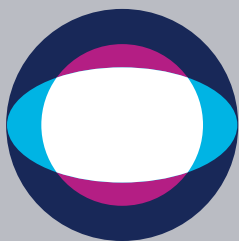# Product Catalogue

Complete IP Video Security Solutions

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

IndigoVision

www.indigovision.com

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Icon Introduction

Choosing the product that is right for you can be a complex task, especially when faced with such a large range of products and so many different features.

We have made this easier with our simple user-friendly icons. Each icon represents a feature or benefit, so all you need to do is pick the icons you are interested in and look out for them in the datasheets.

Sensor

High Definition (HD)
Video standard including 720p (1280 x 720) and 1080p (1920 x 1080).

3 Megapixel (3MP)
High resolution (2048 x 1536) with 4:3 aspect ratio.

5 Megapixel (5MP)
High resolution (2592 x 1944) with 4:3 aspect ratio.

Ultra-High Resolution (2K)
Higher quality than conventional HD or MP. 1920 x 1080 pixels provide more detailed footage.

Ultra-High Resolution (5K)
Higher quality than conventional HD or MP. 5120 x 3840 pixels provide more detailed footage.

Day/Night
A mechanical infrared (IR) filter allows the camera to operate normally during the day and then switch to mono as it grows darker.

Low Light
Allows images and footage to be captured at night or in areas where light levels are between 0.5 and 0.01 lux.

Wide Dynamic Range (WDR)
Captures images in high-contrast lighting conditions.

Dual Wide Dynamic Range
Captures images in high-contrast lighting conditions by using two pixels for light and dark. Significantly better than standard WDR.

Image Stablisation
A means of cancelling out any natural movement of a camera due to wind or vibration.

Compression

H.264
A motion-based video compression format.

IndigoVision H.264
Optimised H.264 video codec meaning lower bandwidth and reduced storage.

JPEG2000
A still-image compression standard that allows images to be displayed in multiple resolutions.

MJPEG
Motion JPEG – a stills-based video compression format.

MPEG-4
A motion-based video compression format.

Guaranteed 25fps
25 frames per second (fps) is guaranteed at maximum resolution using IndigoVision's unique video processing technology.

Up to 6fps
The camera can stream at a rate of 6 frames per second (fps) at maximum resolution.

Up to 12fps
The camera can stream at a rate of 12 frames per second (fps) at maximum resolution.

Up to 25fps
The camera can stream at a rate of 25 frames per second (fps) at maximum resolution.

Field Programmable Gate Array (FPGA)
Hardware processor used to encode video, ensures guaranteed frame rate.

Advanced Audio Coding (AAC)
An audio compression and encoding format. It delivers higher quality audio than traditional G.711 format.

G.711
An audio compression format commonly used in digital transmission systems. It samples at 8Khz and streams at 64kbps.

MP2
An audio compression format commonly used in audio broadcasting systems.

Icon Introduction

Intelligence

Activity Controlled Frame Rate (ACF)
Frame rate reduces when no motion is detected using basic analytics – up to 90% reduction in storage requirements.

Activity Controlled Frame Rate + (ACF+)
Reduces frame rate when no motion is detected using advanced analytics. Greater than 90% reduction in storage requirements.

Analytics
Advanced video analytics including: object detection, virtual tripwire, museum mode and object counter-flow.

Motion Detection
Basic video analytics covering simple motion.

Other

Distributed Network Architecture (DNA)
Intelligence is at the edge of the system with no reliance on a central server; provides resilience and redundancy.

Power over Ethernet (PoE)
Devices draw power and data from a single Ethernet cable, simplifying installation.

Power over Ethernet (PoE+)
Devices draw power and data from a single Ethernet cable, simplifying installation.

Firewall
A security feature that regulates incoming and outgoing network traffic to guard against potentially malicious attacks on the system.

ONVIF Ready
A device that is capable of being upgraded to include the ONVIF standard.

ONVIF
Open Network Video Interface Forum – An industry forum to maintain a communication standard for IP video devices.

BNC Connector
BNC, 75Ohm, Standard Definition video input(s).

Watermark
A means of digitally protecting video data from tampering.

Linux
A robust and reliable operating system designed for embedded appliances.

Windows
Windows operating system.

ATEX Certified
Certified to ATEX equipment directive (94/9/EC) for use in a potentially hazardous area or explosive atmosphere.

IECEx Certified
Certified to IECEx standards for use in a potentially hazardous area or explosive atmosphere.

INMETRO Certified
Certified to INMETRO standards for use in a potentially hazardous area or explosive atmosphere.

Wearable Video
A standalone mobile camera that can be worn.

Physical

Outdoor
Outdoor cameras feature a protective casing to protect them from the elements.

IR
Integrated IR Illumination for improved low light operation.

IK10
IK ratings measure the durability of protective casings through impact testing.
10 is the highest rating.

Low Temperature
Can function in temperatures as low as -50°C.

High Temperature
Can function in temperatures as high as 50°C.

In-Ceiling
In-ceiling cameras that can be mounted into false ceilings. This is less intrusive than conventional mountings.

Integral Microphone
A built -in microphone such that audio may be listened to or recorded.

1U Height
Product is rack mountable and when mounted will occupy 1U in height.

2U Height
Product is rack mountable and when mounted will occupy 2U in height.

19" Rack
Product is rack mountable in a standard 19" rack.

Redundant Power Supply
Product supports a redundant power supply that, when utilised, minimises the chance of a complete shutdown.

Redundant Network
Contains a redundant network connection so that vital network capabilities are always available when needed.

Redundant Fans
Contains redundant fans to maintain operating temperature even under a fault condition.

White Light Illumination
Camera's field of view is illuminated using standard white light.

Icon Introduction

Zoom

3x Optical
Operators can optically zoom in to view part of an image, revealing more detail without any loss in resolution.

10x Optical
Operators can optically zoom in to view part of an image, revealing more detail without any loss in resolution.

18x Optical
Operators can optically zoom in to view part of an image, revealing more detail without any loss in resolution.

20x Optical
Operators can optically zoom in to view part of an image, revealing more detail without any loss in resolution.

28x Optical
Operators can optically zoom in to view part of an image, revealing more detail without any loss in resolution.

30x Optical
Operators can optically zoom in to view part of an image, revealing more detail without any loss in resolution.

35x Optical
Operators can optically zoom in to view part of an image, revealing more detail without any loss in resolution.

36x Optical
Operators can optically zoom in to view part of an image, revealing more detail without any loss in resolution.

Storage

RAID5
A means of mounting multiple disks into a single storage volume.

RAID6
A means of mounting multiple disks into a single storage volume.

Dual RAID
A means of ensuring that RAID arrays remain intact, even if one of the RAID controllers fails.

SATA
A type of hard disk drive.

SAS
A type of hard disk drive.

Integrations

Alarm Integration into Control Center
Events and alarms from a third party system are forwarded into Control Center.

Alarm Integration into Third Party Systems
Events and alarms from Control Center are forwarded into a third party system.

Acknowledgement of Alarms from a Third Party System from within Control Center
One-click acknowledgement. An alarm is acknowledged in Control Center and the corresponding alarm is also automatically acknowledged in the third party system interface.

Acknowledgement of IndigoVision Alarms from within a Third Party System Interface
One-click acknowledgement. An alarm is acknowledged in a third party system interface and the corresponding alarm is also automatically acknowledged in Control Center.

Video Integration into Third Party Systems
Video streams (live and recorded video) from an IndigoVision system can be displayed embedded in the third party user interface.

Manually Control Actions within the Third Party System - Directly from Control Center
Specific actions in the third party system are directly controlled from within Control Center, such as triggering a gate release mechanism.

Integrate Data Streams from Third Party Systems into Control Center
Continuous streams of data such as detected license plates or POS transaction data can now be managed within Control Center. Filter and search through sets of data for an easy side by side review of relevant data entries and their associated video recordings.

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 security solution. IndigoVision hardware uses 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, 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 Cameras
SD (up to 4SIF)	9000 or BX100	n/a	n/a	9000
HD (720p)	n/a	11000	11000	n/a
HD (1080p)	n/a	BX	BX or Ultra 2K	BX, Ultra 2K or Interceptor
3MP	n/a	n/a	BX	n/a
5MP	n/a	BX	BX	n/a
20MP	n/a	Ultra 5K	n/a	n/a

Capture Index

Capture Index

Capture Index

Encoders/ Decoders

Network Accessories & Analytics

IndigoVision
Complete IP Video Security Solutions

28x Optical

36x Optical

SD PTZ Dome Camera

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

Part of IndigoVision's 9000 Range, the Standard Definition (SD) PTZ Dome Camera delivers more image detail, better image clarity, impressive low light sensitivity and ultra low PTZ latency, giving smoother operator control. With highly optimised H.264 compression and ACF+ technology, storage costs are reduced by up to 95%.

Key Features

SENSOR

Low Light | WDR | Stabilisation

COMPRESSION

H.264 | GUARANTEED 25fps | FPGA

INTELLIGENCE

ACF | ACF+ | Analytics | Motion Detection

OTHER

DNA | Firewall

PHYSICAL

Outdoor | IK10 | Low Temp | High Temp | In-Ceiling

Product Codes

28x Lens (PAL)	Camera plus Enhanced Management Software
In-Ceiling	769353
Standard Pendant	769355
Environmental Pendant	769357
Arctic	769359
36x Lens (PAL)	**Camera plus Enhanced Management Software**
In-Ceiling	769363
Standard Pendant	769365
Environmental Pendant	769367
Arctic	769369

For more information:

Dimensions - In-Ceiling

Dia 222mm

123mm

85.5mm

Dia 150mm
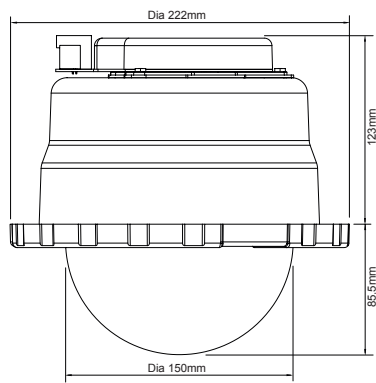
View on Side Face

Dimensions - Standard & Environmental

Dia. 216mm

254mm

Dia. 150mm
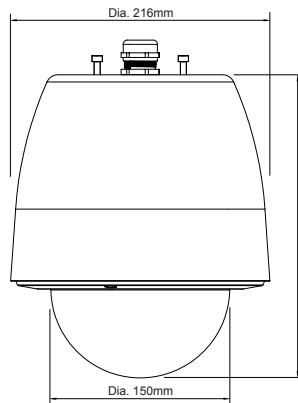
View on Side Face

Dimensions - Arctic

73.0mm

Safety Lanyard

177mm

258mm

Dia 236mm
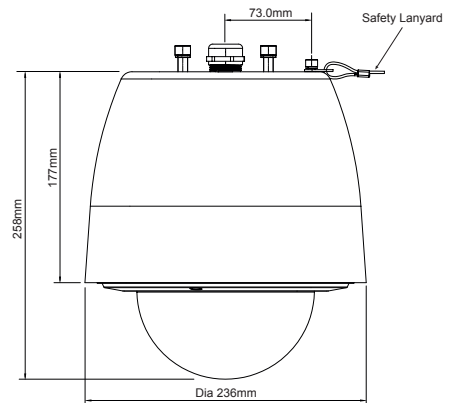
View on Side Face

Specification

Camera Features	28x optical + 12x digital zoom	36x optical + 12x digital zoom
Sensor	1/4" type SuperHAD II Interlaced CCD	1/4" Sony ExView SuperHAD Interlaced or Progressive Scan CCD
Minimum Sensitivity	Day: 0.016 lux (colour). Night: 0.0015 lux (mono). F1.35, 50 IRE, 1/4s shutter	Day: 0.1 lx (colour). Night: 0.01 lx (mono) F1.6, 50 IRE, 1/4s shutter
Dynamic Range	N/A	WDR On/Off/Auto
Lens Options	3.5mm - 98mm, Horizontal view angle 2.1¡ (W) 55.8¡ (T), F1.35 to F3.7	3.4mm - 122.4mm, Horizontal view angle 1.7¡ (W) 57.8¡ (T), F1.6 to F4.5
Image Stabliser	Yes (StableZoomª)	Yes (StableZoomª)

Camera Features	
Active Pixels	0.4 MP (704 x 576)
Gain Control	Auto
Back Light Compensation	On/Off
White Balance Mode	Auto
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	SIF: 352 x 288 pixels; 2SIF: 704 x 288 pixels; 4SIF: 704 x 576 pixels
Signal/Noise Level	> 50dB
Iris Control	Automatic with Manual override
Shutter	Global; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Video Compression	Full frame rate, full colour: H.264; (ISO 14496-10): 25fps guaranteed
Video Bit Rate	User configurable from 32Kbps up to 6Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to seven 4Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to two simultaneous resolutions with guaranteed frame rate including: 4SIF (25fps), 2SIF (25fps), SIF (25fps)
Video Analytics	Standard: ACF, ACF+, Motion Detection, Hooded. Advanced: Dual Tripwire, Congestion, Counterflow, Museum
Binary Input/Output	2 opto-isolated inputs; 1 solid state, opto-isolated relay output
Network Interface	IEEE802.3 standards: 100 Base-T Ethernet, TCP, UDP, RDP, IGMP, SNMP, HTTP, HTTPS, FTP, NTP, SSH, TELNET
Network Security	Embedded Linux Firewall. Salted passwords, with MD5 encryption
Time	Embedded real-time clock, NTP client with battery backup
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)*
IndigoVision Software Requirements	SMS4ª r1/Control Center v11.0 or later

PTZ Control			
Preset	250	Pan Range	360º Continuous Rotation
Preset Accuracy	0.05º	Tilt Range	95º (-5º above horizon to 90º vertically down)
Preset Tours	100 each with 20 presets	Pan-Tilt	0.001º/s to 360º/s
Pattern Mimic Tours	4 each with up to 1 minute	Preset Move Speed	200º/s
Privacy Zones	24 User Defined	On Screen Display	Preset Name or 8 Compass Points

Camera Features	In-Ceiling	Standard	Environmental	Arctic
Dimensions/Weight	222mm (dia) x 208.5mm (h) and 2.7Kg	216mm (dia) x 254mm (h) and 5.5Kg	216mm (dia) x 254mm (h) and 5.7Kg	236mm (dia) x 258mm (h) and 6.1Kg (with sun shroud)
Housing	Polypropelene with polycarbonate dome	Vandal Resistant die-cast aluminium with polycarbonate dome	Vandal resistant die-cast aluminium with polycarbonate dome	Vandal resistant die-cast aluminium, polycarbonate dome with aluminium sun shroud
Protection Rating	N/A	IP67/IK10 (IEC 62262)	IP67/IK10 (IEC 62262)	IP67/IK10 (IEC 62262)
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
Operating Temperature	-10ºC to 40ºC	-10ºC to 50ºC	-20ºC to 50ºC	-50ºC to 50ºC
Absolute Maximum Temperature	45ºC periods of 1 hour	60ºC periods of 1 hour	60ºC periods of 1 hour	60ºC periods of 1 hour
Cold Start	0ºC	0ºC	0ºC	-40ºC

* In-Ceiling Dome only.

ID: R9-SD_PTZDC 15.1 APR 15

IndigoVision
Complete IP Video Security Solutions

Enhanced HD Fixed Camera

Enhanced High Definition security video

Part of IndigoVision's 11000 Range, the Enhanced High Definition (HD) Fixed Camera delivers more image detail, better image clarity and impressive low light sensitivity. With highly optimised H.264 compression and ACF+ technology, storage costs are reduced by up to 95%.

Key Features

SENSOR

HD | Day/Night | Low Light | Dual WDR

COMPRESSION

H.264 | GUARANTEED 25fps | FPGA | AAC

INTELLIGENCE

ACF | ACF+ | Analytics | Motion Detection

OTHER

DNA | PoE | Firewall | Onvif

Product Codes

Enhanced HD Fixed Camera (PAL)	Camera plus Enhanced Management Software
Standard Lens - Day/Night with Audio	561291
Telephoto Lens - Day/Night with Audio	561295

For more information:

Dimensions

View on Top/Bottom Face

88.0mm
40.5mm
Mount 1/4" UNC

47.0mm

View on Front Face

180mm
234mm (max. excl. rear connectors)

View on Side Face

Auto Iris   Network   I/O

View on Back Face

Specification

Camera Features	
Sensor	1/2.7" Progressive CMOS
Active Pixels (HxV)	1MP (1280 x 720)
Horizontal Resolution	> 600 TVL
Minimum Sensitivity	Day: 0.7 lux (colour). Night: 0.035 lux (mono). 50 IRE, F1.2, 1/30s shutter
Dynamic Range	WDR 115dB Max
Gain Control	Auto setting across a 33dB range
Back Light Compensation	On/Off
White Balance Mode	Auto
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	720p: 1280x720 pixels; SD: 640x360 pixels; 16:9 ratio
Signal/Noise Level	> 39dB
Lens Options	Standard: 3.1mm - 8mm, Horizontal view angle 97.8° (W) 39.4° (T), F1.2, P-iris, Vari-focal, CS mount Telephoto: 12.5mm - 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	Rolling; Auto from 1/2 to 1/100,000
Exposure Control	Auto/Manual/Slow AE
Video Compression	Full frame rate, full colour: H.264 (ISO 14496-10); 25fps guaranteed
Video Bit Rate	User-configurable from 32Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to seven 4Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to two simultaneous resolutions with guaranteed frame rate including: 720p (25fps), SD (25fps)
Video Analytics*	Standard: ACF, 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 16 Bit, 16kHz sample rate Mono/Stereo Input, Mono Output
Audio Input	Stereo / Mono line in terminal block connector. Nominal voltage: 1V p-p, Mic 30mV 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 Pull up inputs for non powered contacts; 1 solid state opto-isolated relay output @500mA, LED output @20mA
Data Input/Output	1 Data/Console port: RS232 up to 115.2 Kbps
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RDP, ICMP, IGMP, SNMP, HTTP, HTTPS
Network Security	HTTPS / Embedded Linux Firewall. Salted passwords, with MD5 encryption
Time	Embedded real-time clock, NTP client with battery backup
Dimension/Weight	180mm (d) x 88.0mm (w) x 47.0mm (h) and 0.5Kg
Regulatory	EN 55022 (2010) ITE emission standard – Class A; EN 55024 (1998) +A1:2000 +A2:2003 ITE immunity standard; CFR47(2008) 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 Sinusoid & Random vibration (2008); EN 60068-2-29 Bump (1993); EN 60068-2-30 Humidity up to 95% Non Condensing (2005)
Housing	Diecast aluminium alloy
Electrical	PoE (802.3af Class 0) or 24V DC @ 0.29A / 6W max
Operating Temperature	-10°C to 50°C
Cold Start	0°C
IndigoVision Software Requirements	SMS4™ r1/Control Center v11.0 or later
ONVIF**	Profile S

* Advanced Video Analytics require a licence.
** Firmware upgrade is required for ONVIF Conformance.

