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Avigilon H4 License Plate Capture Camera

The Avigilon H4 Licence Plate Capture (LPC) camera is designed to capture vehicle license plates in applications where it is critical to obtain character recognition at typical vehicle speeds. When used with Avigilon License Plate Recognition (LPR) analytics technology, the H4 LPC camera is designed to provide accurate results in a wide variety of lighting conditions. Using infrared illumination and visible light filtering, the H4 LPC camera enables the Avigilon LPR analytics technology to accurately identify license plate characters from a range of distances.

The H4 LPC camera provides exceptional flexibility to cover a wide variety of installation scenarios. It features an integrated lens with remote focus and zoom to allow for dual-lane coverage at wide angles or long-range capture at telephoto - all from a single camera. When ordered as a complete kit, the IR illuminator and the camera's visible light filtering lens are factory calibrated and configured for high performance to help ensure proper illumination day or night.

Key Features

Allows license plate capture up to 100 km/h or 62 mph.

Flexible 4.7-84.6 mm varifocal lens, form factor, and mounting options allow for simplistic deployment in the most challenging of installation environments.

Utilizing video capture firmware specifically designed for this application the H4 LPC camera will ensure that the most accurate image can be analyzed.

Integrated IR illumination capability gives the camera much greater depiction of characters on reflective number plates.

Pre-integrated with Avigilon Control Center (ACC) High Definition Network Video Management System for simple setup.

POE + power for all components allows ease of installation.

Temperature rating from -30 °C (-22 °F) to 50 °C (122 °F) allows for reliable operation in challenging climates.

A three-year warranty on all components.

General Specifications

Maximum Capture Speed	100 km/h (62 mph)
Minimum Illumination	0 lux
IR Illumination	850nm, continuous, field adjustable angle
Maximum IR Illumination Distance	Single Lane: 30m (100ft), Dual Lane: 14m (46ft)
Operating Temperature Range	-30 ºC (-22 ºF) to 50 ºC (122 ºF)
Cold Start Delay	Up to 1.5 hours
Humidity	0 - 95% non-condensing

Camera Specifications

The following are the specifications for the camera, 3.0C-HD-LP-B1.

Image Performance	Image Sensor	1/2.8" progressive scan CMOS
	Aspect Ratio	4:3
	Active Pixels	3MP: 2048 x 1536
	Imaging Area	5.12 mm x 3.84 mm; 0.20" x 0.15"
	Maximum Image Rate	30 fps
	3D Noise Reduction Filter	Yes
Lens	Lens	4.7 – 84.6mm, F1.6, P-Iris, remote focus and zoom
	Angle of View	3.5º – 59º
Image Control	Video Compression	H.264 (MPEG-4 Part 10/AVC), Motion JPEG, HDSM SmartCodec™ Technology
	Streaming	Multi-stream H.264 and Motion JPEG
	Bandwidth Management	HDSM™
	Motion Detection	Selectable sensitivity and threshold
	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/output, A/V mini-jack (3.5 mm)
	External I/O Terminals	Alarm In, Alarm Out
	USB Port	USB 2.0 Micro
Network	Network	100BASE-TX
	Cabling Type	CAT5
	Connector	RJ-45
	ONVIF®	ONVIF Profile S
	Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication
	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
	Device Management Protocols	SNMP v2c, SNMP v3
Mechanical	Dimensions	168 mm x 76mm x 67mm; 6.6" x 3.0" x 2.6"
	Weight	0.62 kg (1.4 lbs)
	Camera Mount	1/4"-20 UNC (top and bottom)
	Onboard Storage	SD/SDHC/SDXC slot – minimum class 4; class 6 or better recommended
Electrical	Power Consumption	8 W
	Power Source	VDC: 12V +/- 10%, 8W min; PoE: IEEE802.3af Class 3 compliant; VAC: 24V +/- 10%, 12VA min
	Power Connector	2-pin terminal block
	RTC Backup Battery	3V manganese lithium
Environmental	Storage Temperature	-10 ºC to +70 ºC (14 ºF to 158 ºF)
Certifications	Certifications	UL, cUL, CE, ROHS, WEEE, RCM
	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 55032 Class B, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3
	Electromagnetic Immunity	EN 61000-6-1

Enclosure Specifications

The following are the specifications for the camera, ES-HD-LP-HS.

