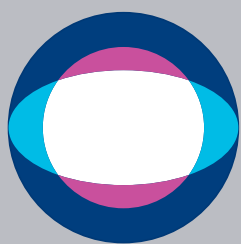


Product Catalogue

Complete IP Video Security Solutions



World Class Hardware • Open Architecture • Resilient Recording
Market Leading Management Software



IndigoVision
Complete IP Video Security Solutions

www.indigovision.com

Contents

Capture

<input type="checkbox"/>	Capture Overview	1
<input type="checkbox"/>	High Definition (HD) Fixed Camera - 11000 Range	3
<input type="checkbox"/>	High Definition (HD) Fixed Dome Camera - 11000 Range	7
<input type="checkbox"/>	High Definition (HD) PTZ Dome Camera - 11000 Range	11
<input type="checkbox"/>	High Definition (HD) Bullet Camera - BX Range	15
<input type="checkbox"/>	High Definition (HD) Minidome Cameras - BX Range	19
<input type="checkbox"/>	High Definition (HD) Microdome Cameras - BX Range	23
<input type="checkbox"/>	High Definition (HD) PTZ Dome Camera - BX Range	27
<input type="checkbox"/>	Enhanced Standard Definition (SD) Fixed Camera - 9000 Range	31
<input type="checkbox"/>	Enhanced Standard Definition (SD) Fixed Dome Camera - 9000 Range	35
<input type="checkbox"/>	Standard Definition (SD) PTZ Dome Camera - 9000 Range	39
<input type="checkbox"/>	Single Channel Encoder/Decoder - 9000 Range	43
<input type="checkbox"/>	Four Channel Encoder/Decoder - 9000 Range	47
<input type="checkbox"/>	10 Channel Encoder/Decoder - 9000 Range	51
<input type="checkbox"/>	20 Channel Encoder - 9000 Range	55

Record

<input type="checkbox"/>	Record Overview	59
<input type="checkbox"/>	Network Video Recorder	61
<input type="checkbox"/>	Compact Network Video Recorder	65
<input type="checkbox"/>	Windows Network Video Recorder	67

Manage

<input type="checkbox"/>	Manage Overview	69
<input type="checkbox"/>	Control Center	71
<input type="checkbox"/>	Mobile Center™	73
<input type="checkbox"/>	Internet Streaming Server	75
<input type="checkbox"/>	Surveillance Keyboard	76
<input type="checkbox"/>	IP Video Wall	77

Integrate

<input type="checkbox"/>	Integrate Overview	79
<input type="checkbox"/>	Camera Gateway™	81
<input type="checkbox"/>	Software Development Kit	83
<input type="checkbox"/>	Alarm Panel	85
<input type="checkbox"/>	Integration Modules	87



Capture

From IP Encoders to Megapixel Cameras: We've got it covered

IP CCTV. It's not just about video resolution.

Whether you need to convert your current analogue cameras to IP, or deploy megapixel IP cameras, IndigoVision has the best IP CCTV option for you. All encoding hardware uses IndigoVision's world class compression technology, providing lower bandwidth, easier remote accessibility and vastly reduced storage costs - while delivering amazing video quality.

With in-built advanced analytics, guaranteed full frame rate, optional audio and amazing scalability, IndigoVision's IP encoders and cameras deliver a result that's about much more than just the number of pixels.

Resolution	Analogue Encoders	Fixed Cameras	Fixed Dome Cameras	PTZ Dome Cameras
SD (up to 4SIF)	8000/9000 (1, 4 or 10 Channel)	9000	9000	9000
HD (720p)	n/a	11000	11000	11000
HD (1080p)	n/a	BX600	BX400	BX500

Capture

☐ High Definition (HD) Fixed Camera

- 720p resolution
- Full-duplex audio
- Power over Ethernet (PoE)

☐ High Definition (HD) Fixed Dome Camera

- 720p resolution
- Full-duplex audio
- Power over Ethernet (PoE)

☐ High Definition (HD) PTZ Dome Camera

- 720p resolution
- 10x optical and 12x digital zoom
- Ultra-low latency

☐ High Definition (HD) Bullet Camera

- 1080p resolution
- Built in IR illumination
- ONVIF conformant

☐ High Definition (HD) Minidome Cameras

- 1080p resolution
- Audio
- ONVIF conformant

☐ High Definition (HD) Microdome Cameras

- 1080p resolution
- Audio
- ONVIF conformant

☐ High Definition (HD) PTZ Dome Camera

- 1080p resolution
- 20x optical zoom and 8x digital zoom
- ONVIF conformant

☐ Enhanced Standard Definition (SD) Fixed Camera

- 4SIF resolution
- Full-duplex audio
- Power over Ethernet (PoE)

☐ Enhanced Standard Definition (SD) Fixed Dome Camera

- 4SIF resolution
- Wide Dynamic Range (WDR)
- Full-duplex audio
- Power over Ethernet (PoE)

☐ Standard Definition (SD) PTZ Dome Camera

- 4SIF resolution
- Image stabilisation
- Ultra-low latency
- 18x, 28x, 36x optical zoom options

☐ Single Channel Encoder/Decoder

- 4SIF resolution
- Full-duplex audio (optional)
- Power over Ethernet (PoE)

☐ Four Channel Encoder/Decoder

- 4SIF resolution
- Full-duplex audio (optional)

☐ 10 Channel Encoder/Decoder

- 4SIF resolution
- Full-duplex audio (optional)

☐ 20 Channel Encoder

- 4SIF resolution
- Full-duplex audio



IndigoVision

Complete IP Video Security Solutions



HD Fixed Camera

11000 Range

HD full frame rate Day/Night cameras

IndigoVision's 11000 range of HD, full frame rate Day/Night cameras are designed to be used with our Complete IP Video Security Solution. Class-leading H.264 compression technology and IndigoVision's guarantee never to drop a frame provide excellent video quality at low bandwidths.

The cameras can be ceiling or wall mounted and use a 1/3" Progressive scan HD sensor, guaranteeing excellent performance.

- ☐ Full HD 720p resolution
- ☐ Excellent image quality from 1/3" Progressive scan HD sensor
- ☐ Built-in real time motion detection
- ☐ Full frame rate guaranteed
- ☐ Power-over-Ethernet for lower installation costs
- ☐ Day/Night with optional full-duplex audio

IndigoVision's cameras enable simple and easy deployment of IP based video systems as they only require a single CAT 5 cable for connection to the network. The built-in Power-over-Ethernet support allows the camera to be powered directly from the network, reducing installation costs.

IndigoVision's IP Video solution allows advanced features such as Activity Controlled Framerate (ACF) and camera based real-time motion detection to be deployed in the camera itself. These features reduce the bandwidth and NVR storage requirements during periods of scene inactivity.



Lens Options	Focal Length	Horizontal View Angle	Max Aperture	Day/Night with IR Light Sources	Day/Night without IR Light Sources	Day Only
Standard Non IR Corrected	2.8-8mm	90.7° (W) 35.2° (T)	F1.2	X	✓	✓
Standard IR Corrected	3-8mm	100° (W) 35° (T)	F1.2	✓	X	X
Telephoto Non IR Corrected	5-50mm	51.7° (W) 5.3° (T)	F1.4	X	✓	✓
Telephoto IR Corrected	5-50mm	53.8° (W) 5.5° (T)	F1.6	✓	X	X
Ultra Wide IR Corrected	1.7mm	110°	F1.8	✓	✓	✓

When choosing a lens, lighting conditions should be considered as well as focal length. IR Corrected lenses should be used if night time scenes are illuminated by IR lights or halogen lights. If no IR lights are in use the non-IR Corrected lens will give superior video quality.

Product Codes

11000 Fixed IP Camera (PAL Region)	Standard Lens		Standard Lens (Non IR)		Telephoto Lens		Telephoto Lens (Non IR)		Ultra Wide Lens	
	11000S	11000E	11000S	11000E	11000S	11000E	11000S	11000E	11000S	11000E
Day/Night	541277	561277	541237	561237	541239	561239	541231	561231	541271	561271
Day/Night with Audio	541275	561275	541235	561235	541279	561279	541233	561233	541273	561273

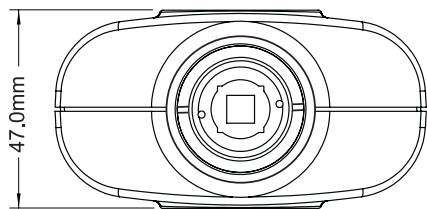
11000 Fixed IP Camera (NTSC Region)	Standard Lens		Standard Lens (Non IR)		Telephoto Lens		Telephoto Lens (Non IR)		Ultra Wide Lens	
	11000S	11000E	11000S	11000E	11000S	11000E	11000S	11000E	11000S	11000E
Day/Night	541276	561276	541236	561236	541238	561238	541230	561230	541270	561270
Day/Night with Audio	541274	561274	541234	561234	541278	561278	541232	561232	541272	561272

Default frame rate for PAL Region is 25fps and can be configured up to 30fps. Default frame rate for NTSC Region is 30fps.

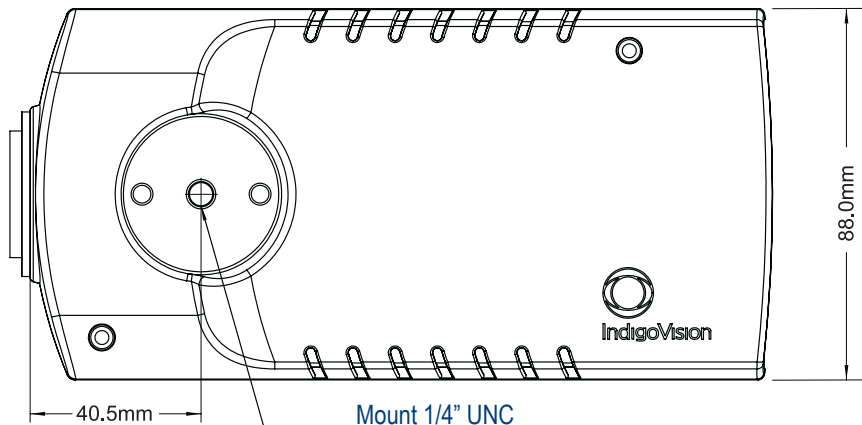
The 11000E product allows full frame rate video, at full 720p resolution.

The 11000S product allows 1/3 frame rate video, at full 720p resolution.

Dimensions

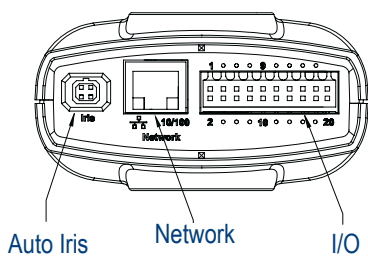


View on Front Face

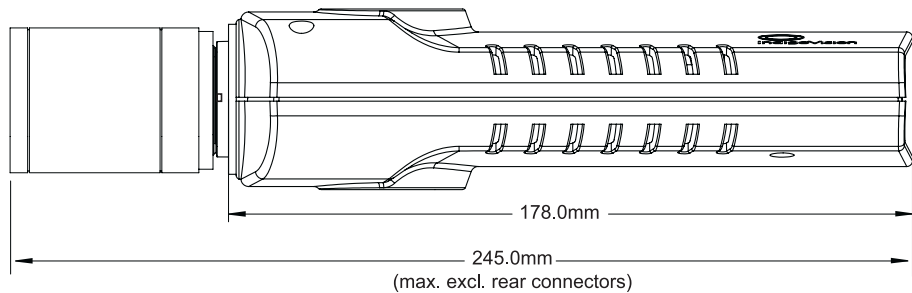


Mount 1/4" UNC

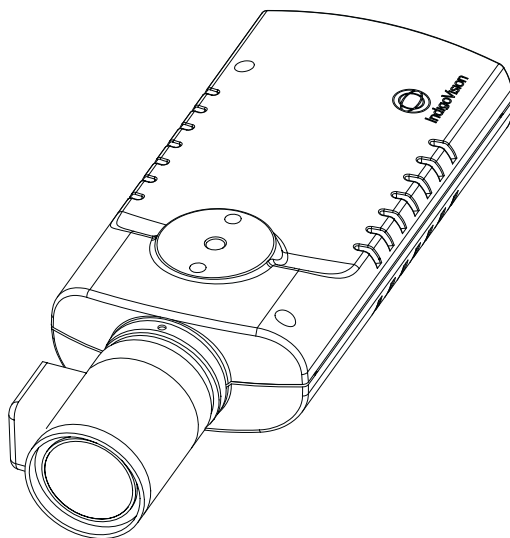
View on Top or Bottom Face



View on Back Face



View on Side



Specification

Camera Features	
Sensor	1/3" HD CCD, 2.5 Megapixel
Minimum Sensitivity	Day: 0.9 Lux (50 IRE, F1.2, 1/30s shutter) Night: 0.1 Lux (50 IRE, F1.2, 1/15s shutter)
Wide Dynamic Range	60dB
Gamma	Programmable, 0.45 default
Gain Control	Automatic or fixed manual setting: 0 - 30 dB in 16 steps
Scan Mode	Progressive Scan
Back Light Compensation	On or Off
White Balance	Auto or Fixed (Indoor, Outdoor) or Manual
Day/Night	True day/night with mechanical IR Cut Filter
Video Resolution	720p HD (1280 x 720 pixels), Widescreen 16:9
Signal/Noise Level	Better than 45dB
Mirror Mode	On or Off
Iris Control	Auto-iris DC drive lens as standard
Shutter Speed	1/1 to 1/10,000 in 22 steps
Shutter Mode	Global
Synchronisation	Internal
Video Compression	Full frame rate H.264 (ISO 14496-10) 30 fps guaranteed
Video Bit Rate	256Kbps to 8Mbps per stream. User configurable
Video Multi-Streaming	Up to 32Mbps total video output Unlimited multicast connections Up to four 8Mbps unicast connections Up to sixteen 1Mbps unicast connections
Audio Compression ⁺	Full Duplex MPEG-4 Advanced Audio Encoding; 16 kHz sample rate; 16bit resolution. Selectable 32, 48, 64 Kbps bit-rate, 100 - 7000 Hz Bandwidth
Audio Input ⁺	Mono line in terminal block connector. Nominal voltage: 1V p-p, Mic 30mVp-p. Mic type: dynamic
Audio Output ⁺	Mono line out terminal block connector. 1V p-p, Minimum load impedance: 32 Ohms
Binary Input/Output	2 inputs; 1 solid state relay output
Data Input/Output	1 Data/Console port
Network Interface	RJ-45. IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, IGMP, SNMP, HTTP
Network Security	Embedded Linux firewall. Salted passwords with MD5 encryption
Time	Embedded real-time clock, NTP client
Dimensions/Weight	175mm (d) x 88mm (w) x 45mm (h) and 0.5Kg / 6.89in (d) x 3.47in (w) x 1.78in (h) and 1.102lb
Regulatory	EN 55022 (1998) ITE emission standard – Class A EN 55024 (1998) +A1:2000 +A2:2003 ITE immunity standard CFR47(1995) Part 15 subpart B – Class A (US federal code of regulations) EN 60068-2-1 & 2 (1993) Low & High temp EN 60068-2-6 & 64 (2008) Sinusoid & Random vibration EN 60068-2-29 (1993) Bump EN 60068-2-30 Humidity up to 95% Non Condensing
Housing	Diecast Aluminium Alloy
Electrical	Operating voltage: Power over Ethernet (802.3af Class 0); 24V AC/DC @ 0.45A; Power consumption: 11W; 24V DC Power Supply separately orderable
Operating Temperature	0°C (32°F) to +40°C (+104°F)

⁺Audio available as an order option



IndigoVision

Complete IP Video Security Solutions



HD Fixed Dome Camera

11000 Range

Astounding image quality under every lighting condition

The IndigoVision range of HD Fixed Dome cameras are designed to be used with our Complete IP Video Security Solution. Class-leading H.264 compression technology, IndigoVision's guarantee never to drop a frame and the latest Wide Dynamic Range (WDR) technology provides excellent image quality under every lighting condition.

Advanced in-camera features such as dual encoding, Activity Controlled Framerate (ACF) and real-time analytics, reduce bandwidth and storage requirements, allowing the user to identify incidents as they occur in real-time.

- ☐ Dual pixel WDR sensor
- ☐ P-Iris, CS mount lens
- ☐ Day/Night with automatic mechanical IR filter
- ☐ Class-leading H.264 compression
- ☐ Dual encoding, video and audio
- ☐ Full frame rate guaranteed



The IndigoVision 11000 HD Fixed Domes provide 720p video with unrivalled dual pixel WDR performance.

Simple and easy deployment of IP based video systems is possible as the cameras only require a single CAT 5 cable for connection to the network. The built-in Power-over-Ethernet support allows the camera to be powered directly from the network. A unique distributed architecture, with no single-point-of-failure, also helps to simplify system installation and reduce cost.

Product Codes

11000 HD Fixed Dome (PAL regions)	Standard Lens		Telephoto Lens	
	11000S	11000E	11000S	11000E
In Ceiling	541427	561427	541429	561429
Internal	541417	561417	541419	561419
Vandal Resistant	541437	561437	541439	561439
Environmental Vandal Resistant	541447	561447	541449	561449

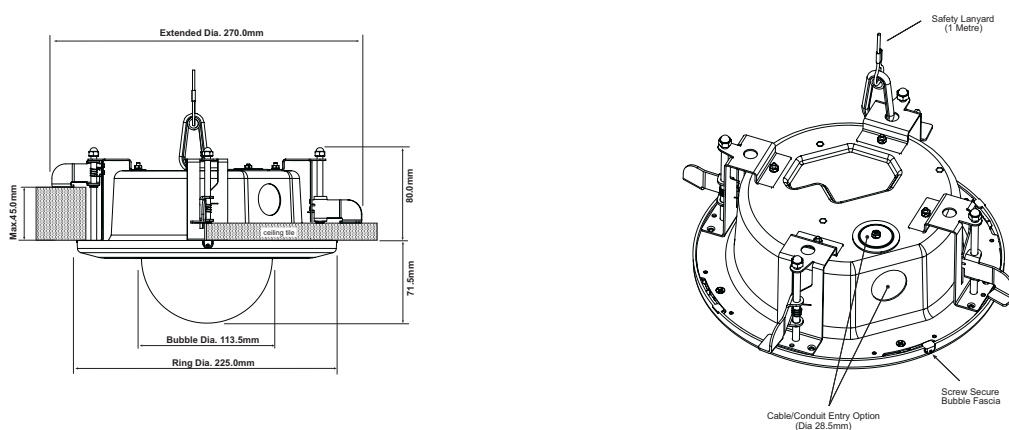
11000 HD Fixed Dome (NTSC regions)	Standard Lens		Telephoto Lens	
	11000S	11000E	11000S	11000E
In Ceiling	541426	561426	541428	561428
Internal	541416	561416	541418	561418
Vandal Resistant	541436	561436	541438	561438
Environmental Vandal Resistant	541446	561446	541448	561448

Default frame rate for PAL Region is 25fps and can be configured up to 30fps. Default frame rate for NTSC Region is 30fps.

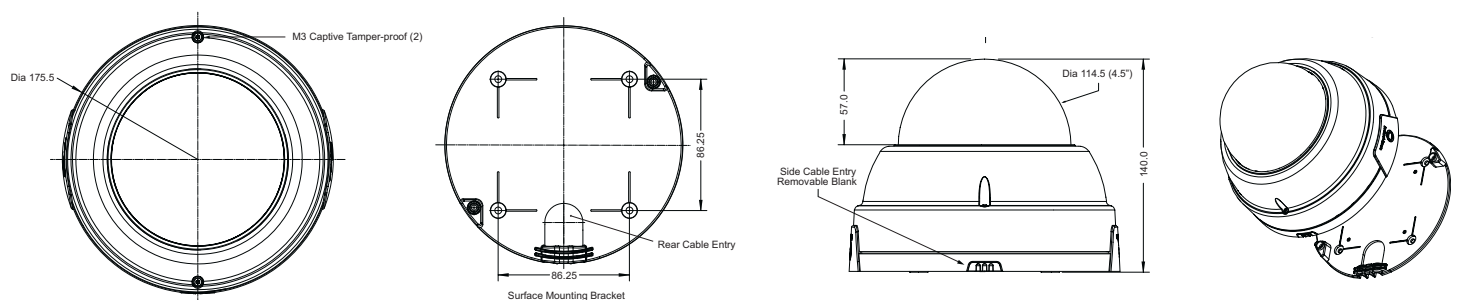
The 11000E product allows full frame rate video recording, at full 720p or Q720p resolution.

The 11000S product allows 1/3 frame rate video recording, at full 720p resolution or 1/2 frame rate video recording at Q720p resolution.

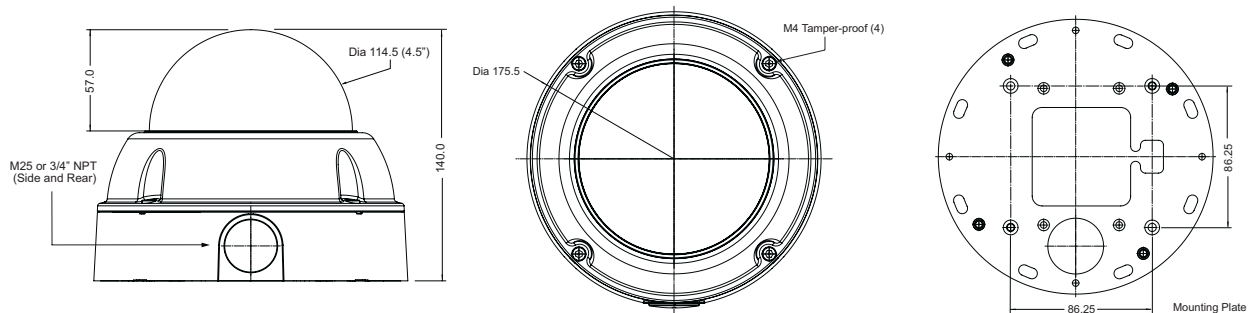
Dimensions - In Ceiling



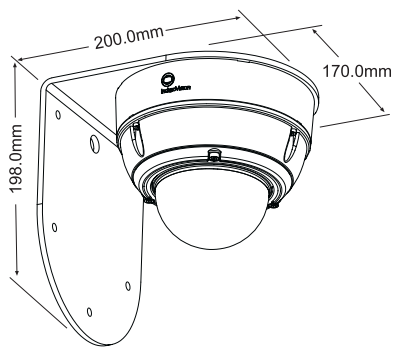
Dimensions - Internal



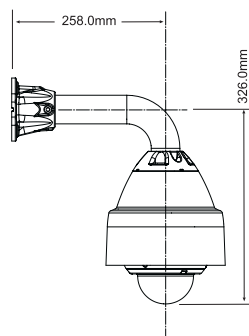
Dimensions - Vandal Resistant and Environmental Vandal Resistant



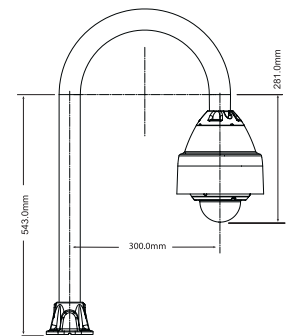
Mounting Options



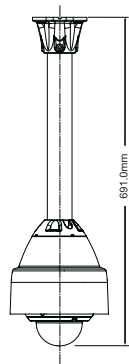
Bracket Wall Mount



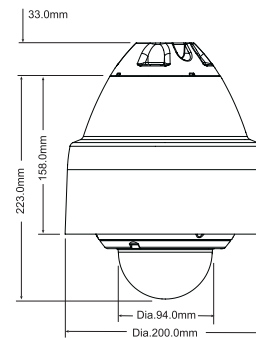
Pendant Wall Mount



Pendant Swan-Neck Mount



Pendant Vertical Pole Mount



NPT Pendant Mount

Product Codes - Mounts

Description	Order Code M25	Order Code NPT
Vandal Resistant Fixed Dome Pendant Wall Mount	110021	110020
Vandal Resistant Fixed Dome Pendant Swan-Neck Mount	110023	110022
Vandal Resistant Fixed Dome Pendant Vertical Pole Mount	110025	110024
Vandal Resistant Dome Hood	110034	
Vandal Resistant Fixed Dome Bracket Wall Mount	110160	
Vandal Resistant Fixed Dome 1.5" NPT Pendant Mount (Male)	110027	
Vandal Resistant Fixed Dome 1.5" NPT Pendant Mount (Female)	110028	
Pendant Corner Mount Adapter	110082	
Pendant Pole Mount Adapter	110096	

Specification

Camera Features

Sensor	1/2.7" Progressive Scan												
Active Pixels	1 Megapixel												
Horizontal Resolution	> 600 TVL												
Minimum Sensitivity	Day/Night: 0.7 lux color / 0.035 lux mono												
Wide Dynamic Range	115dB Max												
Gain Control	Automatic across a 33 dB range												
White Balance	Auto												
Day/Night	Mechanical IR Cut Filter												
Video Resolution	720p: 1280 x 720 pixels; Q720p: 640 x 360 pixels												
Signal/Noise Level	> 39dB												
Mirror Mode	On or Off												
Lens Options	Standard: 3.1 to 8mm, Horizontal view angle 97.8° (W) 39.4° (T), F1.2, P-iris, Vari-focal, CS mount Telephoto: 12.5 to 50mm, Horizontal view angle 24.4° (W) 6.3° (T), F1.4, P-iris, Vari-focal, CS mount												
Iris Control	Auto-iris / Electronic Shutter / Manual												
Shutter Speed	Auto from 1/2 to 1/100,000												
Synchronisation	Internal												
Video Compression	Full frame rate, full color: H.264 (ISO 14496-10); 25/30fps guaranteed												
Video Bit Rate	User-configurable bit rates up to 8Mbps												
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections Up to seven 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections												
Video Multi-Encoder	<table><tr><td></td><td>A</td><td>B</td><td rowspan="3">You can combine one selection from column A plus one selection from column B: e.g. 1x720p stream plus 1xQ720p stream; e.g. 3xQ720p streams plus 1xQ720p stream</td></tr><tr><td>720p</td><td>1 stream</td><td>0 streams</td></tr><tr><td>Q720p</td><td>3 streams</td><td>1 stream</td></tr></table>				A	B	You can combine one selection from column A plus one selection from column B: e.g. 1x720p stream plus 1xQ720p stream; e.g. 3xQ720p streams plus 1xQ720p stream	720p	1 stream	0 streams	Q720p	3 streams	1 stream
	A	B	You can combine one selection from column A plus one selection from column B: e.g. 1x720p stream plus 1xQ720p stream; e.g. 3xQ720p streams plus 1xQ720p stream										
720p	1 stream	0 streams											
Q720p	3 streams	1 stream											
Video Analytics	Standard: ACF, Motion Detection. Advanced: Dual Tripwire, Counterflow												
Audio Compression	AAC-LC (ISO 14496-3)												
Audio Bit Rate	User-configurable bit rates from 32Kbps to 160Kbps per channel												
Audio Protocol	RTP (RFC 3640)												
Audio Dual Encoder	Encoder A: 1 Stream Configuration plus Encoder B: 1 Stream Configuration												
Audio Resolution	Full Duplex 16Khz, 16 Bit Mono/Stereo Input, Mono Output												
Audio Input	Stereo / Mono line in terminal block connector. Nominal voltage: 1V p-p, Mic 30mVp-p. Mic type: dynamic or electret												
Audio Output	Mono line out terminal block connector. 1V p-p, Minimum load impedance: 16 Ohms												
Binary Input/Output	2 Pull up inputs for non powered contacts; 1 solid state opto-isolated relay output @500mA, LED output @20mA												
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP Embedded Linux firewall; Up to 16 simultaneous unicast video users plus unlimited multicast users												
Time	Embedded real-time clock, NTP client												
Regulatory	EN 55022 (1998) ITE emission standard – Class A EN 55024 (1998) +A1:2000 +A2:2003 ITE immunity standard EN 60068-2-29 Bump EN 60068-2-1 & 2 Low & High temp EN 60068-2-30 Humidity up to 95% Non Condensing EN 60068-2-6 & 64 Sinusoid & Random vibration			CFR47(1995) Part 15 subpart B -Class A (US federal code of regulations) UL60950-1 Standard for Information Technology Equipment – Safety – Part 1* UL2043 Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces*									
Recording Order Options	11000E: 25/30 fps recording at 720p or Q720p. 11000S: 15/12.5 fps recording at Q720p or 8.35/10 fps at 720p												

Camera Features	In Ceiling	Internal	Vandal Resistant	Environmental Vandal Resistant
Dimensions/Weight	225.0mm (dia.) x 151.5mm (h) and 1.10Kg / 8.86in (dia.) x 5.97in (h) and 2.425lb	175.5mm (dia.) x 140mm (h) and 1.0Kg / 6.91in (dia.) x 5.52in (h) and 2.205lb	175.5mm (dia.) x 140mm (h) and 1.56Kg / 6.91in (dia.) x 5.52in (h) and 3.439lb	175.5mm (dia.) x 140mm (h) and 1.56Kg / 6.91in (dia.) x 5.52in (h) and 3.439lb
Housing	Aluminium with Polycarbonate dome	Plastic with Polycarbonate dome	Diecast Aluminium Alloy with Polycarbonate dome	Diecast Aluminium Alloy with Polycarbonate dome
Protection Rating	N/A	N/A	IP66	IP66
Electrical	Power over Ethernet (802.3af Class 0) or 24V DC 24V @ 0.29A / 7W max	Power over Ethernet (802.3af Class 0) or 24V DC 24V @ 0.29A / 7W max	Power over Ethernet (802.3af Class 0) or 24V DC 24V @ 0.29A / 7W max	24V DC (Power over Ethernet for configuration only) 24V @ 1.05A / 25W max Power Supply not included
Operating Temperature	0°C (32°F) to 50°C (122°F)	0°C (32°F) to 50°C (122°F)	0°C (32°F) to 55°C (131°F)	-40°C (-40°F) to 55°C (131°F)
Cold Start	0°C (32°F)	0°C (32°F)	0°C (32°F)	-30°C (-22°F)
Mounting Options	In Ceiling	Wall and ceiling Mountable including solid surfaces	Wall and ceiling Mountable including solid surfaces	Wall and ceiling Mountable including solid surfaces

* In Ceiling Dome only.