IndigoVision
Complete IP Video Security Solutions

Enhanced HD Fixed Dome Camera

Enhanced High Definition security video

Part of IndigoVision's 11000 Range, the Enhanced High Definition (HD) Fixed Dome Camera delivers more image detail, better image clarity and impressive low light sensitivity. With highly optimised H.264 compression and ACF+ technology, storage costs are reduced by up to 95%.

Key Features

SENSOR	HD	Day/Night	Low Light	Dual WDR
COMPRESSION	H.264	GUARANTEED 25fps	FPGA	AAC
INTELLIGENCE	ACF	ACF+	Analytics	Motion Detection
OTHER	DNA	PoE	Firewall	ONVIF
PHYSICAL	Outdoor	IK10	Low Temp	High Temp	In-Ceiling

Product Codes

Standard Lens (PAL)	Camera plus Enhanced Management Software
In-Ceiling	561427
Internal	561417
Vandal Resistant	561437
Environmental Vandal Resistant	561447

Telephoto Lens (PAL)	Camera plus Enhanced Management Software
In-Ceiling	561429
Internal	561419
Vandal Resistant	561439
Environmental Vandal Resistant	561449

In-Ceiling Mount available for the Internal and Vandal Resistant variants, for this mount see Fixed Dome Camera Mount Matrix.

For more information:

Dimensions - In-Ceiling

View on Side Face

Dimensions - Internal

View on Top Face

View on Bottom Face

View on Side Face

Dimensions - Vandal Resistant & Environmental Vandal Resistant

View on Top Face

View on Bottom Face

View on Side Face

Specification

Camera Features	
Sensor	1/2.7" Progressive CMOS
Active Pixels (HxV)	1MP (1280 x 720)
Horizontal Resolution	> 600 TVL
Minimum Sensitivity	Day: 0.7 lux (colour). Night: 0.035 lux (mono). 50 IRE, F1.2, 1/30s shutter
Dynamic Range	WDR 115dB Max
Gain Control	Auto setting across a 33dB range
Back Light Compensation	Auto
White Balance Mode	Auto
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	720p: 1280 x 720 pixels; SD: 640 x 360 pixels; 16:9 ratio
Signal/Noise Level	> 39dB
Lens Options	Standard: 3.1mm - 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	Rolling; Auto from 1/2 to 1/100,000
Exposure Control	Auto/Manual/Slow AE
Gimbal Adjustment	3 axis adjustment
Video Compression	Full frame rate, full colour: H.264 (ISO 14496-10); 25fps guaranteed
Video Bit Rate	User-configurable from 32Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to seven 4Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to two simultaneous resolutions with guaranteed frame rate including: 720p (25fps), SD (25fps)
Video Analytics**	Standard: ACF, 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 Mono/Stereo Input, Mono Output
Audio Input	Stereo / Mono line in terminal block connector. Nominal voltage: 1V p-p, Mic 30mV 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 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, RDP, ICMP, IGMP, SNMP, HTTP, HTTPS
Network Security	HTTPS / Embedded Linux Firewall. Salted passwords, with MD5 encryption / IEEE 802.1x
Time	Embedded real-time clock, NTP client with battery backup
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*
IndigoVision Software Requirements	SMS4™ r1/Control Center v11.0 or later
ONVIF^^	Profile S

Camera Features	In-Ceiling	Internal	Vandal Resistant	Environmental Vandal Resistant
Dimension/Weight	225mm (dia.) x 151.5mm (h) and 1.10Kg	175.5mm (dia.) x 140mm (h) and 1.0Kg	175.5mm (dia.) x 140mm (h) and 1.56Kg	175.5mm (dia.) x 140mm (h) and 1.56Kg
Housing	Aluminium with polycarbonate dome	Polycarbonate/ABS with polycarbonate dome	Diecast aluminium alloy with polycarbonate dome	Diecast aluminium alloy with polycarbonate dome
Protection Rating	N/A	N/A	IP66/IK10 (IEC 62262)	IP66/IK10 (IEC 62262)
Electrical	PoE (802.3af Class 0) or 24V DC @ 0.29A / 7W max	PoE (802.3af Class 0) or 24V DC @ 0.29A / 7W max	PoE (802.3af Class 0) or 24V DC @ 0.29A / 7W max	PoE (802.3af Class 0) or 24V DC 24V @ 1.05A / 25W max. Power supply not included
Operating Temperature	-10°C to 50°C	-10°C to 50°C	-10°C to 55°C	PoE powered: -10°C to 55°C External PSU: -40°C to 55°C
Cold Start	0°C	0°C	0°C	-30°C

* In-Ceiling Dome only. ** Advanced Video Analytics require a licence.

IndigoVision
Complete IP Video Security Solutions

3x Optical

HD Bullet Camera

Seamless open standard High Definition video

Part of IndigoVision's professional BX Range, the High Definition (HD) Bullet Camera (BX600) delivers pin sharp detail at 2MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).

Key Features

SENSOR

HD | Day/Night | WDR

COMPRESSION

H.264 | UP TO 25fps | G.711

INTELLIGENCE

Motion Detection

OTHER

DNA | PoE | ONVIF

PHYSICAL

Outdoor | IR | Low Temp

Product Codes

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

For more information:

Dimensions - HD Bullet Camera

270.5mm
260.5mm
85.0mm
88.0mm
83.0mm
180mm
193mm

View on Side Face

Dimensions - Mounting Hole Pattern

120°
120°
Ø 4.2mm
R35mm
Ø 85mm

View on Front Face

Specification

Camera Features	
Sensor	1/2.7" Progressive CMOS
Active Pixels (HxV)	2MP (1920 x 1080)
Horizontal Resolution	> 800 TVL
Minimum Sensitivity	Day: 0.2 lux (colour). Night: 0.02 lux (mono) 30 IRE, F1.2, 1/15s shutter
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	True Day/Night with Mechanical IR Cut Filter
IR Illuminator	Built-in IR Illuminator 850nm wavelength, effective distance >20m
Video Resolution	1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 39dB
Lens Options	Standard: 3mm - 9mm, Horizontal view angle 103.5°(W) 34.3°(T), F1.2
Iris Control	DC Auto-iris
Shutter	Rolling; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Output	PAL composite video, 75 Ohms 1V p-p, BNC cable harness
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
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, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
Network Security	HTTPS / IP Filter / IEEE 802.1x
Time	Embedded real-time clock, NTP client
SD Storage*	microSDHC 32GB support (card not included)
Dimension/Weight	88.0mm (dia.) x 193mm (h) and 0.94Kg (with sun shade)
Regulatory	EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Housing	Vandal resistant diecast aluminium alloy with polycarbonate sun shade
Protection Rating	IP66
Electrical	Camera only: PoE (802.3af Class 0) or 12V DC / 24V AC; 5.5W. Camera including heater: 12V DC / 24V AC; 24W. Power supply not included
Operating Temperature	PoE powered: -10°C to 50°C External PSU: -30°C to 50°C
Cold Start	-30°C
IndigoVision Software Requirements	SMS4™ r5/Control Center v11.0 or later
ONVIF	Profile S

* SDCard Storage independent of IndigoVision's NVRs.

IndigoVision
Complete IP Video Security Solutions

3x Optical

18x Optical

HD Fixed Cameras

Seamless open standard High Definition video

Part of IndigoVision's professional BX Range, the High Definition (HD) Fixed Camera (BX600) delivers pin sharp detail at 2MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).

Key Features

SENSOR

HD | Day/Night | WDR | Stabilisation

COMPRESSION

H.264 | UP TO 25fps | G.711

INTELLIGENCE

Motion Detection

OTHER

DNA | PoE | Onvif

Product Codes

HD Fixed Camera (PAL)	Camera
3x Autofocus Lens	511749
18x Autofocus Lens	511747

For more information:

Dimensions - 3x Autofocus

View on Top Face

View on Back Face

View on Side Face

View on Front Face

View on Bottom Face

Dimensions - 18x Autofocus

View on Top Face

View on Back Face

View on Side Face

View on Front Face

View on Bottom Face

Specification

Camera Features	
Sensor	1/2.7" Progressive CMOS
Active Pixels (HxV)	2MP (1920 x 1080)
Horizontal Resolution	> 800 TVL
Minimum Sensitivity	Day: 0.2 lux (colour). Night: 0.02 lux (mono) 30 IRE, F1.6, 1/15s shutter
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 50dB
Lens Options	3x Autofocus: 3mm - 9mm, Horizontal view angle 103.5° (W) 34.3° (T) , F1.2. 18x Autofocus: 4.7mm - 84.6mm, Horizontal view angle 61.5° (W) 3.3° (T), F1.6
Iris Control	P-iris (3x); DC Auto-iris (18x)
Shutter	Rolling; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Output	PAL composite video, 75 Ohms 1V p-p, BNC connector
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
Audio Resolution	Full Duplex 8kHz sample rate. Mono Input, Mono Output
Audio Input	Line in , 3.5mm jack connector
Audio Output	Line out, 3.5mm jack connector
Binary Input/Output	1 input ; 1 solid state opto-isolated relay output
Data Input/Output	1 Data port: RS485 up to 115.2 Kbps
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
Network Security	HTTPS / IP Filter / IEEE 802.1x
Time	Embedded real-time clock, NTP client
SD Storage*	microSDHC 32GB support (card not included)
Dimension/Weight	3x - 180mm (d) x 80.0mm (w) x 52.5mm (h) and 0.36Kg. 18x - 195mm (d) x 80.5mm (w) x 52.5mm (h) and 0.36Kg
Regulatory	EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Housing	Diecast aluminium alloy with plastic moulded front section
Electrical	PoE (802.3af Class 0) or 12V DC / 24V AC; 6W. Power supply not included
Operating Temperature	-10°C to 50°C
Cold Start	0°C
IndigoVision Software Requirements	SMS4™ r5/Control Center v11.0 or later
ONVIF	Profile S

* SDCard Storage independent of IndigoVision's NVRs.

IndigoVision
Complete IP Video Security Solutions

HD Minidome Cameras

Seamless open standard High Definition video

Part of IndigoVision's professional BX Range, the High Definition (HD) Minidome Camera (BX400) delivers pin sharp detail at 2MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).
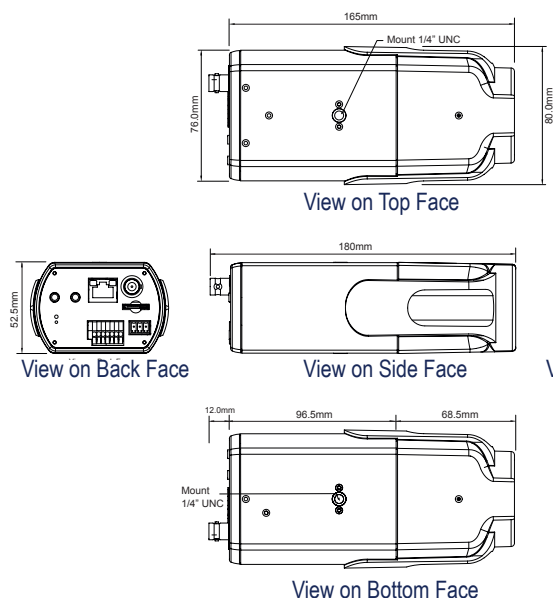
Key Features

SENSOR

HD | Day/Night | WDR

COMPRESSION

H.264 | UP TO 25fps | G.711

INTELLIGENCE

Motion Detection

OTHER

DNA | PoE | Onvif

PHYSICAL

Outdoor | IR | IK10 | Low Temp

Product Codes

HD Minidome Camera (PAL)	Standard Lens	Standard Lens with remote Zoom and Focus
HD Internal Minidome	511717	511719
HD Vandal Resistant Minidome	511737	511739
HD Environmental Vandal Resistant Minidome	n/a	511733
HD Environmental Vandal Resistant Minidome with built-in IR illuminator	n/a	511735

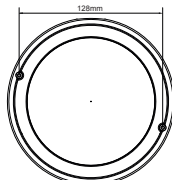For In-Ceiling variant see Fixed Dome Camera Mount Matrix.
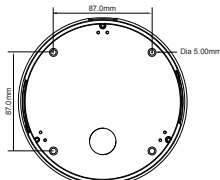
For more information:

Dimensions - Internal Minidome

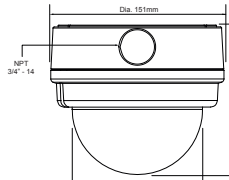View on Side Face — Dia. 147mm, Bubble Dia. 113mm, 131mm

View on Top Face — 128mm

Mounting Plate — 87.0mm, 87.0mm, Dia 5.00mm

Dimensions - Vandal Resistant, Environmental and IR Minidome

View on Side Face — Dia. 151mm, NPT 3/4" - 14, Bubble Dia. 113mm, 131mm

Mounting Plate — 87.0mm, 87.0mm, NPT 3/4" - 14, Dia. 4.8mm

Specification

Camera Features	
Sensor	1/2.7" Progressive CMOS
Active Pixels (HxV)	2MP (1920 x 1080)
Minimum Sensitivity	Day: 0.2 lux (colour). Night: 0.02 lux (mono). 30 IRE, F1.2, 1/15s shutter
Horizontal Resolution	> 800 TVL
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	True Day/Night with Mechanical IR Cut Filter
IR Illuminator	Built-in IR Illuminator 850nm wavelength, effective distance >20m
Video Resolution	1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
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	DC Auto-iris
Shutter	Rolling; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Gimbal Adjustment	3 axis adjustment
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Output	PAL composite video, 75 Ohms 1V p-p, BNC connector
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
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, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
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 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
IndigoVision Software Requirements	SMS4™ r5/Control Center v11.0 or later
ONVIF	Profile S

Camera Features	Internal	Vandal Resistant	Environmental Vandal Resistant	Environmental Vandal Resistant with IR
Dimension/Weight	147mm (dia.) x 131mm (h) and 0.7Kg	151mm (dia.) x 131mm (h) and 0.7Kg	151mm (dia.) x 131mm (h) and 0.7Kg	151mm (dia.) x 131mm (h) and 0.7Kg
Housing	Polycarbonate/ABS with polycarbonate dome	Diecast aluminium alloy with polycarbonate dome	Diecast aluminium alloy with polycarbonate dome	Diecast aluminium alloy with polycarbonate dome
Protection Rating	N/A	IP65/IP66*/IK10 (IEC 62262)	IP65/IP66*/IK10 (IEC 62262)	IP65/IP66*/IK10 (IEC 62262)
Electrical	PoE (802.3af Class 0) or 12V DC / 24V AC; 4W (camera only) Power supply not included	PoE (802.3af Class 0) or 12V DC / 24V AC; 4W (camera only) Power supply not included	12V DC / 24V AC; 14W (with fan heater) Power supply not included	12V DC / 24V AC; 14W (with fan heater) Power supply not included
Operating Temperature	-10°C to 50°C	-10°C to 50°C	-30°C to 50°C	-30°C to 50°C
Cold Start	0°C	-10°C	-20°C	-20°C

* IP66 when installed with a 3/4" NPT fixed conduit pipe or pre-terminated cable and gland, product code: 110267.
** SDCard Storage independent of IndigoVision's NVRs.

HD Microdome Camera

Seamless open standard High Definition video

Part of IndigoVision's professional BX Range, the High Definition (HD) Microdome Camera (BX400) delivers pin sharp detail at 2MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).

