

SECTION 282329

H.264 1080p TRUE DAY/NIGHT HIGH RESOLUTION NETWORK BOX CAMERA

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Indoor 1080p high resolution true day/night network box camera system for video surveillance.

1.2 RELATED SECTIONS

NOTE TO SPECIFIER: Include related sections as appropriate if camera system is integrated to other systems.

- A. Section 260500 – Common Work Results for Electrical, for interface and coordination with building electrical systems and distribution.
- B. Section 280513 – Conductors and Cables for Electronic Safety and Security, for cabling between system servers, panels, and remote devices.
- C. Section 280528 – Pathways for Electronic Safety and Security, for conduit and raceway requirements.
- D. Section 282323 – Video Surveillance Systems Infrastructure.
- E. Section 282329 – Video Surveillance Remote Devices and Sensors.

1.3 REFERENCES

- A. Reference Standards: Provide systems that meet or exceed the requirements of the following publications and organizations as applicable to the Work of this Section:
 - 1. Canadian ICES-003
 - 2. Canadian Standards Association (CSA)
 - 3. Conformity for Europe (CE)
 - 4. Electronic Industry Association (EIA)
 - 5. Federal Communications Commission (FCC)
 - 6. Joint Photographic Experts Group (JPEG)
 - 7. National Television Systems Committee (NTSC)
 - 8. Phase Alternating Line (PAL)
 - 9. Underwriters Laboratories Inc. (UL)

1.4 SYSTEM DESCRIPTION

- A. The 1080p high resolution true day/night network box camera shall be a discreet indoor box camera that can be mounted on a bracket or tripod. The high resolution true day/night network box camera shall be upgradeable to an outdoor camera by using a suitable weatherproof enclosure.
- B. Basis-of-design is the Honeywell HCD5HIH 1080p high resolution true day/night network box camera.

1.5 SUBMITTALS

- A. Manufacturer's Product Data: Submit manufacturer's data sheets indicating systems and components proposed for use, including instruction manuals.
- B. Shop Drawings: Submit complete shop drawings including connection diagrams for interfacing equipment, list of connected equipment, and locations for major equipment components.

- C. Record Drawings: During construction maintain record drawings indicating location of equipment and wiring. Submit an electronic version of record drawings not later than Substantial Completion of the project.
- D. Operation and Maintenance Data: Submit manufacturer's operation and maintenance data, customized to the system installed. Include system and operator manuals.
- E. Field Tests: Submit results of field testing of every device including date, testing personnel, retesting date if applicable, and confirmation that every device passed field testing.
- F. Maintenance Service Agreement: Submit a sample copy of the manufacturer's maintenance service agreement, including cost and services for a one year period for Owner's review. Maintenance shall include, but not be limited to, labor and materials to repair the system, tests and adjustments, and regular inspections.

1.6 QUALITY ASSURANCE

- A. Manufacturer: Minimum ten years experience in manufacturing and maintaining 1080p high resolution true day/night network box camera systems. Manufacturer shall provide toll-free technical assistance and support available 24/7.
- B. Installer: Minimum two years experience installing similar systems, and acceptable to the manufacturer of the 1080p high resolution true day/night network box camera system.
- C. Regulatory Requirements:
 - 1. Emissions: FCC (47 CFR 15), CE (EN55022).
 - 2. Immunity: CE (EN50130-4).
 - 3. Safety: UL/CSA 60950-1.
- D. Environmental Requirements (without environmental housing):
 - 1. Operating temperatures shall be between -10 degrees C (14 degrees F) and 50 degrees C (122 degrees F).
 - 2. Storage temperatures shall be between -20 degrees C (-4 degrees F) and 60 degrees C (140 degrees F).
- E. Power Requirements: Input voltage shall be 24 V AC or PoE IEEE 802.3af.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's labeled packages. Store and handle in accordance with manufacturer's requirements, in a facility with environmental conditions within recommended limits.