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IndigoVision
Complete IP Video Security Solutions



HD PTZ Dome Camera

11000 Range

HD PTZ cameras with a guaranteed full frame rate at astonishingly low bandwidths

IndigoVision's HD PTZ Dome camera is designed to be used with our Complete IP Video Security Solution. Class-leading H.264 compression technology provides outstanding video quality with astonishingly low bandwidths. Ultra-low latency gives operators sharp camera control, and every frame is guaranteed.

IndigoVision's IP video solution allows advanced features such as Activity Controlled Framerate (ACF) and camera based real-time analytics to be deployed in the camera itself. These features reduce the bandwidth and NVR storage requirements during periods of scene inactivity and allow the user to deploy advanced analytics to identify events as they occur in real-time.

- ☐ Low bandwidths: 2 Mbps typical, 6 Mbps under full motion
- ☐ Progressive scan for stunning quality on PC monitors
- ☐ H.264 HD full frame rate guaranteed
- ☐ Arctic environmental options
- ☐ Day/Night with auto mechanical IR filter
- ☐ 10x optical and 12x digital zoom

Product Codes

11000 PTZ IP Camera (PAL Region)		10x Lens
	11000S	11000E
In-Ceiling	541143	561143
Standard Pendant	541148	561148
Environmental Pendant	541149	561149
Arctic	541369	561369

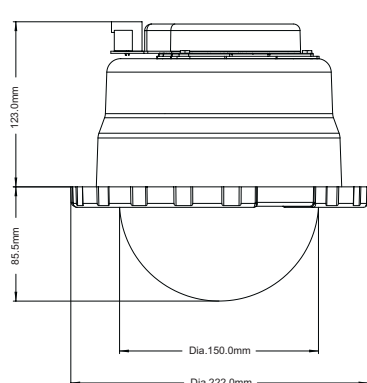
11000 PTZ IP Camera (NTSC Region)		10x Lens
	11000S	11000E
In-Ceiling	541142	561142
Standard Pendant	541146	561146
Environmental Pendant	541147	561147
Arctic	541368	561368

Default frame rate for PAL Region is 25fps and can be configured up to 30fps. Default frame rate for NTSC Region is 30fps.

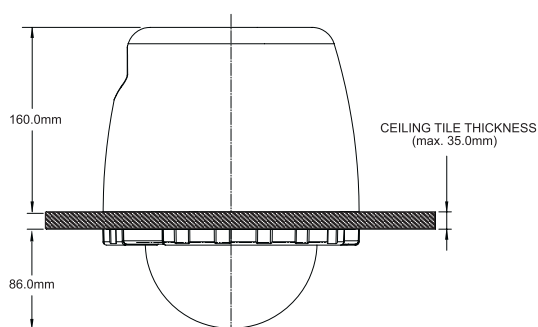
The 11000E product allows full frame rate video, at full 720p resolution.

The 11000S product allows 1/3 frame rate video, at full 720p resolution.

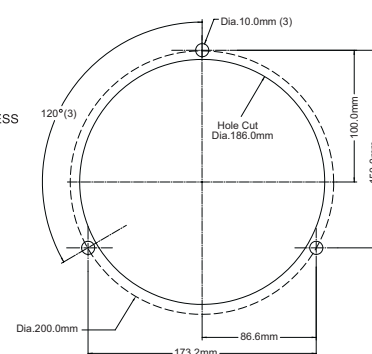
Dimensions - In-ceiling



In-Ceiling Dome

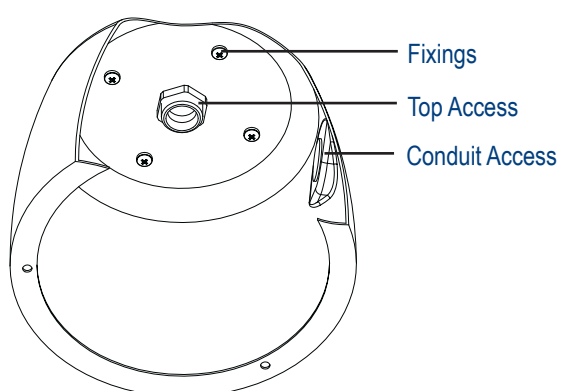


Plenum Rated Back Box

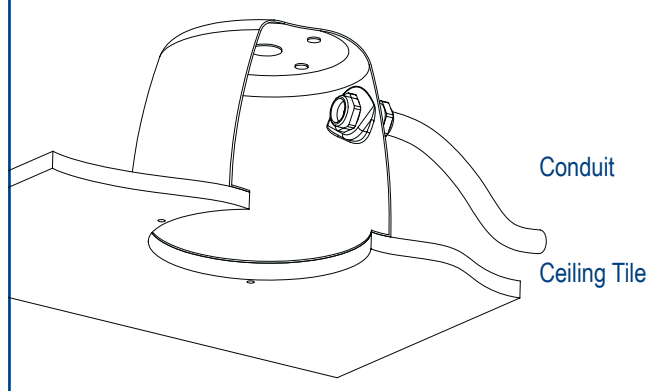


Hole Cutting Dimensions

Surface Mount for In-Ceiling Dome

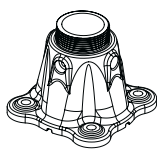
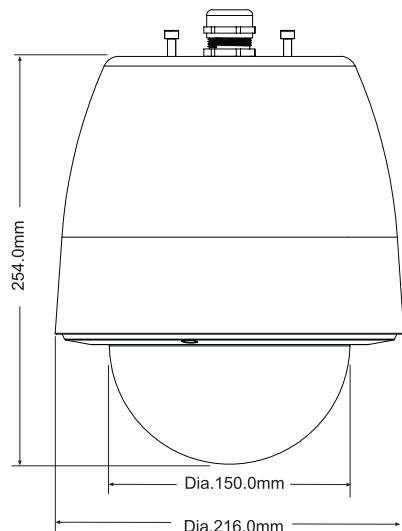


Plenum Rated Back Box for In-Ceiling Dome

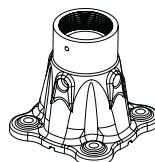


Dimensions - Pendant Camera and Mounts

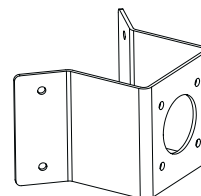
Mounts and accessories are separately orderable.



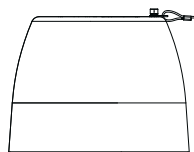
1.5" NPT Male Adapter



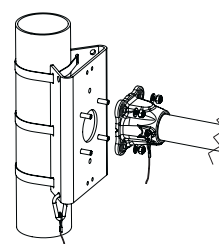
1.5" NPT Female Adapter



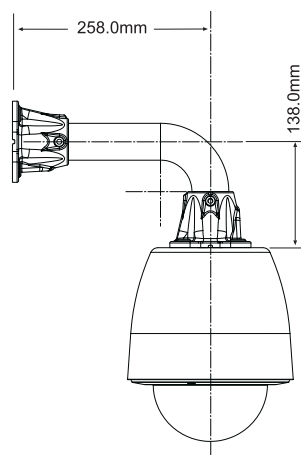
Corner Mount Adapter



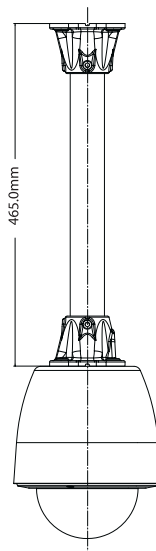
Sun Shroud



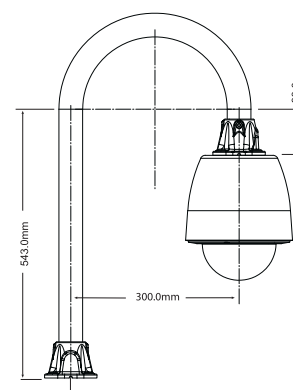
Pole Mount Adapter
To fit pole diameter 75mm - 150mm



Wall Mount



0.5m Vertical Pole



Swan Neck Mount

Product Code - Mounts and Accessories

Description	Order Code
In-Ceiling PTZ Surface Mount	110099
Pendant PTZ Dome Corner Mount Adapter	110082
Pendant PTZ Dome Wall Mount	110084
Pendant PTZ Dome Swan-Neck Mount	110085
Pendant PTZ Dome 0.5m Vertical Pole	110086
Pendant PTZ Dome Pole Mount Adapter	110096
Pendant PTZ Dome 1.5" NPT Adapter (Male)	110087
Pendant PTZ Dome 1.5" NPT Adapter (Female)	110088
Pendant PTZ Dome Clear Lens Cover	110080
Pendant PTZ Dome Dark Tint Lens Cover	110081
Pendant PTZ Dome Sun Shroud	110065

Specification

Camera Features

Sensor	1/3" HD CMOS, 2 Megapixel
Horizontal Resolution	5.4° to 50°
Minimum Sensitivity	Day: 1.0 Lux (30 IRE, F1.8, 1/15s shutter) Night: 0.1 Lux (30 IRE, F1.8, 1/15s shutter)
Dynamic Range	> 50dB
Gain Control	Auto/Manual (0 to +18 dB)
Scan Mode	Progressive
Day/Night	True day/night with mechanical IR Cut Filter
Video Resolution	720p HD (1280 x 720 pixels), Widescreen 16:9
Lens Options	5.1mm to 51mm, F1.8 to F2.1, Autofocus with manual override
Zoom	10x optical + 12x digital
Shutter Speed	1/2 to 1/10000 sec. (21 steps)
Exposure Control	Full auto, Shutter-priority, Iris-priority, Manual, Backlight compensation
Video Compression	Full frame rate H.264 (ISO 14496-10): 30 / 25 fps guaranteed
Video Bit Rate	256Kbps to 8Mbps per stream. User configurable
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Binary Input/Output	2 opto-isolated inputs; 1 solid state opto-isolated relay output
Network Protocols	TCP, UDP, IGMP, SNMP, HTTP, FTP, NTPI
Network Interface	This camera complies with IEEE 802.3u 100BASE-TX Fast Ethernet
Network Security	Embedded Linux firewall. Salted passwords, with MD5 encryption
Time	Embedded real-time clock, NTP client
Regulatory	EN 55022(1994) ITE emission standard Class A EN 55024(1998) ITE immunity standard Class A EN 61000-3-3(1995) voltage fluctuation EN 61000-3-2(1995) mains harmonics Class A CFR47(1995) Part 15 subpart B UL2044 (In-Ceiling with Plenum Rated Back Box)*
Console Port	RS232

PTZ Control

Presets	250	Pan Range	360° continuous rotation
Preset Accuracy	0.05°	Tilt Range	-5° (above horizon) to +90° (vertically down)
Preset Tours	100 each with 20 presets	Pan/Tilt Speed	0.001°/s to 360°/s
Pattern/Mimic Tours	4 each with up to 1 minute	Preset Move Speeds	200°/s
Picture Freeze Option	Yes		

Form Factor	In-Ceiling	Standard Pendant	Environmental Pendant	Arctic Pendant
Weight	2.7Kg / 5.952lb	5.5Kg / 12.13lb	5.7Kg / 12.57lb	5.7Kg / 12.57lb
Power	24V AC/DC @ 1A; 24W 24V DC power supply included	24V AC/DC @ 1A; 24W 24V DC power supply included	24V AC/DC @ 2.3 A; 55W 24V DC power supply included	24V AC/DC @ 3.5 A; 84W power supply not included
Housing	Polypropelene	Vandal resistant die-cast aluminium	Vandal resistant die-cast aluminium	Vandal resistant die-cast aluminium with aluminium Sun Shroud
Bubble Construction	Optical grade polycarbonate	Optical grade polycarbonate	Optical grade polycarbonate	Optical grade polycarbonate
Protection Rating	N/A	IP67	IP67	IP67
Sustained Min/Max Temperature	0°C to 40°C (32°F to 104°F)	-5°C to 45°C (23°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-50°C to 45°C (-58°F to 113°F)
Absolute Maximum Temperature	45°C (113°F) for periods of 1 hour	55°C (131°F) for periods of 1 hour	55°C (131°F) for periods of 1 hour	55°C (131°F) for periods of 1 hour
Cold Start	0°C (32°F)	0°C (32°F)	0°C (32°F)	-40°C (-40°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)

* In Ceiling Dome only.



IndigoVision

Complete IP Video Security Solutions



HD Bullet Camera

BX Range

Seamless open standard HD video

IndigoVision's BX600 HD Bullet cameras form part of our Complete IP Video Security Solution, fully integrated with IndigoVision's SMS4™ management software and Network Video Recorders.

The IndigoVision BX camera range provides an open standards solution while retaining the resilience of IndigoVision's unique distributed serverless architecture, with no bottlenecks and no single-point-of-failure.

- ☐ 2 Megapixel HD progressive scan sensor
- ☐ Remote zoom and focus
- ☐ Built-in IR illumination
- ☐ IP66 rating for environmental protection
- ☐ H.264 compression with up to 30fps
- ☐ Day/Night with auto mechanical IR filter





IndigoVision's BX camera range provide the choice of 5MP or 1080p HD resolution and conformance to the ONVIF open standard. The cameras are designed to integrate seamlessly to SMS4™ and form part of our end-to-end solution.

Built-in IR illumination provides maximum image quality in low light without the need for an additional lighting source.

A powerful remote zoom and focus feature is available as standard. This enables the camera lens to be remotely driven on-demand by any authorised user from anywhere on the IP network, simplifying installation and reducing on-going cost of ownership.

Camera Product Codes

BX600 Bullet Camera (PAL Region)*		Standard Lens with Remote Zoom and Focus
BX600 HD Bullet Camera		511767

BX600 Bullet Camera (NTSC)		Standard Lens with Remote Zoom and Focus
BX600 HD Bullet Camera		511766

* Default frame rate for PAL Region is 25fps, configurable up to 30fps.

Recording Codes

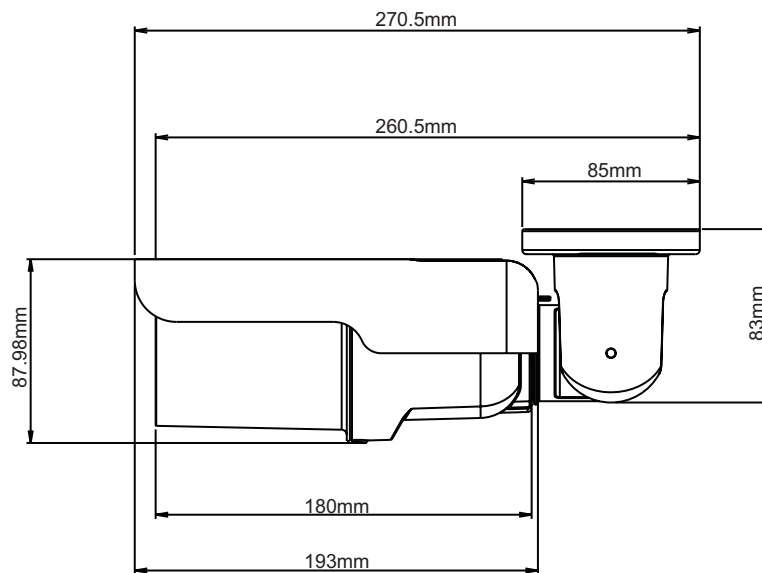
The BX camera range conforms to the ONVIF Standard and can be recorded to any of the IndigoVision NVR-AS range. Licenses for recording can be purchased separately.

Number of Channels	1-Channel	Additional 1-Channel	Failover Channel	Additional Failover Channel	Multivolume Unlimited	Multivolume Unlimited Failover
NVR-AS 3000 Recording	314001		314071		N/A	N/A
Windows NVR-AS Recording*	312001*	312551	312071*	312072	312700*	312099

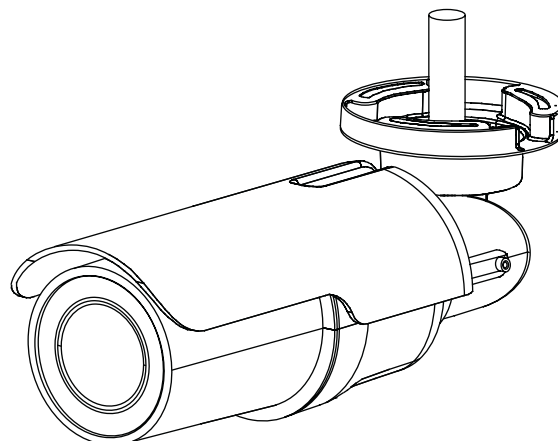
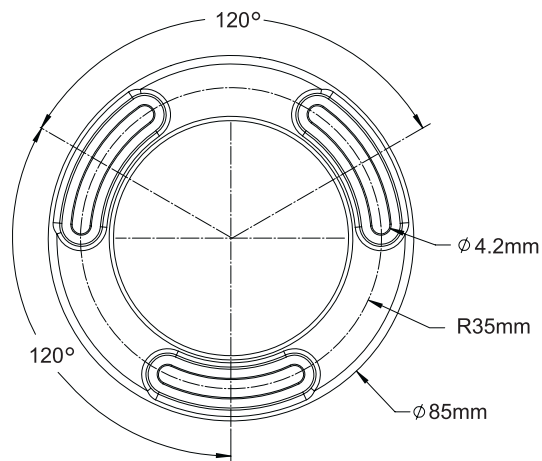
*Recording of cameras from the IndigoVision BX range requires a USB license dongle for each Windows recording server. The Windows NVR-AS software is included on the SMS4™ management software CD, **product code: 317802**

*Includes dongle

Dimensions



Mounting Hole Pattern



Specification

Camera Features

Sensor	1/2.7" Progressive CMOS																			
Active Pixels (HxV)	2 Megapixel (1920x1080)																			
Minimum Sensitivity	Day: 0.2 lux; Night: 0.02 lux																			
Wide Dynamic Range	Low/Medium/High																			
Gain Control	Automatic or fixed manual setting across a 40dB range																			
Back Light Compensation	On or Off																			
White Balance Mode	Auto; Manual; ATW																			
Day/Night	True day/night with Mechanical IR Cut Filter																			
IR Illuminator	Built in IR Illuminator 850nm wavelength, effective distance 20m																			
Video Resolution	1080p: 1920 x 1080 pixels; 720p: 1280 x 720 pixels; D1: 720 x 480 pixels																			
Mirror Mode	On or Off																			
Lens Options	Standard: 3mm - 9mm, Horizontal view angle 90 (W) 36 (T), F1.8																			
Shutter Speed	1 to 1/10000 sec																			
Shutter Mode	Rolling																			
Synchronisation	Internal																			
Exposure Control	Auto or Manual																			
Video Compression	Full frame rate, full color: H.264/MJPEG; up to 30fps @ 1080p resolution																			
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps																			
Video Multi-Encoder	<table><tr><td>Stream 1</td><td>Stream 2</td><td>Stream 3</td><td>Stream 4</td></tr><tr><td>1080p</td><td>1080p</td><td>-</td><td>-</td></tr><tr><td>1080p</td><td>720p</td><td>-</td><td>D1</td></tr><tr><td>720p</td><td>720p</td><td>D1</td><td>SIF</td></tr></table>				Stream 1	Stream 2	Stream 3	Stream 4	1080p	1080p	-	-	1080p	720p	-	D1	720p	720p	D1	SIF
Stream 1	Stream 2	Stream 3	Stream 4																	
1080p	1080p	-	-																	
1080p	720p	-	D1																	
720p	720p	D1	SIF																	
Video Output	NTSC/PAL composite video, 75 Ohms 1V p-p																			
Video Analytics	Motion Detection																			
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel																			
Audio Protocol	G.711																			
Audio Resolution	Full Duplex 8Khz sample rate. Mono Input, Mono Output																			
Audio Input	Line in, terminal block connector																			
Audio Output*	Line out, terminal block connector																			
Binary Input/Output	1 input ; 1 solid state opto-isolated relay output																			
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP Up to 4 simultaneous unicast video users or unlimited multicast users																			
Network Security	HTTPS / IP Filter / IEEE 802.1x																			
Time	Embedded real-time clock, NTP client																			
SD Storage	microSDHC 32GB support (card not included)																			
Dimensions/Weight	84mm (dia.) x 193mm (h) and 0.94Kg (with sun shade) / 3.31in (dia.) x 7.60in (h) and 2.072lb (with sun shade)																			
Regulatory	EN 55022(1998) ITE - Class A EN 55024(1998) ITE immunity standard CFR47(1995) Part 15 subpart B - Class A																			
Housing	Diecast Aluminium Alloy with Polycarbonate sun shade																			
Protection Rating	IP66																			
Electrical	Camera only: Power over Ethernet (802.3af Class 0) or 12V DC / 24V AC; Power consumption: 5.5W Camera including heater: 12V DC / 24V AC; Power consumption: 24W (Power supply not included)																			
Operating Temperature	PoE powered: 0°C to 50°C (32°F to 122°F) External PSU: -30°C to 50°C (-22°F to 122°F)																			
Storage Temperature	-20°C to 70°C (-4°F to 158°F)																			
IndigoVision System Software Requirements	SMS4™ r5 or later																			
Recording Order Options	ONVIF Licence required																			

* Not currently supported in IndigoVision SMS4™



IndigoVision

Complete IP Video Security Solutions



HD Minidome Cameras

BX Range

Seamless open standard HD video

IndigoVision's BX400 HD Minidomes form part of our Complete IP Video Security Solution, fully integrated with IndigoVision's SMS4™ management software and Network Video Recorders.

The IndigoVision BX camera range provides an open standards solution while retaining the resilience of IndigoVision's unique distributed serverless architecture, with no bottlenecks and no single-point-of-failure.

- ☐ 2 Megapixel HD progressive scan sensor
- ☐ Optional remote zoom and focus
- ☐ ONVIF conformant
- ☐ H.264 compression with up to 30fps
- ☐ Day/Night with auto mechanical IR filter



IndigoVision's BX range of cameras provide the choice of 5MP or 1080p HD resolution and conformance to the ONVIF open standard. They are designed to integrate seamlessly to SMS4™ and form part of our end-to-end solution.

A powerful remote zoom and focus feature is available as an option. This enables the camera lens to be remotely driven on-demand by any authorised user from anywhere on the IP network, simplifying installation and reducing on-going cost of ownership.



HD Internal Minidome



HD Vandal Resistant Minidome

Camera Product Codes

BX400 Minidome (PAL Region)*		Standard Lens	Standard Lens with remote Zoom and Focus
HD Internal Minidome		511717	511719
HD Vandal Resistant Minidome		511737	511739

BX400 Minidome (NTSC Region)		Standard Lens	Standard Lens with remote Zoom and Focus
HD Internal Minidome		511716	511718
HD Vandal Resistant Minidome		511736	511738

* Default frame rate for PAL Region is 25fps, configurable up to 30fps.

Recording Codes

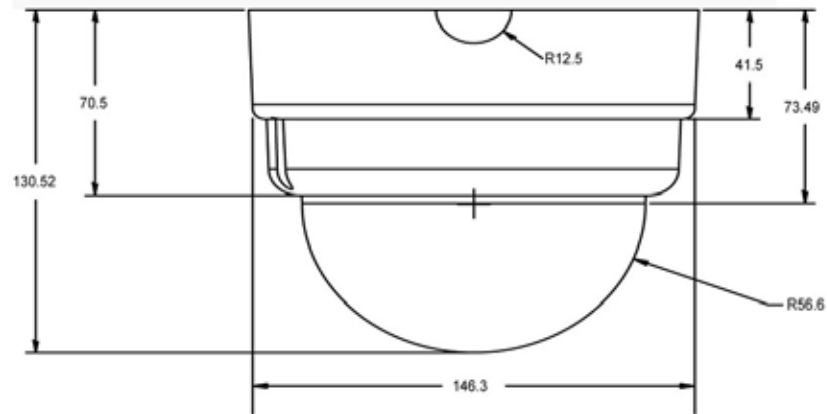
The BX camera range conforms to the ONVIF Standard and can be recorded to any of the IndigoVision NVR-AS range. Licenses for recording can be purchased separately.

Number of Channels	1-Channel	Additional 1-Channel	Failover Channel	Additional Failover Channel	Multivolume Unlimited	Multivolume Unlimited Failover
NVR-AS 3000 Recording	314001		314071		N/A	N/A
Windows NVR-AS Recording*	312001*	312551	312071*	312072	312700*	312099

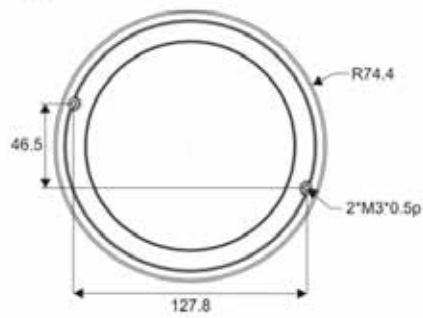
*Recording of cameras from the IndigoVision BX range requires a USB license dongle for each Windows recording server. The Windows NVR-AS software is included on the SMS4™ management software CD, **product code: 317802**

*Includes dongle

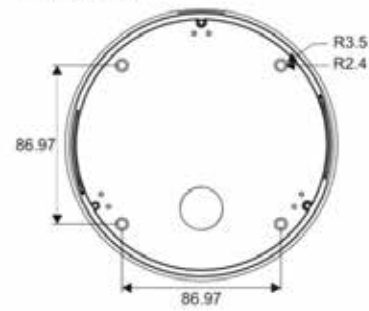
Dimensions - Internal Minidome



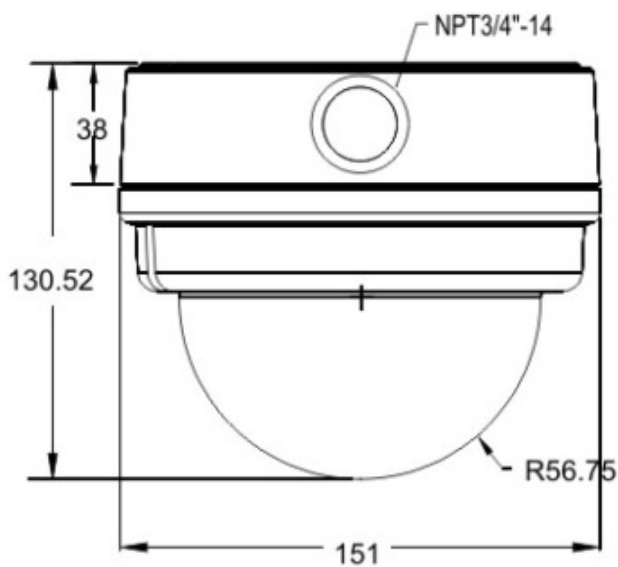
Top View



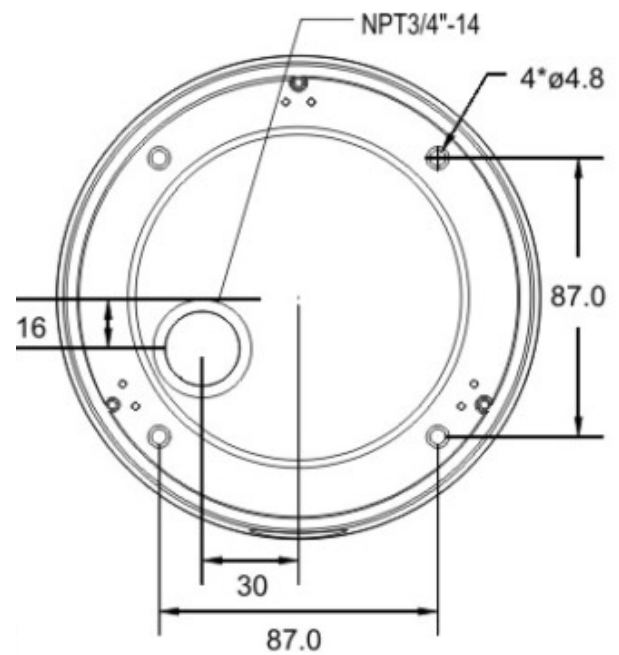
Bottom View



Dimensions - Vandal Resistant Minidome



Unit: mm



Specification

Camera Features

Sensor	1/2.7" Progressive CMOS																		
Active Pixels (HxV)	2 Megapixel (1920x1080)																		
Minimum Sensitivity	Day: 0.2 lux; Night: 0.02 lux																		
Wide Dynamic Range	Low/Medium/High																		
Gain Control	Automatic or fixed manual setting across a 40dB range																		
Back Light Compensation	On or Off																		
White Balance Mode	Auto; Manual; ATW																		
Day/Night	True day/night with Mechanical IR Cut Filter																		
Video Resolution	1080p: 1920 x 1080 pixels; 720p: 1280 x 720 pixels; D1: 720 x 480 pixels																		
Mirror Mode	On or Off																		
Lens Options	Standard: 3mm - 9mm, Horizontal view angle 103.5° (W) 34.3° (T), F1.2, Vari-focal, M14 mount with Remote Zoom/Focus option																		
Iris Control	Auto-iris DC drive lens as standard																		
Shutter Speed	1 to 1/10000 sec																		
Shutter Mode	Rolling																		
Synchronisation	Internal																		
Exposure Control	Auto or Manual																		
Gimbal Adjustment	3 axis adjustment																		
Video Compression	Full frame rate, full color: H.264/MJPEG; up to 30fps @ 1080p resolution																		
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps																		
Video Multi-Encoder	<table border="1"> <thead> <tr> <th>Stream 1</th><th>Stream 2</th><th>Stream 3</th><th>Stream 4</th></tr> </thead> <tbody> <tr> <td>1080p</td><td>1080p</td><td>-</td><td>-</td></tr> <tr> <td>1080p</td><td>720p</td><td>-</td><td>D1</td></tr> <tr> <td>720p</td><td>720p</td><td>D1</td><td>SIF</td></tr> </tbody> </table>			Stream 1	Stream 2	Stream 3	Stream 4	1080p	1080p	-	-	1080p	720p	-	D1	720p	720p	D1	SIF
Stream 1	Stream 2	Stream 3	Stream 4																
1080p	1080p	-	-																
1080p	720p	-	D1																
720p	720p	D1	SIF																
Video Output	NTSC/PAL composite video, 75 Ohms 1V p-p																		
Video Analytics	Motion Detection																		
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel																		
Audio Protocol	G.711																		
Audio Resolution	Full Duplex 8KHz sample rate. Mono Input, Mono Output																		
Audio Input	Line in, terminal block connector																		
Audio Output*	Line out, terminal block connector																		
Binary Input/Output	1 input; 1 solid state opto-isolated relay output																		
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP Up to 4 simultaneous unicast video users or unlimited multicast users																		
Network Security	HTTPS / IP Filter / IEEE 802.1x																		
Time	Embedded real-time clock, NTP client																		
SD Storage	microSDHC 32GB support (card not included)																		
Regulatory	EN 55022(1998) ITE - Class A EN 55024(1998) ITE immunity standard																		
Electrical	CFR47(1995) Part 15 subpart B - Class A Power over Ethernet (802.3af Class 0) or 12V DC / 24V AC; Power consumption: 4W (Power supply not included)																		
IndigoVision System Software Requirements	SMS4™ r5 or later																		
Recording Order Options	ONVIF Licence required																		
Form Factor	Internal		Vandal Resistant																
Dimensions/Weight	147mm (dia.) x 131mm (h) and 0.7Kg / 5.79in (dia.) x 5.16in (h) and 1.543lb		151mm (dia.) x 131mm (h) and 0.7Kg / 5.95in (dia.) x 5.16in (h) and 1.543lb																
Housing	Injection Moulded Polycarbonate/ABS Alloy with Polycarbonate dome		Diecast Aluminium Alloy with Polycarbonate dome																
Protection Rating	N/A		IP65, IEC 62262 IK10																
Operating Temperature	0°C (32°F) to 50°C (122°F)		-10°C (14°F) to 50°C (122°F)																
Storage Temperature	-20°C (-4°F) to 70°C (158°F)		-20°C (-4°F) to 70°C (158°F)																
Mounting Options	Wall and ceiling mountable including solid surfaces		Wall and ceiling mountable including solid surfaces																

* Not currently supported in IndigoVision SMS4™



ID: BX4-HD-MINI-FD
13.3 FEB 13



IndigoVision

Complete IP Video Security Solutions



HD Microdome Cameras

BX Range

Seamless open standard HD video

IndigoVision's BX400 HD Microdomes form part of our Complete IP Video Security Solution, fully integrated with IndigoVision's SMS4™ management software and Network Video Recorders.