Key Features

SENSOR

- HD
- WDR

COMPRESSION

- H.264
- UP TO 25fps
- G.711

INTELLIGENCE

- Motion Detection

OTHER

- DNA
- PoE
- ONVIF

PHYSICAL

- Outdoor
- Integral Mic

Product Codes

HD Microdome Camera (PAL)	Camera
HD Internal Microdome	511707
HD External Microdome	511709

For more information:

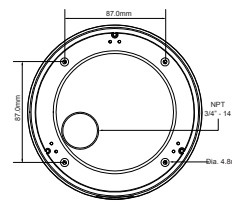# Dimensions - Internal/External

View on Side Face

View on Top Face

Specification

Camera Features	
Sensor	1/2.7" Progressive CMOS
Active Pixels (HxV)	2MP (1920 x 1080)
Horizontal Resolution	> 800 TVL
Minimum Sensitivity	Day-only: 0.1 lux (colour). 30 IRE, F1.5, 1/15s shutter
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	Day-only
Video Resolution	1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 39dB
Lens Options	Standard: 4mm, Horizontal view angle 78°, F1.5; Fixed iris
Shutter Speed	Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Gimbal Adjustment	2 axis adjustment
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
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, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
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 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Electrical	PoE (802.3af Class 0); 4W. Power supply not included
IndigoVision Software Requirements	SMS4™ r5/Control Center v11.0 or later
ONVIF	Profile S

Camera Features	Internal	External
Dimension/Weight	117mm (dia.) x 50.0mm (h) and 180g	117mm (dia.) x 50.0mm (h) and 180g
Housing	Polycarbonate/ABS with polycarbonate dome	Polycarbonate/ABS with polycarbonate dome
Protection Rating	N/A	IP66
Operating Temperature	-10°C to 50°C	-10°C to 50°C
Cold Start	0°C	-10°C

* SDCard Storage independent of IndigoVision's NVRs.

IndigoVision
Complete IP Video Security Solutions

20x Optical

HD PTZ Dome Camera

Seamless open standard High Definition video

Part of IndigoVision's professional BX Range, the High Definition (HD) PTZ Dome Camera (BX500) delivers pin sharp detail at 2MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).

Key Features

SENSOR

HD | Day/Night | WDR

COMPRESSION

H.264 | UP TO 25fps | G.711

INTELLIGENCE

Motion Detection

OTHER

DNA | Onvif

PHYSICAL

Outdoor | IK10 | Low Temp

Product Codes

HD PTZ Dome Camera (PAL)	Camera
Internal HD PTZ Dome	511787
External HD PTZ Dome	511797

For In-Ceiling varient see PTZ Dome Camera Mount Matrix.

For more information:

Dimensions - Internal PTZ Dome
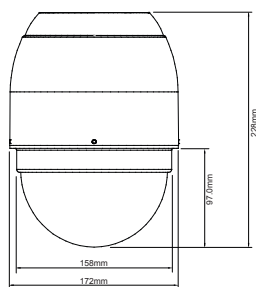
View on Side Face
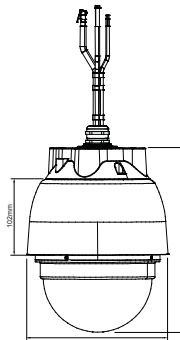
Dimensions - External PTZ Dome

View on Side Face

Specification

Camera Features	
Sensor	1/2.8" Progressive CMOS
Active Pixels	2MP (1920 x 1080)
Horizontal Resolution	> 800 TVL
Minimum Sensitivity	Day: 0.3 Lux (colour). Night: 0.04 Lux (mono). 30 IRE, F1.6, 1/30s shutter
Dynamic Range	WDR On/Off
Gain Control	Auto/Manual setting
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	True Day/Night with mechanical IR Cut filter
Video Resolution	1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 50dB
Lens Options	4.7mm - 94mm Horizontal view angle 55.2°(W) 2.93° (T)
Zoom	20x optical + 10x digital
Shutter	Rolling; Auto from 1 - 1/10000 sec
Exposure Control	Auto/Manual/Slow AE/Shutter-priority/Iris-priority
Video Compression	Full frame rate, full colour: H.264/MJPEG ; up to 25fps (ISO 14496-10)
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
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, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
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 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
IndigoVision Software Requirements	SMS4™ r5/Control Center v11.0 or later
ONVIF	Profile S

PTZ Control			
Preset	256	Pan Range	360° Continuous Rotation
Preset Accuracy	0.225°	Tilt Range	200° (-10°above horizon)
Preset Tours	8	Pan/Tilt Speed	Pan Speed - 0.5-120°/s. Tilt Speed - 0.5-90°/s
Pattern Mimic Tours	8	Preset Move Speed	5-400°/s
Privacy Zones	16 User Defined		

Camera Features	Internal	External
Dimension/Weight	172mm (dia) x 228mm (h) and 1.62Kg	194mm (dia) x 253mm (h) and 2.32Kg
Housing	Aluminium alloy and polycarbonate/ABS with polycarbonate dome	Vandal resistant aluminium alloy with polycarbonate dome
Protection Rating	N/A	IP66, IK10 (IEC 62262)
Electrical	20W. PoE + (802.3at Class 4) or 24V AC/DC. Power supply not included	65W (with Heater), 20W (without Heater) 24V AC Power supply included
Operating Temperature	-10°C to 40°C	PoE powered: -10°C to 50°C. External PSU: -30°C to 50°C
Cold Start	0°C	-30°C

IndigoVision
Complete IP Video Security Solutions

3MP Microdome Camera

Amazing 3 Megapixel video that delivers every detail

Part of IndigoVision's professional BX Range, the 3 Megapixel (3MP) Microdome Camera delivers pin sharp detail at 3MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).

Key Features

SENSOR

3MP | Day/Night | WDR

COMPRESSION

H.264 | UP TO 25fps | G.711

INTELLIGENCE

Motion Detection

OTHER

DNA | PoE | Onvif

PHYSICAL
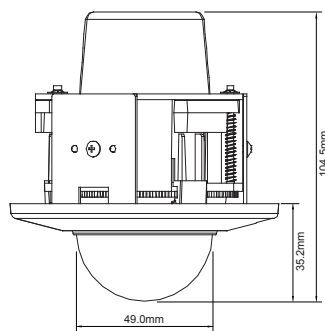
In-Ceiling | Integral Mic

Product Codes

3MP Microdome Camera (PAL)	Camera
3MP In-Ceiling Microdome	511905

For more information:

Dimensions

View on Side Face

View on Top Face

97.0mm

104.5mm

35.2mm

49.0mm

Specification

Camera Features	
Sensor	1/3" Progressive CMOS
Active Pixels (HxV)	3MP (2048 x 1536)
Horizontal Resolution	> 900 TVL
Minimum Sensitivity	Day: 0.4 lux (colour), Night: 0.02 lux (mono), 30 IRE, F1.8, 1/15s shutter
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	Day/Night
	2048x1536 pixels (3MP); 1920x1080 pixels (1080p); 1280x720 pixels (720p); 800x600 pixels; 640x480 pixels; 320x240 pixels
Signal/Noise Level	> 50dB
Lens Options	Standard: 2.8mm, Horizontal view angle 90°, F1.8; Fixed iris
Shutter	Rolling; Auto from 1/7.5 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Gimbal Adjustment	2 axis adjustment
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution; up to 15fps @ 3MP resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 12Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 3MP (15fps), 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Analytics	Motion Detection
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
Audio Resolution	Full Duplex 8kHz sample rate. Mono Input, Mono Output
Audio Input	Built-in microphone
Audio Output	N/A
Binary Input/Output	N/A
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, uPnP, QoS, DHCP
Network Security	HTTPS / IEEE 802.1x
Time	Embedded real-time clock, NTP client
Dimension/Weight	97.0mm (dia.) x 104.5mm (h) and 380g
Regulatory	EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class B, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Housing	Polycarbonate/ABS with polycarbonate dome
Electrical	PoE (802.3af Class 2); 4.5W. Power supply not included
Operating Temperature	-10°C to 50°C
IndigoVision Software Requirements	Control Center v12.0 or later
ONVIF	Profile S

IndigoVision
Complete IP Video Security Solutions

3x Optical

5MP Bullet Camera

Amazing 5 Megapixel video that delivers every detail

Part of IndigoVision's professional BX Range, the 5 Megapixel (5MP) Bullet Camera (BX600) delivers pin sharp detail at 5MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).

Key Features

SENSOR
- 5MP
- Day/Night
- WDR

COMPRESSION
- H.264
- UP TO 12fps
- G.711

INTELLIGENCE
- Motion Detection

OTHER
- DNA
- PoE
- ONVIF

PHYSICAL
- Outdoor
- IR
- Low Temp

Product Codes

5MP Bullet Camera (PAL)	Camera
Standard Lens with Remote Zoom and Focus	511867

For more information:

Dimensions - 5MP Bullet Camera

View on Side Face

Dimensions - Mounting Hole Pattern

View on Front Face

Specification

Camera Features	
Sensor	1/2.5" Progressive CMOS
Active Pixels (HxV)	5MP (2592 x 1944)
Horizontal Resolution	> 1100 TVL
Minimum Sensitivity	Day: 0.2 lux (colour). Night: 0.02 lux (mono). 30 IRE, F1.8, 1/15s shutter
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	True Day/Night with Mechanical IR Cut Filter
IR Illuminator	Built-in IR Illuminator 850nm wavelength, effective distance >20m
Video Resolution	2592x1944 pixels (5MP); 2048x1536 pixels (3MP); 1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 37dB
Lens Options	Standard: 3.6mm - 9mm, Horizontal view angle 90° (W) 36° (T), F1.8
Iris Control	DC Auto-iris
Shutter	Rolling; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution; up to 12fps @ 5MP resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 5MP (12fps), 3MP (15fps), 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Output	PAL composite video, 75 Ohms 1V p-p, BNC cable harness
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
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, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
Network Security	HTTPS / IP Filter / IEEE 802.1x
Time	Embedded real-time clock, NTP client
SD Storage*	microSDHC 32GB support (card not included)
Dimension/Weight	88.0mm (dia.) x 193mm (h) and 0.94Kg (with sun shade)
Regulatory	EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Housing	Vandal resistant diecast aluminium alloy with polycarbonate sun shade
Protection Rating	IP66
Electrical	Camera only: PoE (802.3af Class 0) or 12V DC / 24V AC; 5.5W. Camera including heater: 12V DC / 24V AC; Power consumption: 24W. Power supply not included
Operating Temperature	PoE powered: -10°C to 50°C External PSU: -30°C to 50°C
Cold Start	-30°C
IndigoVision Software Requirements	SMS4™ r7/Control Center v11.0 or later
ONVIF	Profile S

* SDCard Storage independent of IndigoVision's NVRs.

IndigoVision
Complete IP Video Security Solutions

5MP Fixed Camera

Amazing 5 Megapixel video that delivers every detail

Part of IndigoVision's professional BX Range, the 5 Megapixel (5MP) Fixed Camera (BX600) delivers pin sharp detail at 5MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).

Key Features

SENSOR

| 5MP | Day/Night | WDR |

COMPRESSION

| H.264 | UP TO 12fps | G.711 |

INTELLIGENCE

| Motion Detection |

OTHER

| DNA | PoE | ONVIF |

Product Codes

5MP Fixed Camera (PAL)	Camera
Standard Lens	511847
Telephoto Lens	511849

For more information:

Dimensions

Mount 1/4" UNC

View on Top Face

82.0mm

53.0mm

View on Front Face

125mm

View on Side Face

View on Back Face

Specification

Camera Features	
Sensor	1/2.5" Progressive CMOS
Active Pixels (HxV)	5MP (2592 x 1944)
Horizontal Resolution	> 1100 TVL
Minimum Sensitivity	Day: 0.2 lux (colour). Night: 0.02 lux (mono) 30 IRE, F1.5, 1/15s shutter
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	2592x1944 pixels (5MP); 2048x1536 pixels (3MP); 1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 37dB
Lens Options	Standard: 3.5mm - 10mm, Horizontal view angle 83° (W) 32° (T), F1.6, Vari-focal, CS mount Telephoto: 9mm - 40mm, Horizontal view angle 35° (W) 8.2° (T), F1.5, Vari-focal, CS mount
Iris Control	DC Auto-iris
Shutter	Rolling; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution; up to 12fps @ 5MP resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 5MP (12fps), 3MP (15fps), 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Output	PAL composite video, 75 Ohms 1V p-p, BNC connector
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
Audio Resolution	Full Duplex 8kHz sample rate. Mono Input, Mono Output
Audio Input	Line in, 3.5mm jack connector
Audio Output	Line out, 3.5mm jack connector
Binary Input/Output	1 input ; 1 solid state opto-isolated relay output
Data Input/Output	1 Data port: RS485 up to 115.2 Kbps
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
Network Security	HTTPS / IP Filter / IEEE 802.1x
Time	Embedded real-time clock, NTP client
SD Storage*	microSDHC 32GB support (card not included)
Dimension/Weight	125mm (d) x 82.0mm (w) x 53.0mm (h) and 0.33Kg
Regulatory	EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Housing	Diecast aluminium alloy
Electrical	PoE (802.3af Class 0) or 12V DC; 6W. Power supply not included
Operating Temperature	-10°C to 50°C
Cold Start	0°C
IndigoVision Software Requirements	SMS4™ r7/Control Center v11.0 or later
ONVIF	Profile S

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5MP Minidome Cameras

Amazing 5 Megapixel video that delivers every detail

Part of IndigoVision's professional BX Range, the 5 Megapixel (5MP) Minidome Camera (BX400) delivers pin sharp detail at 5MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).
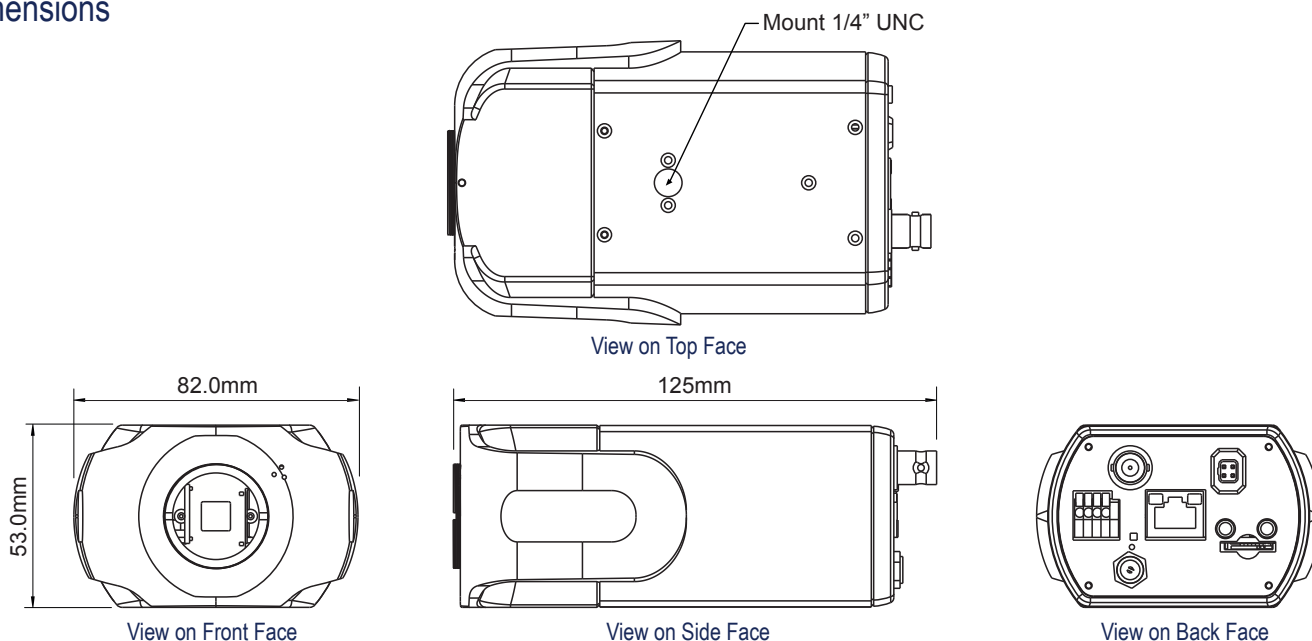
Key Features

SENSOR
- 5MP
- Day/Night
- WDR

COMPRESSION
- H.264
- UP TO 12fps
- G.711

INTELLIGENCE
- Motion Detection

OTHER
- DNA
- PoE
- ONVIF

PHYSICAL
- Outdoor
- IK10
- Low Temp

Product Codes

5MP Minidome Camera (PAL)	Standard Lens with remote Zoom and Focus
5MP Internal Minidome	511817
5MP Vandal Resistant Minidome	511837

For In-Ceiling variant see Fixed Dome Camera Mount Matrix.