Mechanical		
	Dimensions (W x H x L)	176 mm x 160mm x 514 mm (6.9" x 6.3" x 20.2")
	Internal Usable Area (W x H x L)	100 mm x 70 mm x 250 mm (4.6" x 2.7" x 9.8")
	Tilt Range	Included wall arm: 4° up to 65° down (sunshield full forward) or 12° down to 65° down (sunshield full retracted). ES-HD-MNT-PAR: 27° down to 90° up.
	Weight	3.1 kg (6.6 lbs)
	Window Material	Glass
	Finish	RAL 9002

Electrical		
	Power Consumption	25W
	Power Source	IEEE 802.3at Class 4 PoE+
	Heater	Electronically controlled, Ton 20 °C ± 2 °C (68 °F ± 4 °F), Toff 23 °C ± 2 °C (73.4 °F ± 4 °F)

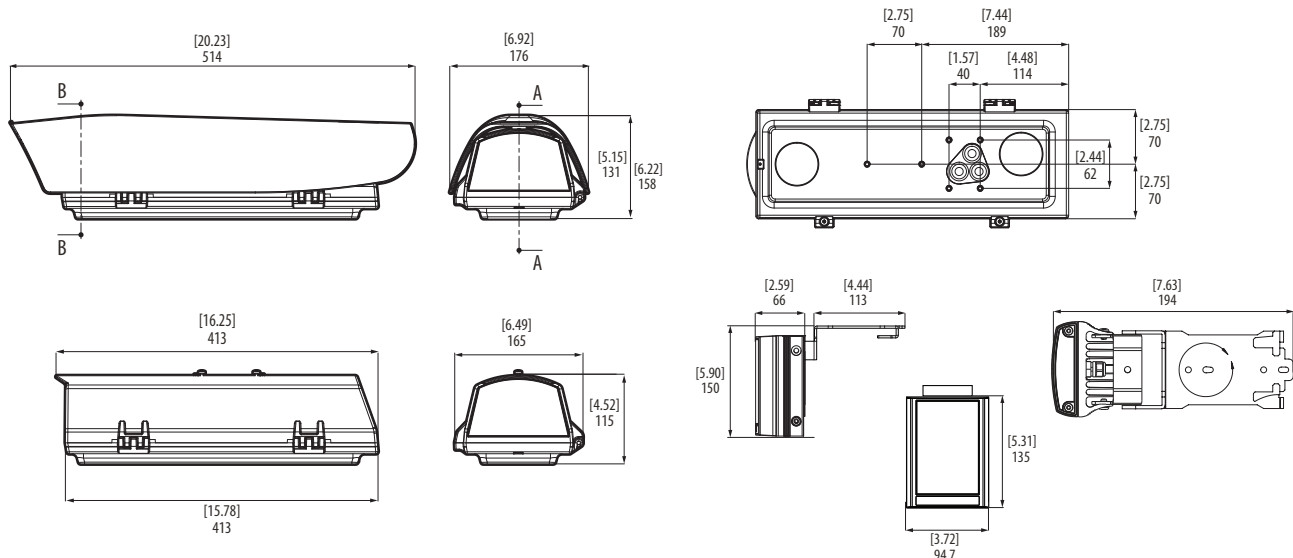| Certifications		
	Certifications	CE, ROHS
	Electromagnetic Emissions	EN 55032, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3
	Electromagnetic Immunity	EN 50130-4
	Environmental	IP 66, Resistant to 1,000 hours of salt fog testing (ISO 9227)

IR Illuminator Specifications

The following are the specifications for the IR illuminator of ES-HD-IR-IP6.

Mechanical		
	Dimensions (W x H x L)	100 x 135 x 66mm (4" x 5" x 2.5")
	Weight	950g (2.1lbs)
	Finish	Black
	CAT5 Cable Length	2.5m included. Female to female CAT5 adapter included.
	Bracket	Included, for mounting to ES-HD-LP-HS.

Illuminator		
	Wavelength	850nm
	Beam Angle	User adjustable lenses included: 35° x 10° (default), 60° x 25° or 10° circular.

Electrical		
	Power Consumption	25W
	Power Source	IEEE 802.3at Class 4 PoE+

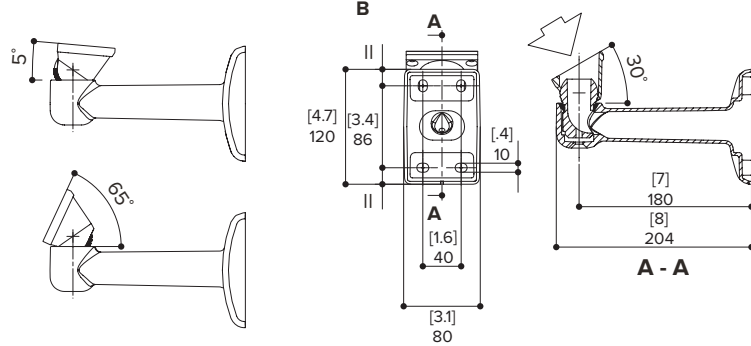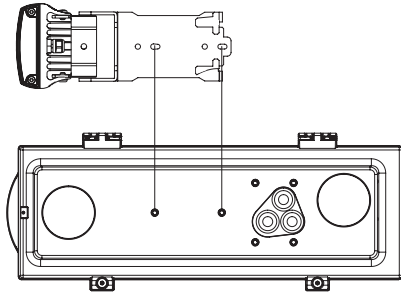| Certifications		
	Certifications	UL, cUL, CE, ROHS, VCCI
	Safety	UL 1598, UL 2108, UL 8750, CSA C22.2 No. 250.0, EN 60598-1, EN 60598-2-1, EN 62471 (Risk Group 2)
	Electromagnetic Emissions	FCC Part 15 Subpart B Class B, EN 55015
	Electromagnetic Immunity	FCC Part 15 Subpart B Class B, EN 61547
	Environmental	IP 66

