

# HAC-HUM3201B

2MP Starlight HDCVI Pinhole Camera



## HDCVI

- $\cdot$  Starlight, 120dB true WDR, 3DNR
- · Max 30fp@1080P
- · HD and SD output switchable
- · 3.6mm fixed lens (2.8mm optional)
- $\cdot$  DC12V



#### System Overview

Experience full HD 1080P video with the simplicity of using existing cabling infrastructure. The starlight HDCVI pinhole camera presents high quality image with rich details even under extreme lowlight environment and supports 120dB true WDR. It offers multi-language OSD and HD/SD switchable output. The compact design and high image performance makes the pinhole camera an ideal choice for invisible monitoring applications such as ATM.

#### Functions

#### Elaborate Design

For better adapting the applications for invisible monitoring, the pinhole camera is designed with micro-sized compact case, which minimizes the interference against on-going activities. Taking aesthetics requirements into consideration, the body of the camera is all-black.

#### 4 Signals over 1 Coaxial Cable

HDCVI technology supports 4 signals to be transmitted over 1 coaxial cable simultaneously, i.e. video, audio\*, data and power. Dual-way data transmission allows the HDCVI camera to interact with the HCVR, such as sending control signal or triggering alarm. Moreover, HDCVI technology supports PoC for construction flexibility.

\* Audio input is available for some models of HDCVI cameras.

#### Simplicity

HDCVI technology inherits the born feature of simplicity from traditional analog surveillance system, making itself a best choice for investment protection. HDCVI system can seamlessly upgrade the traditional analog system without replacing existing coaxial cabling. The plug and play approach enables full HD video surveillance without the hassle of configuring a network.

#### Starlight

With the adoption of high performance sensor, the camera is able to provide incomparable performance even under extreme lowlight environment. The starlight feature allows more details to be captured and accurate color to be recognized at night or in scenes with limited illumination.

#### Wide Dynamic Range

Embedded with industry leading wide dynamic range (WDR) technology, vivid pictures are achieved even in the most intense contrast lighting conditions. True WDR (120dB) optimizes both the bright and dark areas of a scene at the same time to provide amazing usable video.

#### **Multi-formats**

The camera supports multiple video formats including HDCVI, CVBS and other two common HD analog formats in the market. The four formats can be switched over through OSD menu or by PFM820(UTC controller). This feature makes the camera to be compatible with not only HCVRs but also most end users' existing HD/SD DVRs.

#### Multi-language OSD

OSD menu provides multiple image adjustments and function settings to meet the requirements of different monitoring scenes. The OSD menu includes configurations such as backlight mode, day/night, white balance and privacy mask. The camera supports 11 languages for OSD menu, namely, Chinese, English, French, German, Spanish, Portuguese, Italian, Japanese, Korean, Russian and Polish.

#### Protection

Supporting  $\pm 25\%$  input voltage tolerance, this camera suits the unstable power supply conditions. Its 4KV lightning rating provides protection against the camera and its structure from the effects of lightning.

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#### **Technical Specification**

#### Camera

| Image Sensor             | 1/2.8" CMOS                                      |
|--------------------------|--|
| Effective Pixels         | 1937(H)×1097(V), 2MP                             |
| Scanning System          | Progressive                                      |
| Electronic Shutter Speed | PAL: 1/4s~1/100,000s<br>NTSC: 1/3s~1/100,000s    |
| Minimum Illumination     | 0.05Lux/F2.4 (Color), 0.005Lux/F2.4 (B/W), 30IRE |
| S/N Ratio                | More than 65dB                                   |
| IR Distance              | N/A  |
| IR On/Off Control        | N/A  |
| IR LEDs                  | N/A  |
| Lens                     |  |
| Lens Type                | Fixed lens / Fixed iris                          |
| Mount Type               | Board-in   |
| Focal Length             | 3.6mm (2.8mm Optional)                           |
| Max Aperture             | F2.4   |
| Angle of View            | H: 92°(103°)                                     |
| Focus Control            | N/A  |
| Close Focus Distance     | 600mm (500mm)<br>23.6" (19.7")                   |