For more information:
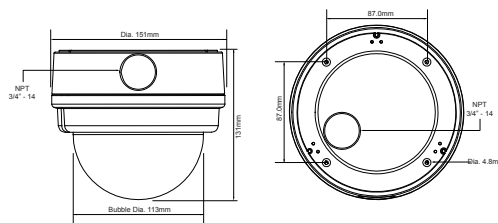
Dimensions - Internal Minidome
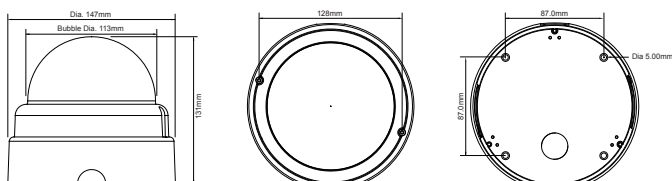
View on Side Face

View on Top Face

Mounting Plate

Dimensions - Vandal Resistant Minidome

View on Side Face

Mounting Plate

Specification

Camera Features	
Sensor	1/2.5" Progressive CMOS
Active Pixels (HxV)	5MP (2592 x 1944)
Horizontal Resolution	> 1100 TVL
Minimum Sensitivity	Day: 0.2 lux (colour). Night: 0.02 lux (mono). 30 IRE, F1.8, 1/15s shutter
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	2592x1944 pixels (5MP); 2048x1536 pixels (3MP); 1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 37dB
Lens Options	Standard: 3.6mm - 9mm, Horizontal view angle 90° (W) 36° (T), F1.8
Iris Control	DC Auto-iris
Shutter	Rolling; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Gimbal Adjustment	3 axis adjustment
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution; up to 12fps @ 5MP resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 5MP (12fps), 3MP (15fps), 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Output	PAL composite video, 75 Ohms 1V p-p, BNC connector
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
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, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
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 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
IndigoVision Software Requirements	SMS4™ r7/Control Center v11.0 or later
ONVIF	Profile S

Camera Features	Internal	Vandal Resistant
Dimension/Weight	147mm (dia.) x 131mm (h) and 0.7Kg	151mm (dia.) x 131mm (h) and 0.7Kg
Housing	Polycarbonate/ABS with polycarbonate dome	Diecast aluminium alloy with polycarbonate dome
Protection Rating	N/A	IP65/IP66*/IK10 (IEC 62262)
Electrical	PoE (802.3af Class 0) or 12V DC / 24V AC; 4W (camera only) Power supply not included	PoE (802.3af Class 0) or 12V DC / 24V AC; 4W (camera only) Power supply not included
Operating Temperature	-10°C to 50°C	-10°C to 50°C
Cold Start	0°C	-10°C

* IP66 when installed with a 3/4" NPT fixed conduit pipe or pre-terminated cable and gland, product code: 110267.
** SDCard Storage independent of IndigoVision's NVRs.

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5MP Microdome Camera

Amazing 5 Megapixel video that delivers every detail

Part of IndigoVision's professional BX Range, the 5 Megapixel (5MP) Microdome Camera (BX400) delivers pin sharp detail at 5MP resolution that is fully ONVIF conformant. Any single point of failure in the system is removed through IndigoVision's Distributed Network Architecture (DNA).

Key Features

SENSOR

5MP | WDR

COMPRESSION

H.264 | UP TO 12fps | G.711

INTELLIGENCE

Motion Detection

OTHER

DNA | PoE | Onvif

PHYSICAL

Outdoor | Integral Mic

Product Codes

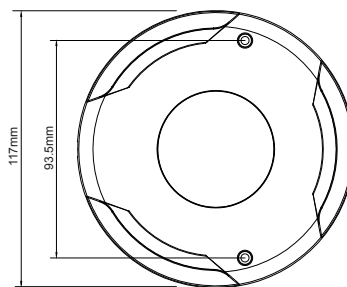| 5MP Microdome Camera (PAL)	Camera
5MP Internal Microdome	511807
5MP External Microdome	511809

For more information:

Dimensions - Internal/External

View on Side Face

View on Top Face

Specification

Camera Features	
Sensor	1/2.5" Progressive CMOS
Active Pixels (HxV)	5MP (2592 x 1944)
Horizontal Resolution	> 1100 TVL
Minimum Sensitivity	Day-only: 0.1 lux (colour). 30 IRE, F1.8, 1/15s shutter
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	Day-only
Video Resolution	2592x1944 pixels (5MP); 2048x1536 pixels (3MP); 1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 37dB
Lens Options	Standard: 4mm, Horizontal view angle 90°, F1.8; Fixed iris
Shutter	Rolling; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Gimbal Adjustment	2 axis adjustment
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution; up to 12fps @ 5MP resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 5MP (12fps), 3MP (15fps), 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Analytics	Motion Detection, Hooded
Audio Compression	G.711
Audio Bit Rate	User-configurable bit rates from 64Kbps to 80Kbps per channel
Audio Resolution	Full Duplex 8kHz sample rate. Mono Input, Mono Output
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, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
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 Class A, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, FCC Part 15 Subpart B Class A, EN 50130-4, AS/NZS CISPR 24, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Electrical	PoE (802.3af Class 0); 4W. Power supply not included
IndigoVision Software Requirements	SMS4™ r7/Control Center v11.0 or later
ONVIF	Profile S

Camera Features	Internal	External
Dimension/Weight	117mm (dia.) x 50.0mm (h) and 180g	117mm (dia.) x 50.0mm (h)and 180g
Housing	Polycarbonate/ABS with polycarbonate dome	Polycarbonate/ABS with polycarbonate dome
Protection Rating	N/A	IP66
Operating Temperature	-10°C to 50°C	-10°C to 50°C
Cold Start	0°C	-10°C

* SDCard Storage independent of IndigoVision's NVRs.

IndigoVision
Complete IP Video Security Solutions

Ultra 2K Fixed Dome Camera

Capture every detail with ultra-high resolution

With best in class performance, the IndigoVision Ultra 2K Fixed Dome Camera delivers rich, Full HD video and image clarity, in all lighting conditions. IndigoVision's SMART.core technology gives highly optimised H.264 compression and ACF+, reducing storage costs by up to 95%.
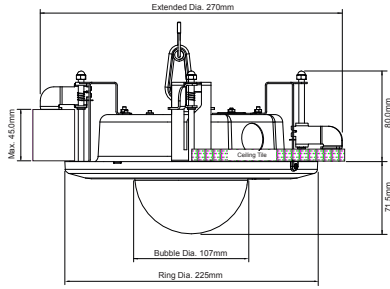
Key Features

SENSOR

ULTRA 2K · Day/Night · Low Light · WDR

COMPRESSION

H.264 · GUARANTEED 25fps · FPGA · AAC

INTELLIGENCE

ACF · ACF+ · Analytics · Motion Detection

OTHER

DNA · PoE · Firewall · Onvif

PHYSICAL

Outdoor · IK10 · Low Temp · High Temp · In-Ceiling

Product Codes

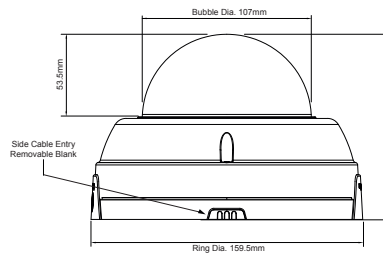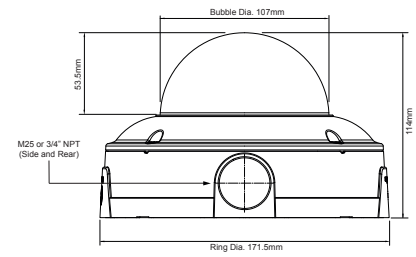| Ultra 2K Fixed Dome Camera (PAL)	Camera with Enhanced Management Software
Ultra 2K In-Ceiling Fixed Dome, 3-9mm Lens	562427
Ultra 2K In-Ceiling Fixed Dome, 10-23mm Lens	562429
Ultra 2K Internal Fixed Dome, 3-9mm Lens	562417
Ultra 2K Internal Fixed Dome, 10-23mm Lens	562419
Ultra 2K Environmental Vandal Resistant Fixed Dome, 3-9mm Lens	562447
Ultra 2K Environmental Vandal Resistant Fixed Dome, 10-23mm Lens	562449

For more information:

Dimensions: In-Ceiling

Extended Dia. 270mm
Max. 45.0mm
Ceiling Tile
80.0mm
71.5mm
Bubble Dia. 107mm
Ring Dia. 225mm

View on Side Face

Dimensions: Internal

Bubble Dia. 107mm
53.5mm
114mm
Side Cable Entry Removable Blank
Ring Dia. 159.5mm

View on Side Face

Dimensions: Environmental Vandal Resistant

Bubble Dia. 107mm
53.5mm
114mm
M25 or 3/4" NPT (Side and Rear)
Ring Dia. 171.5mm

View on Side Face

Specification

Camera Features	
Sensor	1/3" Progressive CMOS
Active Pixels (HxV)	2MP (1920 x 1080)
Horizontal Resolution	> 850 TVL
Minimum Sensitivity	Day: 0.05 lux (colour). Night: 0.005 lux (mono). 30 IRE, F1.2, 1/15s shutter. Day: 0.3 lux (colour). Night: 0.03 lux (mono). 50 IRE, F1.2, 1/30s shutter
Dynamic Range	WDR 120dB Max
Gain Control	Auto setting across a 42dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Indoor/Outdoor/Manual/Auto One Push
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	HD 1080p: 1920 x 1080 pixels, 720p: 1280 x 720 pixels; SD: 960 x 540 pixels, 640 x 360 pixels; 16:9 ratio
Signal/Noise Level	> 39dB
Lens Options	Standard 3mm - 9mm, Horizontal view angle 108.6° (W) 34.8° (T), F1.2, P-iris, Remote Zoom/Focus. Telephoto 10mm - 23mm Horizontal view angle 30.8° (W) 13.6° (T), F1.6, P-iris, Remote Zoom/Focus
Zoom	3x optical standard; 2.3x optical telephoto
Iris Control	Automatic P-Iris with Manual override
Shutter	Rolling; Auto from 1/1 to 1/50,000 sec
Exposure Control	Auto Iris/Auto Shutter/Slow AE
Gimbal Adjustment	3 axis adjustment
Video Compression	Full frame rate, full colour: H.264 (ISO 14496-10); 25fps guaranteed
Video Bit Rate	User-configurable from 32Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to seven 4Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to two simultaneous resolutions with guaranteed frame rate including: 1080p (25fps), SD (25fps)
Video Analytics	Standard: ACF, 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 Mono/Stereo Input, Mono Output
Audio Input	Stereo / Mono line in terminal block connector. Nominal voltage: 1V p-p, Mic 30mV 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 Pull up inputs for non powered contacts; 1 solid state opto-isolated relay output @500mA, LED output @20mA
Data Input/Output	1 Console port: RS232 up to 115.2 Kbps*
Privacy Zones	8 User Defined
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, ICMP, IGMP, SNMP, DHCP,NTP, DNS, HTTP, HTTPS, SSH
Network Security	HTTPS / Embedded Linux Firewall. Salted passwords, with MD5 encryption / IEEE 802.1x
Time	Embedded real-time clock, NTP client with battery backup
Regulatory	EN 55022 - Class A, EN 55024, EN 60068-2-29, EN 60068-2-1 & 2, EN 60068-2-30, EN 60068-2-6 & 64, CFR47 Part 15 subpart B -Class A, UL60950-1*, UL2043**, UL60950-22***, UL2802
IndigoVision Software Requirements	Control Center v11.0 or later
ONVIF	Profile S^^

Camera Features	In-Ceiling	Internal	Environmental Vandal Resistant
Dimension/Weight	225mm (ring dia.) x 151.5mm (h) (71.5mm below ceiling) and 1.1Kg	159.5mm (dia.) x 114mm (h) and 0.85Kg	171.5mm (dia.) x 114mm (h) and 1.1Kg
Housing	Aluminium with polycarbonate dome	Polycarbonate/ABS with polycarbonate dome	Diecast aluminium alloy with polycarbonate dome
Protection Rating	N/A	N/A	IP66, IK10 (IEC 62262), NEMA 250 4X
Electrical	PoE (802.3af Class 0) or 24V AC/DC @ 0.4A / 9.6W max	PoE (802.3af Class 0) or 24V AC/DC @ 0.4A / 9.6W max	PoE (802.3af Class 0) or 24V AC/DC 24V @ 1.33A / 32W max. Power supply not included
Operating Temperature	-10°C to 50°C	-10°C to 50°C	PoE powered: -10°C to 55°C External PSU: -40°C to 55°C
Cold Start	0°C	0°C	-30°C

* Internal and In-Ceiling Dome only. ** In-Ceiling Dome only. *** Environmental Vandal Resistant Dome only. ^ Advanced Video Analytics require a licence. ^^ Firmware upgrade is required for ONVIF Conformance.   ID: ULTRA-2K_FC 15.2 MAY 15

IndigoVision
Complete IP Video Security Solutions

30x Optical

Ultra 2K PTZ Dome Camera

Capture every detail with ultra-high resolution

With best in class performance, the IndigoVision Ultra 2K PTZ Dome Camera delivers rich, Full HD video and image clarity, in all lighting conditions. Image stabilisation and ultra-low PTZ latency gives smoother operator viewing and control. IndigoVision's SMART.core technology gives highly optimised H.264 compression and ACF+, reducing storage costs by up to 95%.

Key Features

SENSOR

ULTRA 2K | Day/Night | Low Light | WDR | Stabilisation

COMPRESSION

H.264 | GUARANTEED 25fps | FPGA | AAC

INTELLIGENCE

ACF | ACF+ | Analytics | Motion Detection

OTHER

DNA | PoE+ | Firewall | Onvif

PHYSICAL
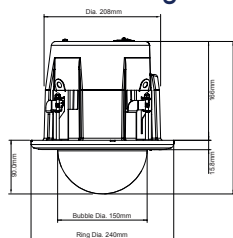
Outdoor | IK10 | Low Temp | High Temp | In-Ceiling

Product Codes

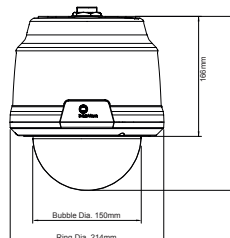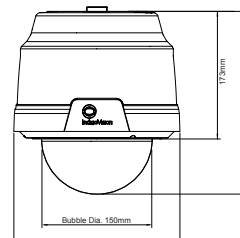| Ultra 2K PTZ Dome Camera (PAL)	Camera with Enhanced Management Software
Ultra 2K In-Ceiling PTZ, 30x Lens	562143
Ultra 2K Pendant PTZ, 30x Lens	562148
Ultra 2K Environmental Pendant PTZ, 30x Lens	562149

For more information:

Dimensions - In-Ceiling

View on Side Face

Dimensions - Standard

View on Side Face

Dimensions - Environmental

View on Side Face

Specification

Camera Features	
Sensor	1/2.8" Progressive CMOS
Active Pixels (HxV)	2MP (1920 x 1080)
Horizontal Resolution	> 800 TVL
Minimum Sensitivity	Day: 0.35 Lux (colour). Night: 0.013 Lux (mono). 50 IRE, F1.6, 1/30s shutter
Dynamic Range	WDR 120dB Max
Gain Control	Auto setting across a 28dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Advanced Auto/Auto Outdoor/Auto Sodium/Fixed Indoor/Fixed Outdoor/Fixed Sodium/Manual/Auto One Push
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	HD 1080p: 1920 x 1080 pixels, 720p: 1280 x 720 pixels; SD: 960 x 540 pixels, 640 x 360 pixels; 16:9 ratio
Signal/Noise Level	> 50dB
Lens Options	4.3mm - 129mm, Horizontal view angle 63.7° (W) 2.3° (T), F1.6 to F4.7, Autofocus with manual override
Zoom	30x optical + 12x digital
Iris Control	Automatic with Manual override
Shutter	Rolling; Auto from 1/1 to 1/10,000 sec
Exposure Control	Auto/Manual/Slow AE
Image Stabliser	Yes (StableZoom™)
Video Compression	Full frame rate, full colour: H.264 (ISO 14496-10); 25fps guaranteed
Video Bit Rate	User-configurable from 32Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to two simultaneous resolutions with guaranteed frame rate including: 1080p (25fps), SD (25fps)
Video Analytics	Standard: ACF, 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 Mono/Stereo Input, Mono Output
Audio Input	Stereo / Mono line in terminal block connector. Nominal voltage: 1V p-p, Mic 30mV 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 Pull up inputs for non powered contacts; 1 solid state opto-isolated relay output @500mA, LED output @20mA
Data Input/Output	1 Console port: RS232 up to 115.2 Kbps*
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, ICMP, IGMP, SNMP, DHCP,NTP, DNS, HTTP, HTTPS, SSH
Network Security	HTTPS / Embedded Linux Firewall. Salted passwords, with MD5 encryption / IEEE 802.1x
Time	Embedded real-time clock, NTP client with battery backup
Regulatory	EN 55022 - Class A, EN 55024, EN 60068-2-29, EN 60068-2-1 & 2, EN 60068-2-30, EN 60068-2-6 & 64, CFR47 Part 15 subpart B -Class A, UL60950-1*, UL2043**, UL60950-22***
IndigoVision Software Requirements	Control Center v11.0 or later
ONVIF	Profile S^

PTZ Control			
Preset	250	Privacy Zones	24 User Defined
Preset Accuracy	0.05°	Pan Range	360° Continuous Rotation
Preset Tours	20 each with 20 presets	Tilt Range	100° (-10° above horizon to 90° vertically down)
Pattern/Mimic Tours	4 each with up to 4 minutes	Pan/Tilt Speed	0.001°/s to 360°/s
Picture Freeze Option	Yes	Preset Move Speed	200°/s

Camera Features	In-Ceiling	Standard	Environmental
Dimensions/Weight	240mm (ring dia) x 256mm (h) (90mm below ceiling) and 2.6Kg	214mm (dia) x 241mm (h) and 3.7Kg	225mm (dia) x 248mm (h) and 4.6Kg (with sun shield)
Housing	Aluminium with acrylic dome	Vandal resistant diecast aluminium with polycarbonate dome	Vandal resistant diecast aluminium, polycarbonate dome with aluminium sun shroud
Protection Rating	N/A	IP66, IK10 (IEC 62262), NEMA 250 4X	IP66, IK10 (IEC 62262), NEMA 250 4X
Electrical	PoE+ (802.3at Class 4) or 24V AC/DC @ 1A; 25W. 24V DC power supply not included	PoE+ (802.3at) or 24V AC/DC @ 1A; 25W. 24V DC power supply not included	24V AC/DC @ 2.8 A; 65W power supply not included
Operating Temperature	-10°C to 50°C	-10°C to 50°C	PoE powered: -10°C to 50°C. External PSU: -50°C to 50°C
Cold Start	0°C	0°C	-40°C

* In-Ceiling PTZ Dome only. ** Advanced Video Analytics require a licence. *** Standard and Environmental PTZ Domes only. ^Firmware upgrade is required for ONVIF Conformance.

