

# H5A IR PTZ CAMERA

2 MP

4 MP

8 MP

The Avigilon H5A IR Pan, Tilt and Zoom (PTZ) camera empowers security teams to see more in the dark with an automated IR illumination range of up to 300 meters<sup>1</sup> and the ability to look-up 20 degrees above the horizon. Available in 2, 4 and 8 MP, the H5A IR PTZ delivers 360-degree views, up to 40x zoom<sup>2</sup> and high-resolution imaging for superior situational awareness of vast sites in the most challenging lighting conditions. Whether it's a completely dark airfield or a poorly lit parking lot, the H5A IR PTZ is ready to take on the outdoors with its ability to resist water, corrosion, dust and impact.



## FEATURES



### AUTOMATED IR ILLUMINATION

Sees up to 300 m<sup>1</sup> in complete darkness and ensures consistent scene illumination with the IR projection angle automatically adjusting to its zoom level and field of view.



### NEXT-GENERATION VIDEO ANALYTICS WITH AUTO-TRACKING<sup>3</sup>

Detects more objects with expanded object classifications and automatically tracks objects in zone for faster, decisive responses.



### OPERATIONAL RELIABILITY FOR TRAFFIC MONITORING

Meets NEMA TS2 environmental requirements for deployment in traffic monitoring applications.



### FIPS 140-2 LEVEL 3 COMPLIANT WITH INTEGRATED TPM

FIPS 140-2 Level 3 compliance enables the camera to meet the data security standards that government agencies and heavily regulated enterprises require for deployment.



### ABOVE THE HORIZON LOOK-UP

Provides more coverage than a typical PTZ camera with 360-degree views and the ability to look-up 20 degrees above the horizon.



### WATER, CORROSION, DUST & IMPACT PROTECTION

Protects against water, dust, corrosion and impact with Type 4X, IP66/67/68 and IK10 ratings.



### H.264 & H.265 HDSM SMARTCODEC™ TECHNOLOGY

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



### ONVIF® COMPLIANT

ONVIF Profile S and T compliance enables easy integration with existing ONVIF infrastructures. Profile G compliance supports search, playback and retrieval of recordings on the edge.

<sup>1</sup>300 m IR illumination range on the 2 MP, 150 m on the 4 and 8 MP

<sup>2</sup>40x zoom on the 2 MP, 36x zoom on the 4 and 8 MP

<sup>3</sup>Auto-tracking is estimated to be available in late 2022 via a camera firmware update.

ONVIF is a trademark of Onvif, Inc.

# SPECIFICATIONS

| IMAGE PERFORMANCE                 | 2.0 MP  | 4.0 MP  | 8.0 MP              |
|-----------------------------------|---|---|---------------------|
| Image Sensor                      | 1/2.8" progressive scan CMOS                                  | 1/2.5" Type "Exmor R" CMOS Sensor                             |                     |
| Active Pixels (H x V)             | 1937 (H) x 1097 (V)   | 2688 (H) x 1512 (V)   | 3840 (H) x 2160 (V) |
| Imaging Area (H x V)              | 4.8 mm (H) x 2.7 mm (V); 0.189" (H) x 0.106" (V)              | 6.25 mm (H) x 3.5 mm (V); 0.246" (H) x 0.137" (V)             |                     |
| Minimum Illumination              | 0.3 lux (F/2.0) in color mode; 0.02 lux (F/2.0) in monochrome | 0.3 lux (F/2.0) in color mode; 0.09 lux (F/2.0) in monochrome |                     |
| IR Range                          | 300 m   | 150 m   |                     |
| Dynamic Range                     | 120 dB  | 100 dB  |                     |
| Image Rate                        | Up to 60 fps  | Up to 30 fps  |                     |
| Aspect Ratio (Resolution Scaling) | Down to (16:9) 384 x 216 or (5:4) 320 x 256                   |   |                     |
| 3D Noise Reduction Filter         | Yes   |   |                     |

| LENS                     | 2.0 MP  | 4.0 MP  | 8.0 MP |
|--------------------------|---|---|--------|
| Lens                     | 4.25 to 170 mm, F/1.6, autofocus                                      | 4.4 mm to 88 mm, F/2.0 – F/3.8  |        |
| Angle of View Horizontal | 66.35° – 1.9°   | 69.7° – 2.2°  |        |
| Zoom                     | 40x (with image stabilization off), 30x (with image stabilization on) | 36x (with image stabilization off), 30x (with image stabilization on) |        |

