

## SNC-VB632D

Outdoor Dual-light Bullet  
1080p/60 fps Camera Powered  
by IPELA ENGINE EX™



### Overview

**Weather-resistant ‘bullet type’ fixed camera with IPELA ENGINE EX™ processing for superb Full HD quality and high sensitivity, image stabilisation and dual illumination system for night operation**

The SNC-VB632D is a weather-resistant, easy to install ‘bullet-type’ fixed network camera. It’s ideal for a wide range of round-the-clock security and surveillance tasks, from city centres, transport systems and retail centres to schools and colleges.

Sony’s acclaimed Exmor CMOS sensor captures smooth, crisp Full HD pictures at 60 frames per second, with industry-leading sensitivity for clear, low-noise images in challenging low light conditions. The award-winning IPELA ENGINE EX platform uses unique signal processing to boost image quality in a wide range of operating environments, while state-of-the-art video analytics technologies offer more efficient security operations based on user-defined rules.

View-DR expands dynamic range to assist with identifying human faces and other objects in high-contrast and strongly backlit scenes, like sun-drenched office buildings or car park entrances. Visibility Enhancer (VE) dynamically fine-tunes image brightness and colours on a pixel-by-pixel basis, while XDNR (eXcellent Dynamic Noise Reduction) dramatically reduces noise,

minimising motion blur in low light conditions. DEPA Advanced Intelligent Video Analytics to trigger an alarm based on user-defined rules.

The camera can see in conditions of complete darkness. Built-in IR (infrared) illumination is complemented by an additional white LED illuminator that can be triggered by movement, capturing clear colour footage and providing a visual warning to intruders. Advanced IR technology ensures that near and far-away objects are all evenly exposed.

The image stabiliser keeps images stable for crisper footage, even when the camera is subject to vibration on a mounting pole or bracket.

Designed for round-the-clock outdoor use, the unitised camera can operate in extreme temperatures from -40°C to +60°C (IR and white-light illuminators: OFF) and is IP66 rated for resistance to water and dust. The unique mounting arm simplifies installation with flexible three-axis adjustment of viewing angle (when installed on the ceiling). For extra convenience, a built-in sunshade helps cut glare for improved picture quality and contrast on brightly-lit days.

Please be aware that features and specifications are subject to change without notice and can differ from country to country.

## Features

### **See every detail with Full HD quality and high frame rate**

The high-resolution 1/2.9-type Exmor CMOS sensor captures smooth, crisp Full HD video images (up to 1920 x 1080) at 60 frames per second for a clear view of split-second action. Class-leading sensitivity assures improved picture quality in low light conditions like dimly-lit car parks.

## **Advanced imaging performance with IPELA ENGINE EX**

Sony's powerful IPELA ENGINE EX processing platform combines several technologies that optimise Full HD picture quality. View-DR combines images taken at different shutter speeds, delivering a wide dynamic range up to 90 dB for excellent performance in high-contrast, strongly backlit environments. Visibility Enhancer (VE) dynamically optimises brightness and colour tone on a pixel-by-pixel basis, while XDNR (eXcellent Dynamic Noise Reduction) reduces noise, minimising motion blur under low illumination.

## **Don't miss that crucial moment with Intelligent Motion Detection and Face Detection**

Powerful DEPA Advanced video analytics enhances Intelligent Motion Detection and rule-based alarm triggers, providing alerts with object filters like 'passing' and 'intrusion' to reduce false alarms. Face Detection allows rapid indexing of recordings to find events where a human face is visible in the scene.

## **See in the dark with dual light system**

The built-in infrared (IR) illuminator allows crisp monochrome images to be seen in total darkness up to 30m from the camera. It's complemented by an additional white LED illuminator that can be triggered by movement, capturing colour images while providing a powerful visual deterrent to intruders.

## **Advanced IR**

Advanced IR accurately reproduces objects without overexposure – even close to the camera, where details are often bleached out and impossible to see clearly with conventional IR cameras.

## **Steadier, more stable video footage**

The built-in image stabiliser minimises the effects of camera shake – for example when the camera's subject to wind or traffic vibration. With clearer, more stable video images it's easy to see

what's happening in any scene.

### **Better pictures, day or night**

True D/N (Day/Night) function automatically switches the camera to Day or Night mode, depending on ambient light levels.

### **Recording quality to suit your network**

Select CBR (constant bitrate), VBR (variable bitrate) or VBR-with-cap compression modes for optimised recording quality depending on IP network conditions.