IndigoVision
Complete IP Video Security Solutions

Ultra 5K Fixed Camera

Capture every detail with ultra-high resolution

IndigoVision's Ultra 5K Fixed Camera (Ultra 5K) has a resolution of over five thousand horizontal pixels, providing wider scene coverage and capturing every detail, even in low light. The IndigoVision Ultra 5K delivers up to 10 virtual cameras, each configurable for individual resolution and frame rate, and is fully integrated with IndigoVision's Control Center management software and Network Video Recorders (NVRs).

Key Features

SENSOR

HD | ULTRA 5K

COMPRESSION

H.264 | JPEG 2000 | UP TO 25fps

PHYSICAL

Outdoor

For more information:

Product Codes

Ultra 5K Fixed Camera	Camera	Camera plus Management Software
Ultra 5K*	511601	561601
Ultra 5K with Environmental IP67 Enclosure*	511611	561611

| Video Stream Manager (VSM)	
VSM 4000 Video Stream Manager, Windows, 1U Rack Mount plus Hardware ProSupport	980425
VSM 4000 Video Stream Manager, Windows, 1U Rack Mount, excluding Hardware ProSupport	980420

* Lens not included.

| Lenses (Canon EF)			
24mm, F1.4 Auto-Iris lens	110111	85mm, F1.8 Auto-Iris lens	110117
35mm, F1.4 Auto-Iris lens	110112	100mm, F2.0 Auto-Iris lens	110118
35mm, F2.0 Auto-Iris lens	110113	200mm, F2.8 Auto-Iris lens	110119
50mm, F1.2 Auto-Iris lens	110114	16-35mm, F2.8 Auto-Iris, Vari Focal lens	110120
50mm, F1.8 Auto-Iris lens	110115	24-70mm, F2.8 Auto-Iris, Vari Focal lens	110121
85mm, F1.2 Auto-Iris lens	110116	70-200mm, F2.8 Auto-Iris, Vari Focal lens	110122

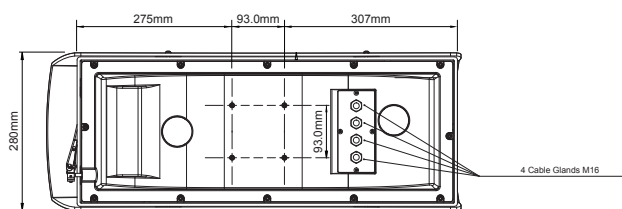# Dimensions - Ultra 5K Fixed Camera
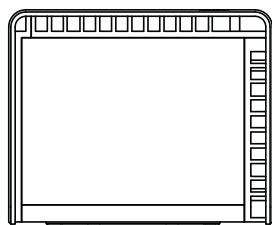
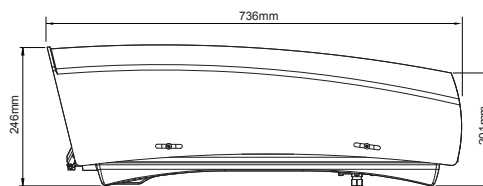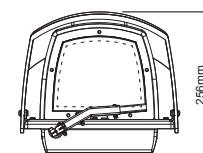View on Top Face
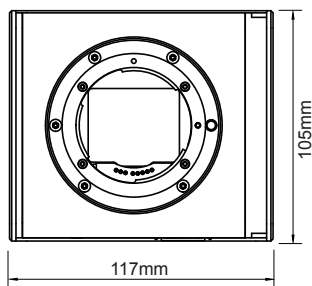
View on Front Face
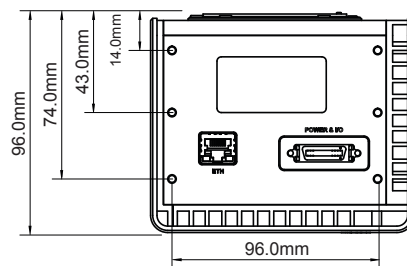
View on Bottom Face

Dimensions - Environmental IP67 Enclosure

View on Bottom Face

View on Side Face

View on Front Face

Specification

Camera Features	
Sensor	35mm Progressive CMOS
Active Pixels (HxV)	20MP (5120 x 3840)
Horizontal Resolution	> 3000 TVL
Minimum Sensitivity	Day-only: 0.01 lux (colour). 50 IRE, F1.0, 1/30s shutter
Dynamic Range	66dB
Gain Control	Auto/Manual
White Balance Mode	Auto/Manual
Day/Night	Day-only
Video Resolution	5120 x 3840 pixels (5K), 4K, 1080p HD, 720p HD, 4 SIF, CIF, plus user configurable resolutions including panoramic or corridor aspect ratios
Lens Options	Canon® EF (SLR-style bayonet) Wide range of focal lengths available. Supplied with IR and UV filter
Iris Control	Full remote iris and focus control options
Shutter	Global; Auto from 1/6666 sec to 1 sec
Exposure Control	Auto/Manual
Video Compression	JPEG2000 with up to 120 Megapixels/sec processing power. H.264 overview stream also available
Video Bit Rate	Up to 100Mbps
Video Multi-Encoder	Up to 10 simultaneous profiles of any resolution at up to 25fps*
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, HTTP, DHCP
Network Security	HTTPS
Time	Embedded real-time clock, NTP client
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
Mount Options	Wall mount bracket for Environmental IP67 Enclosure (Product Code: 110130)
IndigoVision Software Requirements	Control Center v11.1 or later
ONVIF	Configuration only

	Internal	With Environmental Enclosure
Dimension/Weight	96mm (d) x 117mm (w) x 105mm (h) and 1.7Kg	736mm (d) x 280mm (w) x 246mm (h) and 10.9Kg
Housing	Anodized aluminium	Diecast aluminium alloy base with ABS cover and sunshade
Protection Rating	N/A	IP67
Electrical	12V DC, 2.1A	100-240V AC, 1.4A
Operating Temperature	0°C to 50°C	-20°C to 50°C

* Maximum frame rate subject to total video compression and bit rate limits above.

IndigoVision
Complete IP Video Security Solutions

Video Stream Manager

Intelligently manage ultra-high resolution video

IndigoVision's Video Stream Manager (VSM 4000) provides powerful and integrated enterprise management of ultra-high resolution video from the Ultra 5K Camera.

The IndigoVision VSM 4000 integrates the Ultra 5K Camera seamlessly with IndigoVision's Network Video Recorders (NVRs) and Control Center, IndigoVision's management software.

Delivering ultra-high resolution video to multiple clients, the VSM 4000 provides a truly scalable solution. Digital zoom and pan provides individual camera views for each client. Remote monitoring and recording across lower bandwidth connections can be achieved by a High Definition (HD) resolution video stream.

Key Features

SENSOR

HD | ULTRA 5K

COMPRESSION

JPEG 2000

OTHER

PHYSICAL

1U Height | 19" Rack

Product Codes

| Video Stream Manager (VSM)	
VSM 4000 Video Stream Manager, Windows, 1U Rack Mount plus Hardware ProSupport	980425
VSM 4000 Video Stream Manager, Windows, 1U Rack Mount, excluding Hardware ProSupport	980420

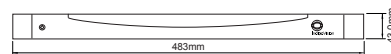| Video Stream Manager (VSM) Accessories	
Direct Attach twinax cable kit with SFP+ connectors – 1m	110351
Direct Attach twinax cable kit with SFP+ connectors – 3m	110352
Direct Attach twinax cable kit with SFP+ connectors – 5m	110353
10GBASE-SR fibre optic SFP+ transceiver	110361

For more information:

Dimensions
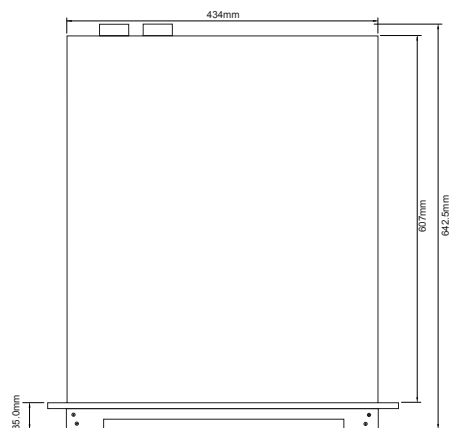
View on Top Face

1U View on Front Face (with removable lockable fascia)

Specification

General Specifications	
Operating System	Windows Server® 2008 R2 for Embedded Systems Essentials
Video	Live video streaming: JPEG2000 video from Ultra 5K Cameras Multiple streaming - up to 10 different streams from each Ultra 5K for live viewing or recording
Form Factor	1U rack mount chassis
Hard Drive	2 operating system drives configured as RAID 1
Max Number of Ultra 5K Cameras	10
Max Number of Streams per Ultra 5K Camera	10
Max Input Bitrate	1000Mbps
Max Output Bitrate	4500Mbps
Electrical	350W, 100-240VAC, 50/60 Hz, Auto Switching, Dual Hot Swappable PSU
Dimensions/Weight	607mm (d) x 434mm (w)x 43.0mm (h), 19.3kg
Processor	Intel Xeon E5
Network Interface	Dual Port Redundant 10Gb Ethernet SFP+ Direct Attach
Memory	12GB RAM (3 x 4GB)
Regulatory	EN 60950-1, IEC 60950-1, EN 62311, EN 55022, CISPR 22, EN 61000-3-2, EN 55024, IEC 61000-3-2 (Class D), EN 61000-3-3, IEC 61000-3-3, CISPR 24
Systems Management	iDRAC7 Express
Supplied Accessories	Rack Mount Kit (brackets, static rails and mounting hardware), removable lockable fascia, UOP power cord and USB restore media

IndigoVision
Complete IP Video Security Solutions

18x Optical

XF HD Fixed Camera

Safe and Secure.

Designed for safety, the IndigoVision XF HD cameras deliver outstanding video security for hazardous areas where explosions could occur.

Key Features

SENSOR

HD | Day/Night | Low Light | WDR

COMPRESSION

H.264 | UP TO 25fps | G.711

INTELLIGENCE

Motion Detection

OTHER

DNA | Onvif | ATEX | IECEx | INMETRO

PHYSICAL

Outdoor | Low Temp | High Temp

Product Codes

XF HD Fixed Camera (PAL)	Camera
18x Autofocus Lens, 24VAC, -20C to +50C, Wiper, ATEX/IECEx Certified	511321
18x Autofocus Lens, 24VAC, -40C to +35C, Wiper, ATEX/IEXEx Certified	511331
18x Autofocus Lens, 24VAC, -20C to +50C, Wiper, INMETRO Certified	511322
18x Autofocus Lens, 24VAC, -40C to +35C, Wiper, INMETRO Certified	511332

For more information:

Dimensions

View on Back Face

View on Side Face

View on Front Face

View on Bottom Face

Specification

Camera Features	
Sensor	1/2.7" Progressive CMOS
Active Pixels (HxV)	2 MP (1920x1080)
Horizontal Resolution	> 800 TVL
Minimum Sensitivity	Day: 0.2 lux; Night: 0.02 lux
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual/ATW
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	1920x1080 (1080p); 1280x720 (720p); 720x576 pixels (D1 PAL); 352x288 pixels (SIF PAL)
Lens Options	18x Autofocus: 4.7mm - 84.6mm, Horizontal view angle 61.5° (W) 3.3° (T), F1.6
Zoom	18x optical + 10x digital
Iris Control	DC Auto-iris
Shutter	Rolling; Auto from 1 to - 1/10,000 sec
Exposure Control	Auto/Manual/Slow AE
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Analytics	Motion Detection/Hooded
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
Network Security	HTTPS / IP Filter / IEEE 802.1x
Time	Embedded real-time clock, NTP client
Dimension/Weight	176mm (dia.) x 530mm (l) and 20Kg (with sun shade)
Regulatory	EN 55022 Class A, EN 55024, CFR47 Part 15 subpart B - Class A, Zones 1, 2, 21, 22. Onshore, Offshore, Marine & Heavy Industrial, II 2 G Ex d op pr IIC T4 (T5 & T6 Available on Request), II 2 D Ex tb IIIC T135° Db IP6x, IECExITS10.0063X
Housing	Electropolished 316L Stainless Steel with wiper and sunshade as standard
Protection Rating	IP67
Electrical	Maximum 60W. 24V AC; 110-230V AC Option
Operating Temperature	-40°C to 35°C or -20°C to 50°C
IndigoVision Software Requirements	SMS4™ r8/Control Center 11.0 or later
ONVIF	Profile S

Accessories

Accessories	Product Code
XF Fixed Camera Wall Mount	110180
XF/XP ATEX Armoured Cable (3m)	110181

IndigoVision
Complete IP Video Security Solutions

18x Optical

XP HD PTZ Camera

Safe and Secure.

Designed for safety, the IndigoVision XP HD cameras deliver outstanding video security for hazardous areas where explosions could occur.

Key Features

SENSOR

HD | Day/Night | Low Light | WDR

COMPRESSION

H.264 | UP TO 25fps | G.711

INTELLIGENCE

Motion Detection

OTHER

DNA | Onvif | ATEX | IECEx | INMETRO

PHYSICAL

Outdoor | Low Temp | High Temp

Product Codes

XP HD PTZ Camera (PAL)	Camera
18x Autofocus Lens, 24VAC, -20C to +50C, Wiper, ATEX/IECEx Certified	511325
18x Autofocus Lens, 24VAC, -40C to +35C, Wiper, ATEX/IEXEx Certified	511335
18x Autofocus Lens, 24VAC, -20C to +50C, Wiper, INMETRO Certified	511326
18x Autofocus Lens, 24VAC, -40C to +35C, Wiper, INMETRO Certified	511336

For more information:

Dimensions

View on Front Face

M25 Cable Entry

View on Side Face

View on Bottom Face

Specification

Camera Features	
Sensor	1/2.7" Progressive CMOS
Active Pixels (HxV)	2 MP (1920 x 1080)
Horizontal Resolution	> 800 TVL
Minimum Sensitivity	Day: 0.2 lux; Night: 0.02 lux
Dynamic Range	WDR Low/Medium/High
Gain Control	Auto/Manual setting across a 40dB range
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual/ATW
Day/Night	True Day/Night with Mechanical IR Cut Filter
Video Resolution	1920x1080 (1080p); 1280x720 (720p); 720x576 pixels (D1 PAL); 352x288 pixels (SIF PAL)
Lens Options	18x Autofocus: 4.7mm - 84.6mm, Horizontal view angle 61.5° (W) 3.3° (T), F1.6
Zoom	18x optical + 10x digital
Iris Control	DC Auto-iris
Shutter	Rolling; Auto from 1 to 1/10000 sec
Exposure Control	Auto/Manual/Slow AE
Video Compression	Full frame rate, full colour: H.264/MJPEG; up to 25fps @ 1080p resolution
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections; Up to sixteen 1Mbps unicast connections
Video Multi-Encoder	Up to three simultaneous resolutions including: 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Video Analytics	Motion Detection, Hooded
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
Network Security	HTTPS / IP Filter / IEEE 802.1x
Time	Embedded real-time clock, NTP client
Dimension/Weight	530mm (d) x 520mm (w) x 483mm (h) and 50Kg
Regulatory	EN 55022 Class A, EN 55024, CFR47 Part 15 subpart B - Class A, Zones 1, 2, 21, 22. Onshore, Offshore, Marine & Heavy Industrial, II 2 G Ex d op pr IIC T4 (T5 & T6 Available on Request), II 2 D Ex tb IIIC T135° Db IP6x, IECExITS10.0063X
Housing	Electropolished 316L Stainless Steel with wiper and sunshade as standard
Protection Rating	IP67
Electrical	Maximum 120W. 24V AC; 110-230V AC Option
Operating Temperature	-40°C to 35°C or -20°C to 50°C
IndigoVision Software Requirements	SMS4™ r8/Control Center 11.0 or later
ONVIF	Profile S

PTZ Control			
Presets	64	Tilt Range	-90° (above horizon) to +90° (vertically down)
Preset Accuracy	0.1°	Pan/Tilt Speed	0.5-45°/s
Pan Range	360° Continuous Rotation		

Accessories

Accessories	Product Code
XP PTZ Camera Wall Mount	110182
XF/XP ATEX Armoured Cable (3m)	110181

IndigoVision
Complete IP Video Security Solutions

30x Optical

HD Interceptor PTZ Camera

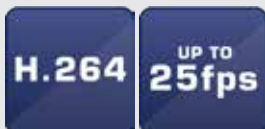## Ruggedised camera with built-in IR and white light

With integrated white and infrared lighting, flat glass and 129mm lens the IndigoVision High Definition (HD) Interceptor PTZ Camera delivers amazing 1080p video, regardless of ambient light. Ruggedised, with IP68 and IK10 rating, and with an operating temperature range of -40ºC to 60ºC, the Interceptor can easily cope with the most challenging environments.

