

# HD Pro Camera with Self-Learning Video Analytics

AVIGILON

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 Pro camera is just one way Avigilon can help provide the very best monitoring and protection.



The new HD Pro camera series with self-learning video analytics is available in 4K (8 MP) to 5K (16 MP) resolutions, which is the industry's highest single-sensor megapixel camera with self-learning video analytics. The new series offers wide scene coverage, highly accurate object detection and the ability to zoom in for clear image detail. The image quality of the HD Pro camera series is made possible by Avigilon's H4 platform, which combines Avigilon's LightCatcher™ technology for unmatched low-light performance, H.264 compression and the latest edition of its patented High Definition Stream Management (HDSM)™ technology, HDSM 2.0. These technologies enable increased resolution, greater processing power, outstanding image quality and smarter bandwidth and storage management.

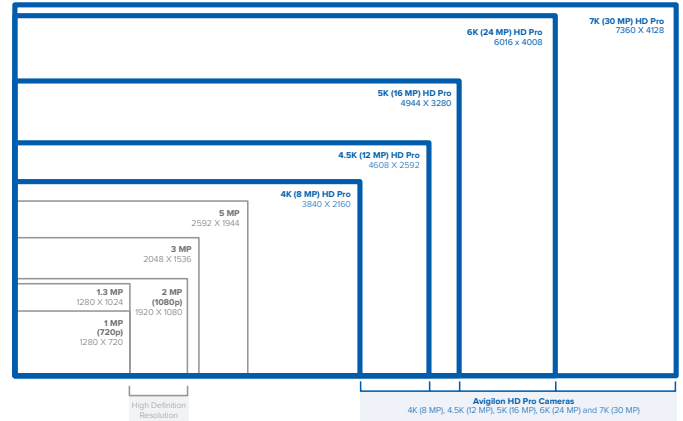
## KEY FEATURES

Self-learning video analytics
Patented advanced video pattern detection and teach by example technology
Avigilon's LightCatcher™ technology provides unsurpassed image quality in low light environments
Up to 12 images per second
Patented High Definition Stream Management (HDSM)™ Technology
H.264 and Motion JPEG compression
70 dB true dynamic range
SD card slot for onboard storage support
Compatible with a wide selection of EF and EF-S mount lenses
Power over Ethernet, 24 VAC or 12 VDC power input
External I/O and RS-485 interface

# Specifications

	4K (8 MP)	4.5K (12 MP)	5K (16 MP)
<b>IMAGE PERFORMANCE</b>			
Image Sensor	27.2 mm (Type 1.8) progressive scan CMOS		
Active Pixels	3840 (H) x 2160 (V)	4608 (H) x 2592 (V)	4944 (H) x 3280 (V)
Imaging Area	23.6 mm (H) x 13.4 mm (V); 0.93" (H) x 0.53"		
Minimum Illumination	0.005 lux (at F1.4)		
Dynamic Range	70 dB		
Resolution Scaling	Down to 3072 x 1728		
Image Rate	12		10

<b>LENS</b>	Lens Mount	EF and EF-S (SLR-style bayonet)
<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
	Electronic Shutter Control	Automatic, Manual (1 to 1/8000 sec)
	Iris Control	* Automatic, Manual
	Day/Night Control	* Automatic, Manual
	Flicker Control	50 Hz, 60 Hz
	White Balance	Automatic, Manual
	Privacy Zones	Up to 4 zones
	Audio Compression Method	G.711 PCM 8 kHz
	Audio Input/Output	Line level input and output, A/V mini-jack (3.5 mm)
	External I/O Terminals	Alarm In, Alarm Out



\* dependent on selected lens capability

<b>NETWORK</b>	Network	100BASE-TX
	Cabling Type	CAT5
	Connector	RJ-45
	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

<b>MECHANICAL</b>	Dimensions (L x W x H)	109 mm x 73 mm 68 mm; 4.3" x 2.9" x 2.7"
	Weight	0.37 kg (0.8 lb)
	Camera Mount	¼"-20 UNC (top and bottom)
	Onboard Storage	SD/SDHC/SDXC slot - minimum class 6; class 10 & 64 GB or better recommended