1.8 WARRANTY

- A. Manufacturer's Warranty: Submit manufacturer's standard three-year warranty.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. 1080p High Resolution True Day/Night Network Box Camera System manufacturer: Honeywell Video Systems HCD5HIH 1080p high resolution true day/night network box camera, www.honeywellvideo.com.
- B. Accepted Part Numbers:
 - 1. HCD5HIH
 - 2. HCD5HIHX

2.2 SYSTEM COMPONENTS

- A. 1080p high resolution true day/night network box camera, lens, cabling.

2.3 OPERATIONAL REQUIREMENTS

- A. The 1080p high resolution true day/night network box camera system shall meet or exceed the following camera specifications:
 - 1. Image Sensor: 1/2.7-inch CMOS
 - 2. Total Pixels: NTSC: 1920 (H) × 1080 (V)
 - 3. Minimum Illumination (50 IRE): 0.18 lux (color), 0.15 lux (b/w)
 - 4. Shutter Speed (NTSC and PAL): 1/30–1/130,000 seconds
 - 5. Video Output: AUX: 1.0 V_{p-p} , 75 ohms
 - 6. White Balance: Auto White Balance Control (Auto), Manual, WBC Push
 - 7. Signal-to-Noise Ratio: 50 dB or higher (AGC off)
 - 8. Audio: Two way (line in/out)
 - 9. Synchronization: Internal
- B. The 1080p high resolution true day/night network box camera system shall provide true day/night functionality with an infrared (IR) cut filter for day mode.
- C. The 1080p high resolution true day/night network box camera system shall provide 3D digital noise reduction, electronic light compensation, automatic light compensation, automatic gain control, flickerless mode, and digital slow shutter.
- D. The 1080p high resolution true day/night network box camera system shall provide fully configurable motion detection settings.
- E. The 1080p high resolution true day/night network box camera shall provide an RJ45 connection option and a second video service connector.
- F. The 1080p high resolution true day/night network box camera shall provide 24 V AC or PoE IEEE 802.3af operation.
- G. The 1080p high resolution true/day night network box camera shall provide dual video streaming with H.264 and MJPEG compression.
- H. The 1080p high resolution true/day night network box camera shall support PSIA specification for interoperability between network video products.
- I. The 1080p high resolution true/day night network box camera shall support remote firmware updates.

- J. The 1080p high resolution true/day night network box camera shall support input and output alarm contacts, and bidirectional audio.
- K. The 1080p high resolution true day/night network box camera housing shall consist of die cast aluminum with cool gray powder coat finish.

2.4 MANUFACTURER SUPPORT

- A. Manufacturer shall provide customer service, pre-sales applications assistance, after-sales technical assistance, access to online technical support, and online training using Web conferencing.
- B. Manufacturer shall provide 24/7 technical assistance and support by means of a toll-free telephone number at no extra charge.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine site conditions prior to installation. Notify Architect and Owner in writing if unsuitable conditions are encountered. Do not start installation until site conditions are acceptable.

3.2 INSTALLATION

- A. Test all camera components before shipping to the project location.
- B. Camera system shall be installed, programmed, and tested in accordance with manufacturer's installation instructions.
 - 1. Coordinate interfaces with Owner's representative where appropriate.
 - 2. Provide cable and wire for a complete and reliable installation. Obtain Owner's approval for exact location of all boxes, conduit, cable, and wiring runs prior to installation.
 - 3. Install conduit, cable, and wire parallel and square with building lines, including raised floors areas. Do not exceed 40 percent fill in conduits. Gather wires and tie to create an orderly installation.
 - 4. Coordinate with other trades to provide proper sequencing of installation.

3.3 FIELD COMMISSIONING AND CERTIFICATION

- A. Field Commissioning: Test camera system as recommended by manufacturer, including the following:
 - 1. Conduct complete inspection and testing of equipment, including verification of operation with connected equipment.
 - 2. Test devices and demonstrate operational features for Owner's representative and authorities having jurisdiction, as applicable.
 - 3. Correct deficiencies until satisfactory results are obtained.
 - 4. Submit written copies of test results.

3.4 TRAINING

- A. Conduct on-site system administrator and security/surveillance operator training, with the number of sessions and length of sessions as recommended by the video surveillance system manufacturer. Training shall include administration, configuration, operation, and diagnostics.

END OF SECTION