The IndigoVision BX camera range provides an open standards solution while retaining the resilience of IndigoVision's unique distributed serverless architecture, with no bottlenecks and no single-point-of-failure.

- ☐ 2 Megapixel HD progressive scan sensor
- ☐ Optional audio and built-in microphone
- ☐ ONVIF conformant
- ☐ H.264 compression with up to 30fps





IndigoVision's BX range of cameras provide the choice of 5MP or 1080p HD resolution and conformance to the ONVIF open standard. They are designed to integrate seamlessly to SMS4™ and form part of our end-to-end solution.

Camera Product Codes

BX400 Microdome (PAL Region)*		Standard Lens
HD Internal Microdome		511707
HD External Microdome		511709

BX400 Microdome (NTSC Region)		Standard Lens
HD Internal Microdome		511706
HD External Microdome		511708

* Default frame rate for PAL Region is 25fps, configurable up to 30fps.

Recording Codes

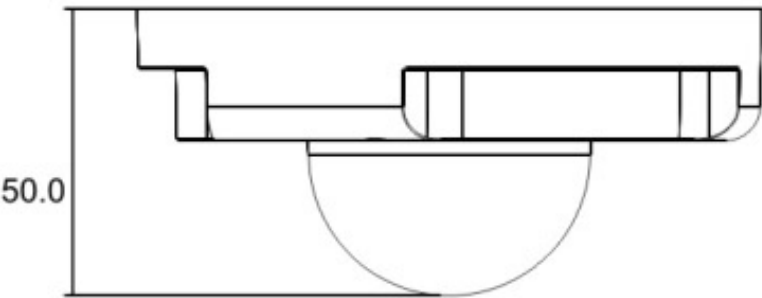
The BX camera range conforms to the ONVIF Standard and can be recorded to any of the IndigoVision NVR-AS range. Licenses for recording can be purchased separately.

Number of Channels	1-Channel	Additional 1-Channel	Failover Channel	Additional Failover Channel	Multivolume Unlimited	Multivolume Unlimited Failover
NVR-AS 3000 Recording	314001		314071		N/A	N/A
Windows NVR-AS Recording*	312001*	312551	312071*	312072	312700*	312099

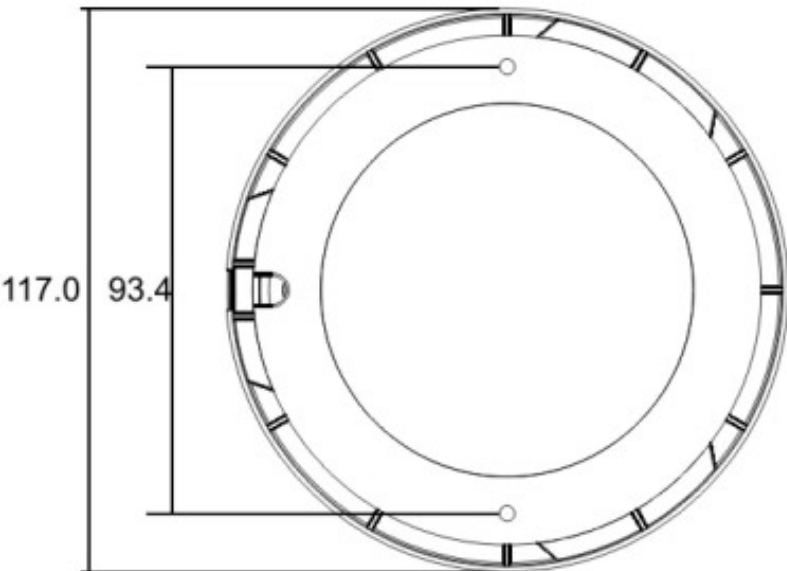
*Recording of cameras from the IndigoVision BX range requires a USB license dongle for each Windows recording server. The Windows NVR-AS software is included on the SMS4™ management software CD, **product code: 317802**

*Includes dongle

Dimensions - Internal / External



Unit: (mm)



Specification

Camera Features

Sensor	1/2.7" Progressive CMOS																		
Active Pixels (HxV)	2 Megapixel (1920x1080)																		
Minimum Sensitivity	Day only: 0.1 lux																		
Wide Dynamic Range	Low/Medium/High																		
Gain Control	Automatic or fixed manual setting across a 40dB range																		
Back Light Compensation	On or Off																		
White Balance Mode	Auto; Manual; ATW																		
Day/Night	Day only																		
Video Resolution	1080p: 1920 x 1080 pixels; 720p: 1280 x 720 pixels; D1: 720 x 480 pixels																		
Mirror Mode	On or Off																		
Lens Options	Standard: 4mm, Horizontal view angle 78°, F1.5; fixed iris																		
Shutter Speed	1 to 1/10000 sec																		
Shutter Mode	Rolling																		
Synchronisation	Internal																		
Exposure Control	Auto or Manual																		
Gimbal Adjustment	2 axis adjustment																		
Video Compression	Full frame rate, full color: H.264/MJPEG; up to 30fps @ 1080p resolution																		
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps																		
Video Multi-Encoder	<table border="1"> <thead> <tr> <th>Stream 1</th><th>Stream 2</th><th>Stream 3</th><th>Stream 4</th></tr> </thead> <tbody> <tr> <td>1080p</td><td>1080p</td><td>-</td><td>-</td></tr> <tr> <td>1080p</td><td>720p</td><td>-</td><td>D1</td></tr> <tr> <td>720p</td><td>720p</td><td>D1</td><td>SIF</td></tr> </tbody> </table>			Stream 1	Stream 2	Stream 3	Stream 4	1080p	1080p	-	-	1080p	720p	-	D1	720p	720p	D1	SIF
Stream 1	Stream 2	Stream 3	Stream 4																
1080p	1080p	-	-																
1080p	720p	-	D1																
720p	720p	D1	SIF																
Video Analytics	Motion Detection																		
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel																		
Audio Protocol	G.711																		
Audio Resolution	Full Duplex 8Khz sample rate. Mono Input (Internal Only)																		
Audio Input	Built in microphone (Internal Only)																		
Audio Output*	N/A																		
Binary Input/Output	N/A																		
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP Up to 4 simultaneous unicast video users or unlimited multicast users																		
Network Security	HTTPS / IP Filter / IEEE 802.1x																		
Time	Embedded real-time clock, NTP client																		
SD Storage	microSDHC 32GB support (card not included)																		
Regulatory	EN 55022(1998) ITE - Class A EN 55024(1998) ITE immunity standard																		
Electrical	CFR47(1995) Part 15 subpart B - Class A Power over Ethernet (802.3af Class 0) or 12V DC / 24V AC; Power consumption: 4W (Power supply not included)																		
IndigoVision System Software Requirements	SMS4™ r5 or later																		
Recording Order Options	ONVIF Licence required																		
Form Factor	Internal	External																	
Dimensions/Weight	117mm (dia.) x 50mm (h) and 180g / 4.61in (dia.) x 1.97in (h) and 0.397lb	117mm (dia.) x 50mm (h) and 180g / 4.61in (dia.) x 1.97in (h) and 0.397lb																	
Housing	Polycarbonate/ABS Alloy with Polycarbonate dome	Polycarbonate/ABS Alloy with Polycarbonate dome																	
Protection Rating	N/A	IP65																	
Operating Temperature	0°C (32°F) to 50°C (122°F)	-10°C (14°F) to 50°C (122°F)																	
Storage Temperature	-20°C (-4°F) to 70°C (158°F)	-20°C (-4°F) to 70°C (158°F)																	
Mounting Options	Ceiling mountable including solid surfaces	Ceiling mountable including solid surfaces																	

* Not currently supported in IndigoVision SMS4™



ID: BX4-HD-MICRO-FD
13.3 FEB 13



IndigoVision

Complete IP Video Security Solutions



HD PTZ Dome Camera

BX Range

Seamless open standard control

IndigoVision's BX500 HD PTZ cameras form part of our Complete IP Video Security Solution, fully integrated with IndigoVision's SMS4™ Security Management Software and Network Video Recorders.

The IndigoVision BX camera range provides an open standards solution while retaining the resilience of IndigoVision's distributed architecture, with no bottle necks and no single-point-of-failure.

- ☐ 2 Megapixel HD progressive scan
- ☐ H.264 compression with up to 30fps
- ☐ Audio and binary I/O
- ☐ ONVIF conformant
- ☐ 20x optical zoom
- ☐ Day/Night with auto mechanical IR filter





IndigoVision's BX range of cameras provides a 1080p HD resolution and conformance to the ONVIF open standard. They are designed to integrate seamlessly to SMS4™ and form part of our end-to-end solution.

The HD PTZ cameras provide full frame rate video at 1080p resolution. User configurable resolution, framerate and bitrate provide users with all the flexibility they need to suit any network. A 20x optical zoom lens, true day/night functionality and WDR provide excellent image quality in all lighting conditions.

Product Codes

	PAL Region*	NTSC Region
Internal HD PTZ Dome	511787	511786
External HD PTZ Dome	511797	511796

*Default frame rate for PAL Region is 25fps, configurable up to 30fps.

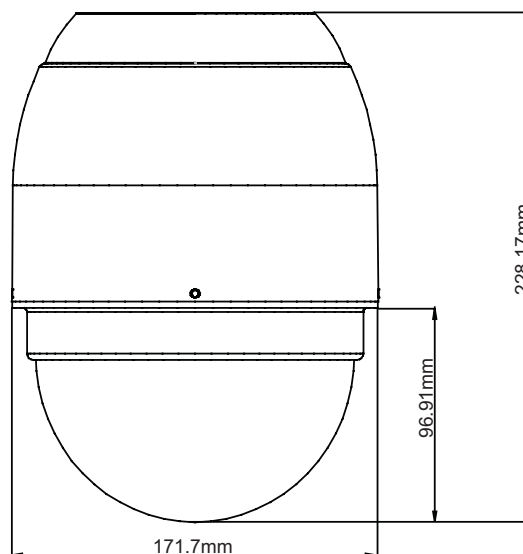
Recording Codes

The camera range conforms to the ONVIF Standard and can be recorded to any of the IndigoVision NVR-AS range. Licenses for recording can be purchased separately.

Number of Channels	1-Channel	Additional 1-Channel	Failover Channel	Additional Failover Channel
NVR-AS 3000 Recording	314001		314071	
Windows NVR-AS Recording*	312001*	312551	312071*	312072

*Recording of cameras from the IndigoVision BX camera range requires a USB dongle for each Windows recording server. The Windows NVR-AS software is included on the SMS4™ management software CD, **product code: 317802**

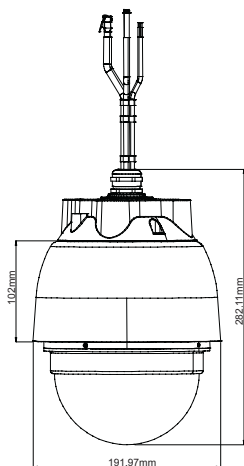
Dimensions - HD PTZ Internal Pendant Dome



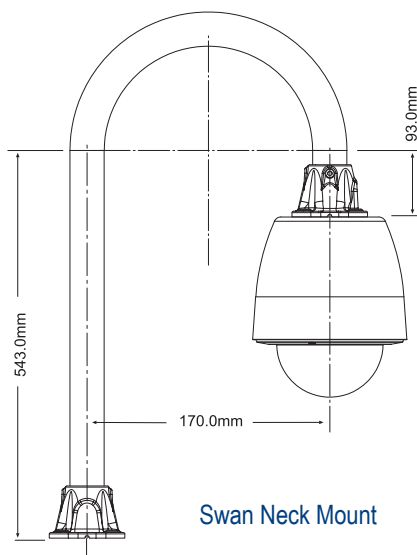
Internal Pendant Dome

Dimensions - HD PTZ External Pendant Dome & Mounts

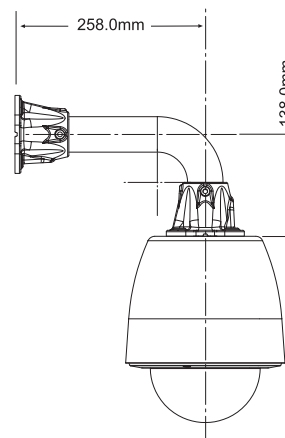
Mounts and accessories are separately orderable.



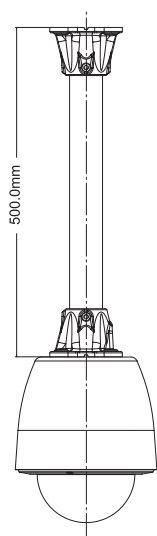
External Pendant Dome



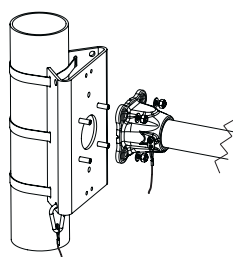
Swan Neck Mount



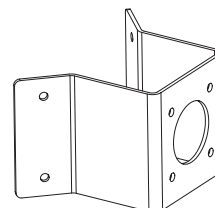
Wall Mount



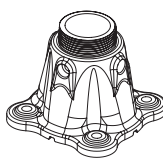
0.5m Vertical Pole



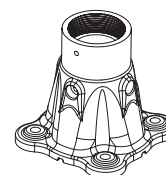
Pole Mount Adapter
To fit pole diameter 75mm - 150mm



Corner Mount Adapter



1.5" NPT Male Adapter



1.5" NPT Female Adapter

Product Codes - Mounts and Accessories

Description	Order Code
Internal Pendant PTZ Dome Wall Mount	110264
Internal Pendant PTZ Dome In-Ceiling Mount	110265
Internal Pendant PTZ Dome 1.5" NPT Adapter (Female)	110268
Internal Pendant PTZ Dome Clear Lens Cover	110260
Internal Pendant PTZ Dome Dark Tint Lens Cover	110261
External Pendant PTZ Dome Corner Mount Bracket	110082
External Pendant PTZ Dome Wall Mount	110084
External Pendant PTZ Dome Swan-Neck Mount	110085
External Pendant PTZ Dome 0.5m Vertical Pole	110086
External Pendant PTZ Dome Pole Mount Adapter	110096
External Pendant PTZ Dome 1.5" NPT Adapter (Male)	110087
External Pendant PTZ Dome 1.5" NPT Adapter (Female)	110088
External Pendant PTZ Dome Clear Lens Cover	110262
External Pendant PTZ Dome Dark Tint Lens Cover	110263

Specification

Camera Features

Sensor	1/2.8" Progressive CMOS																			
Active Pixels	2 Megapixel																			
Minimum Sensitivity	Day: 1.0 Lux (30 IRE, F1.8, 1/15s shutter) Night: 0.1 Lux (30 IRE, F1.8, 1/15s shutter)																			
Wide Dynamic Range	On/Off																			
Gain Control	Automatic or fixed manual setting																			
White Balance	Auto; Manual; ATW																			
Day/Night	True day/night with mechanical IR cut filter																			
Video Resolution	1080p: 1920 x 1080 pixels; 720p: 1280 x 720 pixels; D1: 720 x 480 pixels; SIF: 352 x 288 pixels																			
Lens Options	4.7mm to 94mm Horizontal view angle 52.2°(W) 4.1° (T)																			
Zoom	20x optical + 8x digital																			
Shutter Speed	1/30 - 1/10000 /s																			
Exposure Control	Full auto, Shutter-priority, Iris-priority, Manual, Backlight compensation																			
Video Compression	Full frame rate, full color: H.264/MJPEG ; up to 30fps (ISO 14496-10)																			
Video Bit Rate	256Kbps to 8Mbps per stream. User configurable																			
Video Multi-Encoder	<table><tr><td>Stream 1</td><td>Stream 2</td><td>Stream 3</td><td>Stream 4</td></tr><tr><td>1080p</td><td>1080p</td><td>-</td><td>-</td></tr><tr><td>1080p</td><td>720p</td><td>-</td><td>D1</td></tr><tr><td>720p</td><td>720p</td><td>D1</td><td>SIF</td></tr></table>				Stream 1	Stream 2	Stream 3	Stream 4	1080p	1080p	-	-	1080p	720p	-	D1	720p	720p	D1	SIF
Stream 1	Stream 2	Stream 3	Stream 4																	
1080p	1080p	-	-																	
1080p	720p	-	D1																	
720p	720p	D1	SIF																	
Video Analytics	Motion Detection																			
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel																			
Audio Protocol	G.711																			
Audio Resolution	Full Duplex 8Khz sample rate. Mono Input, Mono Output																			
Audio Input	Line in																			
Audio Output	Line out																			
Binary Input/Output	4 inputs; 2 outputs																			
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP Up to 4 simultaneous unicast video users or unlimited multicast users																			
Time	Embedded real-time clock, NTP client																			
SD Storage	microSDHC card slot with support up to 32GB (card not included)																			
Regulatory	EN 55022(1998) ITE - Class A EN 55024(1998) ITE immunity standard				CFR47(1995) Part 15 subpart B -Class A															
IndigoVision System Software Requirements	SMS4™ r5 or later																			
PTZ Control																				
Presets	256	Pan Range	360°																	
Preset Accuracy	0.225°	Tilt Range	-10° (above horizon) to +90° (vertically down)																	
Preset Tours	8	Pan Speed	0.5-120°/s																	
Pattern/Mimic Tours	8	Tilt Speed	0.5-90°/s																	
Privacy Mask	16	Preset Move Speeds	5-400°/s																	
Form Factor																				
	Internal Pendant		External Pendant																	
Weight	1.62Kg / 3.57lb		2.32Kg / 5.11lb																	
Protection Rating	N/A		IP66, IEC 62262 IK08																	
Electrical	20W Power over Ethernet + (802.3at) or 24V AC/DC Power supply not included		65W (with Heater), 20W (without Heater) 24V AC Power supply included																	
Sustained Min/Max Temperature	0°C (32°F) to 40°C (104°F)		-30°C (-22°F) to 50°C (122°F)																	
Cold Start	0°C (32°F)		-30°C (-22°F)																	
Storage Temperature	-20°C (-4°F) to 70°C (158°F)		-20°C (-4°F) to 70°C (158°F)																	



IndigoVision

Complete IP Video Security Solutions



Enhanced SD Fixed Camera

9000 Range

Always in focus

The IndigoVision range of Enhanced SD Fixed Cameras are designed to be used with our Complete IP Video Security Solution. Class-leading H.264 compression technology, IndigoVision's guarantee never to drop a frame and the latest Wide Dynamic Range (WDR) technology provides excellent image quality under every lighting condition.

Advanced in-camera features such as dual encoding, Activity Controlled Framerate (ACF) and real-time analytics, reduce bandwidth and storage requirements, allowing the user to identify incidents as they occur in real-time.

- ☐ WDR sensor
- ☐ Day/Night with automatic mechanical IR filter
- ☐ Advanced Audio Coding (AAC)
- ☐ 25/30fps guaranteed
- ☐ Power-over-Ethernet for lower installation costs
- ☐ Class-leading H.264 compression

The IndigoVision 9000 Fixed Camera uses the latest Sensor technology providing 1/3" Progressive Scan capture with the industry's best Wide Dynamic Range (WDR) performance.

Simple and easy deployment of IP based video systems is possible as the camera only requires a single CAT 5 cable for connection to the network. The built-in Power-over-Ethernet support allows the camera to be powered directly from the network. A unique distributed serverless architecture, with no single-point-of-failure, also helps to simplify system installation and reduce cost.

IndigoVision's IP Video solution allows advanced features such as Activity Controlled Framerate (ACF) and camerabased real-time analytics to be deployed in the camera itself. These features reduce the bandwidth and NVR storage requirements during periods of scene inactivity and allow the user to deploy advanced analytics to identify events as they occur in real-time.



Product Codes

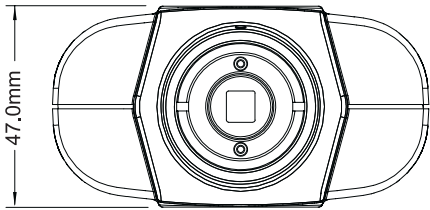
9000 Fixed Camera (PAL)		Standard Lens		Telephoto Lens	
		9000S	9000E	9000S	9000E
Day/Night with Audio		749291	769291	749295	769295

9000 Fixed Camera (NTSC)		Standard Lens		Telephoto Lens	
		9000S	9000E	9000S	9000E
Day/Night with Audio		749290	769290	749294	769294

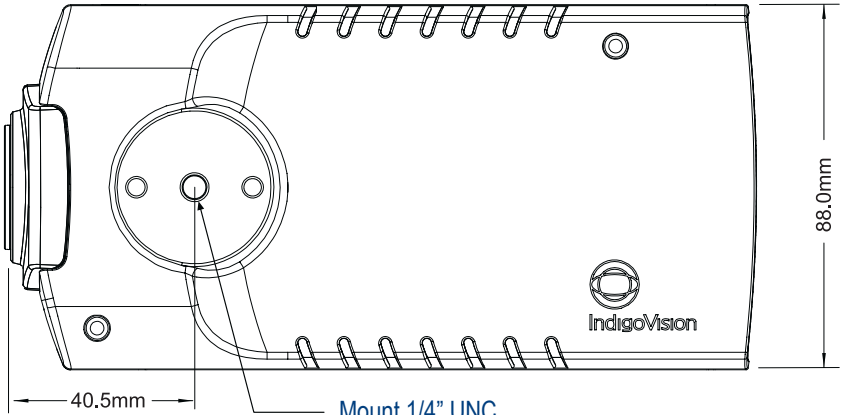
The 9000E product allows full frame rate video, at full 4SIF resolution.

The 9000S product allows the camera to be recorded at full frame rate at SIF resolution, half frame rate at 2SIF and one third frame rate at 4SIF resolution

Dimensions

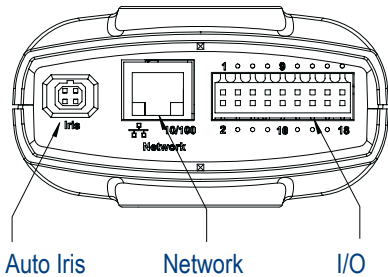


View on Front Face

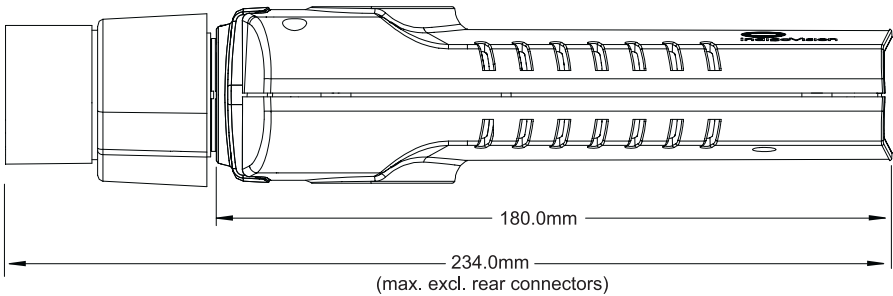


Mount 1/4" UNC

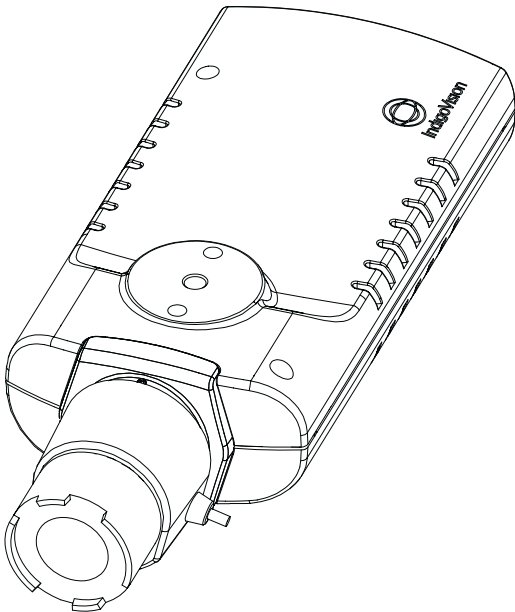
View on Top or Bottom Face



View on Back Face



View on Side



Specification

Camera Features

Sensor	1/3" Progressive CMOS															
Active Pixels	0.4 Megapixel															
Horizontal Resolution	Sensor - 690 HTVL effective; Camera - >500 TVL typical															
Minimum Sensitivity	Day/Night: 0.1 lux color / 0.01 lux mono															
Dynamic Range	WDR: 120dB Max, 102dB typical															
Gain Control	Automatic or fixed manual setting across a 40dB range															
Scan Mode	4SIF Progressive; 2SIF/SIF Non-interlaced															
Back Light Compensation	On or Off															
White Balance Mode	Auto; Manual; Indoor; Outdoor															
Day/Night	Mechanical IR Cut Filter															
Video Resolution	PAL - SIF: 352 x 288 pixels; 2SIF: 704 x 288 pixels; 4SIF: 704 x 576 pixels NTSC - SIF: 352 x 240 pixels; 2SIF: 704 x 240 pixels; 4SIF: 704 x 480 pixels															
Signal/Noise Level	> 50dB															
Mirror Mode	On or Off															
Lens Options	Standard: 3mm - 8mm, Horizontal view angle 66.4° (W) 26.2° (T) , F1.0, Auto-iris, Vari-focal, CS Mount Telephoto: 5mm - 50mm, Horizontal view angle 39.1° (W) 4.3° (T) , F1.4, Auto-iris, Vari-focal, CS Mount															
Iris Control	Auto-iris DC drive lens as standard															
Shutter Speed	Auto from 1/60 (NTSC) or 1/50 (PAL) to 1/30,720															
Synchronisation	Internal															
Video Compression	Full frame rate, full color: H.264 (ISO 14496-10); 25/30fps guaranteed															
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps															
Video Multi-Encoder	<table><tr><td></td><td>A</td><td>B</td><td rowspan="4">You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams e.g. 1x4SIF stream plus 1x4SIF stream</td></tr><tr><td>4SIF</td><td>1 stream</td><td>1 stream</td></tr><tr><td>2SIF</td><td>2 stream</td><td>2 stream</td></tr><tr><td>SIF</td><td>3 stream</td><td>3 stream</td></tr></table>				A	B	You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams e.g. 1x4SIF stream plus 1x4SIF stream	4SIF	1 stream	1 stream	2SIF	2 stream	2 stream	SIF	3 stream	3 stream
	A	B	You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams e.g. 1x4SIF stream plus 1x4SIF stream													
4SIF	1 stream	1 stream														
2SIF	2 stream	2 stream														
SIF	3 stream	3 stream														
Video Output	NTSC/PAL composite video, 75 Ohms 1V p-p, Terminal block connector															
Video Analytics*	Standard: ACF, Motion Detection, Hooded. Advanced: Dual Tripwire, Congestion, Counterflow, Museum															
Audio Compression	AAC-LC (ISO 14496-3)															
Audio Bit Rate	User-configurable bit rates from 32Kbps to 160Kbps per channel															
Audio Protocol	RTP (RFC 3640)															
Audio Dual Encoder	Encoder A: 1 Stream Configuration plus Encoder B: 1 Stream Configuration															
Audio Resolution	Full Duplex 16Khz, 16 Bit Stereo Input, Mono Output															
Audio Input	Stereo line in terminal block connector. Nominal voltage: 1V p-p, Mic 30m V p-p. Mic type: dynamic or electret															
Audio Output	Mono line out terminal block connector. 1V p-p, Minimum load impedance: 16 Ohms															
Binary Input/Output	2 opto-isolated inputs ; 1 solid state opto-isolated relay output															
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP Embedded Linux firewall; Up to 16 simultaneous unicast video users plus unlimited multicast users															
Time	Embedded real-time clock, NTP client															
Dimensions/Weight	180mm (depth) x 88mm (width) x 47mm (height) and 0.5Kg / 7.09in (depth) x 3.47in (width) x 1.86in (height) and 1.103lb															
Regulatory	EN 55022 (2010) ITE emission standard – Class A EN 55024 (1998) +A1:2000 +A2:2003 ITE immunity standard CFR47(1995) Part 15 subpart B -Class A (US federal code of regulations) EN 60068-2-1 & 2 Low & High temp EN 60068-2-6 & 64 Sinusoid & Random vibration EN 60068-2-29 Bump EN 60068-2-30 Humidity up to 95% Non Condensing															
Housing	Diecast Aluminium Alloy															
Operating Temperature	0°C to 50°C (32°F to 122°F)															
Recording Order Options	9000S 25/30 fps recording at SIF (2SIF and 4SIF at lower frame rates) 9000E 25/30 fps recording at 4SIF															

* Advanced Video Analytics require a licence.