| 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 motion: Selectable sensitivity and threshold. Classified object detection |
| Electronic Shutter Control     | Automatic, Manual (1/30 to 1/30,000 sec)  |
| Iris Control                   | Automatic, Open, Closed   |
| Day/Night Control              | Automatic, Manual   |
| Flicker Control                | 60 Hz, 50 Hz  |
| White Balance                  | Automatic, Manual   |
| Backlight Compensation         | On/Off  |
| Privacy Zones                  | 3D, up to 64 zones  |
| Presets                        | 500 named presets   |
| Tours                          | 10 named tours  |
| Audio Compression Method       | G.711 PCM 8 kHz, Opus 48 kHz  |
| Digital Zoom                   | Up to 100x when used with ACC™ Client for Windows                               |
| Electronic Image Stabilization | Yes   |
| Digital Defog                  | Adjustable/Off  |

| NETWORK                    |   |
|----------------------------|---|
| Network                    | 100BASE-TX  |
| Cabling Type               | CAT5e   |
| Connector                  | RJ-45   |
| ONVIF                      | ONVIF compliance version 1.02, 2.00, Profile S, Profile T, Profile G ( <a href="http://www.onvif.org">www.onvif.org</a> )   |
| Security                   | Password protection, HTTPS encryption, digest authentication, WS authentication, user access log, 802.1x port based authentication, FIPS 140-2 L1 (with optional camera license), FIPS 140-2 L3 (with optional accessory) |
| Protocol                   | IPv6, IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMPv2, ICMP, DHCP, Zeroconf, ARP, HSTS   |
| Streaming Protocols        | RTP/UDP, RTP/UDP multicast, RTP/RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP   |
| Device Management Protocol | SNMP v2c, SNMP v3   |

## PERIPHERALS

|                        |  |
|------------------------|--|
| Audio Input/Output     | Line level input and output  |
| External I/O Terminals | 2 Alarm In, 2 Relay Out  |
| Onboard Storage        | MicroSD/microSDHC/microSDXC slot – video speed class card required. Class V10 or better recommended. |

## MECHANICAL

|                    |   |
|--------------------|---|
| Dimensions (Ø × H) | (Ø) 250 mm × (H) 364 mm<br>(Ø) 9.84 " × (H) 14.33 "                   |
| Weight             | 6.76 kg (14.9 lbs)  |
| Front Window       | Optical Glass Window -Ø 78 mm (3.07 ")                                |
| Wiper              | Integrated with all options   |
| Body               | Aluminum ADC1 + Polycarbonate   |
| Housing            | Pendant Mount   |
| Finish             | Epoxy-polyester powder painted, standard colours grey-white (RAL9002) |
| Tilt               | -20 ° to 90 °   |
| Pan                | Horizontal rotation: 360 °, continuous rotation                       |

## ELECTRICAL

|                    |  |  |
|--------------------|--|--|
| Power Consumption  | 75 W max with 24 VDC aux power supply or 90 W PoE, 110 VA with 24 VAC aux power. |  |
| Power Source       | External Power   | 24 VDC ±10%; 24 VAC rms ±10%, 50 or 60 Hz  |
|                    | PoE*   | IEEE 802.3bt compliant Class 8 (90W) PoE: Pihong POE90U-1BT6-A-RC (Avigilon part number POE-INJ-BT-90W-NA) |
| Power Connector    | Red and Black input wires  |  |
| RTC Backup Battery | 3V manganese lithium   |  |

\* High power PoE is only guaranteed with the IEEE 802.3bt compliant Pihong POE90U-1BT (Avigilon part number POE-INJ-BT-90W-NA) .  
Contact Avigilon sales or Avigilon technical support for more information

## ENVIRONMENTAL

|                       |   |
|-----------------------|---|
| Operating Temperature | Continuous operation from -40 °C to + 60 °C (-40 °F to 140 °F)<br>Wiper is functional at -10 °C to +60 °C (14 °F to 140 °F) |
| Storage Temperature   | -10 °C to +70 °C (14 °F to 158 °F)  |
| Humidity              | 5% to 95%, non-condensing   |
| Wind Speed            | Sustained 241 kph (150 mph)   |

## CERTIFICATIONS

|                               |   |
|-------------------------------|---|
| Certifications/Directives     | UL, cUL, CE, UKCA, ROHS, RCM, NOM   |
| Safety                        | UL 62368-1, CSA 62368-1, IEC/EN 62368-1, IEC/EN 62471   |
| Environmental and Performance | UL/CSA/IEC 60950-22, IEC 62262 IK10 Impact Rating (enclosure only), IEC 60529 IP66, IP67, IP68 Weather Rating, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-30, NEMA TS 2, NEMA Type 4X |
| 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 55035, EN 50130-4, EN 50121-4  |