Key Features

SENSOR

HD | Day/Night | WDR

COMPRESSION

H.264 | UP TO 25fps

OTHER

DNA | Onvif

PHYSICAL

Outdoor | IR | IK10 | Low Temp

Product Codes

HD Interceptor PTZ Camera (PAL)	Camera
HD Interceptor PTZ Camera	511781
HD Interceptor PTZ Camera + IR150W Illuminator	511777
HD Interceptor PTZ Camera + IR175 Illuminator	511779

Accessories	
HD Interceptor Wall Mount Adaptor	110275
HD Interceptor Corner Mount Adaptor	110276
HD Interceptor Pole Mount Adaptor	110277
Sunshade	110279
HD Interceptor Universal PSU	110282
Interceptor Pre-made Cable - 10 metres	110281

For more information:

Dimensions - HD Interceptor PTZ Camera

247mm

View on Front Face

399mm Pan Sweep

410.5mm

350.5mm

11.0mm

Mounting Base

Diameter 248mm Tilt Sweep

View on Side Face

Diameter 125mm

4 x Diameter 9mm 102mm PCD

View on Bottom Face

Dimensions - HD Interceptor PTZ Camera + IR150W/IR175 Illuminator

250mm

View on Front Face

420mm Pan Sweep

422mm

380mm

11.0mm

Mounting Base

Diameter 270mm Tilt Sweep

View on Side Face

Diameter 125mm

4 x Diameter 9mm 102mm PCD

View on Bottom Face

Specification

Camera Features	
Sensor	1/2.8" Progressive CMOS
Active Pixels	2 MP (1920x1080)
Horizontal Resolution	> 800 TVL
Minimum Sensitivity	Day: 0.35 Lux (colour). Night: 0.013 Lux (mono). 30 IRE, F1.6, 1/30s shutter
Wide Dynamic Range	Low/Medium/High
Gain Control	Auto/Manual setting
Back Light Compensation	On/Off
White Balance Mode	Auto/Manual
Day/Night	True Day/Night with Mechanical IR Cut Filter
IR Illuminator	IR150W=150m IR + 125m White Light, IR175=175m IR
Video Resolution	1920x1080 pixels (1080p); 1280x720 pixels (720p); 720x576 pixels (D1); 352x288 pixels (SIF)
Signal/Noise Level	> 50dB
Lens Options	4.3mm - 129mm, Horizontal view angle 63.7° (W) 2.3° (T), F1.6 to F4.7, Autofocus with manual override
Zoom	30x optical + 12x digital
Shutter	Rolling; Auto from 1 - 1/10000 sec
Exposure Control	Auto/Manual/Slow AE/Shutter-priority/Iris-priority
Video Compression	Full frame rate, full colour: H.264/MJPEG ; up to 25fps (ISO 14496-10)
Video Bit Rate	User-configurable bit rates from 64Kbps up to 8Mbps
Video Multi-Streaming	Up to 8Mbps total video output; Up to two 4Mbps unicast connections
Video Multi-Encoder	Up to two simultaneous resolutions including: 1080p (25fps), 720p (25fps), D1 (25fps), SIF (25fps)
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, QoS, DHCP
Network Security	IP Filter
Time	Embedded real-time clock, SNTP client
Regulatory	EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, FCC Part 15 Subpart B Class A, EN 50130-4, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN 61000-4-6, EN61000-4-11, IEC60068-2-27 (Shock), IEC60068-2-6 (Sine Vibration)
Housing	White vandal resistant aluminium alloy
Protection Rating	IP68, IK10 (IEC 62262)
Operating Temperature	-40°C to 60°C
Cold Start	-10°C
Mount Options	Mount Adaptor, Wall Mount, Corner Mount, Pole Mount
IndigoVision Software Requirements	Control Center v12.1 or later
ONVIF	Profile S

PTZ Control			
Presets	360	Pan Range	360° Continuous Rotation
Preset Tours	4	Tilt Range	180°
Pattern Mimic Tours	4	Pan/Tilt Speed	Pan Speed - 0.1-120°/s. Tilt Speed - 0.1-120°/s
Privacy Zones	24 User Defined	Wiper	Integrated

Camera Features	Standard	Standard + IR150W Illuminator	Standard + IR175 Illuminator
Tilt Sweep	Diameter 248mm	Diameter 270mm	Diameter 270mm
Dimension/Weight	247mm (dia) x 350.5mm (h) and 7.49Kg	250mm (dia) x 380mm (h) and 8.25Kg	250mm (dia) x 380mm (h) and 8.25Kg
Electrical	24V AC, 75VA. Power supply not included	24V AC, 125VA. Power supply not included	24V AC, 155VA. Power supply not included

ID: HD_INTER_PTZ 15.6 MAY 15

IndigoVision
Complete IP Video Security Solutions

FrontLine

Body Worn Video

The IndigoVision FrontLine body worn video is ideal for protecting frontline staff in any industry, with 8 hours of evidential quality HD video and audio recording, easy on/off switch, 48 hours battery standby and multiple mounting options.
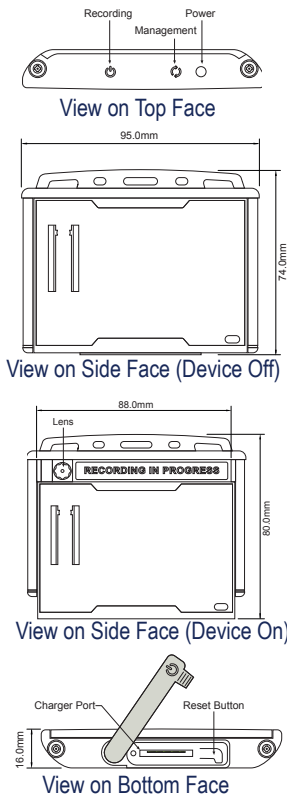
Key Features

SENSOR

HD

COMPRESSION

MPEG-4 | MP2

OTHER

PHYSICAL

Outdoor | Integral Mic

Product Codes

FrontLine Cameras	
FrontLine Flip	980146
FrontLine	980147
FrontLine Dock	
FrontLine Dock	980149

Mounts & Accessories	
Klick Fast Stud (Camera Side Fixing)	110401
Klick Fast Tilting Mount (Camera Side Fixing)	110402
Klick Fast Screw-On	110403
Klick Fast Radio Loop Fixing	110404
3-Point Klick Fast Chest Harness	110405
4-Point Klick Fast Chest Harness	110406
Pocket / Shirt Clip	110407
Vehicle Mount	110408
USB Charger Cable	110411

For more information:

Dimensions - FrontLine Flip

View on Top Face

View on Side Face (Device Off)

View on Side Face (Device On)

View on Bottom Face

Dimensions - FrontLine

View on Top Face

View on Side Face (Device Off)

View on Side Face (Device On)

View on Bottom Face

Dimensions - FrontLine Dock

View on Top Face

View on Left Face

View on Right Face
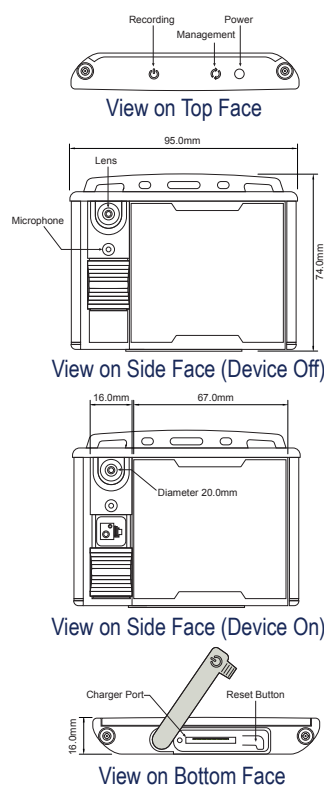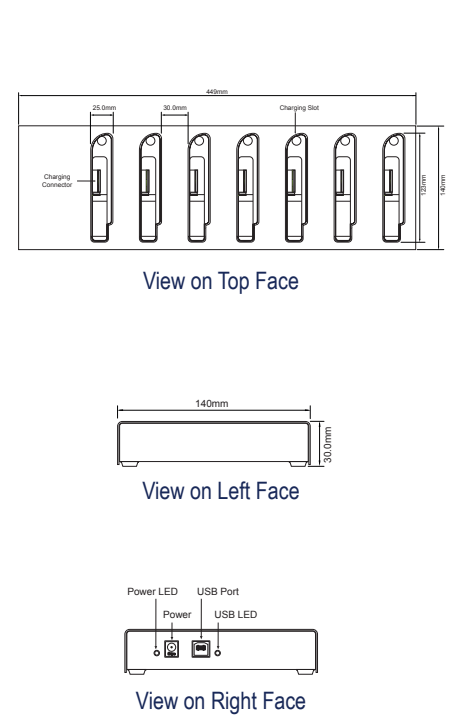
Specification

Camera Features	FrontLine Flip	FrontLine
Front Display Message	Options: Standard ID card; Display card with message / logo; displays RECORDING IN PROGRESS when recording	Options: Display card with message / logo
Recording	Slider On/Off	Switch On/Off, with a configurable pre-record period
View Angle	Horizontal view angle 60º	Horizontal view angle 110º
Dimension/Weight	12mm (d) x 95mm (w) x 62mm (h) and 127g	16mm (d) x 95mm (w) x 62mm (h) and 127g

Camera Features	
Active Pixels (HxV)	1MP (1280 x 720)
Minimum Sensitivity	2 Lux (Colour)
Video Resolution	HD: 1280x720 (PAL). SD: 640x360 (PAL)
Video Security	AES 256 encrypted keys specific to base station. Recordings can only be retrieved at the base station
Frame Rates	25fps/12.5fps (PAL)
Recording Capacity	16 hours @ SD resolution or 8 hours @ HD resolution
Recording Status User Notification	Visual recording light and audible bleep to notify user of recording on / off
Storage Media	16GB internal solid state
Onscreen Display	Device ID, Date and Time (UTC), Universal time clock, Frame count number
Digital Watermarking	Check-sums and watermarked evidential outputs
Audio Capture	Standard audio configuration is near field capture with background noise reduction
Audit Log	Usage, operations and recording details all logged and indexed
Download Rate	5 mins per hour of recording @ SD, 10 mins per hour of recording @ HD. Parallel downloading with FrontLine Dock
Battery Capacity	Up to 8 hours recording / 48 hours standby
Battery Type	Lithium polymer with overcharge protection and battery level indication, not user replaceable
Battery Life	2 years recommended refresh time
Battery Recharging Times	FrontLine Dock within 3 hours, USB lead 6 hours
Warranty	1 year return-to-manufacturer warranty including email and telephone support - Extended warranty available
Time	Embedded real time clock, with time synchronisation when docked
Regulatory	EN55022: 2010 (Class B), EN55024: 2010, CFR47 Part 15 subpart B (Class B), EN 60068-2-1 & 2, EN 60068-2-30, EN 60068-2-6 & 64, EN 60068-2-29
Housing	Extruded aluminium housing with Lexan 940 end caps
Protection Rating	IP54
Operating Temperature	-5°C to 40°C

FrontLine Dock Features	
Capacity	7 slots for Frontline or FrontLine Flip
Interface	USB 2.0
Dimensions/Weight	440mm (d) x 150mm (w) x 30mm (h) and 1.77Kg
Regulatory	EN55022: 2010 (Class B), EN55024: 2010, CFR47 Part 15 subpart B (Class B), EN 60068-2-6 & 64, EN 60068-2-29

Fixed Camera Housing

The IndigoVision Fixed Camera Housing range forms part of IndigoVision's Complete IP Video Security Solution, fully integrated with Control Center, IndigoVision's complete suite of management software and Network Video Recorders (NVR's).

The IndigoVision Fixed Camera Housing is available for the 11000 and BX range fixed cameras and offers increased durability and vandal resistance through a die cast aluminium body. An integrated fan and heater gives an exceptional operating temperature range of -20°C to 50°C.

Key Features

Outdoor **IK10** **Low Temp**

PHYSICAL

Product Codes

Fixed Camera Housing	
Fixed Camera Housing, IP66, 24V, Fan Heater	110131
Fixed Camera Housing, IK10, IP66, 24V, Fan Heater	110132

Dimensions
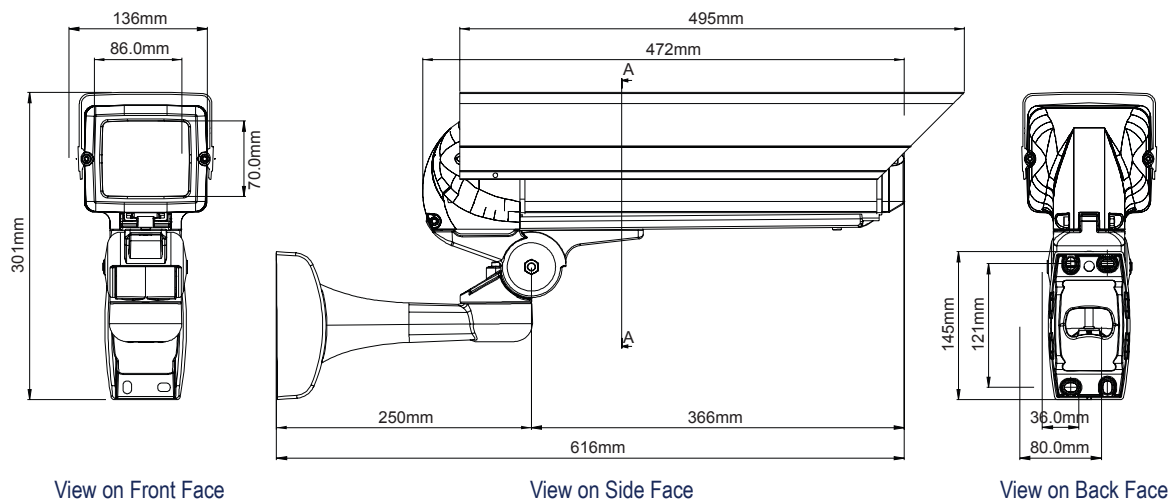
View on Front Face

View on Side Face

View on Back Face

Specification

General Specifications	Order Code 110131	Order Code 110132
Protection Rating	IP66	IP66, IK10
Housing	Extruded aluminium body and sunshield with die cast aluminium parts	
Paint	RAL9002 Polyester powder coating	
Dimensions/Weight	External, including wall mount bracket - 616mm (d) x 136mm (w) x 301mm (h) and 4.8Kg (with sun shade) External, housing only - 616mm (d) x 136mm (w) x 301mm (h) and 4.2Kg (with sun shade) Internal - 320mm (d) x 105mm (w) x 86mm (h)	
Electrical	Housing only: 24V DC, Power consumption 1W (Fan), Power supply not included Housing inc Heater: 24V DC, Power consumption 21W max, Power supply not included	
Operating Temperature	-20°C to 50°C	
Regulatory	CE according to EN61000-6-3, EN60950, EN50130-4	
Compatible IndigoVision Cameras	Enhanced HD Fixed Camera – 11000 Range HD Fixed Camera – BX Range 5MP Fixed Camera – BX Range*	

* Camera must be powered separately from enclosure using 12V DC or PoE.

Compatible IndigoVision Camera Product Codes

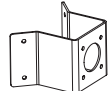| IndigoVision Camera (PAL)	Camera plus Enhanced Management Software
11000 Range Enhanced HD Fixed Camera - Standard Lens, Day/Night with Audio	561291
11000 Range Enhanced HD Fixed Camera - Telephoto Lens, Day/Night with Audio	561295
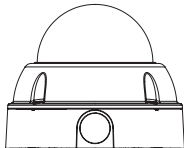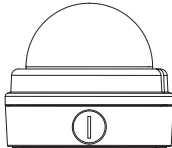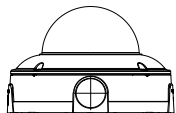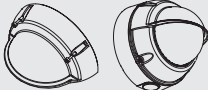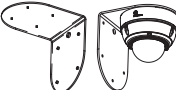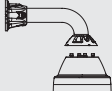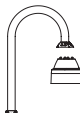
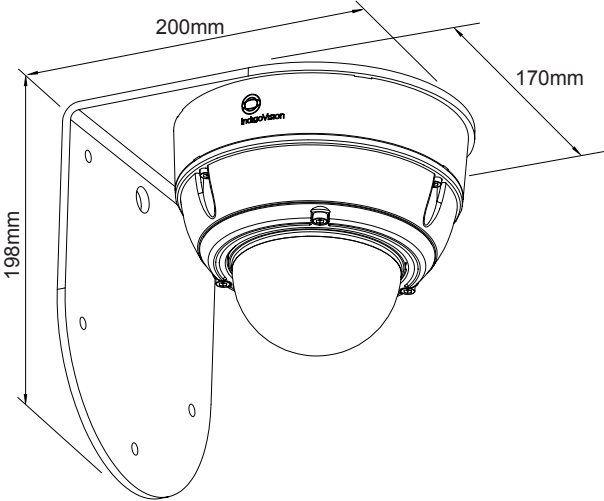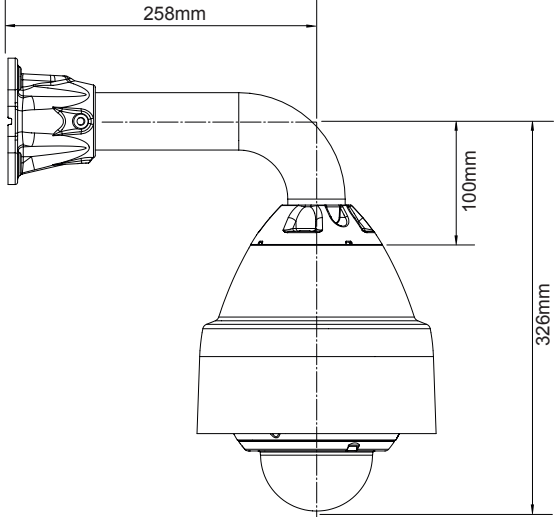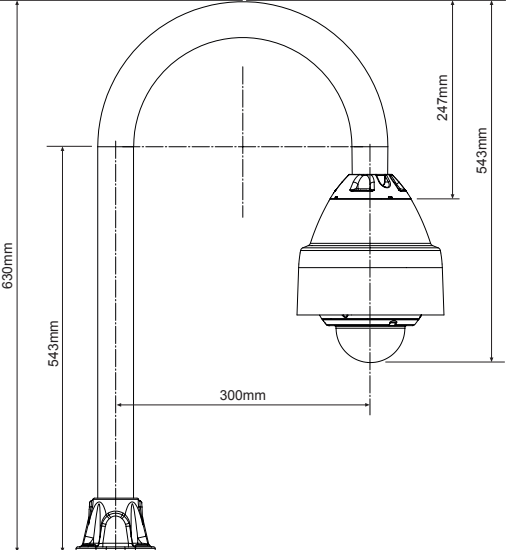| IndigoVision Camera (PAL)	Camera
BX Range HD Fixed Camera (BX600) - 3x Autofocus Lens	511749
BX Range HD Fixed Camera (BX600) - 18x Autofocus Lens	511747
BX Range 5MP Fixed Camera (BX600) - Standard Lens	511847
BX Range 5MP Fixed Camera (BX600) - Telephoto Lens	511849