IndigoVision
Complete IP Video Security Solutions



Enhanced SD Fixed Dome Camera

9000 Range

Astounding image quality under every lighting condition

The IndigoVision range of Enhanced SD Fixed Dome cameras are designed to be used with our Complete IP Video Security Solution. Class-leading H.264 compression technology, IndigoVision's guarantee never to drop a frame and the latest Wide Dynamic Range (WDR) technology provides excellent image quality under every lighting condition.

Advanced in-camera features such as dual encoding, Activity Controlled Framerate (ACF) and real-time analytics, reduce bandwidth and storage requirements, allowing the user to identify incidents as they occur in real-time.

- ☐ WDR sensor
- ☐ Day/Night with automatic mechanical IR filter
- ☐ Advanced Audio Coding (AAC)
- ☐ 25/30fps guaranteed
- ☐ Power-over-Ethernet for lower installation costs
- ☐ Class-leading H.264 compression



The IndigoVision 9000 Fixed Dome camera uses the latest Sensor technology providing 1/3" Progressive Scan capture with the industry's best Wide Dynamic Range (WDR) performance.

Simple and easy deployment of IP based video systems is possible as the camera only requires a single CAT 5 cable for connection to the network. The built-in Power-over-Ethernet support allows the camera to be powered directly from the network. A unique distributed serverless architecture, with no single-point-of-failure, also helps to simplify system installation and reduce cost.

Product Codes

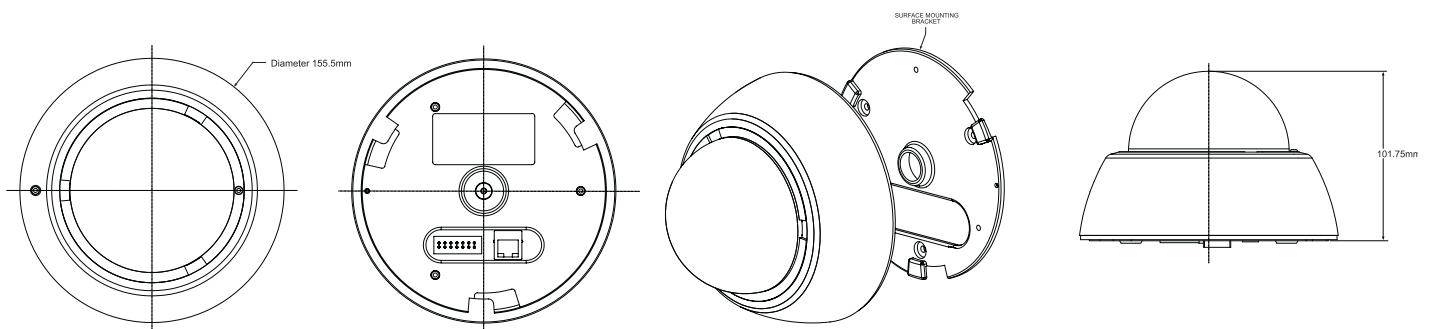
9000 Fixed Dome (PAL)	Standard Lens		Telephoto Lens	
	9000S	9000E	9000S	9000E
Internal with Audio	749411	769411	749413	769413
Vandal Resistant with Audio	749431	769431	749433	769433
Environmental Vandal Resistant with Audio	749441	769441	749443	769443

9000 Fixed Dome (NTSC)	Standard Lens		Telephoto Lens	
	9000S	9000E	9000S	9000E
Internal with Audio	749410	769410	749412	769412
Vandal Resistant with Audio	749430	769430	749432	769432
Environmental Vandal Resistant with Audio	749440	769440	749442	769442

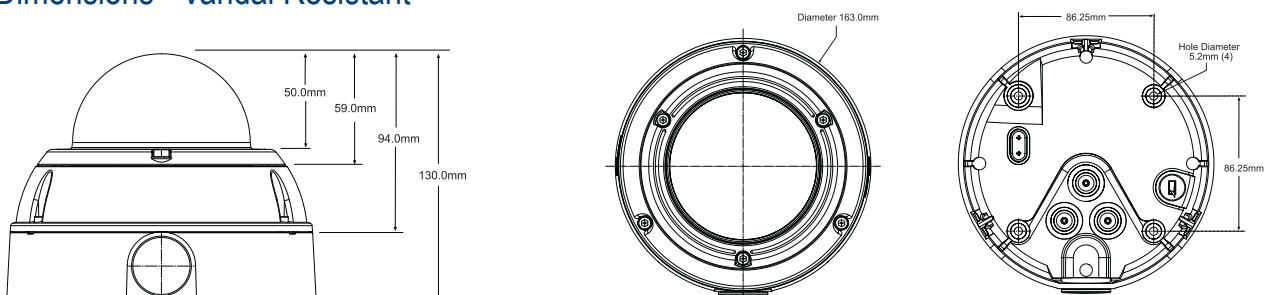
The 9000E product allows full frame rate video, at full 4SIF resolution.

The 9000S product allows the camera to be recorded at full frame rate at SIF resolution, half frame rate at 2SIF and one third frame rate at 4SIF resolution.

Dimensions - Internal

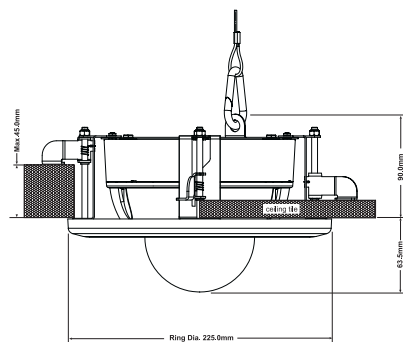


Dimensions - Vandal Resistant

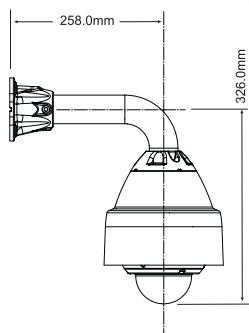


Mounting Options

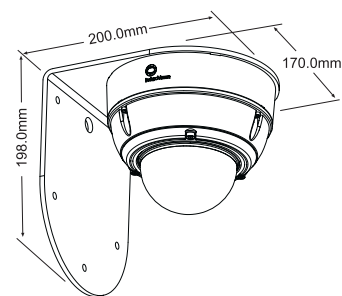
IndigoVision provide a range of mounts allowing installation internally and externally in any environment.



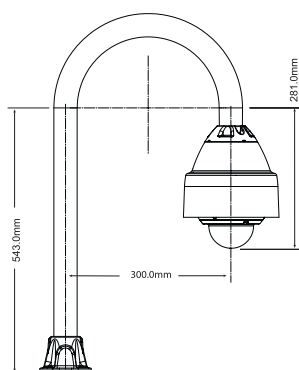
In-Ceiling Mount



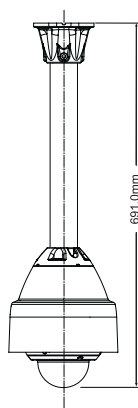
Pendant Wall Mount



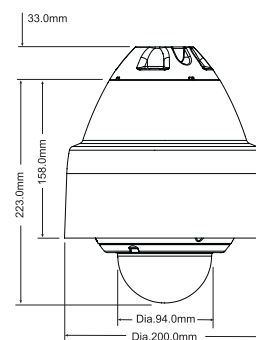
Bracket Wall Mount



Pendant Swan-Neck Mount



Pendant Vertical Pole Mount



NPT Mount

Product Codes - Mounts

Description	Order Code M25	Order Code NPT
Vandal Resistant Fixed Dome Pendant Wall Mount	110021	110020
Vandal Resistant Fixed Dome Pendant Swan-Neck Mount	110023	110022
Vandal Resistant Fixed Dome Pendant Vertical Pole Mount	110025	110024
Internal / Vandal Resistant Fixed Dome In-Ceiling Mount	110069	
Vandal Resistant Fixed Dome 1.5" NPT Pendant Mount (Male)	110027	
Vandal Resistant Fixed Dome 1.5" NPT Pendant Mount (Female)	110028	
Vandal Resistant Fixed Dome Bracket Wall Mount	110026	

Specification

Camera Features

Sensor	1/3" Progressive CMOS															
Active Pixels	0.4 Megapixel															
Horizontal Resolution	Sensor - 690 HTVL effective; Camera - >500 TVL typical															
Minimum Sensitivity	Day/Night: 0.1 lux color / 0.01 lux mono															
Wide Dynamic Range	120dB Max, 102dB Typical															
Gain Control	Automatic or fixed manual setting across a 40dB range															
Scan Mode	4SIF Progressive; 2SIF/SIF Non-interlaced															
Back Light Compensation	On or Off															
White Balance	Auto; Manual; Indoor; Outdoor															
Day/Night	Mechanical IR Cut Filter															
Video Resolution	PAL - SIF: 352 x 288 pixels; 2SIF: 704 x 288 pixels; 4SIF: 704 x 576 pixels. NTSC - SIF: 352 x 240 pixels; 2SIF: 704 x 240 pixels; 4SIF: 704 x 480 pixels															
Signal/Noise Level	> 50dB															
Mirror Mode	On or Off															
Lens Options	Standard: 2.8mm - 10.5mm, Horizontal view angle 101.8° (W) 27.4° (T) , F1.2, Auto-iris, Vari-focal, M14 mount Telephoto: 9mm - 22mm, Horizontal view angle 30.6° (W) 13.0° (T) F1.5, Auto-iris, Vari-focal, M14 mount															
Iris Control	Auto-iris DC drive lens as standard															
Shutter Speed	Auto from 1/60 (NTSC) or 1/50 (PAL) to 1/30,720															
Synchronisation	Internal															
Video Compression	Full frame rate, full color: H.264 (ISO 14496-10); 25/30fps guaranteed															
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps															
Video Multi-Encoder	<table><tr><td></td><td>A</td><td>B</td><td rowspan="4">You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream</td></tr><tr><td>SIF</td><td>3 streams</td><td>3 streams</td></tr><tr><td>2SIF</td><td>2 streams</td><td>2 streams</td></tr><tr><td>4SIF</td><td>1 stream</td><td>1 stream</td></tr></table>				A	B	You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream	SIF	3 streams	3 streams	2SIF	2 streams	2 streams	4SIF	1 stream	1 stream
	A	B	You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream													
SIF	3 streams	3 streams														
2SIF	2 streams	2 streams														
4SIF	1 stream	1 stream														
Video Output	NTSC/PAL composite video, 75 Ohms 1V p-p, BNC cable harness															
Video Analytics*	Standard: ACF, Motion Detection, Hooded. Advanced: Dual Tripwire, Congestion, Counterflow, Museum															
Audio Compression	AAC-LC (ISO 144496-3)															
Audio Bit Rate	User-configurable bit rates from 32Kbps to 160Kbps per channel															
Audio Protocol	RTP (RFC 3640)															
Audio Dual Encoder	Encoder A: 1 Stream Configuration plus Encoder B: 1 Stream Configuration															
Audio Resolution	Full Duplex 16Khz, 16 Bit Stereo Input, Mono Output															
Audio Input	Stereo line in terminal block connector. Nominal voltage: 1V p-p, Mic 30m V p-p. Mic type: dynamic or electret															
Audio Output	Mono line out terminal block connector. 1V p-p, Minimum load impedance: 16 Ohms															
Binary Input/Output	2 opto-isolated inputs ; 1 solid state opto-isolated relay output															
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP Embedded Linux firewall; Up to 16 simultaneous unicast video users plus unlimited multicast users															
Time	Embedded real-time clock, NTP client															
Regulatory	EN 55022 (2010) ITE emission standard – Class A EN 55024 (1998) +A1:2000 +A2:2003 ITE immunity standard CFR47(1995) Part 15 subpart B -Class A (US federal code of regulations) EN 60068-2-1 & 2 Low & High temp EN 60068-2-6 & 64 Sinusoid & Random vibration EN 60068-2-29 Bump EN 60068-2-30 Humidity up to 95% Non Condensing															
Recording Order Options	9000S 25/30 fps recording at SIF (2SIF and 4SIF at lower frame rates) 9000E 25/30 fps recording at 4SIF															
Form Factor	Internal	Vandal Resistant	Environmental Vandal Resistant													
Dimensions/Weight	155.5mm (dia.) x 103mm (h) and 0.5Kg / 6.12in (dia.) x 4.06in (h) and 1.103lb	163mm (dia.) x 125mm (h) and 0.86Kg / 6.42in (dia.) x 2.93n (h) and 1.897lb	159mm (dia.) x 125mm (h) and 0.94Kg / 6.26in (dia.) x 2.93in (h) and 1.897lb													
Housing	Injection Moulded Polycarbonate/ABS Alloy with Polycarbonate dome	Diecast Aluminium Alloy with Polycarbonate dome	Diecast Aluminium Alloy with Polycarbonate dome													
Protection Rating	N/A	IP66	IP66													
Electrical	24V @ 0.33A, 10W max Camera Operating Voltage - PoE (802.3af Class0) or 24V AC/DC (24V DC PSU separately orderable) Heater Operating Voltage - N/A	24V @ 0.33A, 10W max Camera Operating Voltage - PoE (802.3af Class0) or 24V AC/DC (24V DC PSU separately orderable) Heater Operating Voltage - N/A	24V @ 0.33A, 10W max (camera only) 12V @ 2.5A, 30W max (heater) Camera Operating Voltage - PoE (802.3af Class0) or 24V AC/DC (24V DC PSU separately orderable). Heater Operating Voltage - 12V DC (12V DC PSU included)													
Operating Temperature	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	-30°C to 50°C (-22°F to 122°F)													
Mounting Options	Wall and Ceiling Mountable not suitable for solid surfaces	Wall and ceiling Mountable exit collar included for solid surfaces	Wall and Ceiling Mountable exit collar included for solid surfaces													

* Advanced Video Analytics require a licence.



ID: R9-FD 13.5 APR13



IndigoVision

Complete IP Video Security Solutions



SD PTZ Dome Camera

9000 Range

Ultra-low latency for sharp camera control, with every frame guaranteed

IndigoVision's range of 9000 PTZ Dome cameras are designed to be used with our Complete IP Video Security Solution and have class-leading H.264 compression technology built-in.

The SD PTZ cameras are fully compatible with IndigoVision's SMS4™, Security Management Solution and its range of Network Video Recorders. IndigoVision's guarantee never to drop a frame and ultra-low latency provide excellent image quality.

- ☐ Class-leading H.264 compression
- ☐ Outstanding low light performance
- ☐ Arctic environmental options
- ☐ Image Stabilization with Stable Zoom™
- ☐ Ultra-low latency, essential for smooth PTZ control
- ☐ Progressive or interlace scan options
28x and 36x optical zoom

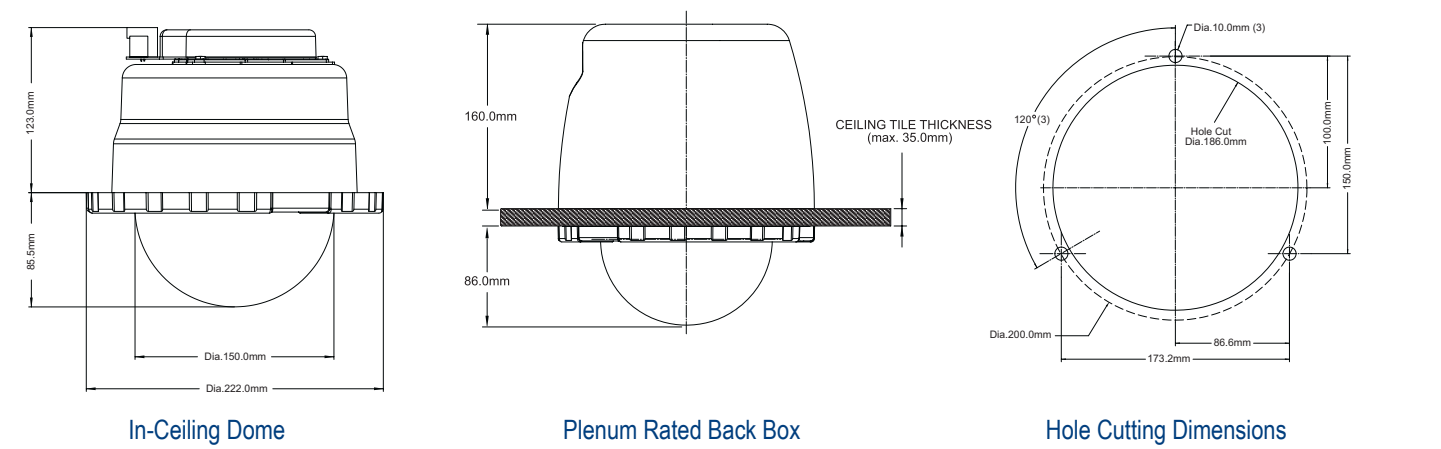
Product Codes

9000 PTZ IP Camera (PAL Region)	28x Lens		36x Lens	
	9000S	9000E	9000S	9000E
In-Ceiling	749353	769353	749363	769363
Standard Pendant	749355	769355	749365	769365
Environmental Pendant	749357	769357	749367	769367
Arctic	749359	769359	749369	769369

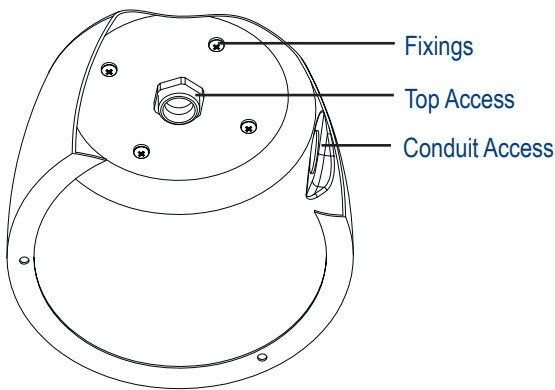
9000 PTZ IP Camera (NTSC Region)	28x Lens		36x Lens	
	9000S	9000E	9000S	9000E
In-Ceiling	749352	769352	749362	769362
Standard Pendant	749354	769354	749364	769364
Environmental Pendant	749356	769356	749366	769366
Arctic	749358	769358	749368	769368

The 9000E product allows full frame rate video, at full 4SIF resolution.
The 9000S product allows the camera to be recorded at full frame rate at SIF resolution, half frame rate at 2SIF and one third frame rate at 4SIF resolution.

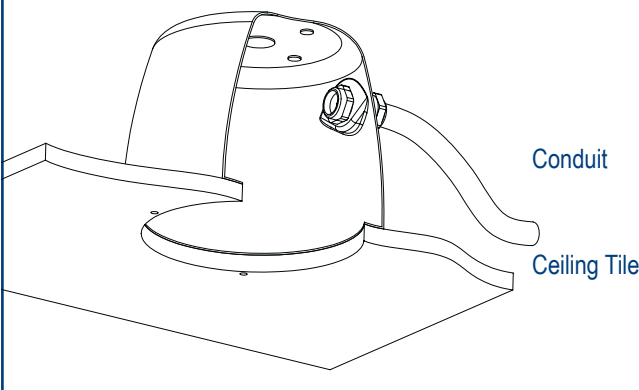
Dimensions - In-ceiling



Surface Mount for In-Ceiling Dome

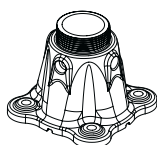
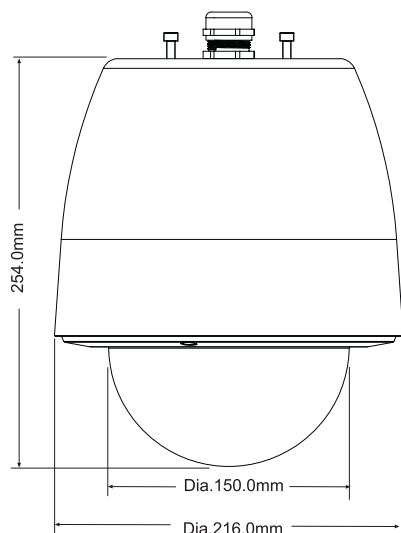


Plenum Rated Back Box for In-Ceiling Dome

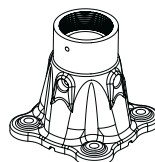


Dimensions - Pendant Camera & Mounts

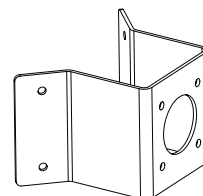
Mounts and accessories are separately orderable.



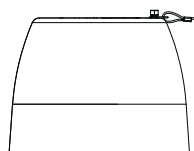
1.5" NPT Male Adapter



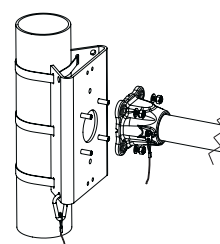
1.5" NPT Female Adapter



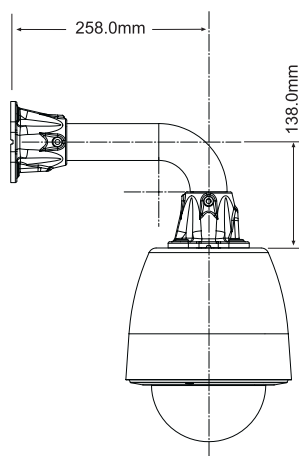
Corner Mount Adapter



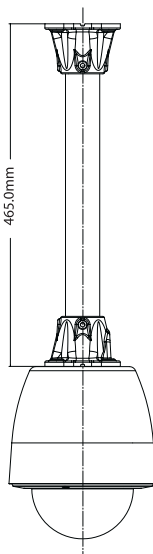
Sun Shroud



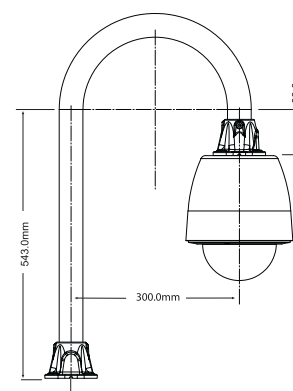
Pole Mount Adapter
To fit pole diameter 75mm - 150mm



Wall Mount



0.5m Vertical Pole



Swan Neck Mount

Product Codes - Mounts and Accessories

Description	Order Code
In-Ceiling PTZ Surface Mount	110099
Pendant PTZ Dome Corner Mount Adapter	110082
Pendant PTZ Dome Wall Mount	110084
Pendant PTZ Dome Swan-Neck Mount	110085
Pendant PTZ Dome 0.5m Vertical Pole	110086
Pendant PTZ Dome Pole Mount Adapter	110096
Pendant PTZ Dome 1.5" NPT Adapter (Male)	110087
Pendant PTZ Dome 1.5" NPT Adapter (Female)	110088
Pendant PTZ Dome Clear Lens Cover	110080
Pendant PTZ Dome Dark Tint Lens Cover	110081
Pendant PTZ Dome Sun Shroud	110065

Specification

Optical		28x optical + 12x digital zoom		36x optical + 12x digital zoom														
Sensor	1/4-type SuperHAD II CCD		1/4 Sony ExView SuperHAD CCD															
Horizontal Resolution	2.1° to 55.8°		1.7° to 57.8°															
Minimum Sensitivity	Day: 0.016 lx (color) F1.35, 50 IRE Night: 0.0015 lx (mono) F1.35, 50 IRE NTSC at 1/4s, PAL at 1/3s shutter		Day: 0.1 lx (color) F1.6, 50 IRE Night: 0.01 lx (mono) F1.6, 50 IRE NTSC at 1/4s, PAL at 1/3s shutter															
Wide Dynamic Range	No		On / Off / Auto															
Scan Mode	Interlaced		Progressive or Interlaced															
Day/Night	Auto Mechanical IR filter		Auto Mechanical IR filter															
Video Resolution	>540 TVL		>540 TVL															
Lens Options	3.5mm to 98mm, F1.35 to F3.7		3.4mm to 122.4mm, F1.6 to F4.5															
Image Stabilizer	Yes (StableZoom™)		Yes (StableZoom™)															
Camera Features																		
Gain Control/White Balance	Automatic																	
Video Resolution	D1, 4SIF, 2SIF, SIF (PAL) D1, 4SIF, 2SIF, SIF (NTSC)																	
Signal/Noise Level	>50 dB																	
Shutter/Iris/Focus	Automatic with manual override																	
Shutter Speed	1 to 1/10000 sec.																	
Exposure Control	Auto, Manual, Slow AE																	
Video Compression	Full frame rate, full color: H.264; (ISO 14496-10): 25/30fps guaranteed																	
Video Bit Rate	User configurable from 32Kbps to 6Mbps																	
Video Multi-Streaming	Up to 16 simultaneous unicast video users plus unlimited multicast users																	
Video Multi-Encoder	<table><tr><td></td><td>A</td><td>B</td><td rowspan="4">You can combine one selection from column A plus one selection from column B: e.g. 1x4SIF stream plus 2x2SIF streams</td></tr><tr><td>SIF</td><td>3 streams</td><td>3 streams</td></tr><tr><td>2SIF</td><td>2 streams</td><td>2 streams</td></tr><tr><td>D1/4SIF</td><td>1 stream</td><td>1 stream</td></tr></table>						A	B	You can combine one selection from column A plus one selection from column B: e.g. 1x4SIF stream plus 2x2SIF streams	SIF	3 streams	3 streams	2SIF	2 streams	2 streams	D1/4SIF	1 stream	1 stream
	A	B	You can combine one selection from column A plus one selection from column B: e.g. 1x4SIF stream plus 2x2SIF streams															
SIF	3 streams	3 streams																
2SIF	2 streams	2 streams																
D1/4SIF	1 stream	1 stream																
Binary Input/Output	2 opto-isolated inputs; 1 solid state, opto-isolated relay output																	
Network Interface	This camera complies with IEEE 802.3u, 100BASE-TX Fast Ethernet, TCP, UDP, IGMP, SNMP, HTTP, FTP, NTP																	
Network Security	Embedded Linux Firewall. Salted passwords, with MD5 encryption																	
Time	Embedded real-time clock, NTP client																	
Regulatory	EN 55022(1994) ITE emission standard Class A EN 55024(1998) ITE immunity standard Class A EN 61000-3-3(1995) voltage fluctuation		EN 61000-3-2(1995) mains harmonics Class A CFR47(1995) Part 15 subpart B UL2044 (In-Ceiling with Plenum Rated Back Box)*															
PTZ Control																		
Presets	250	Pan Range	360° continuous rotation															
Preset Accuracy	0.05°	Tilt Range	-5° (above horizon) to +90° (vertically down)															
Preset Tours	100 each with 20 presets	Pan/Tilt Speed	0.001°/s to 360°/s															
Pattern/Mimic Tours	4 each with up to 1 minute	Preset Move Speeds	200°/s															
Privacy Zones	24 User Defined	On Screen Display	Preset Name or 8 Compass Points															
Form Factor		In-Ceiling	Standard Pendant	Environmental Pendant	Arctic Pendant													
Weight	2.7Kg / 5.953lb	5.5Kg / 12.125lb	5.7Kg / 12.566lb	5.7Kg / 12.566lb														
Housing	Polypropelene	Vandal Resistant die-cast aluminium	Vandal Resistant die-cast aluminium with aluminium Sun Shroud	Vandal Resistant die-cast aluminium														
Bubble Construction	Optical grade Polycarbonate	Optical grade Polycarbonate	Optical grade Polycarbonate	Optical grade Polycarbonate														
Protection Rating	N/A	IP67	IP67	IP67														
Electrical	24V AC/DC @ 1A; 24W 24V DC power supply included	24V AC/DC @ 1A; 24W 24V DC power supply included	24V AC/DC @ 2.3 A; 55W 24V DC power supply included	24V AC/DC @ 3.5 A; 84W power supply not included														
Storage Temp	-20°C (-4°F) to 70°C (158°F)	-20°C (-4°F) to 70°C (158°F)	-20°C (-4°F) to 70°C (158°F)	-20°C (-4°F) to 70°C (158°F)														
Sustained Min/Max Temperature	0°C (32°F) to 40°C (104°F)	-5°C (23°F) to 50°C (122°F)	-20°C (-4°F) to 50°C (122°F)	-50°C (-58°F) to 50°C (122°F)														
Absolute Maximum Temperature	+45°C (133°F) periods of 1 hour	+60°C (140°F) periods of 1 hour	+60°C (140°F) periods of 1 hour	+60°C (140°F) periods of 1 hour														
Cold Start	0°C (32°F)	0°C (32°F)	0°C (32°F)	-40°C (-40°F)														

* In Ceiling Dome only.