### **Edge storage onto memory card**

Video can be automatically recorded onto an optional SD memory card up to 64 GB in the camera, in response to an alarm trigger or if a network connection is temporarily unavailable.

### **Adjustable sunshade**

An integrated sunshade protects the lens from direct sun glare, making the camera particularly suitable for outdoor use in direct sunlight. It also helps guard the lens cover from rain drops and splashes that can degrade picture quality.

### **Built to effortlessly handle tough conditions**

The camera can operate reliably over a wide -40 to +60°C (IR and white-light illuminators: OFF) temperature range, from scorching sunshine to freezing conditions. The camera's vandal-resistant design meets the IK08 standard (protection against mechanical impact). IP66-rated waterproof and dust-tight, the camera is ideal for outdoor surveillance.

### **Easy installation and set-up**

The unitised camera can be installed easily, with no need for an additional adaptor box. Setup is simplified with quick focus/zoom adjustment and flexible three-axis adjustment of viewing angle (when installed on the ceiling)

### **Reduce cabling costs with Power Over Ethernet**

## (PoE)

Power over Ethernet (PoE) allows the camera be powered using the same Ethernet cable that's for data transfer, reducing installation complexity and costs.

## ONVIF (Open Network Video Interface Forum) compliance

Support for ONVIF simplifies integration with a wide range of video management solutions, providing video streaming and camera control. ONVIF (Open Network Video Interface Forum) defines a common protocol for the exchange of information between network video devices, including automatic device discovery and video streaming.

## Specifications

### Camera

|                               |  |
|-------------------------------|--|
| Image Sensor                  | 1/2.9-type progressive scan Exmor CMOS sensor  |
| Number of Effective Pixels    | Approx. 2.14 Megapixels  |
| Signal System                 | NTSC/PAL (switchable)  |
| Sync System                   | Internal synchronization   |
| Minimum Illumination (50 IRE) | Color: 0.1 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)<br>B/W: 0 lx (IR illuminator On) |
| Minimum Illumination          | Color: 0.06 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)                                 |

|                          |  |
|--------------------------|--|
| (30 IRE)                 | B/W: 0 lx (IR illuminator On)  |
| Dynamic Range            | Equivalent to 90 dB with View-DR technology  |
| S/N Ratio (Gain 0 dB)    | More than 50 dB  |
| Gain                     | Auto   |
| Shutter Speed            | 1/1 s to 1/10,000 s  |
| Exposure Control         | Exposure compensation, Shutter speed, Iris   |
| White Balance            | ATW, ATW-PRO, Fluorescent lamp, Mercury lamp, Sodium vapour lamp, Metal halide lamp, White LED, One push WB, Manual, Indoor, Outdoor |
| Lens                     | Built-in varifocal lens  |
| Easy Zoom                | Yes  |
| Zoom Ratio               | Optical zoom 3x<br>Digital zoom 4x<br>Total zoom 12x   |
| Easy Focus for Setup     | Yes  |
| Horizontal Viewing Angle | 105.3 ° to 35.6 °  |

|                             |   |
|-----------------------------|---|
| Vertical Viewing Angle      | 56.9° to 20.1°  |
| Focal Length                | f = 3.0 mm to 9.0 mm                                      |
| F-Number                    | F1.2 (Wide) to F2.1 (Tele)                                |
| Minimum Object Distance     | 300 mm  |
| IR Illuminator              | Yes<br>Wave length (typical): 850 nm , IR LED: 20 pieces) |
| IR Working Distance         | 30 m (50 IRE)<br>98 ft. (50 IRE)                          |
| White-light LED Illuminator | Yes ( 4 pieces)   |
| LED Working Distance        | 5 m (50 IRE)  |

## Camera Features

|                                  |           |
|----------------------------------|-----------|
| Day/Night                        | True D/N  |
| Day/Night linked with Easy Focus | Yes       |
| Image rotate                     | 90°, 270° |
| Mirroring                        | Yes       |
| Wide-D                           | View-DR   |