# ANALYTICS SPECIFICATIONS

## SUPPORTED ANALYTICS EVENTS AT HOME POSITION

|                               |  |
|-------------------------------|--|
| Objects in Area               | The event is triggered when the selected object type moves into the region of interest causing the camera to automatically track the object. Returning to preset position once object is lost.     |
| 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<br>Person |
| Object Types in Indoor Mode  | Person   |

## TEACH BY EXAMPLE

|                  |  |
|------------------|--|
| Teach By Example | Yes, when used with Avigilon Control Center™ |
|------------------|--|

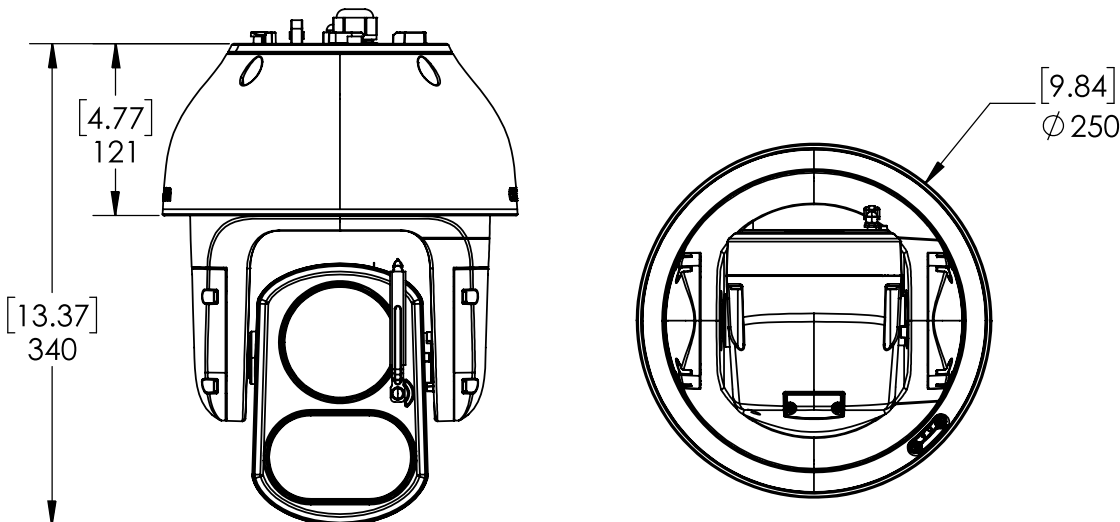
## AVIGILON CONTROL CENTER (ACC) VERSIONS SUPPORTED FEATURES

|                               |   |
|-------------------------------|---|
| 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.<br>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.<br>H.265 supported. |

# OUTLINE DIMENSIONS

## H5A IR PTZ CAMERA (H5A-IR-PTZ)

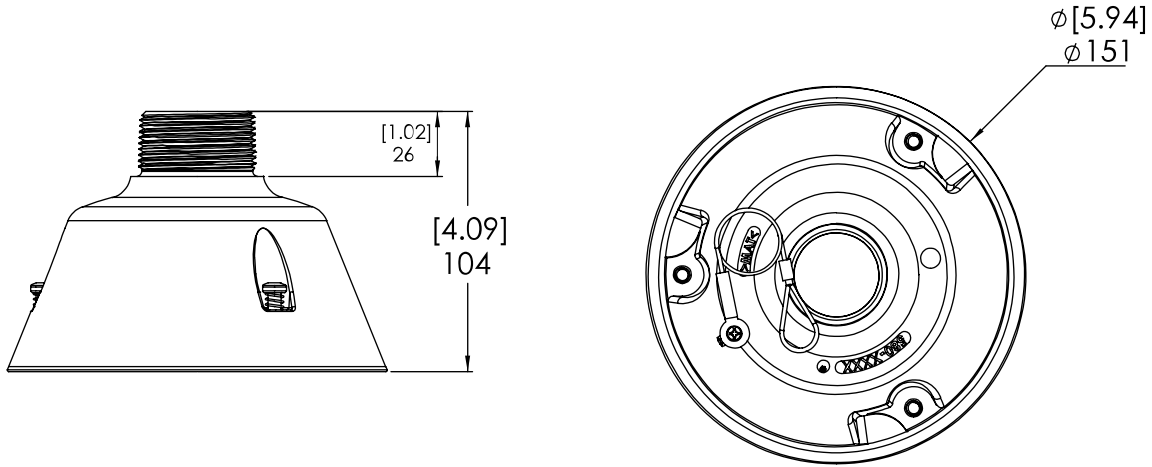
|       |        |
|-------|--------|
| [X.X] | INCHES |
| X     | MM     |