ID: R9-PTZ 13.1
JAN 13



IndigoVision

Complete IP Video Security Solutions



Single Channel Encoder/ Decoder

9000 Range

A family of Video Encoders and Decoders incorporating IndigoVision's class-leading compression technology

IndigoVision's range of Single Channel Encoder/Decoder products are designed to be used with our Complete IP Video Security Solution and have class-leading H.264 compression technology built-in.

IndigoVision's Complete IP Video Security Solution allows advanced features such as Activity Controlled Framerate (ACF) and real-time analytics, available as an order option, to be deployed in the Encoders. These features reduce the bandwidth and NVR storage requirements during periods of scene inactivity and allow the user to deploy advanced analytics to identify events as they occur in real-time.

- ☐ Class-leading H.264 compression
- ☐ Full frame rate 25/30fps guaranteed
- ☐ Power-over-Ethernet for lower installation costs
- ☐ Optional full-duplex audio
- ☐ Optional built-in real time analytics
- ☐ Extended temperature option

The IndigoVision Single Channel Encoder/Decoder allows traditional analogue CCTV cameras to be integrated into an IP network to give you a complete security solution. The small form factor Single Channel Encoder/Decoder can be located close to the camera enabling flexibility in system design. Built-in Power-over-Ethernet support allows the camera to be powered directly from the network, simplifying installation and reducing costs.

The Single Channel Encoder is available as either an Encoder only or as an Encoder/Decoder providing 1 video input or output in a small footprint reducing power and cooling cost. All products have a range of digital I/O for ultra-low latency PTZ control and alarm integration.

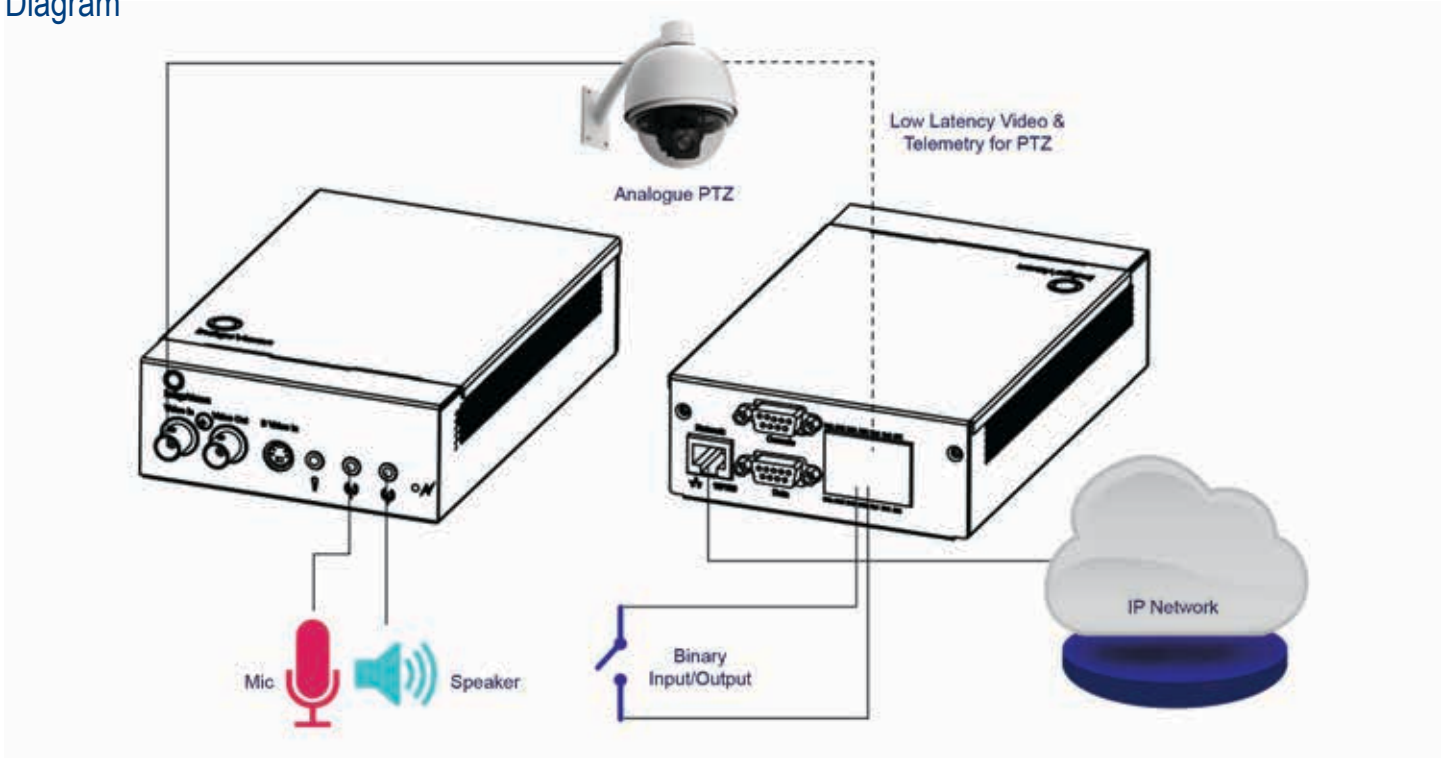
Product Codes

Single Channel Encoder/Decoder	Encoder Only		Encoder/Decoder		Decoder Only
	9000S	9000E	9000S	9000E	
Standard	749116	769116	N/A	N/A	N/A
Extended Temp. 0°C to +65°C	749128	769128	N/A	N/A	N/A
Extended Temp.-30°C to +65°C	749130	769130	N/A	N/A	N/A
Standard with Audio	N/A	N/A	749103	769103	729103
Extended Temp. with Audio 0°C to +65°C	N/A	N/A	749126	769126	N/A
Extended Temp. with Audio -30°C to +65°C	N/A	N/A	749129	769129	N/A

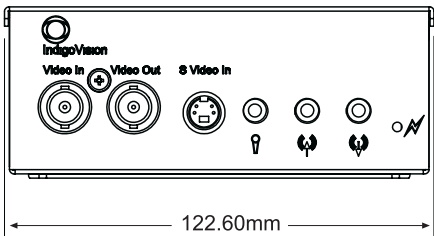
The 9000E product allows full frame rate video, at full 4SIF resolution. The 9000S product allows the camera to be recorded at full frame rate at SIF resolution, half frame rate at 2SIF and one third frame rate at 4SIF resolution.

The 9000 Encoder/Decoder decodes IndigoVision H.264 and MPEG-4 video streams.

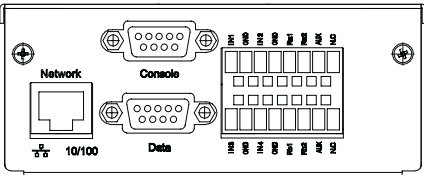
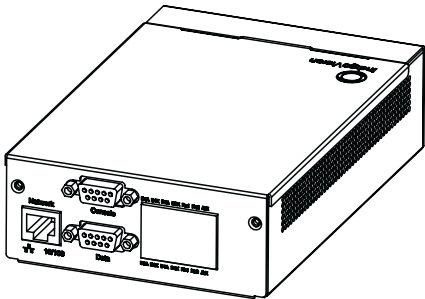
Diagram



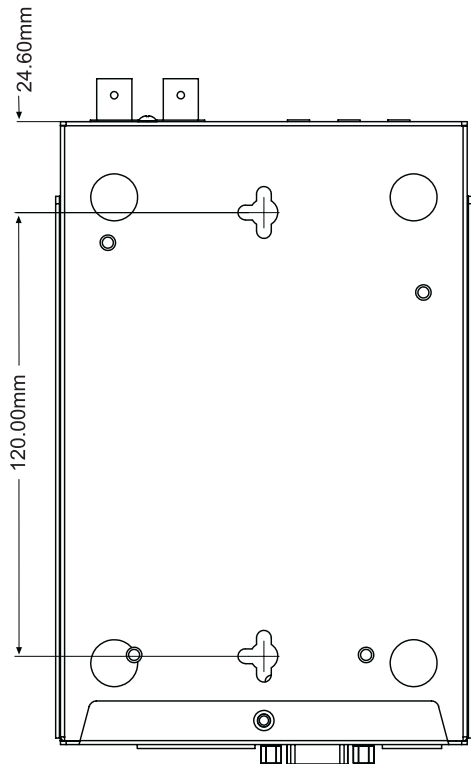
Dimensions



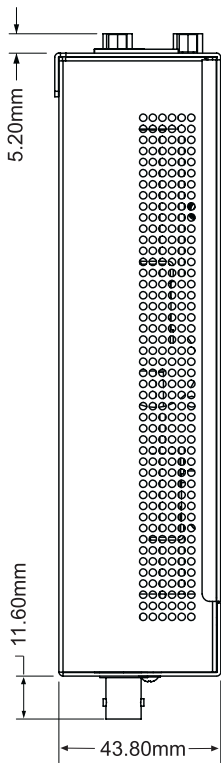
View on Front



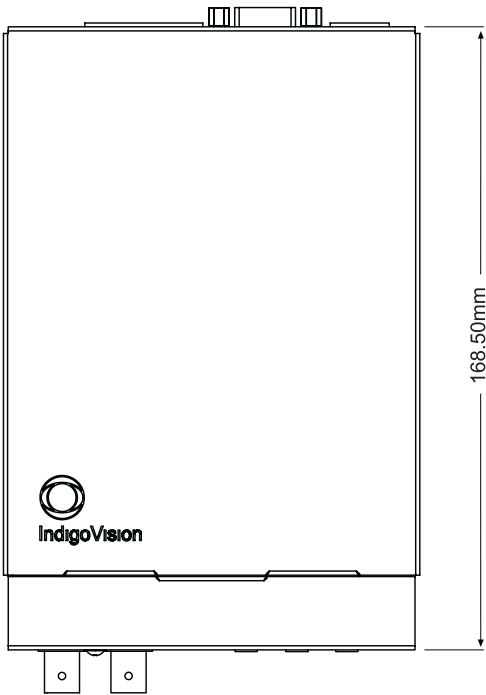
View on Back



View on Underside



View on Side



View on Top

Specification

General Specifications

Video Performance	Full frame rate, full color: 25/30fps guaranteed															
Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels (PAL) 4SIF: 704 x 480 pixels 2SIF: 704 x 240 pixels SIF: 352 x 240 pixels (NTSC)															
Video Compression	Full frame rate, full color: H.264 (ISO 14496-10); 25/30fps guaranteed															
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps															
Video Multi-Encoder	<table><tr><td></td><td>A</td><td>B</td><td rowspan="4">You can combine one selection from column A plus one selection from column B per video channel: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream</td></tr><tr><td>SIF</td><td>3 streams</td><td>3 streams</td></tr><tr><td>2SIF</td><td>2 streams</td><td>2 streams</td></tr><tr><td>4SIF</td><td>1 stream</td><td>1 stream</td></tr></table>				A	B	You can combine one selection from column A plus one selection from column B per video channel: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream	SIF	3 streams	3 streams	2SIF	2 streams	2 streams	4SIF	1 stream	1 stream
	A	B	You can combine one selection from column A plus one selection from column B per video channel: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream													
SIF	3 streams	3 streams														
2SIF	2 streams	2 streams														
4SIF	1 stream	1 stream														
Video Input	NTSC/PAL video; 75 Ohms 1V p-p, standard BNC connector; S-Video															
Video Output	NTSC/PAL composite video, 75 Ohms; 1V p-p, standard BNC connector. Software decode for display to PCs															
Video Decode	Decode IndigoVision MPEG-4 and H.264 video streams															
Audio Compression*	MPEG-4 Advanced Audio Encoding at 16 Khz sample rate & 16 bit resolution															
Audio Input*	Line in 3.5mm jack. Nominal voltage: 1V p-p, 16bit, Mic 30mVp-p. Mic types: support for condensor and dynamic															
Audio Output*	Line out 3.5mm jack. 1V p-p, Minimum load impedance: 32 Ohms															
Binary Input/Output	4 opto-isolated inputs; 2 solid state relay outputs															
Data Input/Output	1 Data port: RS232/RS422/RS485 up to 115.2 Kbps; 1 Data/Console port: RS232 up to 115.2 Kbps															
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP, RTP Embedded Linux firewall. Salted passwords, with MD5 encryption; Up to 16 simultaneous unicast video users plus unlimited multicast users															
Time	Embedded real-time clock, NTP client															
Dimensions	167mm (depth) x 110mm (width) x 45mm (height) and 0.6Kg (excluding power supply) / 6.58in (depth) x 4.34in (width) x 1.78in (height) and 1.323lb (excluding power supply)															
Regulatory	EN 55022 (1994) ITE - Class A EN 61000-3-2 (1995) - Class A EN 55024 (1998) ITE immunity standard EN 61000 3-3 (1995) voltage fluctuation CFR47 (1995) Part 15 subpart B -Class A															
Electrical	Power over Ethernet (802.3af Class 0); 14/35V DC, 24V AC															
	Standard	Extended Temp A	Extended Temp B													
Electrical	7W max	8W max	8W (unit) + 30W (heater) max													
Operating Temperature	0°C to 50°C (32°F to 122°F)	0°C to 65°C (32°F to 149°F)	-30°C to 65°C (-22°F to 149°F)													
Storage Temperature	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)	-30°C to 70°C (-22°F to 158°F)													
Power Supplies	Power supplies are separately orderable. Extended Temp. Option B comes with an internal heater and 24V AC/DC heater power supply included. The heater consumes 30W of power.															

*Audio capability is an order option on all Encoder/Decoder modules.



IndigoVision

Complete IP Video Security Solutions



Four Channel Encoder/ Decoder

8000/9000 Range

A family of Video Encoders and Decoders incorporating IndigoVision's class-leading compression technology

IndigoVision's Four Channel Encoder/Decoder is designed to be used with our Complete IP Video Security Solution and have class-leading MPEG-4 or H.264 compression technology built-in.

IndigoVision's Complete IP Video Security Solution allows advanced features such as Activity Controlled Framerate (ACF) and real-time analytics, available as an order option, to be deployed in the encoders. These features reduce the bandwidth and NVR storage requirements during periods of scene inactivity and allow the user to deploy advanced analytics to identify events as they occur in real-time.

- ☐ Class-leading MPEG-4 or H.264 compression
- ☐ Incorporates local switch for direct attachment to NVR
- ☐ Full frame rate 25/30fps guaranteed
- ☐ Mix any combination of MPEG-4 or H.264, encoder or decoder cards in one unit
- ☐ Optional full-duplex audio
- ☐ Optional built-in real time analytics

The IndigoVision Four Channel Encoder/Decoder allows traditional analogue CCTV cameras to be integrated into an IP network to give you a complete security solution. The chassis can be rack mounted providing four video channel inputs or outputs in a small footprint reducing power and cooling costs. All products have a range of digital I/O for ultra-low latency PTZ control and alarm integration.

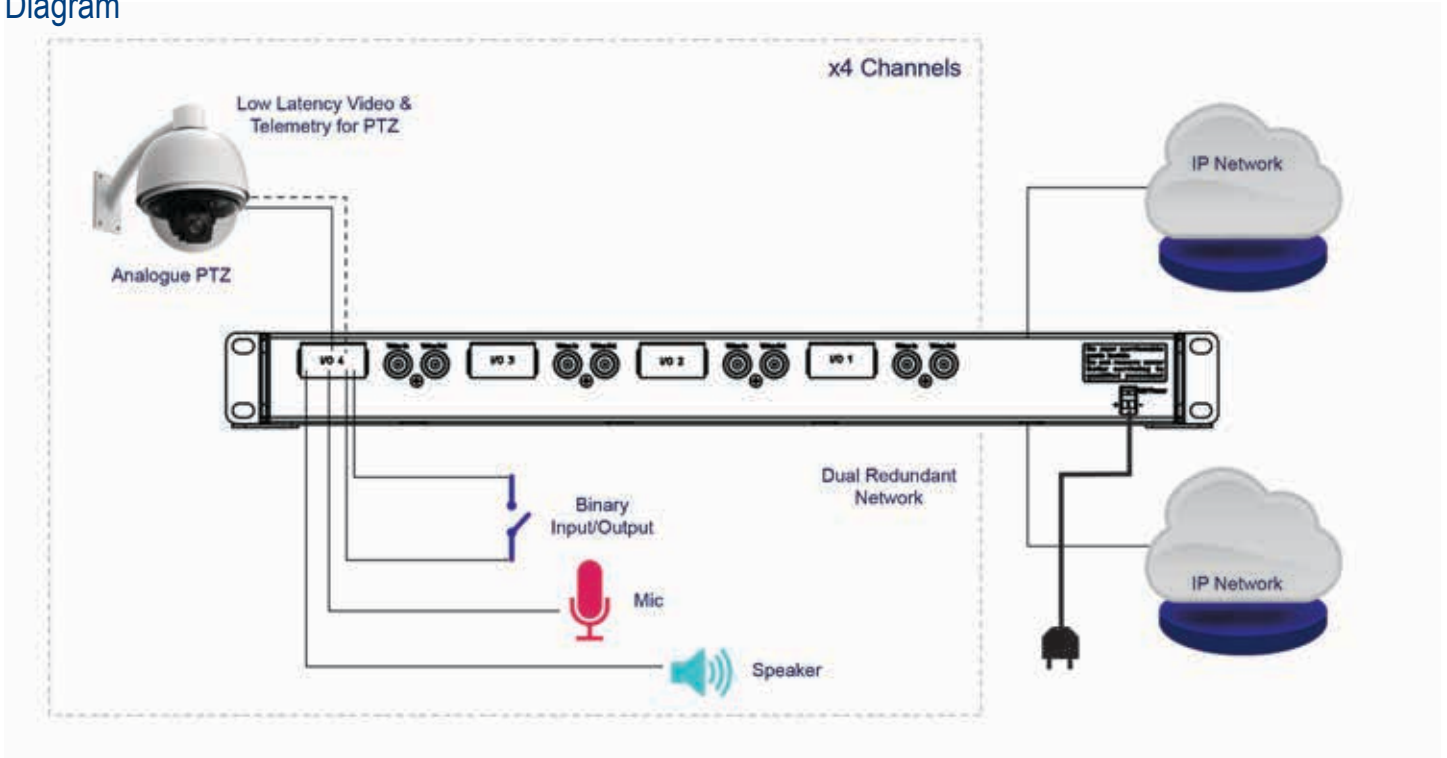
Product Codes

Four Channel Encoder/Decoder	8000S	8000E	9000S	9000E	Decoder
Four Channel Encoder/Decoder	N/A	N/A	749915	769915	729947
Four Channel Encoder/Decoder with Audio	740914	760914	749914	769914	722947
Additional Rack Card	N/A	N/A	749102	769102	729117
Additional Rack Card with Audio	740101	760101	749101	769101	729107

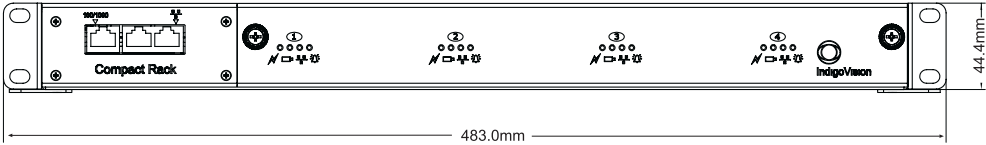
The 8000E and 9000E products allow full frame rate video, at full 4SIF resolution.
The 8000S and 9000S products allow the camera to be recorded at full frame rate at SIF resolution, half frame rate at 2SIF and one third frame rate at 4SIF resolution.

For a Four Channel Encoder/Decoder Chassis with Network Card only please use order code: **980193**
For a Four Channel Encoder/Decoder Transport Mount Kit please use order code: **110108**

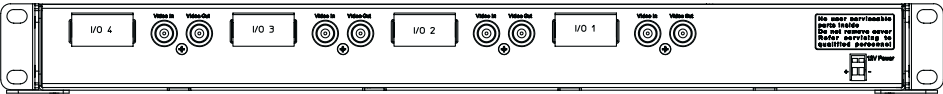
Diagram



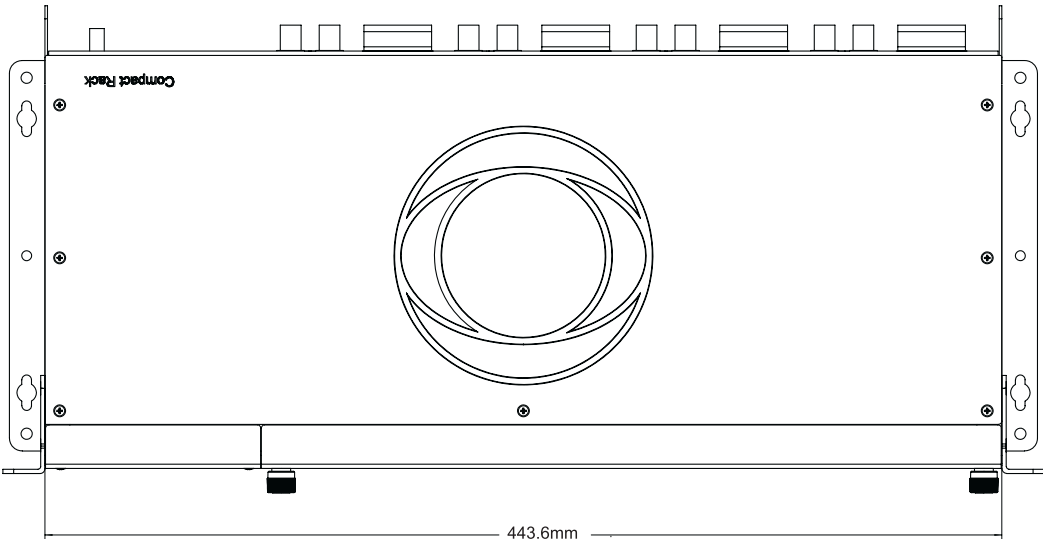
Dimensions



View on Front Face

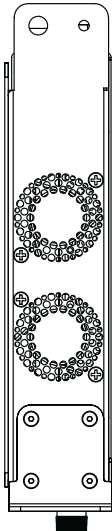


View on Back Face

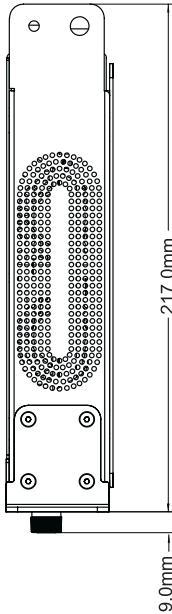


View on Top Face

View on Left Face



View on Right Face



Specification

General Specifications

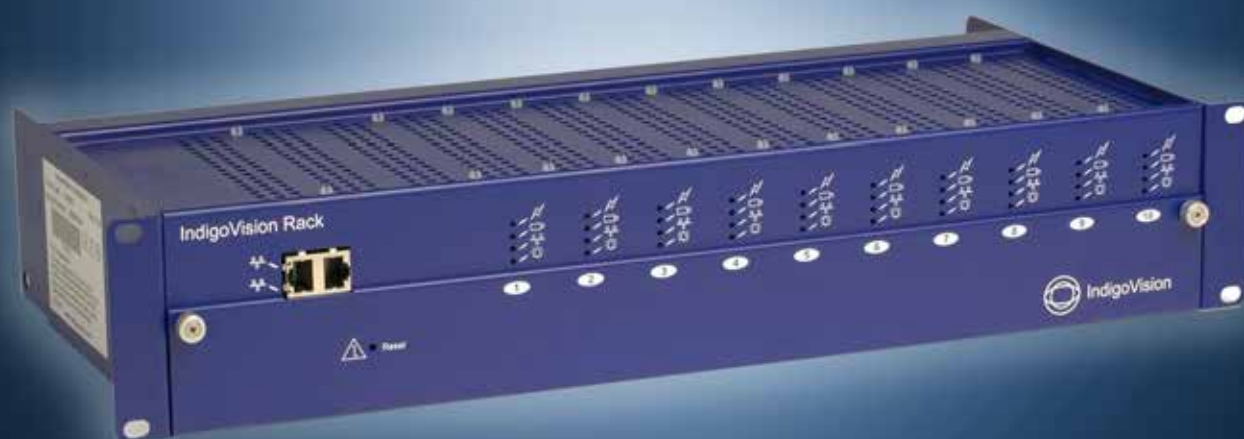
Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels (PAL) 4SIF: 704 x 480 pixels 2SIF: 704 x 240 pixels SIF: 352 x 240 pixels (NTSC)															
Video Compression	Full frame rate, full color: 25/30fps guaranteed. 9000 Series: H.264 (ISO14496-10) 8000 Series: MPEG-4 (ISO14496-2)															
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps															
Video Multi-Encoder (8000)	SIF: 3 streams; 2SIF: 2 streams; 4SIF: 1 stream															
Video Multi-Encoder (9000)	<table><tr><td></td><td>A</td><td>B</td><td rowspan="4">You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams e.g. 1x4SIF stream plus 1x4SIF stream</td></tr><tr><td>4SIF</td><td>1 stream</td><td>1 stream</td></tr><tr><td>2SIF</td><td>2 stream</td><td>2 stream</td></tr><tr><td>SIF</td><td>3 stream</td><td>3 stream</td></tr></table>				A	B	You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams e.g. 1x4SIF stream plus 1x4SIF stream	4SIF	1 stream	1 stream	2SIF	2 stream	2 stream	SIF	3 stream	3 stream
	A	B	You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams e.g. 1x4SIF stream plus 1x4SIF stream													
4SIF	1 stream	1 stream														
2SIF	2 stream	2 stream														
SIF	3 stream	3 stream														
Video Input	NTSC/PAL video; 75 Ohms 1V p-p, standard BNC connector															
Video Output	NTSC/PAL composite video, 75 Ohms; 1V p-p, standard BNC connector. Software decode for display to PCs															
Audio Compression*	MPEG-4 Advanced Audio Encoding at 16 Khz sample rate & 16 bit resolution															
Audio Input*	Line in 3.5mm jack. Nominal voltage: 1V p-p, 16bit, 16kHz sampling; Mic 30mVp-p. Mic types: support for condensor and dynamic															
Audio Output*	Line out 3.5mm jack. 1V p-p, Minimum load impedance: 32 Ohms															
Binary Input/Output	4 opto-isolated inputs; 4 solid state relay outputs															
Data Input/Output	4 Data ports: RS232/RS422/RS485 up to 115.2 Kbps; 4 Console ports: RS232 up to 115.2 Kbps															
Network Interface	IEEE802.3 and IETF standards: 10/100/1000 Base-Tx Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP, RTP Embedded Linux firewall. Salted passwords, with MD5 encryption; Up to 16 simultaneous unicast video users plus unlimited multicast users															
Time	Embedded real-time clock, NTP client															
Dimensions	44mm (height) x 226mm (depth) x 445mm (width) and 3.4Kg / 1.74in (height) x 8.90in (depth) x 17.52in (width) and 7.496lb															
Regulatory	<div>EN 55022 (1994) ITE - Class A EN 61000-3-2 (1995) - Class A EN 55024 (1998) ITE immunity standard EN 61000 3-3 (1995) voltage fluctuation CFR47 (1995) Part 15 subpart B -Class A</div> <div>Railway Standards: EN 50121-3-2: 2006 EN 50121-4: 2006 EN50155: 2007</div>															
Electrical	Operating voltage: 12V DC @ 3A; Power consumption: 16W (typical) 18W (max)															
Environmental	Operating temperature: 0°C to 55°C (32°F to 131°F) Storage temperature: -20°C to 70°C (-4°F to 158°F)															
Redundancy	Dual redundant switch ports plus third switch port for local NVR															

*Audio capability is an order option on all Encoder/Decoder modules.



IndigoVision

Complete IP Video Security Solutions



10 Channel Encoder/ Decoder

8000/9000 Range

A family of Video Encoders and Decoders incorporating IndigoVision's class-leading compression technology

IndigoVision's 10 Channel Encoder/Decoder is designed to be used with our Complete IP Video Security Solution and have class-leading MPEG-4 or H.264 compression technology built-in.

IndigoVision's Complete IP Video Security Solution allows advanced features such as Activity Controlled Framerate (ACF) and real-time analytics, available as an order option, to be deployed in the encoders. These features reduce the bandwidth and NVR storage requirements during periods of scene inactivity and allow the user to deploy advanced analytics to identify events as they occur in real-time.