|                                     |  |
|-------------------------------------|--|
| Tone Correction                     | Visibility Enhancer  |
| Noise Reduction                     | XDNR   |
| Image Stabilizer                    | Electronic   |
| Picture Mode                        | Yes  |
| Privacy Masking<br>(number)         | 20   |
| Privacy Masking<br>(shape)          | Quadrangle formed by any four corner points  |
| Privacy Masking<br>(color/effect)   | Opaque 14 colors (Black, White, Red, Green, Blue, Cyan, Yellow, Magenta, Gray (6 scales)), Mosaic                              |
| Edge Storage                        | Yes  |
| Compatibility with<br>Cloud Service | Yes  |
| Voice Alert                         | Yes  |
| Vandal Resistant                    | IK8  |
| Ingress Protection                  | IP66   |
| Superimpose Number                  | 3 independent positions for characters (Codec, Date & Time, Event, Text (Max. 64 characters)), 1 independent position for logo |



|                      |   |
|----------------------|---|
|                      | marks   |
| Superimpose Language | English   |
| Menu Language        | English, Japanese, Chinese (simplified), Chinese (traditional), French, Spanish, German, Italian, Korean, Portuguese, Russian, Arabic, Hindi, Vietnamese, Thai, Turkish, Polish |
| Smartphone viewer    | Yes   |

## Video

|                           |  |
|---------------------------|--|
| Resolution                | 1920 x 1080, 1280 x 720, 1024 x 576, 720 x 576, 720 x 480, 704 x 576, 640 x 480, 640 x 360, 352 x 288, 320 x 184 (H.264, JPEG) |
| Compression Format        | H.264 (High/Main/Baseline Profile), JPEG   |
| Maximum Frame Rate        | H.264: 60 fps (1920 x 1080)<br>JPEG: 60 fps (1280 x 720)   |
| Bitrate Control Mode      | CBR/VBR (selectable)   |
| Range of Bit Rate Setting | 64 Kbps to 32 Mbps   |

|                            |         |
|----------------------------|---------|
| Solid PTZ                  | Yes     |
| e-Varifocal                | Yes     |
| Adaptive Rate Control      | H.264   |
| Bandwidth Control          | JPEG    |
| Multi streaming Capability | Yes (3) |
| Number of Clients          | 20      |

## Intelligent Video/Audio Analytics

|                              |   |
|------------------------------|---|
| Analytics Architecture       | DEPA Advanced   |
| Intelligent Motion Detection | Yes   |
| Face Detection               | Yes   |
| Tamper Alarm                 | Yes   |
| Scene Analytics              | Passing, Intrusion, Left Object Detection, Removed Object Detection |

## Audio

|                    |                                  |
|--------------------|----------------------------------|
| Compression Format | G.711/G.726/AAC (16 kHz, 48 kHz) |
|--------------------|----------------------------------|

## System Requirements

|                    |  |
|--------------------|--|
| Operating System   | Windows XP (32 bit) Professional Edition                                       |
|                    | Windows Vista (32 bit) Ultimate, Business Edition                              |
|                    | Windows 7 (32/64 bit) Ultimate, Professional Edition                           |
|                    | Windows 8 Pro (32/64 bit)  |
|                    | Windows 8.1 Pro (32/64 bit)  |
| Processor          | Intel Core i7 2.8 GHz or higher  |
| Memory             | 2 GB or more   |
| Web Browser        | Microsoft Internet Explorer Ver. 7.0, Ver. 8.0, Ver. 9.0, Ver. 10.0, Ver. 11.0 |
|                    | Firefox Ver. 19.02 (plug-in free viewer only)                                  |
|                    | Safari Ver. 5.1 (plug-in free viewer only)                                     |
|                    | Google Chrome Ver. 25.0 (plug-in free viewer only)                             |
| SNC toolbox        | Yes  |
| SNC toolbox mobile | Yes  |

## Network

IPv4, TCP, UDP, ARP, ICMP, IGMP\*,

|           |   |
|-----------|---|
| Protocols | HTTP, DHCP, DNS, NTP, RTP/RTCP, RTSP over TCP, RTSP over HTTP, SMTP, IPv6, HTTPS, SNMP (v1, v2c, v3), FTP (client), SSL<br>*SSM (Source Specific Multicast) is supported. |
|-----------|---|

|                                  |   |
|----------------------------------|---|
| Number of IP Address/Mac ADDRESS | 1 |
|----------------------------------|---|

|     |      |
|-----|------|
| QoS | DSCP |
|-----|------|

|                             |     |
|-----------------------------|-----|
| Multicast Streaming Support | Yes |
|-----------------------------|-----|

|                   |                      |
|-------------------|----------------------|
| ONVIF Conformance | Profile S, Profile T |
|-------------------|----------------------|

|                |            |
|----------------|------------|
| Authentication | IEEE802.1X |
|----------------|------------|

