracket for Dome Cameras and HD Bullet Cameras using Pendant Mount Brackets