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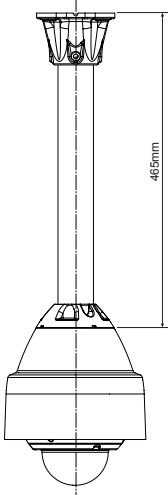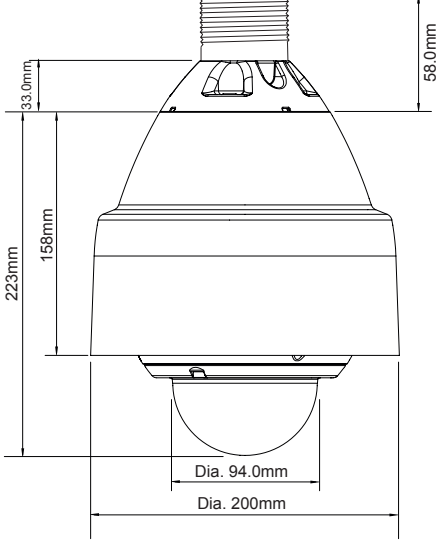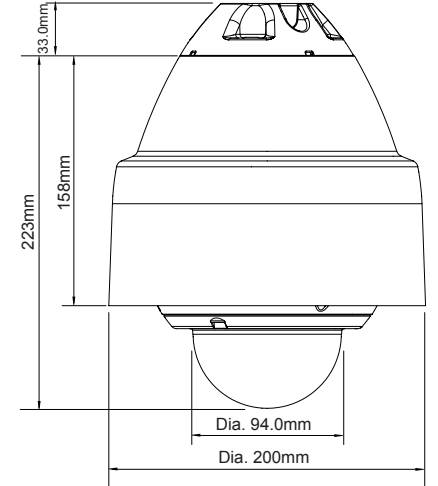
Mount		11000 Range Enhanced HD Fixed Dome		BX Range HD/5MP Minidome (BX400)		Ultra Range Ultra 2K Fixed Dome	
		Internal	Vandal Resistant	Internal	Vandal Resistant	Internal	Vandal Resistant
In-Ceiling Mount		110169	110169	110269	110269	-	-
Dome Hood		-	110034	-	-	-	-
Bracket Wall Mount		-	110160	110160	110160	-	110160
Pendant Wall Mount+		-	110021	-	-	-	110021
Pendant Swan-Neck Mount+		-	110023	-	-	-	110023
Pendant Vertical Pole Mount+		-	110025	-	-	-	110025
1.5" NPT Pendant Mount (Male)+		-	110027	-	-	-	110027
1.5" NPT Pendant Mount (Female)+		-	110028	-	-	-	110028
Corner Mount Adaptor*+		-	110082	-	-	-	110082
Pole Mount Adaptor*+		-	110096	-	-	-	110096
Cable		-	6m - 110161	-	6m - 110267 9m - 110266	-	6m - 110171

* Adaptors are compatible with the Pendant Wall Mount.
+ All Fixed Dome Pendant Mounts include a Pendant Sun Shroud as standard.

IndigoVision Fixed Dome Camera Mount Matrix Appendix - Page 1

Mount Name	Camera Range	Dimensional Drawing	Product Codes
In-Ceiling Mount	11000 Range	Extended Dia. 270mm, Max. 45.0mm, 90.0mm, 71.5mm, Ceiling Tile, Bubble Dia. 113.5mm, Ring Dia. 225mm	11000 Range Int - 110169 V.R - 110169
In-Ceiling Mount	BX Range	Extended Dia. 270mm, Max. 45.0mm, 81.0mm, 63.5mm, Ceiling Tile, Bubble Dia 113.5mm, Ring Dia 225mm	BX Range Int - 110269 V.R - 110269
Dome Hood	11000 Range	Dia. 171mm	11000 Range V.R - 110034

IndigoVision Fixed Dome Camera Mount Matrix Appendix - Page 2

Mount Name	Camera Range	Dimensional Drawing	Product Codes
Bracket Wall Mount	All Ranges (11000/BX/Ultra)	200mm · 170mm · 198mm	11000 Range V.R - 110160 BX Range Int - 110160 V.R - 110160 Ultra Range V.R - 110160
Pendant Wall Mount	11000 and Ultra Ranges	258mm · 100mm · 326mm	11000 Range V.R - 110021 Ultra Range V.R - 110021
Pendant Swan-Neck Mount	11000 and Ultra Ranges	247mm · 543mm · 630mm · 543mm · 300mm	11000 Range V.R - 110023 Ultra Range V.R - 110023

Mount Name	Camera Range	Dimensional Drawing	Product Codes
Pendant Vertical Pole Mount	11000 and Ultra Ranges	465mm	11000 Range V.R - 110025 Ultra Range V.R - 110025
1.5" NPT Pendant Mount (Male)	11000 and Ultra Ranges	58.0mm 33.0mm 158mm 223mm Dia. 94.0mm Dia. 200mm	11000 Range V.R - 110027 Ultra Range V.R - 110027
1.5" NPT Pendant Mount (Female)	11000 and Ultra Ranges	33.0mm 158mm 223mm Dia. 94.0mm Dia. 200mm	11000 Range V.R - 110028 Ultra Range V.R - 110028
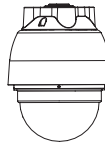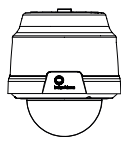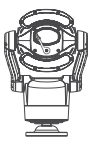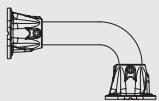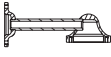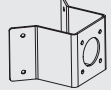
Mount Name	Camera Range	Dimensional Drawing	Product Codes
Corner Mount Adaptor	11000 and Ultra Ranges		11000 Range V.R - 110082 Ultra Range V.R - 110082
Pole Mount Adaptor	11000 and Ultra Ranges		11000 Range V.R - 110096 Ultra Range V.R - 110096
Cable	11000, BX and Ultra Ranges	Cable assembly and gland (6m)	11000 Range V.R - 110161 BX Range V.R - 110267 Ultra Range V.R - 110171
Cable	BX Range	Cable assembly and gland (9m)	BX Range V.R - 110266

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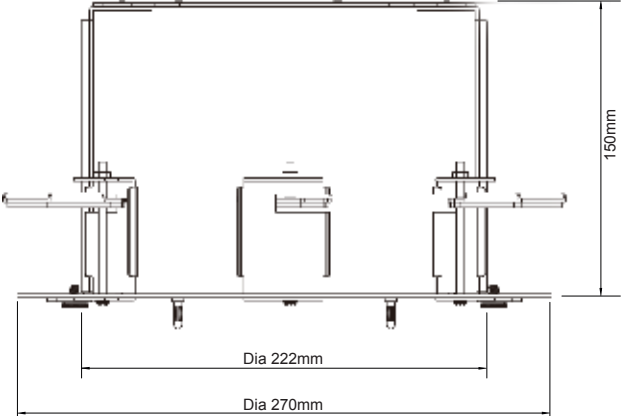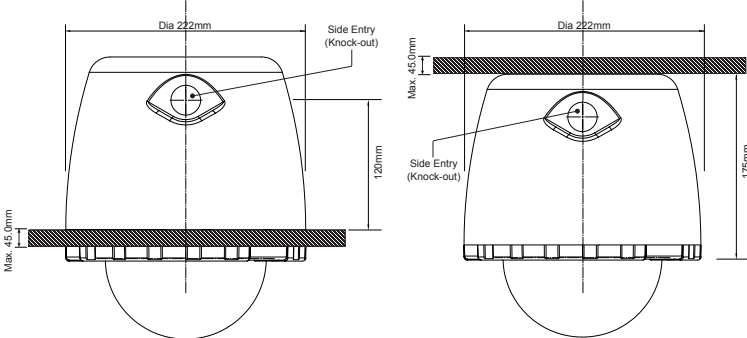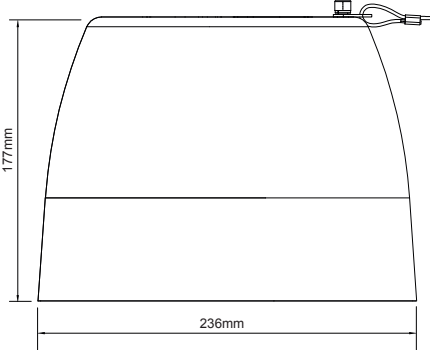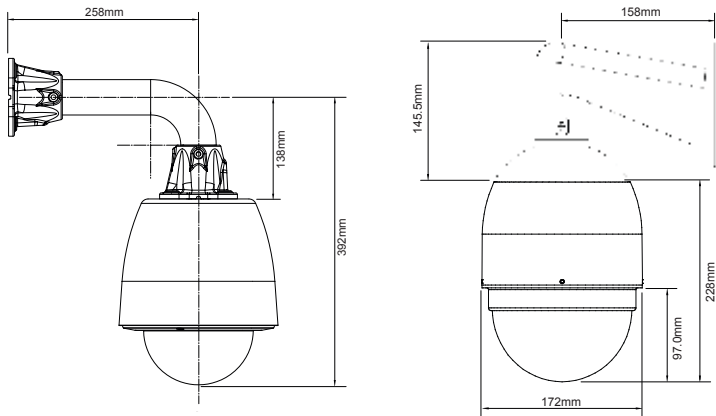
PTZ Camera Mount Matrix
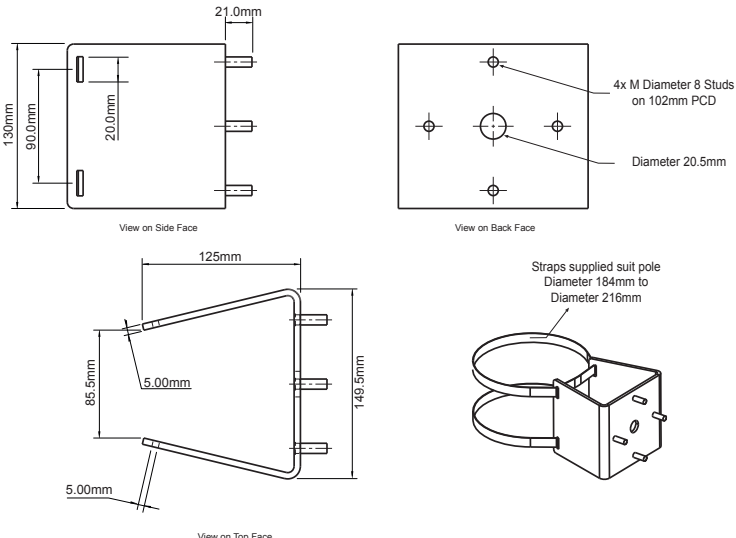
Mount		9000 Range SD PTZ Dome		BX Range HD PTZ Dome (BX500)		Ultra Range Ultra 2K PTZ Dome		HD Interceptor PTZ Camera
		In-Ceiling	Pendant	In-Ceiling	Pendant	Internal	External	Standard & Standard + IR150W/IR175 Illuminator
In-Ceiling Mount		-	-	110265	-	-	-	-
In-Ceiling PTZ Plenum/Surface Mount		110099	-	-	-	-	-	-
Pendant PTZ Sun Shroud		-	110065+	-	-	-	-	-
Pendant Wall Mount		-	110084	110264	110084	-	110084	-
Wall Mount Adaptor		-	-	-	-	-	-	110275
Pendant Swan-Neck Mount		-	110085	-	110085	-	110085	-
Pendant Vertical Pole Mount		-	110086	-	110086	-	110086	-
1.5" NPT Adaptor (Male)		-	110087	-	110087	-	110087	-
1.5" NPT Adaptor (Female)		-	110088	110268	110088	-	110088	-
Corner Mount Adaptor		-	110082	-	110082	-	110082	110276
Pole Mount Adaptor*		-	110096	-	110096	-	110096	110277
Cable		-	-	-	-	-	3m - 110173 9m - 110174	-

* Adaptors are compatible with the Pendant Wall Mount.
+ PTZ Sun Shroud fitted as standard on Arctic form factor.

Mount Name	Camera Range	Dimensional Drawing	Product Codes
In-Ceiling Mount	BX Range	150mm · Dia 222mm · Dia 270mm	BX Range Int - 110265
In-Ceiling PTZ Plenum/ Surface Mount	9000 Range	Dia 222mm · Side Entry (Knock-out) · 120mm · Max. 45.0mm · Dia 222mm · Max. 45.0mm · Side Entry (Knock-out) · 175mm	9000 Range Int - 110099
Pendant PTZ Sun Shroud	9000 Range	177mm · 236mm	9000 Range Int - 110065
Pendant Wall Mount	9000, BX and Ultra Ranges	258mm · 138mm · 392mm · 110084 · 158mm · 145.5mm · 228mm · 97.0mm · 172mm · 110264	9000 Range Pen - 110084 BX Range Int - 110264 Ext - 110084 Ultra Range Pen - 110084

Mount Name	Camera Range	Dimensional Drawing	Product Codes
Wall Mount Adaptor	Interceptor	Diameter 102mm / Diameter 125mm / Diameter 125mm / Diameter 102mm / 300mm / 238mm	Interceptor Std - 110275
Pendant Swan-Neck Mount	9000, BX and Ultra Ranges	265mm / 520mm / 630mm / 543mm / 300mm	9000 Range Pen - 110085 — BX Range Ext - 110085 — Ultra Range Pen - 110085
Pendant Vertical Pole Mount	9000, BX and Ultra Ranges	465mm	9000 Range Pen - 110086 — BX Range Ext - 110086 — Ultra Range Pen - 110086
1.5" NPT Adaptor (Male)	9000, BX and Ultra Ranges	16.0mm / 90.0mm	9000 Range Pen - 110087 — BX Range Ext - 110087 — Ultra Range Pen - 110087

Mount Name	Camera Range	Dimensional Drawing	Product Codes
1.5" NPT Adaptor (Female)	9000, BX and Ultra Ranges	 110088 110268	9000 Range Pen - 110088 BX Range Int - 110268 Ext - 110088 Ultra Range Pen - 110088
Corner Mount Adaptor	9000, BX and Ultra Ranges		9000 Range Pen - 110082 BX Range Ext - 110082 Ultra Range Pen - 110082
Corner Mount Adaptor	Interceptor		Interceptor Std - 110276
Pole Mount Adaptor	9000, BX and Ultra Ranges		9000 Range Pen - 110096 BX Range Ext - 110096 Ultra Range Pen - 110096

Mount Name	Camera Range	Dimensional Drawing	Product Codes
Pole Mount Adaptor	Interceptor	 21.0mm 130mm 90.0mm 20.0mm *View on Side Face* 4x M Diameter 8 Studs on 102mm PCD Diameter 20.5mm *View on Back Face* 125mm 85.5mm 5.00mm 149.5mm 5.00mm *View on Top Face* Straps supplied suit pole Diameter 184mm to Diameter 216mm	Interceptor Std - 110277
Cable	Ultra Range	Cable assembly and gland (3m)	Ultra Range 110173
Cable	Ultra Range	Cable assembly and gland (9m)	Ultra Range 110174

Mount Name	Image	Dimensions	Product Code
Klick Fast Stud (Camera Side Fixing)		25.0mm (d) x 47.0mm (w) x 10.0mm (h)	110401
Klick Fast Tilting Mount (Camera Side Fixing)		53.0mm (d) x 41.0mm (w) x 22.0 (h)	110402
Klick Fast Screw-On		60.0mm (dia) x 15.0mm (h)	110403
Klick Fast Radio Loop Fixing		15.0mm (d) x 55.0mm (w) x 60.0mm (h)	110404
3-Point Klick Fast Chest Harness		One size fits all (adjustable)	110405

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Complete IP Video Security Solutions

Mount Name	Image	Dimensions	Product Code
4-Point Klick Fast Chest Harness		One size fits all (adjustable)	110406
Pocket / Shirt Clip		Pocket 28.0mm (d) x 114mm (w) x 92.0mm (h) Shirt 26.0mm (d) x 117mm (w) x 68.0mm (h)	110407
Vehicle Mount		90.0mm (d) x 115mm (w) x 95.0mm (h)	110408

IndigoVision
Complete IP Video Security Solutions

20 Channel Encoder

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

Part of IndigoVision's 9000 range, the 20 Channel Encoder delivers powerful and cost-effective migration from analogue to IndigoVision's renowned world class IP solution. With highly optimised H.264 compression and ACF+ technology, storage costs are reduced by up to 95% and video quality is greatly improved.