## Interface

|                     |                        |
|---------------------|------------------------|
| Analog Video Output | BNC x1<br>700 TV lines |
|---------------------|------------------------|

|                                 |               |
|---------------------------------|---------------|
| Analog Monitor Output for Setup | Phono jack x1 |
|---------------------------------|---------------|

|                  |                      |
|------------------|----------------------|
| Microphone Input | Mini jack (monaural) |
|------------------|----------------------|

|            |                      |
|------------|----------------------|
| Line Input | Mini jack (monaural) |
|------------|----------------------|

|                            |   |
|----------------------------|---|
| Line Output                | Mini jack (monaural)  |
| Network Port               | 10BASE-T/100BASE-TX (RJ-45)   |
| Alarm Input (Sensor Input) | x2  |
| Alarm Output               | x2 (mechanical relay outputs electrically isolated from the camera) |
| Card Slots                 | SD x 1  |
| Confirmed SD Card Type     | Max. 64 GB  |

## General

|                    |   |
|--------------------|---|
| Power Requirements | 12 V DC $\pm$ 10% 24 V AC $\pm$ 20%, 50 Hz/60 Hz IEEE802.3at compliant (PoE/PoE+ system)  |
| Power Consumption  | Max. 21 W (AC 24 V/DC 12V) Max. 17 W (IEEE802.3at (PoE+)) Max. 12.5 W (IEEE802.3af (PoE))   |
| Operating          | -40°C to +60°C (LED Off, PoE+, AC 24 V, DC 12 V) -40°C to +50°C (LED On, PoE+, AC 24 V, DC 12 V) -10°C to +60°C (LED Off, PoE) -10°C to +50°C (LED On, PoE) |

|                        |  |
|------------------------|--|
| Temperature            | -40°F to +140°F (LED OFF, PoE+, AC 24 V, DC 12 V) -40°F to +122°F (LED ON, PoE+, AC 24 V, DC 12 V) 14°F to +140°F (LED OFF, PoE) 14°F to 122°F (LED ON, PoE) |
| Cold Start Temperature | -30°C to +60°C (LED Off; PoE+, AC24V, DC 12 V) -30°C to +50°C (LED On; PoE+, AC24V, DC 12 V) 0°C to +60°C (LED Off, PoE) 0°C to +50°C (LED On, PoE)          |
| Storage Temperature    | -22°F to +140°F (LED Off, PoE+, AC 24 V, DC12V) -22°F to +122°F (LED On, PoE+, AC 24 V, DC 12 V) 32°F to +140°F (LED Off, PoE) 32°F to 122°F (LED On, PoE)   |
| Operating Humidity     | 20 % to 90 % (no condensation)   |
| Storage Humidity       | 20 % to 95 % (no condensation)   |
| Built-in Heater        | Yes  |
| Dimensions *1          | 93 mm × 93 mm × 180.9 mm<br>3 3/4 inches x 3 3/4 inches x 7 1/8 inches<br>φ140 mm x 313.4 mm (including arm)   |

|                    |  |
|--------------------|--|
|                    | <p>φ5 5/8 inches x 12 3/8 inches<br/>(including arm)</p>   |
| Mass               | <p>Approx. 1600 g<br/>Approx. 3 lb 8 oz</p>  |
| External Material  | <p>Front Cover: PC<br/>Rear Case: ADC12<br/>Arm/Stand: ADC12<br/>Lens Cover: PC<br/>Sunshield: PC</p>  |
| External Color     | <p>White 4.4BG 8.4/0.2<br/>Black 3.9PB 0.3/1.0</p>   |
| Fire Retardant     | <p>UL2044</p>  |
| Safety Regulations | <p>JATE Technical standard (LAN)<br/>UL2044, IEC60950-1 (CB)<br/>VCCI (Class A), FCC (Class A), IC<br/>(Class A)<br/>Emission: EN55022 (Class A) +<br/>EN50130-4<br/>Immunity: EN55022 (Class A) +<br/>EN55024<br/>Emission: AS/NZS CISPR22 (Class<br/>A)<br/>KCC<br/>EMC-TR</p> |
|                    | <p>CD-ROM (supplied programs) (1)</p>  |

|                      |                         |
|----------------------|-------------------------|
| Supplied Accessories | Template (1)            |
|                      | Wrench (1)              |
|                      | Waterproof tape (1)     |
|                      | Installation Manual (1) |
|                      | Safety regulations (1)  |

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## Notes

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| *1 | The values for dimensions are approximate. |
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## Gallery

