

# H5 Pro Camera



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<sup>™</sup> (HDSM) 2.0 technology. HDSM<sup>™</sup> 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<sup>+</sup> Detects more objects with expanded object classifications and greater accuracy for faster responses, even in crowded scenes.



#### H.264 AND H.265 WITH HDSM SMARTCODEC<sup>™</sup> TECHNOLOGY

Optimizes compression levels for regions in a scene to help maximize bandwidth savings, helping to keep internet connectivity costs down.



#### TRUE WIDE DYNAMIC RANGE

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



#### ONVIF® COMPLIANT

Built on an open platform with ONVIF S compliance to allow integration with other security solutions.

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#### FOCUS OF ATTENTION WITH ACC<sup>™</sup> 7

Leverages AI and video analytics technologies to determine what information is important and should be presented to security operators.



## 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.



LIGHTCATCHER<sup>™</sup> TECHNOLOGY

Offers exceptional detail in areas with low lighting.



#### MULTIPLE LENS OPTIONS

Choose from various lens types, including long zoom, for flexible coverage options.

ONVIF is a trademark of Onvif, Inc.

<sup>†</sup> Analytics supported on 8, 16, and 26 MP models. 26 MP cameras must have Full Feature mode enabled for analytics.

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\* With manufacturing facilities in both the United States and Canada, our "Made In North America" claim only applies to products from our Plano, Texas and Richmond, British Columbia facilities.