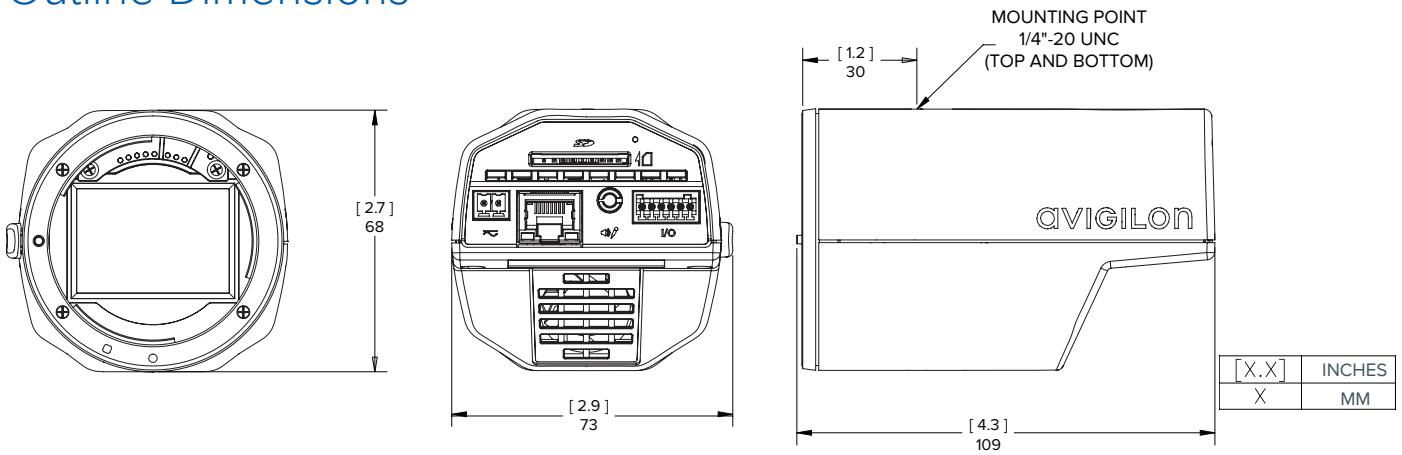
<b>ELECTRICAL</b>	Power Consumption	13 W
	Power Source	VDC: 12 V +/- 10%, 13 W      VAC: 24 V +/- 10%, 18.4 VA      PoE: IEEE802.3af Class 3 compliant
	RTC Backup Battery	3V Manganese Lithium

<b>ENVIRONMENTAL</b>	Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)
	Humidity	0 - 95% non-condensing

<b>CERTIFICATIONS</b>	Certifications	UL	cUL	CE	ROHS	WEEE	RCM	EAC	KC		
	Safety	UL 60950-1				CSA 60950-1			IEC/EN 60950-1		
	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



# Ordering Information

8L-H4PRO-B	4K (8 MP) H.264 Pro Color Camera with Self-Learning Video Analytics
12L-H4PRO-B	4.5K (12 MP) H.264 Pro Color Camera with Self-Learning Video Analytics
16L-H4PRO-B	5K (16 MP) H.264 Pro Color Camera with Self-Learning Video Analytics

Lens:	Part Number	Description
	LEF2414CA	Canon 24mm f1.4L, Auto-Iris
	LEF2818CA	Canon 28mm f1.8, Auto-Iris
	*LEFS3014SI	Sigma 30mm f1.4, Auto-Iris
	LEF3514CA	Canon 35mm f1.4L, Auto-Iris
	*LEF3520CA	Canon 35mm f2.0, Auto-Iris
	LEF4028CA	Canon 40mm f2.8, Auto-Iris
	LEF5012CA	Canon 50mm f1.2L, Auto-Iris
	LEF5014CA	Canon 50mm f1.4, Auto-Iris
	*LEF5018CA	Canon 50mm f1.8, Auto-Iris
	LEF8512CA	Canon 85mm f1.2L, Auto-Iris
	LEF8518CA	Canon 85mm f1.8, Auto-Iris
	LEF10020CA	Canon 100mm f2.0, Auto-Iris
	LEF20028CA	Canon 200mm f2.8L, Auto-Iris
	LEFS11628TO	Tokina 11-16mm f2.8, Auto-Iris, Vari Focal
	*LEF163528CA	Canon 16-35mm f2.8L, Auto-Iris, Vari Focal
	LEFS183518SI	Sigma 18-35mm f1.8, Auto-Iris, Vari Focal
	LEFS175028SI	Sigma 17-50mm f2.8 OS, Auto-Iris, Vari Focal
	LEF247028TA	Tamron 24-70mm f2.8, Auto-Iris, Vari Focal, with Vibration Control
	LEF7020028CA	Canon 70-200mm f2.8L, Auto-Iris, Vari Focal
	LEF7030040CA	Canon 70-300mm f4-5.6 IS, Auto-Iris, Vari Focal, with image stabilization
	*LEF10040045CA	Canon 100-400mm f4.5-5.6L IS, Auto-Iris, Vari Focal, with image stabilization

\*Lenses require AUX power.

Enclosures:	Part Number	Description
	ES-HD-HWS-SM	Outdoor HD Small Enclosure with Heater
	ES-HD-HWS	Outdoor HD Enclosure with Heater
	ES-HD-CWS	Outdoor HD Enclosure with Cooling Fan
	ES-HD-HWS-LG	Outdoor HD Large Enclosure with Heater
	ES-HD-CWS-LG	Outdoor HD Large Enclosure with Cooling Fan
	ES-HD-HS-XL	Outdoor HD X-Large Enclosure
	ES-HD-IPM	Outdoor HD Enclosure PoE Module