- ☐ Class-leading MPEG-4 or H.264 compression
- ☐ Full frame rate 25/30fps guaranteed
- ☐ Optional built-in real time analytics
- ☐ Mix any combination of MPEG-4 or H.264, encoder or decoder cards in one unit
- ☐ Optional full-duplex audio

The IndigoVision 10 Channel Encoder/Decoder allows traditional analogue CCTV cameras to be integrated into an IP network to give you a complete security solution. The chassis can be rack mounted providing 10 video channel inputs or outputs in a small footprint reducing power and cooling costs. All products have a range of digital I/O for ultra-low latency PTZ control and alarm integration.

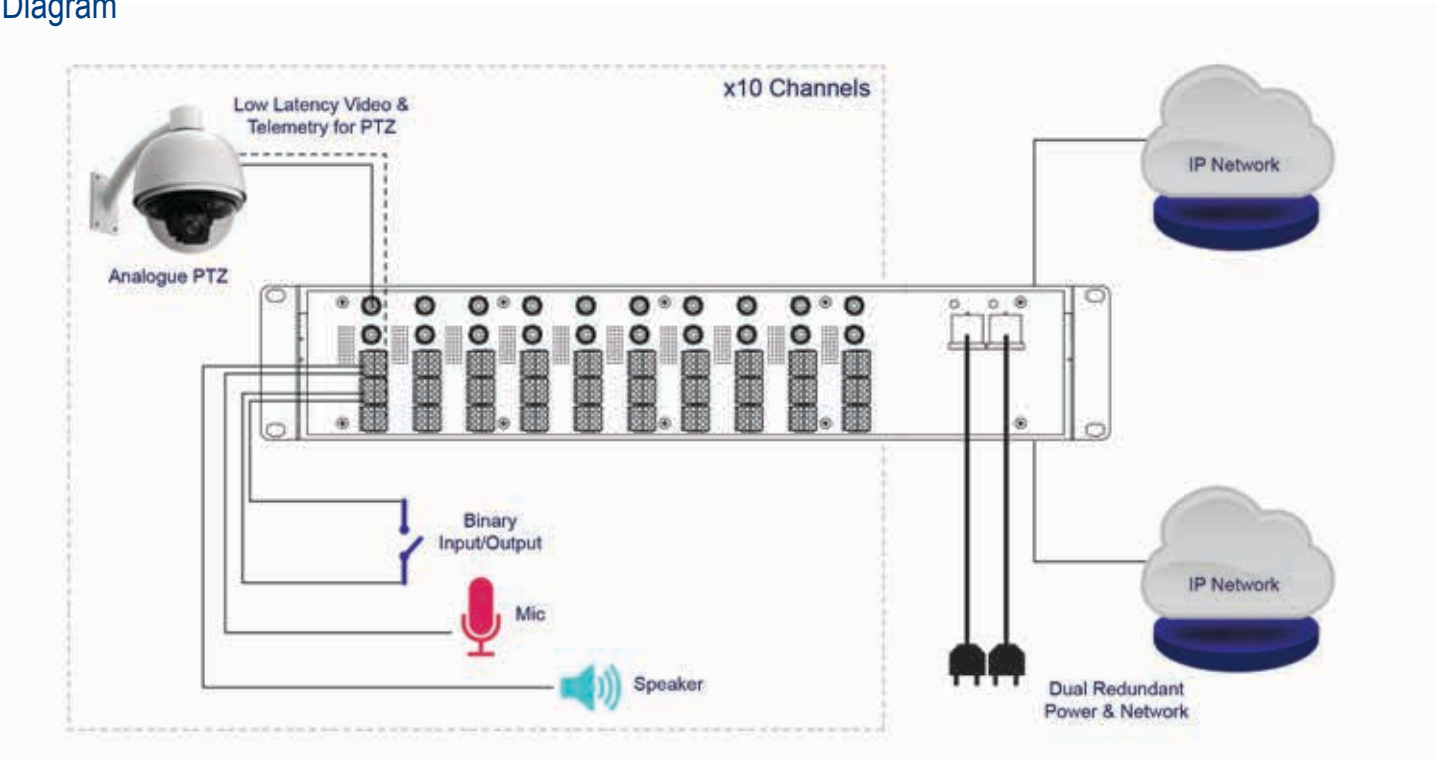
Product Codes

10 Channel Encoder/Decoder	8000S	8000E	9000S	9000E	Dual Receiver
10 Channel Encoder/Decoder	N/A	N/A	749912	769912	729917
10 Channel Encoder/Decoder with Audio	740911	760911	749911	769911	729907
Additional Rack Card	N/A	N/A	749102	769102	729117
Additional Rack Card with Audio	740101	760101	749101	769101	729107

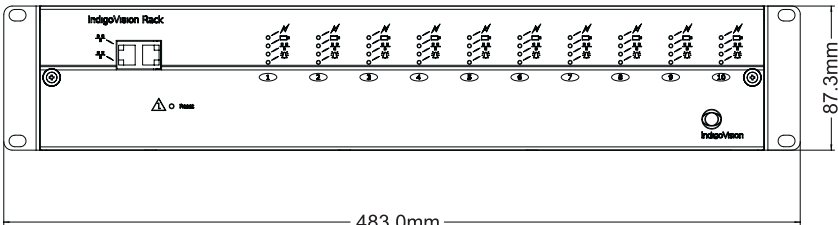
The 8000E and 9000E products allow full frame rate video, at full 4SIF resolution.
The 8000S and 9000S products allow the camera to be recorded at full frame rate at SIF resolution, half frame rate at 2SIF and one third frame rate at 4SIF resolution

For a 10 Channel Encoder/Decoder Chassis with Network Card only please use order code: **980096**

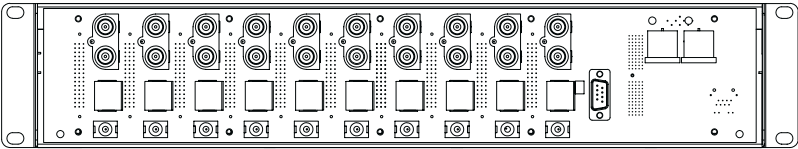
Diagram



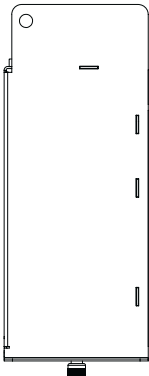
Dimensions



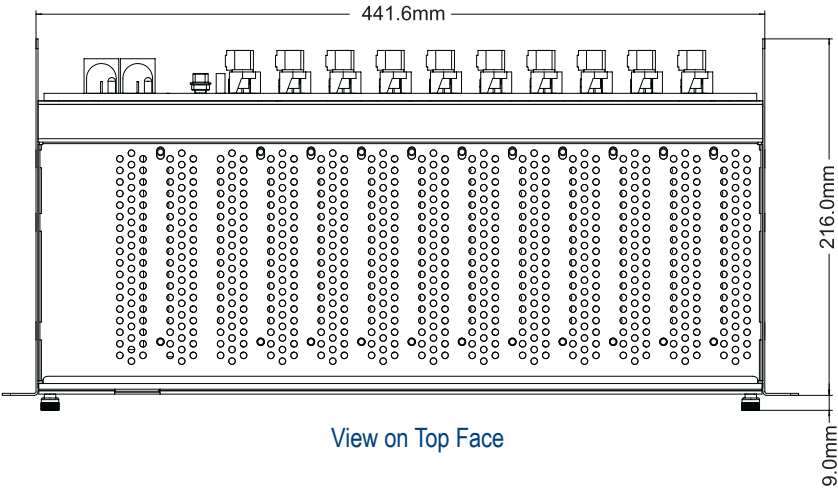
View on Front Face



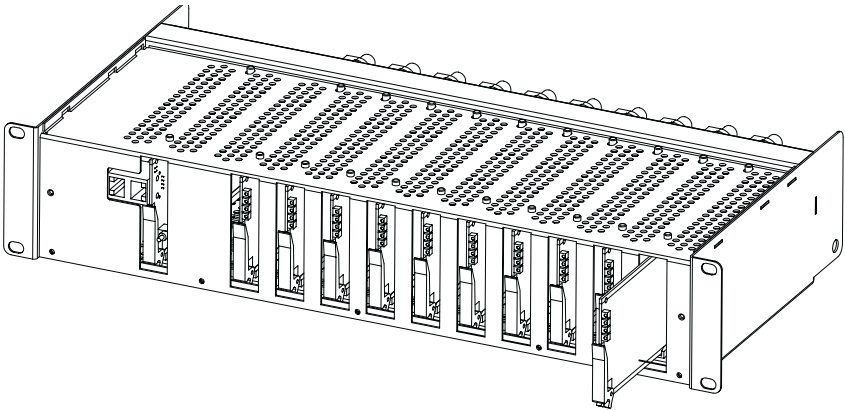
View on Back Face



View on Left Face



View on Top Face



Front Cover Removed

Specification

General Specifications

Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels (PAL) 4SIF: 704 x 480 pixels 2SIF: 704 x 240 pixels SIF: 352 x 240 pixels (NTSC)															
Video Compression	Full frame rate, full color: 25/30fps guaranteed . 9000 Series: H.264 (ISO14496-10) 8000 Series: MPEG-4 (ISO14496-2)															
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps															
Video Multi-Encoder (8000)	SIF: 3 streams; 2SIF: 2 streams; 4SIF: 1 stream															
Video Multi-Encoder (9000)	<table><tr><td></td><td>A</td><td>B</td><td rowspan="4">You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream</td></tr><tr><td>SIF</td><td>3 streams</td><td>3 streams</td></tr><tr><td>2SIF</td><td>2 streams</td><td>2 streams</td></tr><tr><td>4SIF</td><td>1 stream</td><td>1 stream</td></tr></table>				A	B	You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream	SIF	3 streams	3 streams	2SIF	2 streams	2 streams	4SIF	1 stream	1 stream
	A	B	You can combine one selection from column A plus one selection from column B: e.g. 2x2SIF streams plus 3xSIF streams; e.g. 1X4SIF stream plus 1x4SIF stream													
SIF	3 streams	3 streams														
2SIF	2 streams	2 streams														
4SIF	1 stream	1 stream														
Video Input	NTSC/PAL video; 75 Ohms 1V p-p, standard BNC connector															
Video Output	NTSC/PAL composite video, 75 Ohms; 1V p-p, standard BNC connector. Software decode for display to PCs															
Audio Compression*	MPEG-4 Advanced Audio Encoding at 16 Khz sample rate & 16 bit resolution															
Audio Input*	Line in 3.5mm jack. Nominal voltage: 1V p-p, Mic 30mVp-p. Mic types: support for condensor and dynamic															
Audio Output*	Line out 3.5mm jack. 1V p-p, Minimum load impedance: 32 Ohms															
Binary Input/Output	10 opto-isolated inputs; 10 solid state relay outputs															
Data Input/Output	10 Data ports: RS232/RS422/RS485 up to 115.2 Kbps; 1 Console port: RS232 up to 115.2 Kbps															
Network Interface	IEEE802.3 and IETF standards: 10/100/1000 Base-Tx Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP, RTP Embedded Linux firewall. Salted passwords, with MD5 encryption; Up to 16 simultaneous unicast video users plus unlimited multicast users															
Time	Embedded real-time clock, NTP client															
Dimensions/Weight	88mm (height) x 218mm (depth) x 483mm (width) and 3.6Kg / 3.47in (height) x 8.59in (depth) x 19.02in (width) and 7.937lb															
Regulatory	EN 55022 (1994) ITE - Class A EN 61000-3-2 (1995) - Class A EN 55024 (1998) ITE immunity standard EN 61000 3-3 (1995) voltage fluctuation CFR47 (1995) Part 15 subpart B -Class A															
Electrical	Operating voltage: 3.5V DC; Power consumption: 28W (typical) 32W (max);															
Environmental	Operating temperature: 0°C to +50°C (32°F to 122°F) Storage temperature: -20°C to +70°C (-4°F to 158°F)															
Redundancy	Dual redundant power connectors, Dual redundant switch ports															

*Audio capability is an order option on all Encoder/Decoder modules.



IndigoVision

Complete IP Video Security Solutions



20 Channel Encoder

9000 Range

Convert analogue video to IP using IndigoVision's class-leading H.264 compression technology

IndigoVision's 20 Channel Encoder is designed to be used with our Complete IP Video Security Solution and have class-leading H.264 compression technology built-in.

IndigoVision's Complete IP Video Security Solution allows advanced features such as Activity Controlled Framerate (ACF) and real-time analytics to be deployed in the Encoders. These features reduce the bandwidth and NVR storage requirements during periods of scene inactivity and allow the user to deploy advanced analytics to identify events as they occur in real-time.

- ☐ Class-leading H.264 compression
- ☐ Built-in real time analytics
- ☐ Full frame rate 25/30fps guaranteed
- ☐ Full-duplex audio



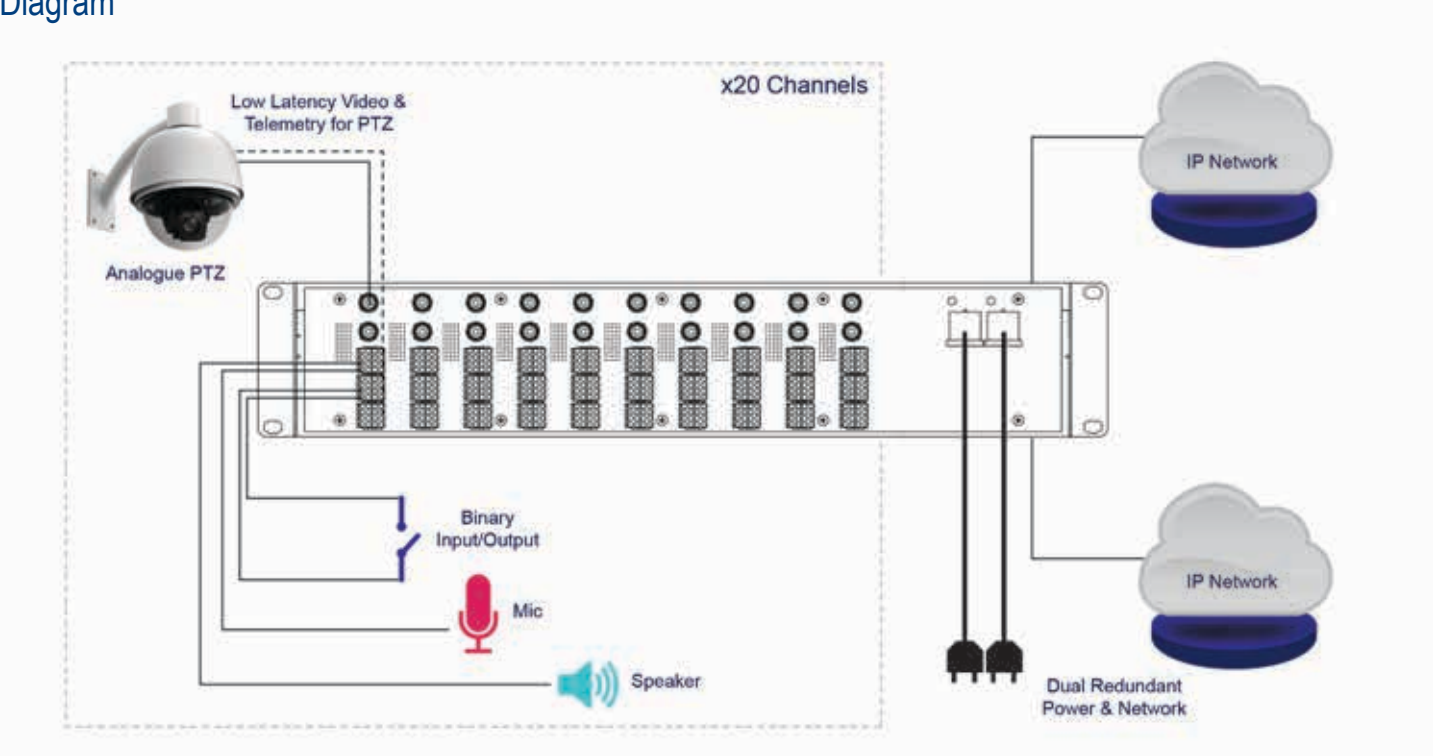
The IndigoVision 20 Channel Encoder allows traditional analogue CCTV cameras to be integrated into an IP network to give you a complete security solution. The chassis can be rack mounted providing 20 video channel inputs in a small footprint reducing power and cooling costs. All products have a range of digital I/O for ultra-low latency PTZ control and alarm integration.

Product Codes

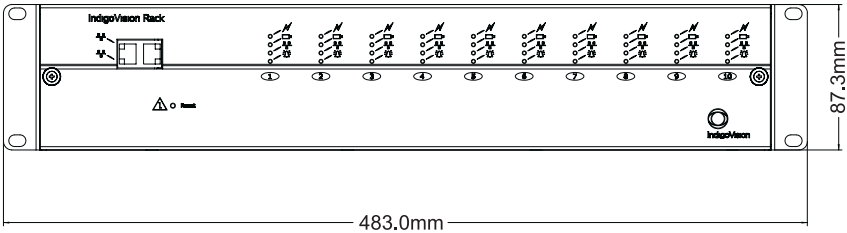
20 Channel Encoder	9000S	9000E
20 Channel Encoder with Audio	749916	769916
20 Channel Encoder Chassis with Network Card only	980088	980088
Dual Channel Encoder Card with Audio	749106	769106

The 9000E products allow full frame rate video, at full 4SIF resolution. The 9000S products allow the camera to be recorded at full frame rate at SIF resolution, half frame rate at 2SIF and one third frame rate at 4SIF resolution.

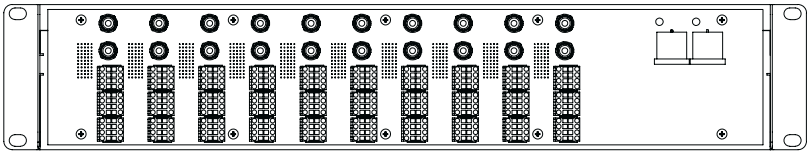
Diagram



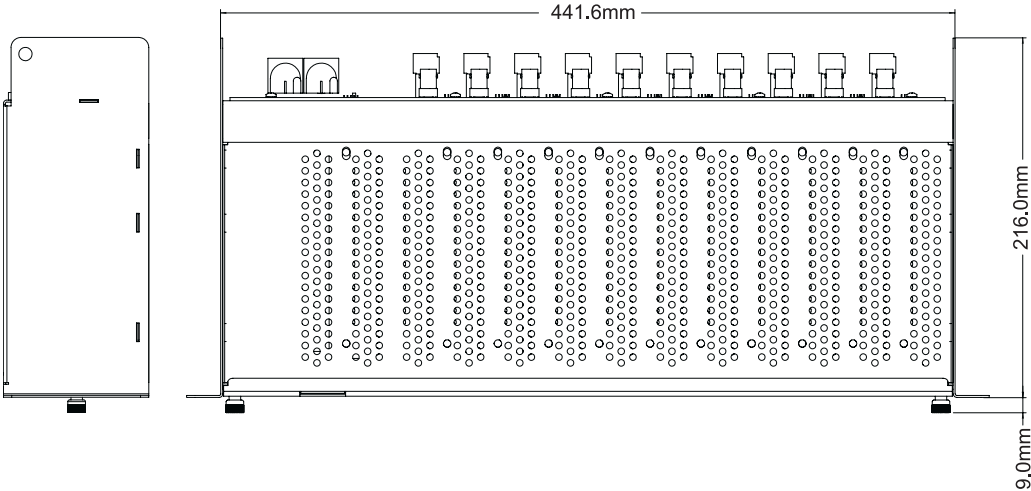
Dimensions



View on Front Face

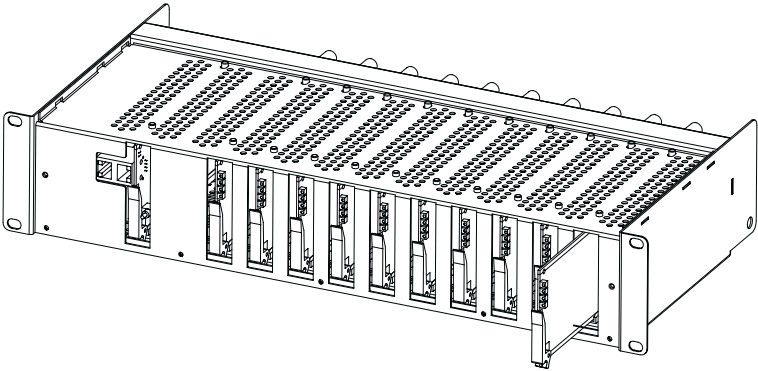


View on Back Face



View on Left Face

View on Top Face



Front Cover Removed

Specification

Dual Channel Encoder Card Specification

Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels (PAL) 4SIF: 704 x 480 pixels 2SIF: 704 x 240 pixels SIF: 352 x 240 pixels (NTSC)
Video Compression	Full frame rate, full color: H.264 (ISO 14496-10); 25/30fps guaranteed
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps per channel
Video Multi-Streaming	Up to 16Mbps total video output per channel; Up to 2Mbps multicast video output per channel; Up to sixteen 1Mbps unicast connections per channel
Video Multi-Encoder	2 encoder streams per channel at 4SIF or up to 6 encoder streams at SIF per channel
Video Analytics*	Standard: ACF, Motion Detection, Hooded. Advanced: Dual Tripwire, Congestion, Counterflow, Museum
Audio Compression	AAC-LC (ISO 14496-3)
Audio Bit Rate	User-configurable bit rates from 32Kbps to 160Kbps per channel
Audio Protocol	RTP (RFC 3640)
Audio Encoder	1 Stream Configuration per channel
Audio Resolution	Full Duplex 16KHz, 16 Bit Mono Input, Mono Output per channel
Audio Input	2 Line in / Mic in with terminal block connector. Nominal voltage: 1V p-p, Mic 30mVp-p. Mic type: dynamic or electret
Audio Output	2 Line out with terminal block connector. 1V p-p, Minimum load impedance: 32 Ohms
Binary Input/Output	2 Inputs, 2 Outputs per card
Data Input/Output	1 Data port: RS422/RS485 up to 115.2 Kbps; 1 Data/Console port: RS232 up to 115.2 Kbps
Time	Embedded real-time clock, NTP client

20 Channel Encoder Chassis Specification

Video Multi-Streaming	Up to 320Mbps total video output including up to 40Mbps multicast video output
Video Multi-Encoder	40 encoder streams per chassis at 4SIF or up to 120 encoder streams at SIF per chassis
Audio Input	20 Line in / Mic in with terminal block connector. Nominal voltage: 1V p-p, Mic 30mVp-p. Mic type: dynamic or electret
Audio Output	20 Line out with terminal block connector. 1V p-p, Minimum load impedance: 32 Ohms
Binary Input/Output	20 Inputs, 20 Outputs
Data Input/Output	10 Data port: RS422/RS485 up to 115.2 Kbps; 10 Data/Console port: RS232 up to 115.2 Kbps
Network Interface	IEEE802.3 and IETF standards: 10/100/1000 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP Embedded Linux firewall; Up to 320 simultaneous unicast video users plus unlimited multicast users
Dimensions	88mm (height) x 218mm (depth) x 483mm (width) and 3.6Kg / 3.47in (height) x 8.59in (depth) x 19.02in (width) and 7.937lb
Regulatory	EN 55022 (2010) – Class A EN 55024 (1998) +A1:2000 +A2:2003 CFR47(2011) Part 15 subpart B -Class A (US federal code of regulations) EN 60068-2-1 & 2 Low & High temp EN 60068-2-6 & 64 Sinusoid & Random vibration EN 60068-2-29 Bump EN 60068-2-30 Humidity up to 95% Non Condensing
Electrical	Operating voltage: 3.5V DC @ 11A; Power consumption: 30W (typical) 35W (max)
Recording Order Options	9000S 25/30 fps recording at SIF (2SIF and 4SIF at lower frame rates) 9000E 25/30 fps recording at 4SIF
Environmental	Operating temperature: 0°C to 50°C (32°F to 122°F) Storage temperature: -20°C to 70°C (-4°F to 158°F)
Redundancy	Dual redundant power connectors, Dual redundant ethernet switch ports
Physical Form Factor	Rack mount chassis with 10 Dual Channel Encoder cards
ONVIF**	ONVIF Conformant

* Advanced Video Analytics require a licence.

** Firmware upgrade is required for ONVIF Conformance.

Record

Reliable; Robust; Resilient



Recorded evidence shouldn't just be usable. It should be unbelievable.

IndigoVision's Network Video Recorders (NVRs) provide powerful, fully integrated recording and playback of video. By using IndigoVision's fully distributed architecture design there is no single point of failure in your system. With added storage, network and power redundancy, IndigoVision's NVRs give you that extra peace of mind knowing that your CCTV system will be recording 24/7.

Available in rack mounted, compact or Windows storage options - when coupled with IndigoVision's IP capture hardware, IndigoVision's NVRs deliver unbelievable evidence at a diminutive cost.

Storage Capacity			
Storage Options	NVR-AS 3000	Compact NVR-AS 3000	Windows NVR-AS
RAID 0	4TB, 8TB, 12TB	1TB, 2TB, 3TB	Up to 64TB
RAID 1	2TB, 4TB, 6TB	n/a	Up to 64TB
RAID 5	3TB, 6TB, 9TB	n/a	Up to 62TB

Record

☐ Network Video Recorder

- Rack mountable
- Simultaneous full frame rate recording of up to 64 streams plus playback of up to 20 streams
- RAID0, RAID1, RAID5 options
- Redundant power and network connections

☐ Compact Network Video Recorder

- Small footprint
- Simultaneous full frame rate recording of up to 20 streams plus playback of up to 20 streams
- Removable disk for easy archive or securing of evidence
- Rack mount optional

☐ Windows Network Video Recorder

- Windows Platform Software
- Full frame rate recording of up to 200 cameras with simultaneous playback of up to 25 streams
- Supports internal disk, internal RAID array, SCSI RAID array, iSCSI and Fibre Channel SAN and NAS



IndigoVision

Complete IP Video Security Solutions



Network Video Recorder

NVR-AS 3000 Range

Powerful and integrated recording and playback system

IndigoVision's range of Network Video Recorders provide a powerful and integrated recording and playback system for video and audio from IP cameras and encoders, to suit all your requirements. The range can be located at any point on the network and operation can continue without the need for management software or a central server to be running, providing a truly scalable and reliable system.

Remote NVR management and configuration is performed using an intuitive web-based configuration interface which forms part of IndigoVision's Security Management Solution, SMS4™.

- ☐ Record and playback MPEG-4 and H.264 video and audio streams
- ☐ Full frame rate recording of up to 64 streams with simultaneous playback of up to 20 streams
- ☐ Third party camera support, ONVIF conformant
- ☐ Optional RAID storage resilience and redundant power and network connections
- ☐ Powerful and distributed alarm management
- ☐ Digital watermarking of recording

The IndigoVision NVR-AS 3000 products can be remotely managed and configured using an intuitive web-based configuration interface which forms part of IndigoVision's Security Management Solution, SMS4™. Most models can record up to 64 cameras at full frame rate, with audio, and simultaneously play back up to 20 cameras, with extremely low power consumption, heat dissipation and equipment footprint.

Various storage capacities and different levels of RAID resilience are available with hot-swappable removable drives. All the NVR-AS 3000s use the latest hard drive technology, with specialised disks that have been developed for video surveillance applications. Fully redundant gigabit ethernet connections and provision for redundant power supplies come as standard and the disks are covered by a 3 year warranty.

The NVR-AS appliance also runs IndigoVision's powerful Alarm Server software, providing advanced alarm management functionality for SMS4™.



NVR-AS 3000 RAID Array with 4x Hard Disks

Product Codes

	RA3000 RAID5	RA6000 RAID5	RA9000 RAID5	RA2000 RAID1	RA4000 RAID1	RA6000 RAID1	RA4000 RAID0	RA8000 RAID0	RA12000 RAID0
Product Code	980397	980398	980399	980387	980388	980389	980377	980378	980379

Caddies Including Disks	1000GB	2000GB	3000GB
Product Code	980010	980020	980030

NVR-AS 3000 Recording License

Number of Channels	1-Channel	Failover Channel
Recording for the IndigoVision BX Camera Range & third party ONVIF devices	314001	314071
Recording for third party cameras via Camera Gateway™	311120	311121

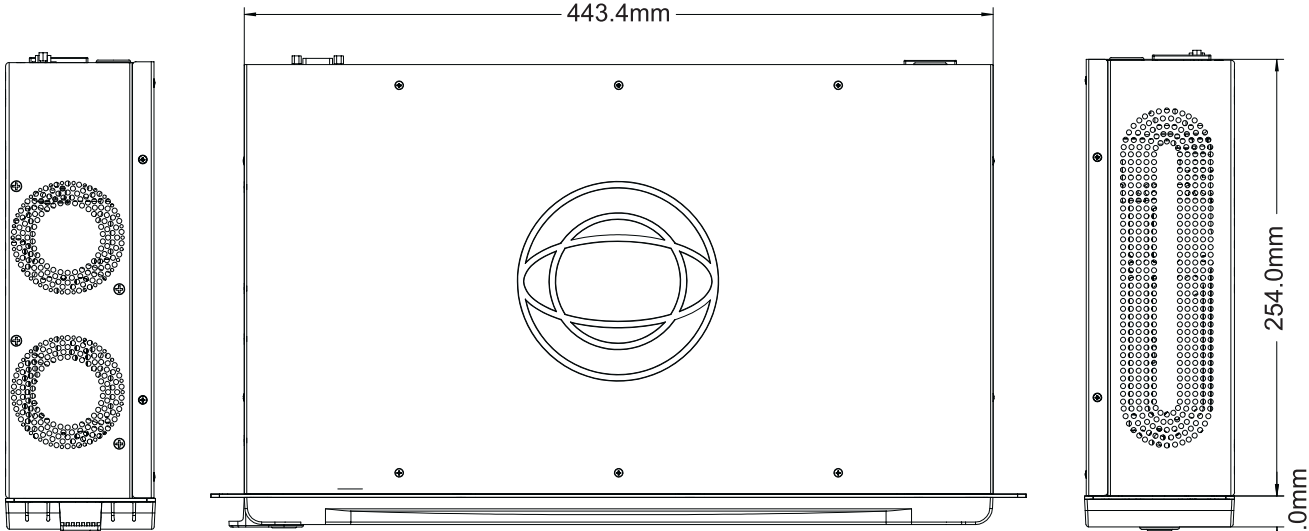


Dimensions

All NVR-AS 3000 RA variants have the same 2U high, 19" rack housing design.