## NPT MOUNT

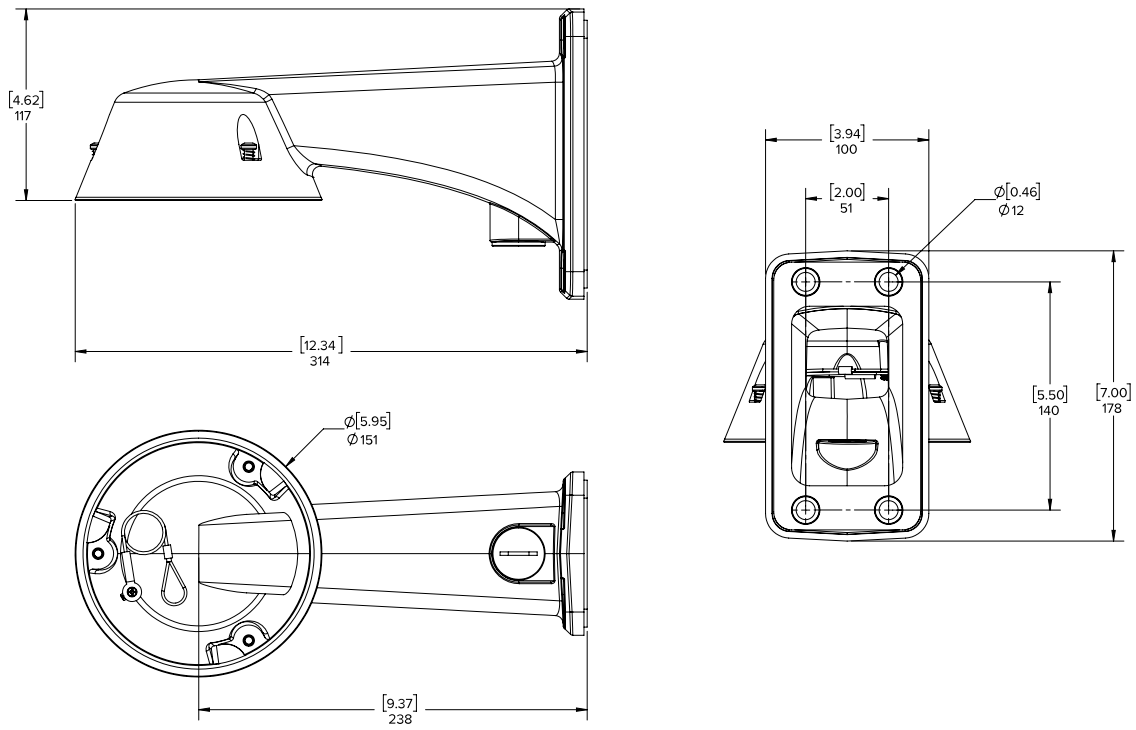
(IRPTZ-MNT-NPTA1)

| [X.X] | INCHES |
|-------|--------|
| X     | MM     |



## WALL MOUNT

(IRPTZ-MNT-WALL1)



# ORDERING INFORMATION

## H5A IR PTZ CAMERAS

|                        | MP  | WDR | DIGITAL WDR | LIGHTCATCHER TECHNOLOGY | ANALYTICS AT HOME POSITION | ZOOM | HDSM SMARTCODEC |
|------------------------|-----|-----|-------------|-------------------------|----------------------------|------|-----------------|
| 2.0C-H5A-IRPTZ-DP40-WP | 2.0 | ✓   |             | ✓                       | ✓                          | 40x* | ✓               |
| 4.0C-H5A-IRPTZ-DP36-WP | 4.0 |     | ✓           | ✓                       | ✓                          | 36x* | ✓               |
| 8.0C-H5A-IRPTZ-DP36-WP | 8.0 |     | ✓           | ✓                       | ✓                          | 36x* | ✓               |

\* For all models, if image stabilization is turned on, max zoom will be 30x

## CAMERA ACCESSORIES

|                   | DESCRIPTION                                    |
|-------------------|--|
| IRPTZ-MNT-NPTA1   | NPT Pendant Adapter                            |
| IRPTZ-MNT-WALL1   | Wall Arm Mount                                 |
| H4-MT-POLE1       | Pole Mounting Bracket                          |
| H4-MT-CRNR1       | Corner Mounting Bracket                        |
| POE-INJ-BT-60W-NA | Gigabit 802.3bt 60 W PoE Injector, single port |
| POE-INJ-BT-90W-NA | Gigabit 802.3bt 90 W PoE Injector, single port |
| H5PTZ-ACC-CABL1   | Cable gland nut kit, pack of 10                |

## SUPPORT

Learn more and find additional documentation at [avigilon.com](https://www.avigilon.com) or email [sales@avigilon.com](mailto:sales@avigilon.com) for specific product support.



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