#### DORI Distance

Note: The DORI distance is a "general proximity" of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.

|           | DORI<br>Definition   | Distance                               |
|-----------|----------------------|--|
| Detect    | 25px/m<br>(8px/ft)   | 2.8mm: 42m(138ft)<br>3.6mm: 51m(167ft) |
| Observe   | 63px/m<br>(19px/ft)  | 2.8mm: 17m(55ft)<br>3.6mm: 20m(67ft)   |
| Recognize | 125px/m<br>(38px/ft) | 2.8mm: 8m(28ft)<br>3.6mm: 10m(33ft)    |
| Identify  | 250ppm<br>(76px/ft)  | 2.8mm: 4m(14ft)<br>3.6mm: 5m(17ft)     |

#### Pan / Tilt / Rotation

| Pan/Tilt/Rotation | Pan: $0^{\circ} \sim 360^{\circ}$<br>Tilt: $0^{\circ} \sim 180^{\circ}$<br>Rotation: N/A |
|-------------------|--|
| Video             |  |
| Resolution        | 1080P (1920×1080)  |
| Frame Rate        | 25/30fps@1080P, 25/30fps@720P  |
| Video Output      | 1-channel BNC high definition video output / CVBS video output (Can switch)              |

| Day/Night                                 | Auto (Electronic) / Manual  |
|---|---|
| OSD Menu                                  | Multi-language  |
| BLC Mode                                  | BLC / HLC / WDR   |
| WDR                                       | 120dB   |
| Gain Control                              | AGC   |
| Noise Reduction                           | 2D / 3D   |
| White Balance                             | Auto / Manual   |
| Smart IR                                  | N/A   |
| Certifications                            |   |
| Certifications                            | CE (EN55032, EN55024, EN50130-4)<br>FCC (CFR 47 FCC Part 15 subpartB, ANSI C63.4-2014)            |
| Interface                                 |   |
| Audio Interface                           | N/A   |
| Eelectrical                               |   |
| Power Supply                              | 12V DC ±25%   |
| Power Consumption                         | Max 1.2W (12V DC)   |
| Environmental                             |   |
| Operating Conditions                      | -30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH * Start up should be done at above-30°C (-22°F) |
| Storage Conditions                        | -30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH   |
| Ingress Protection & Vandal<br>Resistance | N/A   |
| Construction                              |   |
| Casing                                    | Aluminium   |
| Dimensions                                | 35.5mm×29.9mm×22.1mm (1.40"×1.18"×0.87")  |
| Net Weight                                | 0.09kg (0.20lb)   |
| Gross Weight                              | 0.12kg (0.27lb)   |

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#### **Ordering Information**

| Туре        | Part Number         | Description                                 |  |
|-------------|---------------------|---|--|
| 2MP Camera  | HAC-HUM3201BP 2.8mm | 2MP Starlight HDCVI Pinhole<br>Camera, PAL  |  |
|             | HAC-HUM3201BP 3.6mm |   |  |
|             | HAC-HUM3201BN 2.8mm | 2MP Starlight HDCVI Pinhole<br>Camera, NTSC |  |
|             | HAC-HUM3201BN 3.6mm |   |  |
| Accessories | PFM321              | 12V 1A Power Adapter                        |  |
|             | PFM320D-015         | 12V 1.5A Power Adapter                      |  |
|             | PFM320              | 12V 2A Power Adapter                        |  |

### Accessories

Optional:



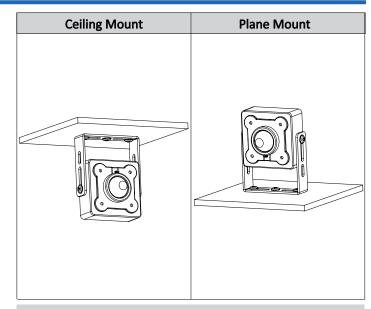
12V 1A Power Adapter

PFM321

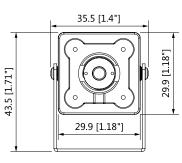


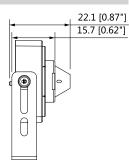


PFM320D-015 Power Adapter



#### Dimensions (mm/inch)







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