H5 Pro Camera

8 MP 16 MP 26 MP 40 MP 61 MP

The new Avigilon H5 Pro camera captures the best-in-class image details over vast areas, providing maximum coverage options through our most powerful and innovative ultra high definition cameras yet. Avigilon's 10K HD Pro camera is the security industry's first single-sensor 10K (61 megapixel) camera. It delivers stunning image detail, simultaneously providing maximum scene coverage, while minimizing bandwidth and storage consumption through our patented High Definition Stream Management™ (HDSM) 2.0 technology. HDSM™ 2.0 patented technology drastically reduces server-client bandwidth requirements and makes optimal use of computing and storage resources.

With the high resolution, a single H5 Pro has the ability to do the job that multiple cameras would normally achieve. Budget-sensitive projects can also take advantage of the camera's optimal low light performance and still gain the benefits of this camera by deploying a lower resolution H5 Pro to suit smaller projects, such as a small storefront.

Features

NEXT-GENERATION VIDEO ANALYTICS
Detects more objects with expanded object classifications and greater accuracy for faster responses, even in crowded scenes.

FOCUS OF ATTENTION WITH ACC™ 7
Leverages AI and video analytics technologies to determine what information is important and should be presented to security operators.

H.264 AND H.265 WITH HDSM SMARTCODEC™ TECHNOLOGY
Optimizes compression levels for regions in a scene to help maximize bandwidth savings, helping to keep internet connectivity costs down.

MADE IN NORTH AMERICA AND 5 YEAR WARRANTY
Manufactured in North America* using globally-sourced materials and North American expertise, Avigilon stands behind the quality of its products. Backed by a 5 year warranty.

TRUE WIDE DYNAMIC RANGE
Available in all resolutions, capture details in scenes with both very bright and dark areas.

LIGHTCATCHER™ TECHNOLOGY
Offers exceptional detail in areas with low lighting.

ONVIF® COMPLIANT
Built on an open platform with ONVIF S, T, and G compliance to allow integration with other security solutions.

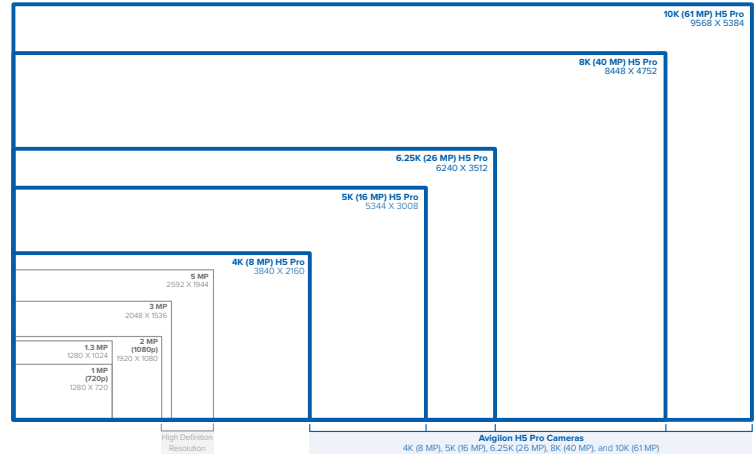**MULTIPLE LENS OPTIONS**
Choose from various lens types, including long zoom, for flexible coverage options.

Preliminary Specifications - Subject to Change

Specifications

		8 MP (4K ULTRA HD)	16 MP	26 MP	40 MP	61 MP
IMAGE PERFORMANCE	Image Sensor	27.2 mm (Type 1.8) progressive scan CMOS			43.3 mm (Type 2.7) progressive scan CMOS	
	Max Resolution (H x V) and Aspect Ratio	(16:9) 3840 × 2160	(16:9) 5344 × 3008 (3:2) 4944 × 3296	(16:9) 6240 × 3512 (3:2) 6240 × 4160	(16:9) 8448 × 4752 (3:2) 7776 × 5184	(16:9) 9568 × 5384 (3:2) 9568 × 6376
	Dynamic Range — WDR Off	dB	dB	dB	dB	dB
	Dynamic Range — WDR On	dB	dB	dB	dB	dB
	Max Image Rate — WDR Off	(50 Hz/60 Hz) 25 fps/30 fps	(50 Hz/60 Hz) 25 fps/24 fps	16:9: (50 Hz/60 Hz) 16.7 fps/17.1 fps 3:2: (50 Hz/60 Hz) 14.3 fps/15 fps	10 fps	3:2: 7 fps 16:9: (50 Hz/60 Hz) 8.3 fps/8.6 fps
	Max Image Rate — WDR On	(50 Hz/60 Hz) 16.7 fps/17.1 fps	(50 Hz/60 Hz) 16.7 fps/17.1 fps		(50 Hz/60 Hz) 8.3 fps/8.6 fps	
	Bandwidth Management	HDSM SmartCodec technology; Idle scene mode				
	3D Noise Reduction Filter	Yes				

