

SNC-VB642D

Outdoor bullet-type Full HD IP Network Camera with IR (V-Series)



Overview

Weather-resistant ‘bullet type’ fixed camera offering excellent Full HD quality, high frame rate recording and high sensitivity, plus image stabilisation and Advanced IR technology

The SNC-VB642D is a weather-resistant, easy to install ‘bullet-type’ fixed network camera. It’s ideal for a wide range of outdoor security and surveillance tasks, from city centres, transport systems and retail centres to schools and colleges.

The camera captures crisp, low-noise Full HD images, even in challenging low-light conditions. The sensitive 1/2.8” type Exmor R CMOS image sensor is teamed with XDNR processing, improving low-light performance and achieving the minimum illumination of 0.006 lux (30 IRE) in colour mode. Video can be captured at a high maximum frame rate of 60fps – allowing smoother, more accurate viewing of moving objects such as people or vehicles.

View-DR expands dynamic range for significantly improved imaging in high-contrast and strongly backlit scenes, like sun-drenched offices or car park entrances. Image stabilisation keeps video images crisp and clear, even when the camera is subject to vibration on a mounting pole or bracket.

The camera can see in conditions of complete darkness, with built-in IR (infrared) illumination that's coupled with Advanced IR technology to capture near and far-away objects without overexposure. The SNC-VB642D can clearly capture objects in total darkness at distances up to 100m (30 IRE) from the camera.

The addition of SD card edge storage allows video/audio data to be recorded directly by the camera when triggered by an alarm event. This provides valuable redundancy in the event of temporary network failure: recording to the network server resumes automatically when normal network connection is restored.

Installation of the SNC-VB642D is simplified by the same familiar user interface, usability and form factor as previous-generation Sony V Series cameras. Designed for round-the-clock outdoor use, the unitised camera can operate in extreme temperatures and is IP66 rated for resistance to water and dust. The unique mounting arm simplifies installation with flexible two-axis adjustment of viewing angle. For extra convenience, a built-in sunshade helps cut glare for improved picture quality and contrast on brightly-lit days.

Features

Vandal resistant

The camera's vandal-resistant design meets the IK08 standard (protection against mechanical impact), making the SNC-VB642D ideal for use in environments where there's a risk of physical tampering or damage.

See every scene clearly with Full HD image quality

View fine detail in a wide range of everyday video security and surveillance environments, from retail spaces to banks and schools. The sensitive 1/2.8" type Exmor R CMOS image sensor is teamed with XDNR processing, improving low-light performance

and achieving the minimum illumination of 0.006 lux (30 IRE) in colour mode.

Capture smooth, fluid movement at 60fps

Video images can be captured at a high frame rate of 60fps, allowing precise analysis when stepping through recorded footage frame by frame. It's ideal for applications like city surveillance where it's essential to see what's happening with split-second accuracy.

Steadier, more stable video footage

The in-built image stabiliser minimises the effects of camera shake – for example when the camera's pole mounted or subject to mechanical vibration. With clearer, more stable video images it's easier to see what's happening in any scene.

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

In-built motion detection can trigger a range of actions, from storage and transfer of images to sounding of external alarms. False alarms caused by noise, weather and environment noise are minimised by a smart processing algorithm. Human face detection is also supported, allowing rapid indexing of recordings to find events where a face is visible in the scene.

Clear pictures in total darkness with Advanced IR

Built-in IR illuminators assist with clearly capturing objects in total darkness at distances up to 100m (30 IRE) from the camera. View-DR technology ensures that clear black-and-white images can be seen both near and far from the camera without overexposure.

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.

Optimum picture quality in any situation

A choice of selectable picture modes optimises camera settings

for best picture quality in a wide range of applications and lighting environments.

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 recording on SD card for reliable operation

SD card edge storage allows video/audio data to be recorded directly by the camera when triggered by an alarm event. This provides valuable redundancy in the event of temporary network failure: recording to the network server resumes automatically when normal network connection is restored.

Detect in confidence with Edge-based Analytics

Powerful DEPA Advanced video analytics enhances Intelligent Motion Detection with rule-based alarm triggers, providing alerts with object filters like 'passing' and 'intrusion' to further reduce false alarms.

Reduce cabling costs with Power Over Ethernet (PoE)

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

View and control with your smartphone

Remotely view live camera images with your Android or iOS smartphone or tablet. You don't even need to download a special app.

ONVIF (Open Network Video Interface Forum) compliance

Support for ONVIF simplifies interoperability with other network video devices. The 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.

Adjustable sunshade

The integrated sunshade protects the lens from direct sun glare, making the camera particularly suitable for outdoor use in direct sunlight.

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 two-axis adjustment of the camera's field of view.

Dependable all-weather operation

The camera can operate reliably over a wide temperature range. Ideal for outdoor use, it is IP66 rated, water-proof and dust-tight.