Outline Dimensions
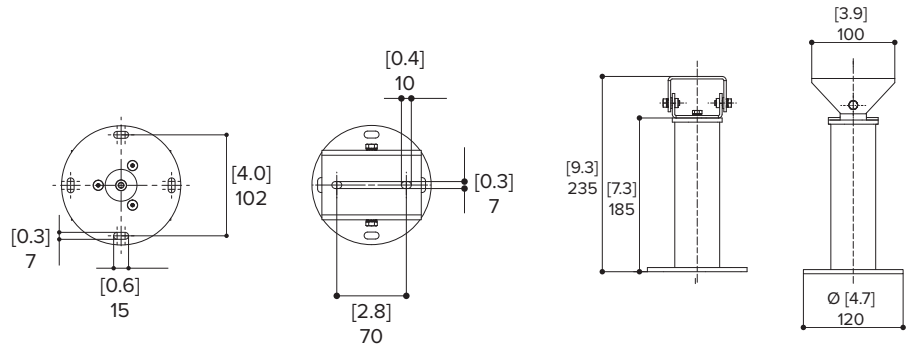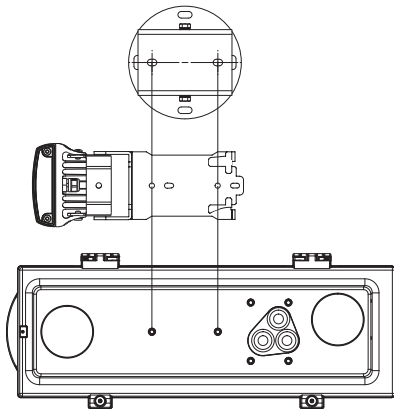
Mounting Adapters

ES-HD-MNT-PAR

Ordering Information

H4 License Plate Capture Kit
Order one of each of the following parts for an H4 License Plate Capture Camera

3.0C-HD-LP-B1	Box camera, 3.0 MP, 4.7-84.6mm f/1.6 lens, with visible light blocker
ES-HD-LP-HS	Standard format enclosure with heater, sunshield and PoE passthrough for a camera. PoE+ powers the camera enclosure and camera using one Ethernet connection. Included mounting arm or ES-HD-MNT-PAR must be used.
ES-HD-IR-IP6	IR illuminator, PoE+, Outdoor, included lens option for 60°, 35°, or 10° horizontal coverage. Included mounting adapter for use with ES-HD-LP-HS and ES-HD-MNT-PAR.

Mounting Adapters
The following are compatible mounting adapters for use with the ES-HD-LP-HS enclosure.

ES-HD-MNT-PAR	Pedestal and ceiling mount for ES-HD-HWS-SM, ES-HD-HWS, ES-HD-CWS, ES-HD-HWS-LG, ES-HD-CWS-LG or ES-HD-LP-HS enclosure.
ES-HD-MNT-POLE-LG	Large pole mount for pole diameter 210mm (8.2 in) to 225mm (8.85 in) for ES-HD-HWS-SM, ES-HD-HWS, ES-HD-CWS, ES-HD-HWS-LG or ES-HD-CWS-LG enclosures when used in conjunction with ES-HD-MNT-PLATE.
ES-HD-MNT-POLE-MD	Medium pole mount for pole diameter 80mm (3 in) to 150mm (5.9 in). Compatible with wall arm included with ES-HD-HWS-SM, ES-HD-HWS, ES-HD-CWS, ES-HD-HWS-LG or ES-HD-CWS-LG enclosures when used in conjunction with ES-HD-MNT-PLATE. Up to two mounting positions.
ES-HD-MNT-POLE-SM	Small pole mount for pole diameter 60mm (2.5 in) to 110mm (4.3 in). Compatible with wall arm included with ES-HD-HWS-SM, ES-HD-HWS, ES-HD-CWS, ES-HD-HWS-LG or ES-HD-CWS-LG enclosures. Up to two mounting positions.
ES-HD-MNT-PLATE	Wall reinforcing wall plate, compatible with ES-HD-HWS-SM, ES-HD-HWS, ES-HD-CWS, ES-HD-HWS-LG or ES-HD-CWS-LG enclosures.
ES-HD-MNT-CORNER	Corner mount adapter. Compatible with wall arm included with ES-HD-HWS-SM, ES-HD-HWS, ES-HD-CWS, ES-HD-HWS-LG or ES-HD-CWS-LG enclosures.

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