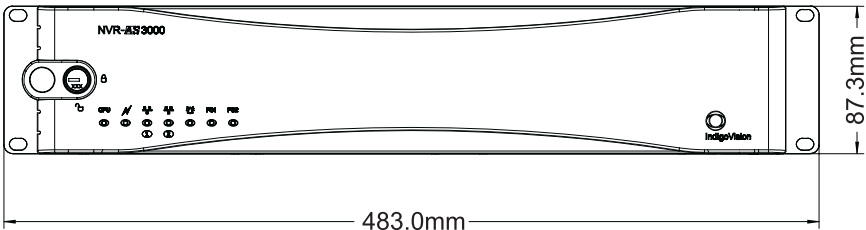
View on back face



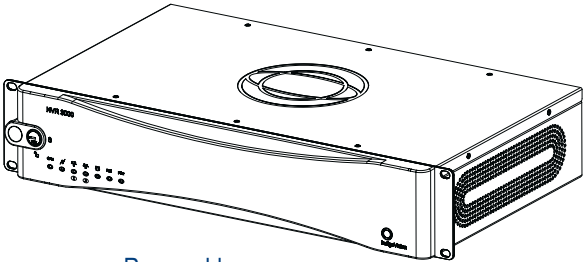
View on left face

View on top face

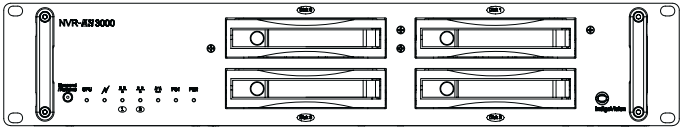
View on right face



View on front face



Removable
Lockable Fascia



Fascia removed

Specification

General Specifications

Electrical	Operating Voltage: Input 100-240V ~ 47-63Hz 1A. Connector for redundant external power supply	
Network Connections	Two redundant 100/1000 BaseT RJ-45 Connections	
Environmental	Operating temperature: 0°C (32°F) to 45°C (113°F) Storage temperature: -20°C (-4°F) to +70°C (158°F)	
Network Interface	TCP, UDP, ICMP, IGMP, SNMP, HTTP, NTP, Telnet, FTP	
Network Security	Embedded Linux firewall. Salted passwords with MD5 encryption	
Onboard Diagnostics	Disk, CPU, Motherboard temperatures. Redundant power and network status. Cooling fan status	
Regulatory	EN 55022 ITE emission standard – Class A	CFR47: 2002 Part 15 Sub Part B
	EN61000-3-2 Mains Harmonics – Class A	(US federal code of regulations)
	EN61000-3-3 Voltage Fluctuation	Information Technology Equipment - Safety - Part 1: General
	EN55024 ITE immunity standard	Requirements CSA C22.2 No. 60950 - 1 - 07
	UL 60950-1 , Information Technology Equipment - Safety Part 1: General Requirements	EN 60068-2-30 Humidity up to 95% Non Condensing
Disks	SATA Seagate SV35 Series optimised for 24x7 video storage. 3-year warranty	

Features

Video	Simultaneously record and playback full frame rate, full resolution video streams from any IndigoVision IP Camera or Transmitter. Record and playback from third party devices**
Audio*	Recording and playback of MPEG-4 AAC and G.711 audio
Thumbnails*	Indexed recordings for rapid display of time, alarm or motion based thumbnails
Alarms	Recording and logging of alarms
Bookmarks*	Recording and logging of bookmarks in association with recordings
Analytics*	Recording and playback of motion analysis data from cameras
Automatic Storage Management	Policy based management options to control space and/or time based reaping of old recordings
Protect Recordings	Recordings can be protected to prevent deletion
Digital Watermarking	Option to digitally sign recordings on the NVR. On export, the signature is checked to verify that the video has not been tampered with. Exported video is signed again to ensure the chain of trust is continued

*Features may vary based on capabilities of camera model

**ONVIF or supported via IndigoVision Camera Gateway™

NVR-AS 3000 with 4x Hard Disks RAID Array	RA3000 RAID5	RA6000 RAID5	RA9000 RAID5	RA2000 RAID1	RA4000 RAID1	RA6000 RAID1	RA4000 RAID0	RA8000 RAID0	RA12000 RAID0
Network Redundancy	Y	Y	Y	Y	Y	Y	Y	Y	Y
Redundant Power Supply	Y	Y	Y	Y	Y	Y	Y	Y	Y
Removable Storage	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*	Y*
Disk Space (GB)	3000	6000	9000	2000	4000	6000	4000	8000	12000
Available Storage (GB)	2943	5913	8972	1953	3933	5973	3933	7933	11971
Max. Recording Streams	64	64	64	64	64	64	64	64	64
Max. Recording Streams with Digital Watermarking	32	32	32	44	44	44	44	44	44
Max. Playback Streams	20	20	20	20	20	20	20	20	20
Max. Recording Bitrate	40 Mbps	40 Mbps	40 Mbps	64 Mbps	64 Mbps*	64 Mbps*	64 Mbps	64 Mbps	64 Mbps
Max. Recording Bitrate with Digital Watermarking	32 Mbps	32 Mbps	32 Mbps	44 Mbps	44 Mbps	44 Mbps	44 Mbps	44 Mbps	44 Mbps
Max. Playback Bitrate	40 Mbps	40 Mbps	40 Mbps	40 Mbps	40 Mbps	40 Mbps	40 Mbps	40 Mbps	40 Mbps
Power Consumption	53W max								
Physical Dimensions	483mm (width) x 272mm (depth) x 87mm (height) (2U) and 8.2Kg / 19.02in (width) x 10.71in (depth) x 3.43in (height) (2U) and 18.078lb								

*During RAID rebuild the Recommended Max. Recording Bitrate is 40Mbps to reduce rebuild times

*Removable as a RAID set

Examples of Recording Duration in Days

This table estimates the number of days recording on an RA4000 model (4TB storage) with different numbers of cameras assuming full frame rate, 4SIF, H.264 video at a maximum bitrate of 2Mbps. As IndigoVision transmitters only use required bandwidth, the actual recording capacity may be more or less than shown.

Motion Level	20 cameras	40 cameras	64 cameras
Occasional	170 days	85 days	50 days
Intermittent	34 days	17 days	10 days
Frequent	18 days	9 days	5 days



ID: NVR-AS-3000 13.1
JAN 13



IndigoVision

Complete IP Video Security Solutions



Compact Network Video Recorder

NVR-AS 3000 Range

Powerful and integrated recording and playback system for video and audio from cameras and encoders

The Compact NVR-AS 3000 range offers a small footprint ideal for installation outside of traditional machine rooms. The family provides a powerful and integrated recording and playback system for video and audio from IndigoVision and ONVIF conformant cameras and transmitters.

Able to withstand temperature ranges of 0° to 50°C (32° to 122°F), it can be mounted horizontally or vertically and can be located at any point on a network allowing recording and playback across multiple sites regardless of location. Remote NVR management and configuration is performed using an intuitive web-based configuration interface which forms part of IndigoVision's Security Management Software, SMS4™.

A choice of storage size is offered in a single removable disk and a system can deploy as many NVRs as required.

- ☐ Record and playback MPEG-4 and H.264 video and audio streams
- ☐ Full frame rate recording of up to 20 streams with simultaneous playback of up to 20 streams
- ☐ Removable disk for easy archive or securing of evidence
- ☐ 3-Year disk warranty
- ☐ ONVIF conformant

Specification

General Specification	RD1000	RD2000	RD3000
Removable Storage	Y	Y	Y
Disc Space (GB)	1000	2000	3000
Available Storage (GB)	963	1953	2973
Physical Dimensions	263mm (width) x 255mm (depth) x 45mm (height) and 2.2Kg / 10.36in (width) x 10.04in (depth) x 1.78in (height) and 4.851lb		
Streams	Up to 20 recording streams plus simultaneous playback of up to 20 streams		
Max. Network Throughput	40 Mbps recording with simultaneous 40 Mbps playback		
Electrical	Operating Voltage: Input 100-240V ~ 47-63Hz 1A; Power consumption: 32W (max) 12V DC power supply included Operating Voltage: Input 100-240V ~ 47-63Hz 1A; Power consumption: 32W (max) 12V DC power supply included		
Network Connections	100/1000 BaseT RJ-45		
Environmental	Operating temperature: 0°C (32°F) to 50°C (122°F) Storage temperature: -20°C (-4°F) to +70°C (158°F)		
Network Interface	TCP, UDP, ICMP, IGMP, SNMP, HTTP, NTP, Telnet, FTP		
Network Security	Embedded Linux firewall. Salted passwords with MD5 encryption		
Regulatory	EN 55022 ITE emission standard – Class A EN61000-3-2 Mains Harmonics – Class A EN61000-3-3 Voltage Fluctuation EN55024 ITE immunity standard	CFR47: 2002 Part 15 Sub Part B (US federal code of regulations) EN 60068-2-30 Humidity up to 95% Non Condensing	
Disk	SATA Seagate SV35 Series optimised for 24x7 video storage. 3-year warranty		
Standards	ONVIF Conformant		
Redundancy	Dual redundant switch ports		

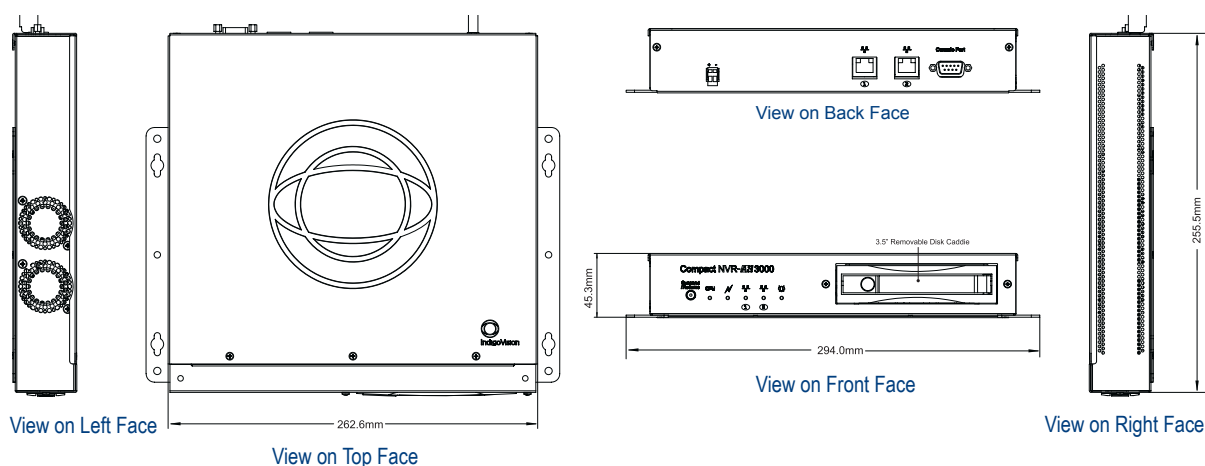
Product Codes

	RD1000	RD2000	RD3000
Product Code	980107	980108	980109

NVR-AS 3000 Recording License

Number of Channels	1-Channel	Failover Channel
Recording for the IndigoVision BX Camera Range & third party ONVIF devices	314001	314071
Recording for third party cameras via Camera Gateway™	311120	311121

Dimensions



Examples of Recording Duration in Days

Motion Level	5 Cameras	10 Cameras	20 Cameras
Occasional	160 days	80 days	40 days
Intermittent	36 days	18 days	9 days
Frequent	16 days	8 days	4 days

This table estimates the number of days recording on an RD1000 model (1TB storage) with different numbers of cameras assuming full frame rate, 4SIF, H.264 video at a maximum bitrate of 2Mbps. As IndigoVision transmitters only use required bandwidth, the actual recording capacity may be more or less than shown. For more accurate estimates, please see the IndigoVision website or contact IndigoVision's Partner Support.



ID: COM-NVR-AS-3000 13.1
JAN 13



IndigoVision

Complete IP Video Security Solutions



Windows Network Video Recorder

Your route to scalable recording

Network Video Recorder and Alarm Servers (NVR-AS) provide reliable storage for all your video and alarms across the network. Recording and alarm management can be distributed across the network without the need for a central server, providing a truly scalable and reliable system.

IndigoVision offers a range of NVR-AS to suit your requirements. IndigoVision NVR-AS can be located at any point on a network allowing recording, playback and alarm handling across multiple sites regardless of location. A system can deploy as many NVRs as required. Our Windows NVR-AS runs on server operating systems providing virtually limitless recording using DAS, NAS or SAN.

- ☐ Record and playback MPEG-4 and H.264 video and audio streams
- ☐ Full frame rate recording of up to 200 cameras with simultaneous playback of up to 25 streams
- ☐ Third party camera support, ONVIF conformant
- ☐ Supports internal disks, internal RAID array, SCSI RAID array, iSCSI and Fibre Channel SAN and NAS
- ☐ Powerful and distributed alarm management
- ☐ Digital watermarking of recording

Specification

General Specifications

Supported Operating Systems	Windows Server 2003 x64, Windows Server 2003, Windows XP Professional, Windows Server® 2008 R2
Video	Simultaneously record and playback full frame rate, full resolution video streams from any IndigoVision IP Camera or Transmitter. Record and playback from third party devices**
Audio*	Recording and playback of MPEG-4 AAC and G.711 audio
Thumbnails*	Indexed recordings for rapid display of time, alarm or motion based thumbnails
Alarms	Recording and logging of alarms
Bookmarks*	Recording and logging of bookmarks in association with recordings
Analytics*	Recording and playback of motion analysis data from cameras
Storage Systems Supported	Internal disks, internal RAID array, SCSI RAID array, iSCSI and Fibre Channel SAN and NAS
Redundancy and Failover	Supports sophisticated failover and mirroring strategies amongst multiple NVRs for increased resilience
Automatic Storage Management	Policy based management options to control space and/or time based reaping of old recordings
Protect Recordings	Recordings can be protected to prevent deletion
Digital Watermarking	Option to digitally sign recordings on the NVR. On export, the signature is checked to verify that the video has not been tampered with. Exported video is signed again to ensure the chain of trust is continued.
Performance	Simultaneous record up to 200 video streams plus playback of up to 25 streams

*Features may vary based on capabilities of camera model

**ONVIF or supported via IndigoVision Camera Gateway™

NVR-AS PC Hardware Requirements

Your NVR PC should conform to the following minimum hardware specifications, depending on the number of streams you intend to record:

Number of 1Mbps recording streams	Network Card	Hard Disk Type	CPU Power Required	OS
16	100Base-T	SATA (Min 1 disk)	Intel Pentium 4 1.4Ghz	Windows XP Professional
32	1000Base-T	SATA RAID (Min 4 disks)	Intel Pentium 4 1.4Ghz	Windows Server 2003
100	1000Base-T	SATA RAID (Min 4 disks)	Intel Xeon 5140 Dual Core	Windows Server 2003 x64
200	1000Base-T	SATA RAID (Min 8 disks)	Intel Xeon 5140 Dual Core	Windows Server 2003 x64

The NVR-AS PC is recommended to be server class with a quad-core processor, 4GB of system memory and 40GB of a local system disk space running Windows Server 2008 R2. Enabling digital signatures approximately doubles CPU usage. For reliable system operation, the total system CPU usage should be less than 70%. This means that digital signatures should not be enabled if the NVR-AS averages more than 35% CPU in normal operating conditions.

Product Code

Windows NVR Licence	311110
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Recording Licence

Number of Channels	1-Channel	Additional 1-Channel	Failover Channel	Additional Failover Channel
8000, 9000 & 11000 IndigoVision devices	N/A	N/A	N/A	N/A
License Dongle for BX Camera Range and ONVIF devices	312001	312551	312071	312072
License dongle for third party cameras via Camera Gateway™	311101	311102	311103	311104

No recording licenses required for recording of IndigoVision 8000, 9000 or 11000 devices.

Recording of IndigoVision BX cameras or third party devices requires a USB license dongle for each recording server.

The Windows NVR-AS software is included on the SMS4™ management software CD, **product code: 317802**



Manage

Video and Alarms:

Manage your system with ease

Taking care of complex actions should be simple.

Easy management of your entire security system. IndigoVision's Control Center was the first Video Client Software to give truly scalable solutions when it was originally released in 2002. With market leading video and alarm management features, in a completely licence free package, it allows any security system to open up to the true benefits of IP CCTV. If you need more monitors, have as many as you want with IndigoVision's IP Video Wall software.

Need to access your system on the move? Mobile Center™ provides full viewing and control capabilities - even over 3G networks. Streaming your cameras via the web has never been easier, IndigoVision's Internet Streaming Software (ISS) has got that covered.

Do you want a world class IP CCTV solution, but keep the feel of analogue control? The Surveillance Keyboard gives you the feeling of an analogue CCTV control, with all the benefits of IP.

Manage

☐ Control Center

- Integrated front end, Video Managed Software
- Manage video, access control and alarms
- Unrestricted licence
- View up to 100 simultaneous live streams
- Unlimited device support
- Live and recorded Advanced Analytics

☐ Mobile Center™

- Application for mobile devices
- iOS support for iPhone and iPad
- Android device support
- View video and listen to audio from any camera - up to 16 live streams
- Full PTZ control

☐ Internet Streaming Server

- View cameras over the internet
- Windows Platform Service
- Compatible with major media players

☐ Surveillance Keyboard

- Desktop keyboard with 3-axis joystick (pan/tilt/zoom)
- Multi-function keys and menu structure
- Full control of Control Center virtual matrix

☐ IP Video Wall

- Construct large scale video walls using any monitors



IndigoVision

Complete IP Video Security Solutions



Control Center

Powerful and intuitive video viewing software

Control Center is the Windows client for IndigoVision's Security Management System, SMS4™. The user friendly software enables quick and efficient management of all your video and events from one location. Control Center allows live viewing and playback of IndigoVision cameras and a wide range of cameras from other manufacturers.

An unlimited licence and distributed system architecture gives you the option to locate operators anywhere on the network and manage your system locally or remotely.

- ☐ Intuitive user interface
- ☐ Lightning quick evidence review
- ☐ View any camera, anywhere, anytime
- ☐ Unified control for your entire system
- ☐ Map based navigation
- ☐ ONVIF conformant



Specification

General Specifications	Supported on IndigoVision 8000, 9000 & 11000 Devices	Supported on IndigoVision BX Range & Other Devices
Live Viewing	100 video streams (25 per screen)	100 video streams (25 per screen)
PC Monitors	4	4
Video Compression Formats	MPEG-4 (8000 devices) / H.264 (9000 & 11000 devices)	MPEG-4 / H.264 / MJPEG
Video Resolutions	SIF / 2SIF / 4SIF / 720p	up to 10MP
Audio	Receive / Transmit	Receive
Audio Compression Formats	AAC	G.711
Network Connection Types	TCP / UDP Unicast (Tunnelled) / UDP Multicast	TCP (Tunnelled) / UDP Unicast / UDP Multicast
Snapshots	BMP / JPEG	BMP / JPEG
PTZ Control	✓	✓
Digital Zoom	✓	✓
Camera Views	✓	✓
Privacy Zones	✓	✓
Analogue Monitors (Receivers)	✓ (8000 & 9000 devices)	X
Video Wall	✓	✓
Playback	25 streams	25 streams
Synchronous Playback	✓	✓
Reverse Playback	✓	✓
Frame step	✓	✓
Bookmarking	✓	✓
Search (Alarms and Bookmarks)	✓	✓
Motion & Audio Search	✓	Motion Only
Thumbnail Overview	Time / Alarm / Bookmark / Motion / Audio	Time / Alarm / Bookmark / Motion
Incident Export	Incident Player / 3rd Party Player (.mp4)	Incident Player / 3rd Party Player (.mp4)
Camera Sequences	✓	✓
Sequences, Salvos & Guard Tours	✓	✓
Matrix Numbering	1 - 9,999,999	1 - 9,999,999
Keyboard Support	IndigoVision / Pelco / American Dynamics / Panasonic	IndigoVision / Pelco / American Dynamics / Panasonic
Event Inputs	Binary / Analytics / Network and Video Loss	Binary / Motion Detection / Network Loss
Actions	Record / Email / Snapshot / Move to Preset / Relay Output / Audio	Record / Email / Snapshot / Move to Preset / Relay Output
Alarm Video	Live and Looped Replay / Pre-alarm video	Live and Looped Replay / Pre-alarm video
Procedure Documents	HTML / Text / URL	HTML / Text / URL
Time Schedules	✓	✓
Alarms on Maps	✓	✓
Alarm Reports	✓	✓
General Specifications		
User Authentication	Windows authentication / Basic password	
User Groups	✓	
Access Permissions	Object and function based permissions	
Architecture	Fully distributed, no central server	
Licencing	Unlimited users	
Events Inputs	IndigoVision devices and third party systems	
Zones	Group multiple inputs into a single alarm	
Device Discovery	✓	
Maps	Multi-layered maps (BMP / JPEG / PNG / DWG)	
Timezones	✓	
Device Status Summary	✓	
Audit Log	✓	
Multiple Languages	12+ languages including; English, French, German, Italian, Spanish	
Certification	BS8495:2007	
Open Standards and Certification	ONVIF Conformant	
Operating Systems		
Supported (Recommended)	Windows-XP ® Professional 32-bit, Windows 7 ® 64-bit	
Supported	Windows 7 ® 32-bit, Windows Vista ® 32-bit	



IndigoVision

Complete IP Video Security Solutions



Mobile Center™

Control Center on the go

IndigoVision Mobile Center™ extends the surveillance capabilities of SMS4™ way beyond the control room. Security personnel can monitor their system remotely from any location over mobile and wireless IP networks using a mobile phone or tablet.

- ☐ Familiar touch and swipe gestures
- ☐ High quality real-time video
- ☐ Full PTZ control
- ☐ Listen to audio
- ☐ Save favourite views
- ☐ Send video snapshots via email
- ☐ Activate remote devices, such as a light switch or door release
- ☐ Available for Apple iPhone, iPad and Android compatible smartphones and tablets

Specification

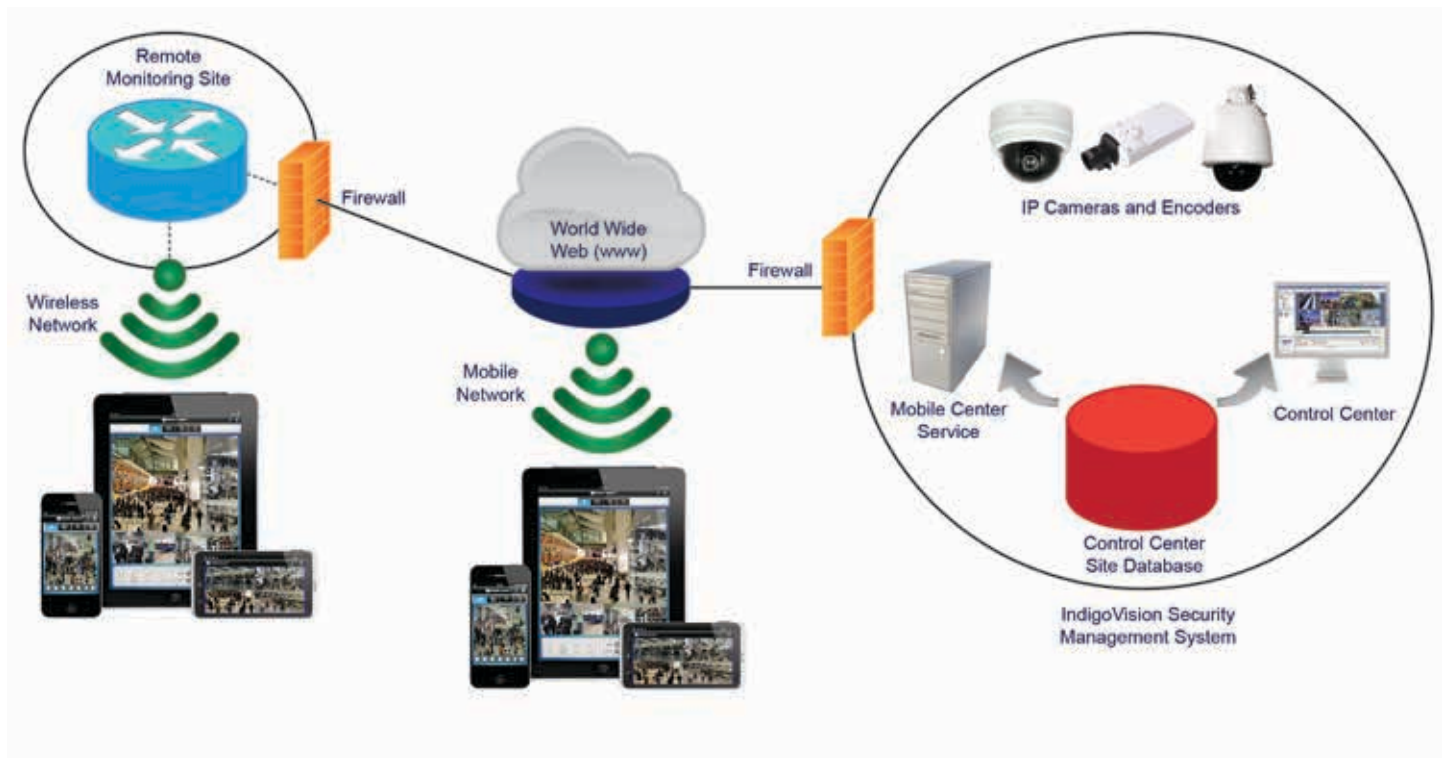
General Specifications

Mobile Devices	iPhone 4 or later, iPad, iPad 2 or later (iPad 2 or later recommended); Android arm-based smartphones and tablets
Mobile OS	iOS 5 and iOS 6 or later; Android 2.3 or later
Supported Cameras and Encoders	IndigoVision 8000 range, 9000 range, 11000 range, BX range*
Viewing Options	Multiple live camera views in grid layout, up to 4x4. Predefined named layouts
Audio	Receive audio from camera
Digital Zoom	✓*
Snapshot	Save still image to phone library and attach to email
PTZ Control	Pan, Tilt and Zoom using touch screen gestures. Go to preset position. Custom commands*
Actions	Relay Output*
Networks	Wi-Fi, 3G
User Access	Logon via SMS4™ site database, configurable user permissions
Multiple Languages	5+, including: English, French*, German*, Portugese*
Licencing	Licence free**

* iOS only

** With a valid IndigoVision SUP contract for the site

Mobile Center™ Diagram



Mobile Center™ Service Licence

Mobile Center™ connects to an IndigoVision SMS4™ database via the Mobile Center™ Service which is installed on a Windows server. Mobile Center™ Service authenticates users and gives them access to the cameras within the SMS™ installation that they have permission to view.

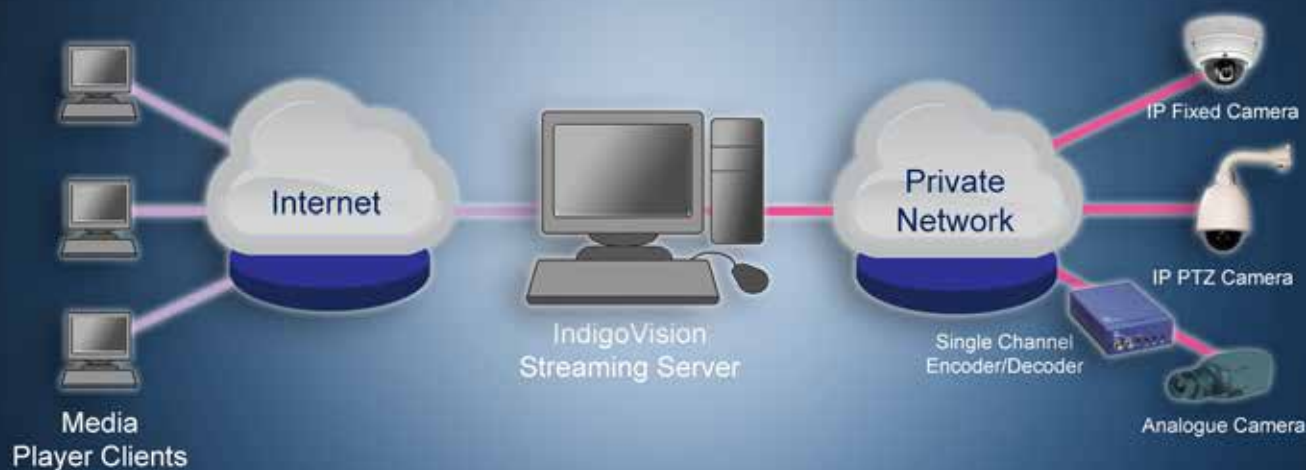
Mobile Center™ Service requires a license key attached to the USB port on the Windows server. The license key determines how many mobile devices can be connected to the SMS4™ installation at any one time. The part codes for ordering the license key are in the following table:

	Without valid SUP contract	With valid SUP contract
Mobile Center™ Service dongle with one device licence	311107	n/a
Additional 1 device Mobile Center™ Service dongle upgrade	311108	n/a
Mobile Center™ Service dongle with 100 device licences	n/a	311109



IndigoVision

Complete IP Video Security Solutions



Internet Streaming Server

Webcast your cameras to the outside world

The IndigoVision Internet Streaming Server provides a webcasting solution to customers who wish to make their IndigoVision cameras viewable on the Internet. An example of a typical application would be the webcasting of traffic monitoring cameras.