IMAGE CONTROL	Video Compression	H.264 HDSM SmartCodec, H.265 HDSM SmartCodec, Motion JPEG
	Streaming	Multi-stream H.264, Multi-stream H.265, Motion JPEG
	Motion Detection	Pixel and Unusual Activity Detection (UAD)
	Electronic Shutter Control	Automatic, Manual (1/7.5 to 1/8000 sec)
	Iris 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	Opus, G.711 PCM 8 kHz

* dependent on selected lens capability

10K (61 MP) H5 Pro 9568 X 5384
8K (40 MP) H5 Pro 8448 X 4752
6.25K (26 MP) H5 Pro 6240 X 3512
5K (16 MP) H5 Pro 5344 X 3008
4K (8 MP) H5 Pro 3840 X 2160
5 MP 2592 X 1944
3 MP 2048 X 1536
2 MP (1080p) 1920 X 1080
1.3 MP 1280 X 1024
1 MP (720p) 1280 X 720
High Definition Resolution
Avigilon H5 Pro Cameras
4K (8 MP), 5K (16 MP), 6.25K (26 MP), 8K (40 MP), and 10K (61 MP)

PERIPHERALS	Onboard Storage	2× microSD/microSDHC/microSDXC slot – class 10/UHS-1 or better recommended. Currently one of the two SD card slots is available for onboard storage.
	Audio Input/Output	Line level input and output, A/V mini-jack (3.5 mm)
	External I/O Terminals	Alarm In, Alarm Out

NETWORK	Network	1000-BASE-T / 100-BASE-TX or 1000-BASE-SX / 1000-BASE-LX via SFP
	Cabling Type	CAT5e or Optical Fiber†
	Connector	RJ-45 or SFP†
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, FIPS 140-2 L1
	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
	ONVIF	ONVIF compliance Profile S, Profile T, and Profile G (www.onvif.org).
	Device Management Protocol	SNMP v2c, SNMP v3

† Camera supports one network connection at a time, either RJ-45 (CAT5e) or SFP (optical fiber).

MECHANICAL	Dimensions (L x W x H)	142 mm x 87 mm 82 mm; 5.6" x 3.4" x 3.2"
	Weight	0.50 kg (1.1 lb)
	Body	Aluminium
	Finish	Black, Power Coat
	Mount	¼"-20 UNC (top and bottom)

ELECTRICAL	Power Consumption	~18 W max (camera only)
	Power Source	VDC: 12 V +/- 10%, ~18 W VAC: 24 V +/- 10%, ~21 VA PoE+: IEEE802.3at Class 3 (reduced functionality) and Class 4 compliant
	Power Connector	2-pin terminal block
	RTC Backup Battery	3V Manganese Lithium

ENVIRONMENTAL	Operating Temperature	xx °C to +60 °C (xx °F to 140 °F)
	Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)
	Humidity	0 - 95% non-condensing

CERTIFICATIONS	Certifications	UL	cUL	CE	ROHS	WEEE	RCM	
	Safety	UL 62368-1		CSA 62368-1		IEC/EN 62368-1		IEC 62471
	Electromagnetic Emissions	FCC Part 15 Subpart B Class B		IC ICES-003 Class B		EN 55032 Class B		EN 61000-6-3
	Electromagnetic Immunity	EN 55035				EN 61000-6-1		

Preliminary Specifications - Subject to Change

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.
	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 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.
	Tamper Detection	The event is triggered when the scene unexpectedly changes.