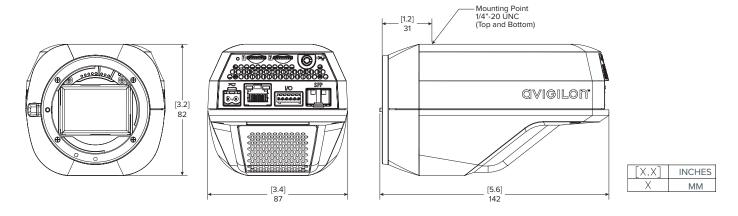
# Specifications

Specifi	cane		8 MP (4K ULTRA HD)	16 MP		26 MP		40 MP	6	1 MP	
	Image Sensor		27.2 mm (Type 1.8) progressi		5			43.3 mm (Type 2.7) p			
IMAGE PERFORMANCE	Max Resolutio Aspect Ratio		(16:9) 3840 × 2160	(16:9) 5344 × 3 (3:2) 4944 × 3	3008	(16:9) 6240 × 35 (3:2) 6240 × 416		(16:9) 8448 × 4752 (3:2) 7776 × 5184	(10	6:9) 9568 × 5384 :2) 9568 × 6376	
	Minimum Illumination		0.004 lux (at F1.4)								
	Dynamic WDR Off		70 dB								
	Range	WDR On	120 dB								
	M	WDR Off	(50 Hz/60 Hz) 25 fps/24 fps	(50 Hz/60 Hz	25 fps/24 fps		Hz)	10 fps		2: 7 fps	-)
	Max Image Rate	WDR On	(50 Hz/60 Hz) 16.7 fps/17.1 fps	(50 Hz/60 Hz fps	16.7 fps/17.1	16.7 fps/17.1 fps 3:2: (50 Hz/60 H 14.3 fps/15 fps	z)	(50 Hz/60 Hz) 8.3 fp fps		5:9: (50 Hz/60 Hz) 3 fps/8.6 fps	)
	Analytics		Yes			Yes, in Full Featu	ire Mode	Not supported			
	Camera Operating Mode		N/A			Full Feature = Ca prioritize analtyic other features. H be disabled.	cs over	N/A			
	3D Noise Reduction Filter		Yes			be disabled.					
IMAGE CONTROL	Video Compi	ression	H.264 HDSM SmartCodec, H HDSM SmartCodec, Motion							10K (	( <b>61 MP) H5</b> 9568 X 5
	Streaming		Multi-stream H.264, Multi-str Motion JPEG	eam H.265,						8K (40 MP) H5 Pro 8448 X 4752	
	Bandwidth M		HDSM SmartCodec technolo scene mode						-		
	Motion Deteo	ction	Pixel and Unusual Activity D (UAD)	etection				6.25K (26 MP) H5 P 6240 X 351	2		
	Electronic Sh	utter Control	Automatic, Manual (1/7.5 to 1	(8000 sec)				5K (16 MP) H5 Pro 5344 × 3008	1		
	Iris Control		* Automatic, Manual								
	Flicker Contro	ol	50 Hz, 60 Hz			41 5 MP 2592 X 1944	K (8 MP) H5 Pro 3840 X 2160				
	White Balanc	e	Automatic, Manual		L	3 MP 2048 X 1536					
	Backlight Co	mpensation	Adjustable		1.3 MP	2 MP					
	Privacy Zones		Up to 64 zones		1280 × 1024 1 MP	(1080p) 1920 × 1080					
	Audio Compression Method		Opus, G.711 PCM 8 kHz		(720p) 1280 × 720						
		n selected lens	capability			High Definition Resolution			wigilon H5 Pro Ca	meras K (40 MP), and 10K (61 MP)	
								4K (O MP), JK (IO MP	, 0.25K (20 mP), 0	( (io me), and loc (or me)	
PERIPHERALS	Onboard Sto		2× microSD/microSDHC/mic onboard storage.			or better recomr	mended. Cu	irrently one of the two	SD card s	lots is available fo	or
	Audio Input/C		Line level input and output,	4/V mini-jack (3	3.5 mm)						
	External I/O 1	erminals	Alarm In, Alarm Out								
NETWORK	Network		1000-BASE-T / 100-BASE-TX	or 1000-BASE	-SX / 1000-BA	SE-LX via SFP					
	Cabling Type		CAT5e or Optical Fiber <sup>+</sup>								
	Connector		RJ-45 or SFP <sup>†</sup>								
	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 <sup>‡</sup>		ONVIF compliance Profile S (www.onvif.org).								
	Device Management Protocol SNMP v2c, SNMP v3										
		oorts one netwo	rk connection at a time, either R. nable ONVIF compatibility, whic				s compatible	with 3rd party VMS inte	egration.		
MECHANICAL		oorts one netwo P cameras can e		h will provide a			s compatible	e with 3rd party VMS inte	egration.		
MECHANICAL	‡ 40 and 61 MF	oorts one netwo P cameras can e	nable ONVIF compatibility, whic	h will provide a			s compatible	e with 3rd party VMS inte	egration.		
MECHANICAL	<sup>‡</sup> 40 and 61 MF Dimensions (	oorts one netwo P cameras can e	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6	h will provide a			s compatible	e with 3rd party VMS int	egration.		
MECHANICAL	<sup>‡</sup> 40 and 61 MF Dimensions ( Weight	oorts one netwo P cameras can e	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (1.1 lb)	h will provide a			s compatible	e with 3rd party VMS int	egration.		
MECHANICAL	<sup>‡</sup> 40 and 61 MF Dimensions ( Weight Body	oorts one netwo P cameras can e	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (11 lb) Aluminium	h will provide a 5" x 3.4" x 3.2"			s compatible	e with 3rd party VMS int	egration.		
	<sup>‡</sup> 40 and 61 MF Dimensions ( Weight Body Finish	oorts one netwo 9 cameras can e L x W x H)	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (11 lb) Aluminium Black, Power Coat	h will provide a 5" x 3.4" x 3.2"			s compatible	e with 3rd party VMS int	egration.		
	<sup>‡</sup> 40 and 61 MF Dimensions ( Weight Body Finish Mount	orts one netwo cameras can e L x W x H)	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (11 lb) Aluminium Black, Power Coat 1/4"-20 UNC (top and bottom	h will provide a 5" x 3.4" x 3.2"	single 32 MP pr				egration.		
	t 40 and 61 MF Dimensions ( Weight Body Finish Mount Power Consu	orts one netwo cameras can e L x W x H) imption e	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (1.1 lb) Aluminium Black, Power Coat ¼"-20 UNC (top and bottom 18 W max (camera only)	h will provide a \$" x 3.4" x 3.2" )	single 32 MP pr	mary stream that is			egration.		
	4 40 and 61 MP Dimensions ( Weight Body Finish Mount Power Consu Power Source	orts one netwo cameras can e L x W x H) imption e ector	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (11 lb) Aluminium Black, Power Coat ¼"-20 UNC (top and bottom 18 W max (camera only) VDC: 12 V +/- 10%, 18 W	h will provide a \$" x 3.4" x 3.2" )	single 32 MP pr	mary stream that is			egration.		
ELECTRICAL	4 40 and 61 MP Dimensions ( Weight Body Finish Mount Power Consu Power Consu Power Consu	orts one netwo cameras can e L x W x H) imption e sctor Battery	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (11 lb) Aluminium Black, Power Coat ¼"-20 UNC (top and bottom 18 W max (camera only) VDC: 12 V +/- 10%, 18 W 2-pin terminal block	h will provide a 5" x 3.4" x 3.2" ) VAC: 24 V +/-	single 32 MP pr	mary stream that is			egration.		
ELECTRICAL	4 40 and 61 MP Dimensions ( Weight Body Finish Mount Power Consu Power Source Power Conne RTC Backup	outs one netwo cameras can e L x W x H) imption e ector Battery mperature	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (11 lb) Aluminium Black, Power Coat ¼"-20 UNC (top and bottom 18 W max (camera only) VDC: 12 V +/- 10%, 18 W 2-pin terminal block 3V Manganese Lithium	h will provide a 5" x 3.4" x 3.2" ) VAC: 24 V +/- D °F)	single 32 MP pr	mary stream that is			egration.		
ELECTRICAL	4 40 and 61 MP Dimensions ( Weight Body Finish Mount Power Consu Power Source Power Conne RTC Backup Operating Te	outs one netwo cameras can e L x W x H) imption e ector Battery mperature	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (11 lb) Aluminium Black, Power Coat 14"-20 UNC (top and bottom 18 W max (camera only) VDC: 12 V +/- 10%, 18 W 2-pin terminal block 3V Manganese Lithium -25 °C to +60 °C (-13 °F to 140	h will provide a 5" x 3.4" x 3.2" ) VAC: 24 V +/- D °F)	single 32 MP pr	mary stream that is			egration.		
ELECTRICAL	4 40 and 61 MP Dimensions ( Weight Body Finish Mount Power Consu Power Source Power Source Power Conne RTC Backup Operating Te Storage Tem	orts one netwo cameras can e L x W x H) umption e ector Battery mperature perature	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5.6 0.50 kg (11 lb) Aluminium Black, Power Coat 14"-20 UNC (top and bottom 18 W max (camera only) VDC: 12 V +/- 10%, 18 W 2-pin terminal block 3V Manganese Lithium -25 °C to +60 °C (-13 °F to 144 -10 °C to +70 °C (14 °F to 158	h will provide a 5" x 3.4" x 3.2" ) VAC: 24 V +/- D °F)	single 32 MP pr	mary stream that is			egration.		
MECHANICAL ELECTRICAL ENVIRONMENTAL CERTIFICATIONS	4 40 and 61 MP Dimensions ( Weight Body Finish Mount Power Consu Power Source Power Consu RTC Backup Operating Te Storage Temp Humidity	orts one netwo cameras can e L x W x H) umption e ector Battery mperature perature	nable ONVIF compatibility, whic 142 mm x 87 mm 82 mm; 5,6 0.50 kg (11 lb) Aluminium Black, Power Coat ¼*-20 UNC (top and bottom 18 W max (camera only) VDC: 12 V +/- 10%, 18 W 2-pin terminal block 3V Manganese Lithium -25 °C to +60 °C (-13 °F to 144 -10 °C to +70 °C (14 °F to 158 0 - 95% non-condensing	h will provide a S" x 3.4" x 3.2" ) VAC: 24 V +/- D °F) °F)	10%, 21 VA ROHS	PoE+: IEEE802.3	at Class 4 d		egration.		
ELECTRICAL	4 40 and 61 MP Dimensions ( Weight Body Finish Mount Power Consu Power Consu Power Consu Power Consu RTC Backup Operating Te Storage Tem Humidity Certifications Safety	orts one netwo cameras can e L x W x H) imption e ector Battery mperature perature	nable ONVIF compatibility, which   142 mm x 87 mm 82 mm; 5,6   0.50 kg (11 lb)   Aluminium   Black, Power Coat   ¼*-20 UNC (top and bottom)   18 W max (camera only)   VDC: 12 V +/- 10%, 18 W   2-pin terminal block   3V Manganese Lithium   -25 °C to +60 °C (-13 °F to 144   -10 °C to +70 °C (14 °F to 158   0 - 95% non-condensing   UL cUL	h will provide a S" x 3.4" x 3.2" ) VAC: 24 V +/- ) °F) °F) CE CSA 623	10%, 21 VA ROHS	PoE+: IEEE802.3	at Class 4 d RCM 8-1	compliant	egration.		

