Camera 1. Bullet Camera

Additional
- 1x Waterproof RJ45 connector kit
- 1x Screw kit (4x screws, 4x raw plugs)
- 1x Torx Wrench
- 1x Power Cable Adaptor
- 1x BNC Cable Adaptor
- 1x Installation template

Connections

The camera is fitted with a preterminated cable bundle for easy installation.

Table 1: Connections

<table>
<thead>
<tr>
<th>No.</th>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Audio output (RCA)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Audio Input (RCA)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ethernet port (RJ45)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I/O connections</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>DC 12V power</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: I/O connection wiring

<table>
<thead>
<tr>
<th>No.</th>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ALARM_NO</td>
<td>Alarm output (normal-open) Must be used with ALARM_COM port</td>
</tr>
<tr>
<td>2</td>
<td>ALARM_COM</td>
<td>Alarm output</td>
</tr>
<tr>
<td>3</td>
<td>ALARM_IN1</td>
<td>Alarm input 1</td>
</tr>
<tr>
<td>4</td>
<td>ALARM_IN2</td>
<td>Alarm input 2</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td>Ground port</td>
</tr>
</tbody>
</table>

Safety Notices

Warning
- Ensure that the camera is disconnected from the network, or that PoE power is disabled, during installation.
- When installing the camera, fasten it securely to the surface. A falling camera may cause personal injury.
- Do not dismantle the device or attempt repairs yourself. Repairs must be done by IndigoVision Limited representatives.
- Ensure that the power supply conforms to the SELV (Safety Extra Low Voltage) safe level.

Caution
- Handle the camera with care, supporting the body. Ensure that the main electronics and components are not damaged. Do not hold the camera by the cable bundle. Only transport, store and install in suitable environments.
- For security reasons, you must change the camera’s default username and password. Ensure each camera has a unique IP address.
- Using the incorrect voltage or using two power supplies at the same time can damage the camera. Ensure that the correct voltage is used.
- Do not aim at strong light, such as sunlight or electric lighting.
- Ensure that you install the network cable in a location where it will not be trampled or crushed.
- Cameras powered by PoE have been evaluated as network environment “0” (basic insulation) and are not intended for routing outside a common building. Cable runs for cameras should only be run within a common building.

Regulatory
- EN 50130-4
- EN 55022 Class A
- EN 61000-4-4
- EN 60068-2-1:2007
- EN 60068-2-2:2007
- EN 60068-2-6:2008
- EN 60068-2-27:2009
- EN 60068-2-30:2007
- EN 60068-2-64:2008
- EN 60529
- EN 61000-3-2
- EN 61000-3-3
- EN 61000-4-2
- EN 61000-4-3
- EN 61509-3
- EN 62262
- FCC Part 15 Subpart B Class A
- UL 5050
- RoHS directive 2002/95/EC

Environment
- Temperature: Operating: -40°C to +65°C (-40°F to 140°F) Cold start: -20°C (-4°F)
- Storage: 0°C to +50°C (32°F to 122°F)
- Maximum Humidity: 95%
1. **POWERING UP THE CAMERA**

The camera is a Power Over Ethernet (PoE) - Class 0 powered device compliant with the IEEE802.3af standard.

If PoE is not available the camera can be powered using the auxiliary power.

The camera can be powered by the following:

- Power over Ethernet (PoE) switch
- PoE injector/midspan
- Auxiliary power supply
- 12V DC with a maximum power of 12 Watts

A suitable power supply can be ordered separately (Part numbers: High PoE Injector 130176, auxiliary power supply 11006B).

2. **CONFIGURING THE CAMERA**

Before you connect the camera to your network, you must configure the camera's IP address and subnet mask appropriately.

**Configure the settings**

1. Connect the camera to a PC via a PoE switch or an Ethernet crossover cable.
2. Navigate to the camera's default IP address using a web browser, and enter the default user name and password.

<table>
<thead>
<tr>
<th>Table 3: Default network settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Username: Admin</td>
</tr>
<tr>
<td>Default Password: 1234</td>
</tr>
<tr>
<td>Default IP Address: 10.5.1.10</td>
</tr>
<tr>
<td>Default Subnet Mask: 255.0.0.0</td>
</tr>
<tr>
<td>Default Gateway: 10.0.0.1</td>
</tr>
</tbody>
</table>

3. Enter the NTP server and port on the Setup > System > General > Date&Time menu.
4. Enter a new IP address and subnet mask on the Setup > Network > TCP/IP menu.
5. Select the video standard for your region using the Video Standard option on the Setup > System > General menu. Choose PAL for countries with 50 Hz power frequency and NTSC for countries with 60 Hz power frequency.

**Binary I/O connections**

The Bullet Camera has one binary input and one binary output. These are connected using the Alarm I/O connections on the camera.

**Binary input**

The binary input is operated by connecting the input directly to GND.
- 10kΩ Pull-up input to 3.3V
- Normally high

The input must be configured on the Web Configuration pages to ensure correct behavior.

**Binary output**

The binary output is a solid state open collector output:
- Max load voltage: 5V AC/DC
- Max current carrying capacity: 30mA

The binary output is not polarity sensitive and is normally open. This can be configured on the Web Configuration pages.

3. **INSTALLATION**

After you have configured your camera's IP settings, you are ready to install it in its final position.

**Bullet Camera installation**

The Bullet Camera can be installed directly on a wall or ceiling.

**Mounting the camera**

1. Fix the installation template in the correct location with the correct orientation for the surface, for example, ceiling or wall.
2. Following the Installation template, drill 4 holes in the installation surface for the rawplugs.
3. Insert the 4 rawplugs (2) into the holes in the installation surface.
4. Align the base of the camera (3) over the rawplugs.
5. Insert the screws (1) into the rawplugs and fasten them firmly.
6. Connect the cable bundle.
7. Adjust the position of the camera as required by loosening the adjustment screw (5).

**Figure 3 Adjustment screws**

Ensure you fasten the adjustment screw securely after making any adjustment.

8. Adjust the sunshade as required by loosening the adjustment screw on sunshade (4).

Ensure you fasten the adjustment screw securely after making any adjustment.

4. **OPERATIONS**

**Focus the camera**

To focus the camera, click Setup > Camera > Conditions > Zoom and Focus on the camera's Configuration page.

**Monitoring video during installation**

You can use the BNC cable adaptor to connect a monitor to the camera picture during installation to ensure it is aligned correctly.

Open the panel on the underside of the camera (6) and connect the BNC cable adaptor to the BNC port for setup.

**SD card installation**

To install an SD card, open the panel on the underside of the camera (6) and insert the SD card into the slot.

**Reset to factory defaults**

To reset the camera settings to factory defaults, open the panel on the underside of the camera (6) and press and hold the RESET button on the camera for ten seconds.

The camera settings are restored to the default settings in Table 3.