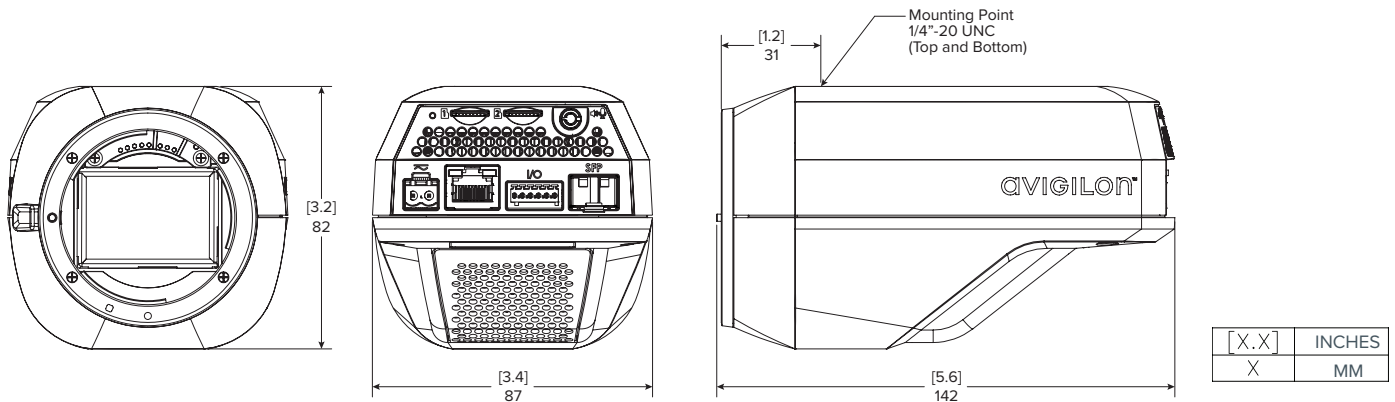| SUPPORTED CLASSIFIED OBJECT TYPES	Object Types in Outdoor Mode	Vehicle, sub-types: Car, Truck, Bicycle, Motorcycle, Bus Person
	Object Types in Indoor Mode	Person

TEACH BY EXAMPLE	Teach By Example	Yes, when used with Avigilon Control Center™

AVIGILON CONTROL CENTER (ACC) VERSIONS SUPPORTED FEATURES	ACC Version 6.14.12 or higher	All supported analytic events with two types of classified objects: person or vehicle. Appearance search when paired with appropriate server hardware. H.265 supported.
	ACC Version 7.2 or higher	All supported analytic events with people and vehicles and all vehicle sub-types as classified objects. Appearance search when paired with appropriate server hardware. H.265 supported.
	ACC Version 7.10.4 or higher	Improved support for decoding performance for multiple H5 Pro cameras on the ACC Client.

Outline Dimensions

[1.2] 31

Mounting Point
1/4"-20 UNC
(Top and Bottom)

[3.2] 82

[3.4] 87

[5.6] 142

[X.X]	INCHES
X	MM

Ordering Information

	MP	WDR	LightCatcher Technology	HDSM SmartCodec
8C-H5PRO-B	8.0	✓	✓	✓
16C-H5PRO-B	16.0	✓	✓	✓
26C-H5PRO-B	26.0	✓	✓	✓
40C-H5PRO-B	40.0	✓	✓	✓
61C-H5PRO-B	61.0	✓	✓	✓

Lens Compatibility

	Description	Horizontal Field of View		ES-HD-HWS-LG	ES-HD-CWS-LG	ES-HD-HS-XL
		8 MP – 26 MP Pro Camera	40 MP – 61 MP Pro Camera	Outdoor HD Large Enclosure with Heater	Outdoor HD Large Enclosure with Cooling Fan	Outdoor HD Extra Large Enclosure
LEF2814SI	Sigma 28mm f/1.4	45.7°	65.3°	✓	✓	O
LEFS3014SI	Sigma 30mm f/1.4	42.9°	N/A	✓	✓	O
LEF3514TA	Tamron 35mm f/1.4	37.3°	54.3°	✓	✓	O
LEF4028CA	Canon 40mm f/2.8	32.9°	48.3°	✓	✓	O
LEF5014SI	Sigma 50mm f/1.4	28.6°	39.5°	✓	✓	O
LEF9028TA	Tamron 90mm f/2.8	15.0°	22.6°	✓	✓	O
LEF163528CA2	Canon 16-35mm f/2.8	37.3° – 72.8°	54.3° – 96.6°	✓*	✓*	O*
LEFS183518SI	Sigma 18-35mm f/1.8	37.3° – 66.5°	N/A	✓	✓	O
LEF247028TA2	Tamron 24-70mm f/2.8 VC	19.1° – 52.4°	28.8° – 73.6°	✓*	✓*	O
LEF7020028TA	Tamron 70-200mm f/2.8 VC	6.8° – 19.1°	10.3° – 28.8°	✓	✓	✓
LEF7030040CA2	Canon 70-300mm f/4-5.6L IS	4.5° – 19.1°	6.8° – 28.8°			✓
LEF1506005TA	Tamron 150-600mm f/5-6.3 VC	2.2° – 9.0°	3.4° – 13.7°			✓

* Partial occlusion may be present at wide angles on the 40 MP and 61 MP H5 Pro camera variants.

O Compatible   ✓ Recommended

Enclosures

Part Number	Description	Operating Temperature Range
ES-HD-HWS-LG	IP66-rated large housing with heater and wall arm	TBD
ES-HD-CWS-LG	Large housing with cooling fan and wall arm	TBD
ES-HD-HS-XL	IP66-rated extra large housing with heater. Wall arm sold separately	TBD

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