# Analytics Specifications

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.
SUPPORTED CLASSIFIED	Object Types in Outdoor Mode	Vehicle, sub-types: Car, Truck, Bicycle, Motorcycle, Bus Person
OBJECT TYPES	Object Types in Indoor Mode	Person
TEACH BY	Teach By Example	Yes, when used with Avigilon Control Center™
EXAMPLE		
CONTROL CENTER (ACC) VERSIONS	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**



# Ordering Information

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

## 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°	$\checkmark$	$\checkmark$	0
LEFS3014SI	Sigma 30mm f/1.4	42.9°	N/A	$\checkmark$	$\checkmark$	0
LEF3514TA	Tamron 35mm f/1.4	37.3°	54.3°	$\checkmark$	$\checkmark$	0
LEF4028CA	Canon 40mm f/2.8	32.9°	48.3°	$\checkmark$	$\checkmark$	0
LEF5014SI	Sigma 50mm f/1.4	28.6°	39.5°	$\checkmark$	$\checkmark$	0
LEF9028TA	Tamron 90mm f/2.8	15.0°	22.6°	$\checkmark$	$\checkmark$	0
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	$\checkmark$	$\checkmark$	0
LEF247028TA2	Tamron 24-70mm f/2.8 VC	19.1° – 52.4°	28.8° – 73.6°	√*	√*	0
LEF7020028TA	Tamron 70-200mm f/2.8 VC	6.8° – 19.1°	10.3° – 28.8°	$\checkmark$	$\checkmark$	$\checkmark$
LEF1506005TA	Tamron 150-600mm f/5-6.3 VC	2.2° – 9.0°	3.4° – 13.7°			$\checkmark$

 $^{\ast}$   $\,$  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	Cold Start
ES-HD-HWS-LG	IP66-rated large housing with heater and wall arm	-40 °C to +55 °C (-40 °F to 131 °F)	Startup delay at temperatures lower than -10 $^\circ C$ (14 $^\circ F)$
ES-HD-CWS-LG	Large housing with cooling fan and wall arm	-25 °C to +60 °C (-13 °F to 140 °F)	N/A
ES-HD-HS-XL	IP66-rated extra large housing with heater. Wall arm sold separately	-40 °C to +60 °C (-40 °F to 140 °F)	Startup delay at temperatures lower than -10 °C (14 °F)

4