The IndigoVision Streaming Server is a Microsoft Windows Service that can be installed on any suitable Windows PC. Client PCs request video streams through standard media players. The IndigoVision Streaming Server can transmit each "internal" camera to an unlimited number of Internet clients.

- ☐ Microsoft Windows Service
- ☐ Compatible with major media players
- ☐ Transmit to unlimited internet clients
- ☐ Supports MPEG-4 and H.264

General Specifications	
Video	MPEG-4 and H.264
Operating Systems	Windows Server 2003, Windows Server 2008 R2
Media Clients Supported	Apple Quicktime, RealNetworks Realplayer, VLC
Firewalls	No client firewall configuration required. Video is streamed through standard ports
Buffer Control	Automatic. The Streaming Server dynamically controls buffering to compensate for packet loss or varying available Internet bandwidth
Licencing	Licencing based on number of cameras being simultaneously viewed. The number of clients viewing those cameras is not restricted
Supported Products	8000 (firmware v2.13 onwards), 9000 (firmware v3.4 onwards), 11000 PTZ Dome* (firmware v4.0 onwards), 11000 Fixed Camera* (firmware v4.0 onwards)
Server Hardware	Requires a 2.8GHz dual core processor to support 2000 simultaneous clients viewing one 140kbps stream. This is a total data throughput of about 250Mbps. Requires 256MB RAM for every 50Mbps of data throughput being served.



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IndigoVision

Complete IP Video Security Solutions



Surveillance Keyboard

Who needs a mouse?

IndigoVision's Surveillance Keyboard is used to access Control Center's Virtual Matrix and IP Video Wall. The Control Center Virtual Matrix allows the Surveillance Keyboard to control IndigoVision and most third party PTZ cameras including Pelco, Panasonic and Philips-Bosch.

- ☐ Seamless control of live and recorded video
- ☐ Full control of Control Center virtual matrix
- ☐ Desktop keyboard with 3-axis joystick (pan/tilt/zoom)
- ☐ Multi-function keys and menu structure
- ☐ Full variable PTZ control of speed domes
- ☐ Backlit LCD graphic display

General Specifications	
Product Code	110066
Control	Proportional 3 axis joystick plus jog / shuttle dial
Numeric Keypad	12 Keys
Multi-function Keypad	10 Keys
LCD Graphic Display	128x128 Dots Blue Screen
LCD Backlit	Yes
Keyboard Power Supply	12V DC; Power supply included
Power Consumption	15W
Ambient Operating Temperature	+5°C (41°F) to 40°C (104°F)
Dimensions	365mm (width) x 113mm (height) x 160mm (depth) / 14.37in (width) x 4.45in (height) x 6.30in (depth)
Weight	1060g / 2.337lb
RS232 connections	1 Serial Line (COM) Female DB9 Connector
Approval/Certification	EN 55022:1998 + A1:2000 + A2:2003 + EC:2005 Class B; EN 50130-4:1995 + A1:1998 + A2:2003 EN 60950-1:2001; Directive 2002/95/CE (ROHS)



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JAN 13



IndigoVision

Complete IP Video Security Solutions



IP Video Wall

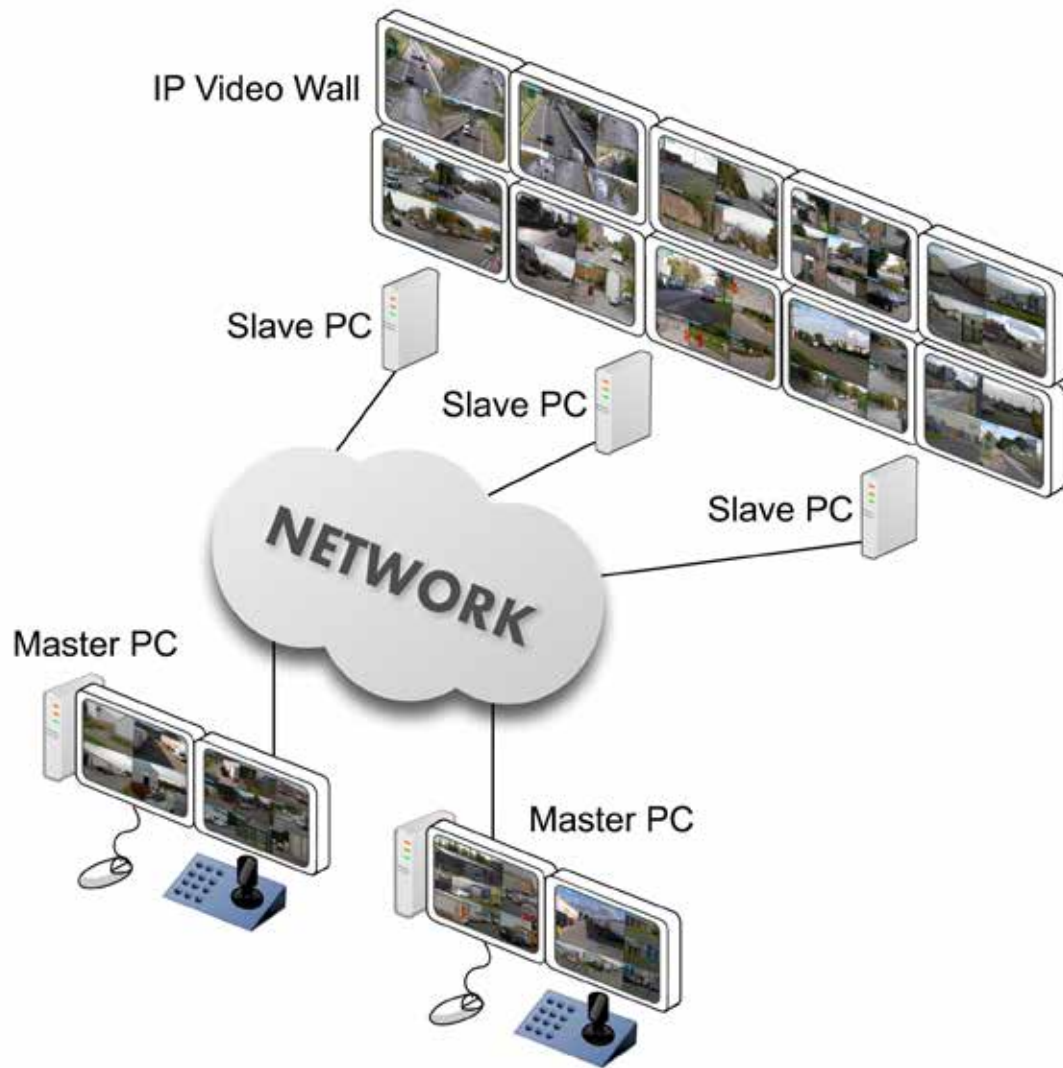
Build your own control rooms, cost effectively and scalably

Using IndigoVision's IP Video Wall software, a video wall can be constructed using slave workstations, each of which manages up to four monitors. The video wall is controlled over an IP network by an unlimited number of master workstations. Large video walls are constructed using as many Slaves as necessary.

The video wall is managed from Master Control Center workstations through a standard CCTV keyboard. Monitors within the video wall can be used to display a variety of information; Video, Guard Tours, Salvos, Site Maps, Alarm Status.

- ☐ Construct video walls using any PC monitors e.g. CRT, Plasma, LCD, HD TV
- ☐ Controlled using standard CCTV keyboards
- ☐ Supports standard and High Definition widescreen video
- ☐ Unlimited scalability
- ☐ Display video, site maps and alarm status
- ☐ Dynamically change the video layout of a monitor

Specification



General Specifications	Supported CCTV Keyboards	CCTV Keyboard Actions
Licensed by USB dongle on each 'slave' PC	IndigoVision Surveillance Keyboard	Select camera into pane
Unlimited 'master' PCs	Pelco KBD300A	Stop video on pane
Max slaves: 98	American Dynamics ADCC1100	Pan/Tilt/Zoom/Focus/Iris/Preset control
Max monitors per slave: 4	American Dynamics AD2088	Sequence control (start/stop/pause/next/previous)
Max video panes per monitor: 25	Panasonic WV-CU650	Salvo control (start/stop)
Max Video Wall: 9800 video panes		Guard Tour control (start/stop)
Supported by Control Center v3.18 onwards		Change monitor layout

Operating System	Supported
Windows 7® 32-bit	Domain only
Windows Vista® 32-bit	Domain or workgroup
Windows XP® Professional 32-bit	Domain or workgroup
Windows 7® 64-bit	Domain only

Integrate

For a truly open solution



Cameras; Alarms; Access Control. It's all completely integrated.

Security. It's not just about CCTV. There are alarms, access control and other additional components in your system. At IndigoVision, we understand that these components work better when integrated into your CCTV system. That's why IndigoVision has the most open system in the market.

All of IndigoVision's management and recording solutions completely support ONVIF encoders and cameras, but sometimes people have legacy cameras that are seen to be undesirable by modern management and recording solutions. With Camera Gateway™, you can fully integrate your legacy IP camera hardware into IndigoVision's Control Center and NVR options. If you need to convert your old, unfashionable alarm system into a fully integrated, world class IP video and alarm management solution, IndigoVision's Alarm Servers can do just that - meaning you don't have to throw away your valuable alarm and video investment just yet.

If the additional system is software based, IndigoVision's Integration Modules enable incorporation of most of the leading access control manufacturers, as well as other software systems into one solution.

In the event you need to integrate with a system that is not already covered by our Integration Modules, don't worry our Software Development Kit (SDK) has that covered.

IndigoVision. A truly open solution.

Integrate

- **Camera Gateway™**
 - Integrate legacy and non-ONVIF IP cameras
- **Software Development Kit**
 - Integrate the IndigoVision solution with third party software
- **Alarm Panel**
 - Integrate physical (binary) alarms
 - Supervised tamper-detect inputs
- **Integration Modules**
 - Enable communication of events and data between IndigoVision and third party software



IndigoVision

Complete IP Video Security Solutions



Camera Gateway™

Freedom to choose any camera

The IndigoVision Camera Gateway™ enables cameras from a range of other manufacturers to be connected to an IndigoVision SMS4™ system. It takes video streams from other manufacturers cameras using their native protocols and then enables users to view the streams in Control Center and record them to an NVR.

Camera Gateway™ also supports audio, PTZ control, events and outputs. The cameras do not need to support ONVIF in order to connect to the IndigoVision system, giving customers a wide choice of cameras to choose from.

Camera Gateway™ is a software service that can be installed on a Windows server, giving total flexibility. The service enables multiple clients to stream video from the same camera, whilst only requiring a single stream from the camera to the Camera Gateway™.

- ☐ Live video streaming MPEG-4 or H.264
- ☐ PTZ control
- ☐ Audio receive
- ☐ Dual streaming - select different profiles for live viewing and recording
- ☐ Events and outputs

Specification

Features

Live Video	Live video streaming: MPEG4, H.264 Dual Streaming - select different profiles for live viewing and recording PTZ control Multicast from Camera Gateway to Control Center														
Audio	Audio Receive														
Recording and Playback	Record video: MPEG4, H.264 Record on alarm Playback video Thumbnails, bookmarks														
Alarms and Events	Events from 3rd party cameras: Motion Detection / Binary Inputs and Outputs														
Supported Devices	Up to 100 cameras supported per Camera Gateway from a range of manufacturers, including: <table> <tr> <td>3S</td><td>Grandstream</td></tr> <tr> <td>Arecont</td><td>IQInVision</td></tr> <tr> <td>Axis</td><td>Panasonic</td></tr> <tr> <td>Basler</td><td>Pelco</td></tr> <tr> <td>Bosch</td><td>SightLogix</td></tr> <tr> <td>COE</td><td>Samsung</td></tr> <tr> <td>Ganz</td><td>Vivotek</td></tr> </table>	3S	Grandstream	Arecont	IQInVision	Axis	Panasonic	Basler	Pelco	Bosch	SightLogix	COE	Samsung	Ganz	Vivotek
3S	Grandstream														
Arecont	IQInVision														
Axis	Panasonic														
Basler	Pelco														
Bosch	SightLogix														
COE	Samsung														
Ganz	Vivotek														
Supported Devices Coming Soon	<table> <tr> <td>ACTi</td><td>JVC</td></tr> <tr> <td>FLIR</td><td>Mobotix</td></tr> <tr> <td>Grandeye</td><td>Sanyo</td></tr> </table>	ACTi	JVC	FLIR	Mobotix	Grandeye	Sanyo								
ACTi	JVC														
FLIR	Mobotix														
Grandeye	Sanyo														
Supported Operating Systems*	Windows 7 [®] 32-bit, Windows 7 [®] 64-bit, Windows Server 2008 [®] R2														

*For systems with more than 16 streams Windows Server 2008[®] R2 is recommended. Further details available in the Install Guide and Performance Reference Guide.

Product Code

Camera Gateway™ Server Licence	311100
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Recording Licence

Number of Channels	1-Channel	Additional 1-Channel	Failover Channel	Additional Failover Channel
NVR-AS 3000 Recording	311120	N/A	311121	N/A
Windows NVR-AS Recording**	311101	311102	311103	311104

The Windows NVR-AS software is included on the SMS4™ management software CD, product code **317802



IndigoVision
Complete IP Video Security Solutions

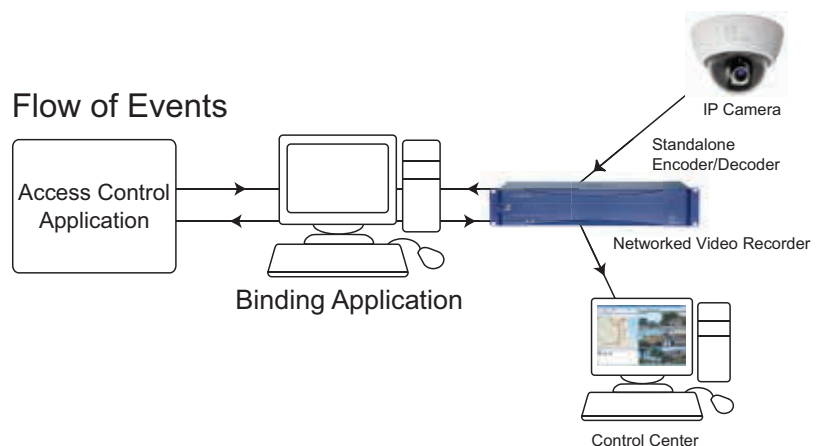
Software Development Kit

The IndigoVision Software Development Kit allows software developers to integrate third party applications with the IndigoVision IP Video and Alarm Management System. The kit consists of five components specified below. All components are available to authorized partners, free of charge, on the IndigoVision Product CD, product code: 317802.

IndigoVision Binding Kit

The IndigoVision Binding Kit enables software to be developed that integrates external systems such as alarm management, EPOS and access control systems with the IndigoVision IP Video System. The Kit allows developers to write applications using standard languages such as Visual Basic or VBScript. Both a 'C' DLL and a COM interface are provided. Binding Kit applications can generate external alarm events within an IndigoVision system, or receive alarm status events from IndigoVision NVRs. Alarm status events are generated by NVRs when new alarms occur and when existing alarms are assigned, acknowledged or deleted.

Flow of Events



Custom Objects

Control Center supports a plugin architecture which allows third party developers to integrate objects into the Control Center device hierarchy and map displays. For example, an integration between Control Center and an access control system could create objects representing doors. The door objects could be controlled through the Control Center user interface via custom menus and mouse click events. In addition, the access control system could refresh the state of the door object by changing its icon automatically.

The Custom Object SDK supports customised icons, menus and actions. Developers create plugin DLLs which comply with the IndigoVision interface. Control Center administrators then create instances of the custom objects within the Control Center device hierarchy and place their icons on maps.





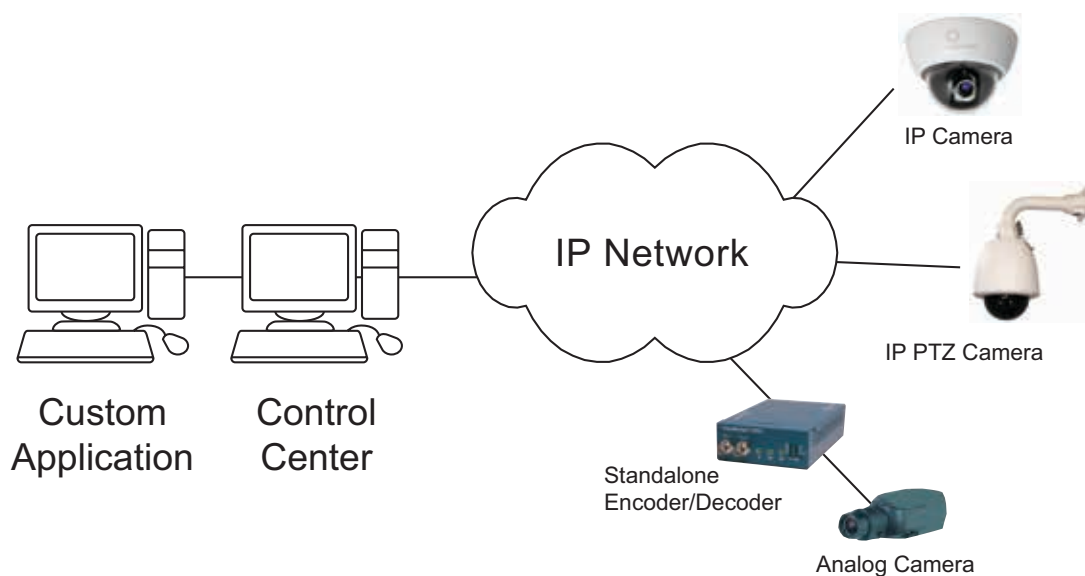
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Software Development Kit

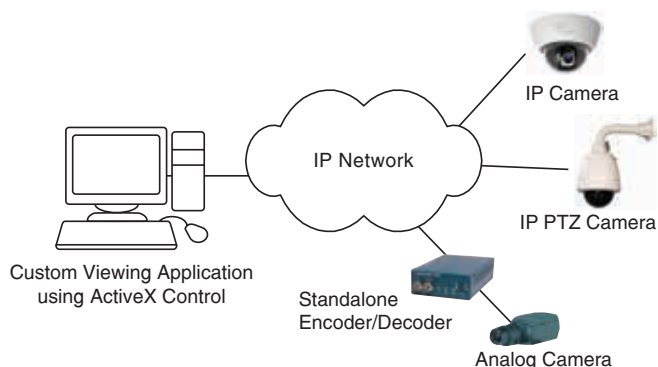
Control Center Automation Interface

The Control Center Automation Interface is a COM interface that enables external scripts and programs to carry out a number of operations on the Control Center application. These include starting and stopping live video, playing back and exporting recordings and moving PTZ cameras.



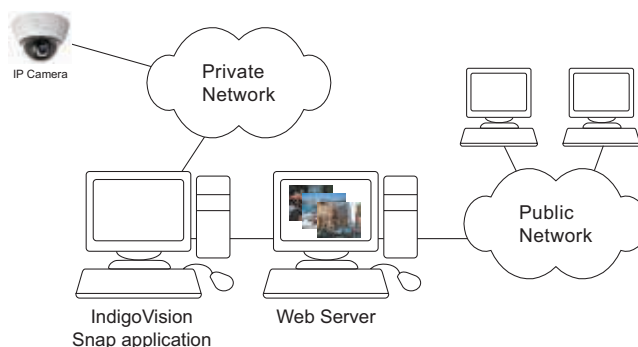
IndigoVision Viewer ActiveX Control

The IndigoVision Viewer ActiveX Control is a Microsoft Win32 (x86) component that can display live video and audio from an IndigoVision 8000, 9000 or 11000 encoder. The control may be embedded in a variety of ActiveX containers such as Internet Explorer (in an HTML web page), .NET Windows Forms, Visual Basic or a number of other development tools.



IndigoVision Snap

The IndigoVision Snap utility allows you to grab frames from a specified IndigoVision 8000, 9000 or 11000 encoder at regular intervals and save them to a destination directory in JPEG format. To take snapshots from multiple cameras, start multiple instances of IndigoVision Snap.





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Alarm Panel

The simplest way to connect third party systems to IndigoVision

The IndigoVision Alarm Panel connects to a 10/100 Ethernet LAN and provides 32 binary inputs and 8 relay outputs. The Alarm Panel is 19" rack mountable and two variants are available:

- ☐ Alarm Panel with opto-isolated inputs for detecting standard alarm source events.
- ☐ Alarm Panel with supervised tamper-detect inputs for detecting open or close

Positive and/or negative edge triggered inputs can generate events on the IP network which can be used by Control Center to record video, display video from specific cameras, move cameras to preset PTZ positions, activate binary outputs etc. Outputs can be activated remotely over the IP network.

Specification

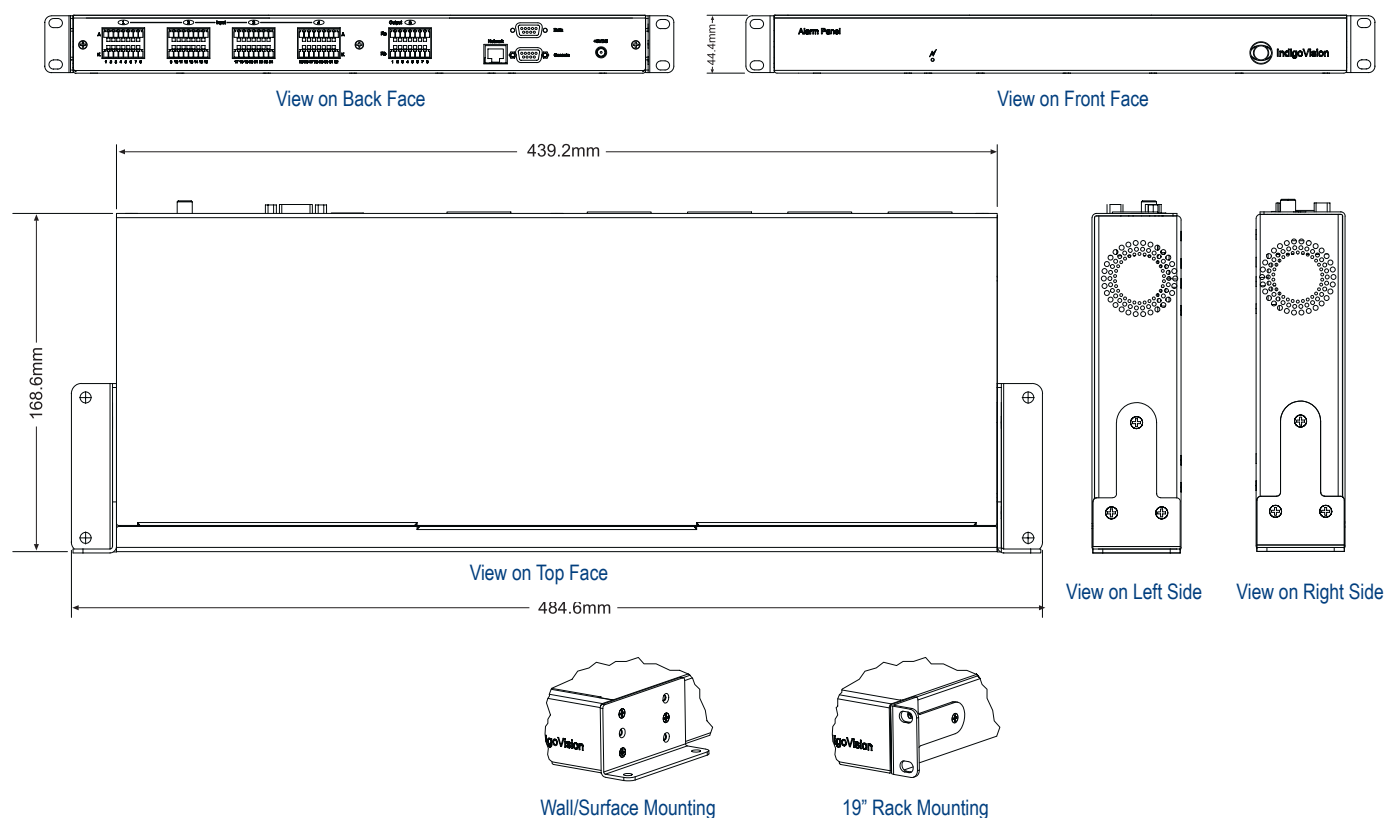
General Specifications

Electrical	Operating voltage: 5V DC @ 1.2A; Power consumption: 5W (typical) 6W (max)
Binary Input/Output	32 opto-isolated or supervised tamper-detect inputs; 8 solid state relay outputs
Ratings	Normally open relay outputs: Maximum ON resistance 40 Ohms Maximum carry current 100mA; Maximum voltage 50Vpk
Environmental	Operating temp: 0°C (32°F) to +50°C (122°F)
Dimensions	44.4mm (height) x 439.2mm (width) x 167.4mm (depth) (1U) / 1.75in (height) x 17.30in (width) x 6.60in (depth) (1U)
Weight	4.4Kg / 9.701lb
Network Interface	Ethernet IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP; Embedded Linux firewall
Data Input/Output	1 Data port: RS232/RS422/RS485 up to 115.2 Kbps; 1 Data/Console port: RS232 up to 115.2 Kbps
Time	Embedded real-time clock, NTP client
Regulatory	EN55022 ITE Emission standard Class A; EN61000-3-2 Mains Harmonics Class A; EN61000-3-3 Voltage Fluctuation EN55024 ITE Immunity standard; CFR47: 2002 Part 15 Sub Part B (US federal code of regulations)

Product Codes

Description	Order Code
Alarm Panel with Opto-Isolated Inputs	980145
Alarm Panel with Supervised Tamper-Detect Inputs	980144

Dimensions





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Integration Module Matrix

IndigoVision's Integration Modules integrate third party systems such as access control and intruder detection systems with the IndigoVision Security Management Solution, SMS4™. The modules allow a flow of events between IndigoVision and the external system in a totally seamless fashion to deliver a fully integrated security solution. Third party events can trigger a wide range of actions within the IndigoVision system including starting recordings, displaying live video, moving PTZ cameras and sending notification emails. Some third party systems can also receive events from IndigoVision.

The table below details the integration modules available. To see the complete datasheets for the Integration Modules please visit <http://www.indigovision.com/integration-downloads>

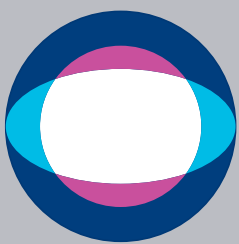
Access Control

Integration Module	IndigoVision Module Version	Compatible SMS4™ version	Alarm events into IndigoVision	Alarm events from IndigoVision	Acknowledgement of IndigoVision alarms	Live video display
Gallagher*	Various (see note)	SMS4™ r2 onwards	✓ *	✓ *		✓ *
Honeywell Galaxy	v1.0.0 or later	SMS4™ r2 onwards	✓			
Honeywell Pro-Watch	v1.0.1	SMS4™ r2 onwards	✓			
Lenel	v1.2.2	SMS4™ r2 onwards	✓			
MASC	v2.0	SMS4™ r2 onwards	✓			
MAXxess	v1.0.0	SMS4™ r2 onwards	✓			
PAC	v1.0	SMS4™ r2 onwards	✓			
Paxton	v1.0	SMS4™ r2 onwards	✓			
Software House C•Cure 800/8000	v2.0	SMS4™ r2 onwards	✓	✓	✓	
Software House C•Cure 9000	v2.1	SMS4™ r2 onwards	✓	✓		

* Gallagher Integration Module: Pass events from Gallagher to IndigoVision - OPC A&E Integration Module v1.0 or later. Pass events from IndigoVision to Gallagher - Integration Module v1.1 or later.

Other Integration Solutions

Integration Module	IndigoVision Module Version	Compatible SMS4™ version	Alarm events into IndigoVision	Alarm events from IndigoVision	Acknowledgement of IndigoVision alarms	Live video display
Bosch TCU Module	v1.0	SMS4™ r2 onwards	✓			
General Electric (GE)	v1.2.1	SMS4™ r2 onwards	✓	✓		
GAI-Tronics	v1.0	SMS4™ r2 onwards	✓			
Microsoft SQL	v1.0.1	SMS4™ r2 onwards	✓			
OPC A&E Client	v1.0	SMS4™ r2 onwards	✓			
OPC DA Client	v1.0	SMS4™ r2 onwards	✓			
OPC DA-XML Server	v2.0	SMS4™ r2 onwards		✓		
Senstar	v1.0.2	SMS4™ r2 onwards	✓			
Shop Alert	v1.0	SMS4™ r2 onwards	✓			
TAC	v1.0.1	SMS4™ r2 onwards	✓			



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