Specifications

Camera

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| Image Sensor | 1/2.8-type progressive scan Exmor R CMOS sensor |
| Number of Effective Pixels | Approx. 2.13 Megapixels |
| Signal System | NTSC/PAL (switchable) |
| Sync System | Internal synchronization |
| Minimum Illumination (50 IRE) | Color: 0.01 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) |

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| | B/W: 0 lx (IR LED On) |
| Minimum Illumination (30 IRE) | Color: 0.006 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) B/W: 0 lx (IR LED 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 | CS-mount varifocal lens |
| Easy Zoom | Yes |
| Zoom Ratio | Optical zoom 3x Digital zoom 4x Total zoom 12x |

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| 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 Wave length (typical): 850 nm , IR LED: 20 pieces) |
| IR Working Distance (50 IRE) | 60 m 197 ft. |
| IR Working Distance (30 IRE) | 100 m 328 ft. |
| White-light LED Illuminator | Yes |
| LED Working Distance (50IRE) | 7 m 23 ft. |
| LED Working Distance (30IRE) | 11 m 36 ft. |

Camera Features

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| 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 (number) | 20 |
| Privacy Masking (shape) | Quadrangle formed by any four corner points |
| Privacy Masking (color/effect) | Opaque 14 colors (Black, White, Red, Green, Blue, Cyan, Yellow, Magenta, Gray (6 scales)), Mosaic |
| Edge Storage | Yes |
| Voice Alert | Yes |

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| Vandal Resistant | IK08 |
| Ingress Protection | IP66 |
| Superimpose Number | 3 independent positions for characters (Codec, Date & Time, Event, Text (Max. 64 characters)), 1 independent position for a logo mark |
| Superimpose Language | English |
| Menu Language | English, Japanese, Chinese (simplified), Chinese (traditional), French, Spanish, German, Italian, Korean, Portuguese, Russian, Arabic, Hindi, Vietnamese, Thai, Turkish, Polish |

Video

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| 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 |

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| Maximum Frame Rate | H.264: 60 fps (1920 x 1080) 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

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| 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 7 (32/64 bit) Ultimate,
Professional Edition
Windows 8.1 Pro (32/64 bit)
Windows 10 Pro (32/64 bit)

Processor Intel Core i7 2.8 GHz or higher

Memory 2 GB or more

Web Browser Microsoft Internet Explorer Ver.
11.0
Firefox Ver. 50.1 (plug-in free viewer
only)
Google Chrome Ver. 55.0 (plug-in
free viewer only)

SNC toolbox Yes

SNC toolbox mobile Yes

Network

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| Protocols | IPv4, TCP, UDP, ARP, ICMP, IGMP*, HTTP, DHCP, DNS, NTP, RTP/RTCP, RTSP over TCP, SMTP over HTTP, IPv6, HTTPS, FTP (client), SNMP (v1, v2c, v3), SSL |
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*SSM (Source Specific Multicast) is supported.

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| QoS | DSCP |
| Multicast Streaming Support | Yes |
| ONVIF Conformance | Profile S, Profile T |
| Authentication | IEEE802.1X |

Interface

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| Analog Video Output | BNC x1, 1.0 Vp-p, 75 Ω, unbalance, sync negative 700 TV lines (analog video)*2 |
| Analog Monitor Output for Setup | Phono jack x1 |
| Microphone Input | Mini jack (monaural) |
| Line Input | Mini jack (monaural) |

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| Line Output | Mini jack (monaural) Maximum output level: 1 Vrms |
| Network Port | 10BASE-T/100BASE-TX (RJ-45) |
| Alarm Input (Sensor Input) | x2, make contact, break contact |
| Alarm Output | x2, AC 24V/DC 24 V, 1 A (mechanical relay outputs electrically isolated from the camera) |
| Card Slots | SD x 1 |
| Confirmed SD Card Type | Max. 256GB *3 |

General

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| 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)) |
| | -40°C to +60°C (LED Off, PoE+, AC 24 V, DC 12 V) -40°C to +50°C (LED On, PoE+, AC |

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| Operating Temperature | 24 V, DC 12 V) |
| | -10°C to +60°C (LED Off, PoE) |
| | -10°C to +50°C (LED On, PoE) |
| | -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) |
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| 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) |
| | -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) |
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| Storage Temperature | -20°C to + 60°C -4°F to + 140°F |
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| Operating Humidity | 20 % to 90 % (no condensation) |
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| Storage Humidity | 20 % to 80 % (no condensation) |
| Built-in Heater | Yes |
| Dimensions (W x H x D)*1 | 93 mm × 93 mm × 180.9 mm 3 3/4 inches x 3 3/4 inches x 7 1/8 inches φ140 mm x 313.4 mm (including arm) φ5 5/8 inches x 12 3/8 inches (including arm) |
| Mass | Approx. 1620 g Approx. 3 lb 9.1 oz |
| External Material | Front Cover: PC Rear Case: ADC12 Arm/Stand: ADC12 Lens Cover: PC Sunshield: PC |
| External Color | White 4.4BG 8.4/0.2 Black 3.9PB 0.3/1.0 |
| | JATE Technical Standard (LAN) UL2044, IEC60950-1 (CB) VCCI (Class A), FCC (Class A), IC (Class A) Emission: EN55032 (Class A) |

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| Safety Regulations | Immunity: EN55024+ EN50130-4 Emission: AS/NZS CISPR32 (Class A) KC EMC-TR |
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| Supplied Accessories | Template (1) Wrench (1) Waterproof tape (1) Safety Regulations (1) Operating Instructions - Download site Information (1) |
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Notes

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| *1 | The values for dimensions are approximate. |
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| *2 | Monitor display ratio 4:3 |
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| *3 | The maximum number of event recording in the SD card is 4000. It may not use the full capacity of the SD card, depending on the limitation set for the event recording. |
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Gallery