Completely integrated with IndigoVision's Control Center software and Network Video Recorders (NVRs), HD and Megapixel cameras can be added easily, giving the same world class IP video solution that's trusted by some of the most demanding security installations in the world.

Key Features

COMPRESSION
- H.264
- GUARANTEED 25fps
- FPGA
- AAC

INTELLIGENCE
- ACF
- ACF+
- Analytics
- Motion Detection

OTHER
- DNA
- Firewall
- Onvif
- BNC

PHYSICAL
- 2U Height
- 19" Rack

Product Codes

20 Channel Encoder	9000E
Standard with Audio	769916
Chassis with Network Card only	980088
Dual Channel Encoder Card with Audio	769106

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

For more information:

Dimensions

View on
Left Face

View on Top Face

442mm

View on
Right Face

216mm

9.0mm

View on Back Face

View on Front Face

483mm

88.0mm

Specification

Dual Channel Encoder Card Specification	
Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels
Video Compression	Full frame rate, full colour: H.264 (ISO 14496-10); 25fps guaranteed
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps per video 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	Up to two simultaneous resolutions with guaranteed 25fps frame rate including: 4SIF, 2SIF, SIF
Video Analytics	Standard: ACF, 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 16 Bit, 16kHz sample rate Mono Input, Mono Output
Audio Input	2 Line in / Mic in with terminal block connector. Nominal voltage: 1V p-p, Mic 30mV p-p. Mic type: dynamic or electret
Audio Output	2 Line out with terminal block connector. 1V p-p, Minimum load impedance: 16 Ohms
Binary Input/Output	2 opto-isolated input, 2 solid state relay output 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
Network Security	Embedded Linux firewall
Time	Embedded real-time clock, NTP client with battery backup
ONVIF	Profile S**

20 Channel Chassis Specification	
Video Multi-Streaming	Up to 320Mbps total video output including up to 40Mbps multicast video output
Video Input	20 PAL video; 75 Ohms 1V p-p, standard BNC connector
Audio Input	20 Line in / Mic in with terminal block connector
Audio Output	20 Line out with terminal block connector
Binary Input/Output	20 inputs; 20 outputs (2 input, 2 output per card)
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, RTP, ICMP, IGMP, SNMP, HTTP, HTTPS, SSH, TELNET
Dimensions/Weight	216mm (d)x 483mm (w) x 88mm (h) and 3.6Kg
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	3.5V DC @ 11A; 30W typical, 35W max
Operating Temperature	0°C to 50°C
Power Supplies	Power supply included, redundant power supply ordered separately (Product code: 110003)
Redundancy	Dual redundant power connectors, Dual redundant ethernet switch ports
Physical Form Factor	Rack mount chassis with 10 dual channel Encoder cards

* Advanced Video Analytics require a licence.
** Firmware upgrade is required for ONVIF Conformance.

IndigoVision
Complete IP Video Security Solutions

10 Channel Encoder/Decoder
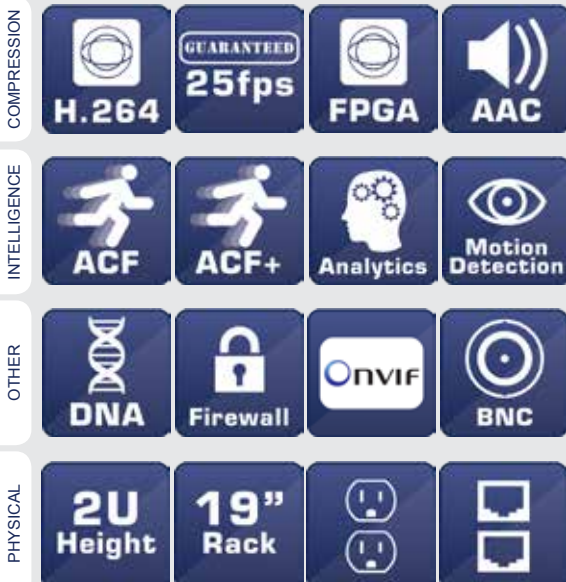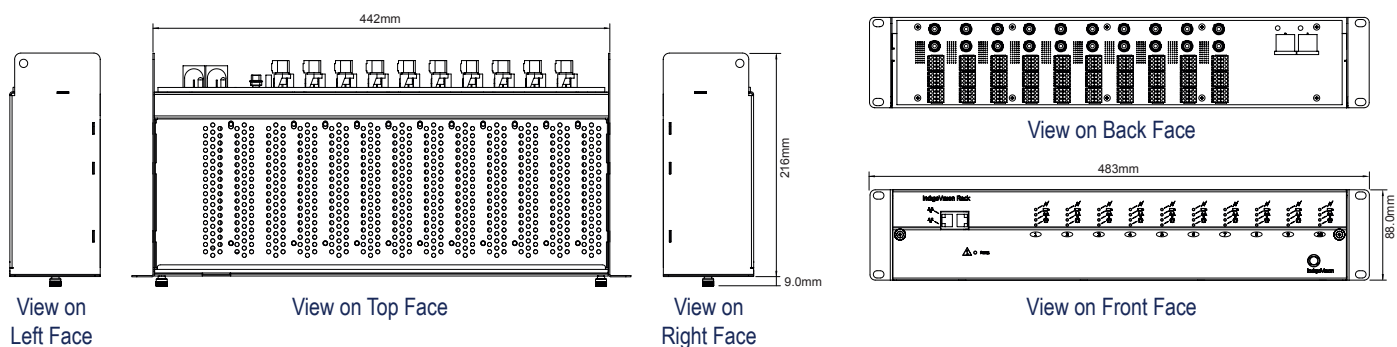
A family of Video Encoders and Decoders incorporating IndigoVision's class-leading compression technology

Part of IndigoVision's 9000 range, the 10 Channel Encoder/Decoder delivers powerful and cost-effective migration from analogue to IndigoVision's renowned world class IP solution. With highly optimised H.264 compression and ACF+ technology, storage costs are reduced by up to 95% and video quality is greatly improved.

Completely integrated with IndigoVision's Control Center software and Network Video Recorders (NVRs), HD and Megapixel cameras can be added easily, giving the same world class IP video solution that's trusted by some of the most demanding security installations in the world.

Key Features

COMPRESSION

H.264 | GUARANTEED 25fps | FPGA | AAC

INTELLIGENCE

ACF | ACF+ | Analytics | Motion Detection

OTHER

DNA | Firewall | Onvif Ready | BNC

PHYSICAL

2U Height | 19" Rack | |

Product Codes

10 Channel Encoder/Decoder	9000E
Standard	769912
Standard with Audio	769911
Additional Rack Card	769102
Additional Rack Card with Audio	769101
10 Channel Dual Decoder	
Standard	729917
Standard with Audio	729907
Additional Rack Card	729117
Additional Rack Card with Audio	729107

The 9000E product allows full frame rate video, at full 4SIF resolution. For a 10 Channel Encoder/Decoder Chassis with Network Card only please use order code: 980096.

For more information:

Dimensions

View on
Left Face

View on Top Face

View on
Right Face

442mm

216mm

9.0mm

View on Back Face

View on Front Face

483mm

88.0mm

Specification

Single Channel Encoder/Decoder Card Specification	
Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels
Video Compression	Full frame rate, full colour: H.264 (ISO14496-10); 25fps guaranteed
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps per video channel
Video Multi-Streaming	Up to 32Mbps total video output per channel; Up to 4Mbps multicast video output per channel; Up to sixteen 1Mbps unicast connections per channel
Video Multi-Encoder	Up to two simultaneous resolutions with guaranteed 25fps frame rate including: 4SIF, 2SIF, SIF
Video Analytics	Standard: ACF, ACF+, Motion Detection, Hooded. Advanced: Dual Tripwire, Congestion, Counterflow, Museum
Video Decode^	Decode IndigoVision MPEG-4 and H.264 video streams
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 16 Bit, 16kHz sample rate Mono/Stereo Input, Mono Output
Audio Input*	Line in 3.5mm jack. Nominal voltage: 1V p-p, 16bit, 16kHz sampling; Mic 30mV p-p. Mic types: support for condensor and dynamic
Audio Output*	Line out 3.5mm jack. 1V p-p, Minimum load impedance: 16 Ohms
Binary Input/Output	1 opto-isolated input, 1 solid state relay output per card
Data Input/Output	1 Data ports: RS232/RS422/RS485 up to 115.2 Kbps; 1 Console port: RS232 up to 115.2 Kbps
Network Security	Embedded Linux firewall. Salted passwords, with MD5 encryption
Time	Embedded real-time clock, NTP client with battery backup
ONVIF**	Profile S

10 Channel Chassis Specification	
Video Multi-Streaming	Up to 320Mbps total video output including up to 40Mbps multicast video output
Video Input	10 PAL video; 75 Ohms 1V p-p, standard BNC connector
Video Output	PAL composite video, 75 Ohms; 1V p-p, standard BNC connector. Software decode for display to PCs
Audio Input*	10 Line in / Mic in with terminal block connector
Audio Output*	10 Line out with terminal block connector
Binary Input/Output	10 inputs; 10 outputs (1 input, 1 output per card)
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, RTP, ICMP, IGMP, SNMP, HTTP, HTTPS, SSH, TELNET
Dimensions/Weight	216mm (d) x 483mm (w) x 88mm (h) and 3.6Kg
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	3.5V DC; 28W typical, 32W max
Operating Temperature	0°C to 50°C
Power Supplies	Power supply included, redundant power supply ordered separately (Product code: 110003)
Redundancy	Dual redundant power connectors, Dual redundant switch ports
Physical Form Factor	Rack mount chassis with 10 single channel Encoder/Decoder cards

*Audio capability is an order option on all Encoder/Decoder modules.
** Firmware upgrade is required for ONVIF Conformance. Specification for IndigoVision Encoder Card Only.
^ Specification for IndigoVision Decoder Card Only.

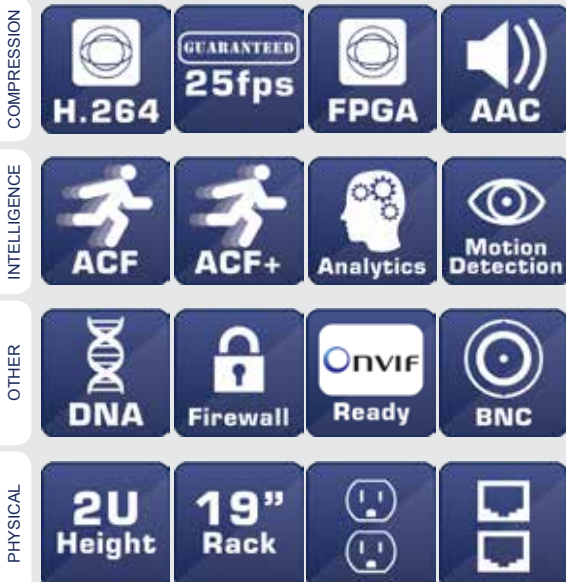**IndigoVision**
Complete IP Video Security Solutions

Four Channel Encoder/Decoder

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

Part of IndigoVision's 9000 range, the Four Channel Encoder/Decoder delivers powerful and cost-effective migration from analogue to IndigoVision's renowned world class IP solution. With highly optimised H.264 compression and ACF+ technology, storage costs are reduced by up to 95% and video quality is greatly improved.

Completely integrated with IndigoVision's Control Center software and Network Video Recorders (NVRs), HD and Megapixel cameras can be added easily, giving the same world class IP video solution that's trusted by some of the most demanding security installations in the world.

Key Features

COMPRESSION

H.264 | GUARANTEED 25fps | FPGA | AAC

INTELLIGENCE

ACF | ACF+ | Analytics | Motion Detection

OTHER

DNA | Firewall | Onvif Ready | BNC

PHYSICAL

1U Height | 19" Rack |

Product Codes

Four Channel Encoder/Decoder	9000E
Standard	769915
Standard with Audio	769914
Additional Rack Card	769102
Additional Rack Card with Audio	769101
Four Channel Decoder	**9000E**
Standard	729947
Standard with Audio	722947
Additional Rack Card	729117
Additional Rack Card with Audio	729107

The 9000E product allows full frame rate video, at full 4SIF resolution. For a Four Channel Encoder/Decoder Chassis with Network Card only please use order code: 980193.

For more information:

Dimensions

View on Left Face

444mm

View on Top Face

217mm

9.0mm

View on Right Face

View on Back Face

483mm

44.0mm

View on Front Face

Specification

Single Channel Encoder/Decoder Card Specification	
Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels
Video Compression	Full frame rate, full colour: H.264 (ISO14496-10); 25fps guaranteed
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps per video channel
Video Multi-Streaming	Up to 32Mbps total video output per channel; Up to 4Mbps multicast video output per channel; Up to sixteen 1Mbps unicast connections per channel
Video Multi-Encoder	Up to two simultaneous resolutions with guaranteed 25fps frame rate including: 4SIF, 2SIF, SIF
Video Analytics	Standard: ACF, ACF+, Motion Detection, Hooded. Advanced: Dual Tripwire, Congestion, Counterflow, Museum
Video Decode^	Decode IndigoVision MPEG-4 and H.264 video streams
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 16 Bit, 16kHz sample rate Mono/Stereo Input, Mono Output
Audio Input*	Line in 3.5mm jack. Nominal voltage: 1V p-p, 16bit, 16kHz sampling; Mic 30mV p-p. Mic types: support for condensor and dynamic
Audio Output*	Line out 3.5mm jack. 1V p-p, Minimum load impedance: 16 Ohms
Binary Input/Output	1 opto-isolated input, 1 solid state relay output per card
Data Input/Output	1 Data port: RS232/RS422/RS485 up to 115.2 Kbps; 1 Console port: RS232 up to 115.2 Kbps
Network Security	Embedded Linux firewall. Salted passwords, with MD5 encryption
Time	Embedded real-time clock, NTP client with battery backup
ONVIF**	Profile S
Four Channel Chassis Specification	
Video Multi-Streaming	Up to 320Mbps total video output including up to 40Mbps multicast video output
Video Input	4 PAL video; 75 Ohms 1V p-p, standard BNC connector
Video Output	PAL composite video, 75 Ohms; 1V p-p, standard BNC connector. Software decode for display to PCs
Audio Input*	4 Line in / Mic in with terminal block connector
Audio Output*	4 Line out with terminal block connector
Binary Input/Output	4 inputs; 4 outputs (1 input, 1 output per card)
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, RTP, ICMP, IGMP, SNMP, HTTP, HTTPS, SSH, TELNET
Dimensions/Weight	226mm (d) x 445mm (w) x 44mm (h) and 3.4Kg
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, Railway Standards: EN 50121-3-2: 2006, EN 50121-4: 2006, EN50155: 2007
Electrical	12V DC @ 3A; 16W typical, 18W max
Operating Temperature	0°C to 55°C
Power Supplies	Power supply included
Redundancy	Dual redundant switch ports plus third switch port for local NVR
Physical Form Factor	Rack mount chassis with four single channel Encoder/Decoder cards

* Audio capability is an order option on all Encoder/Decoder modules.
** Firmware upgrade is required for ONVIF Conformance. Specification for IndigoVision Encoder Card Only.
^ Specification for IndigoVision Decoder Card Only.
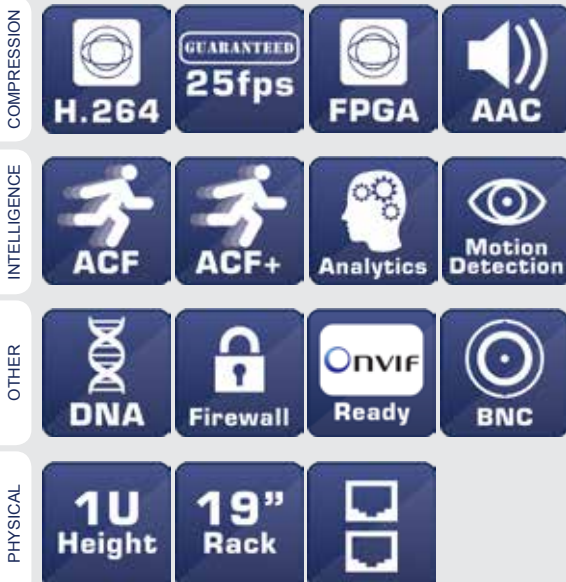
IndigoVision
Complete IP Video Security Solutions

Dual Channel Encoder

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

Part of IndigoVision's 9000 range, the Dual Channel Encoder delivers powerful and cost-effective migration from analogue to IndigoVision's renowned world class IP solution. With highly optimised H.264 compression and ACF+ technology, storage costs are reduced by up to 95% and video quality is greatly improved.

Completely integrated with IndigoVision's Control Center software and Network Video Recorders (NVRs), HD and Megapixel cameras can be added easily, giving the same world class IP video solution that's trusted by some of the most demanding security installations in the world.

Key Features

COMPRESSION

H.264 | GUARANTEED 25fps | FPGA | AAC

INTELLIGENCE

ACF | ACF+ | Analytics | Motion Detection

OTHER

DNA | PoE | Firewall | Onvif | BNC

PHYSICAL

Low Temp | High Temp

Product Codes

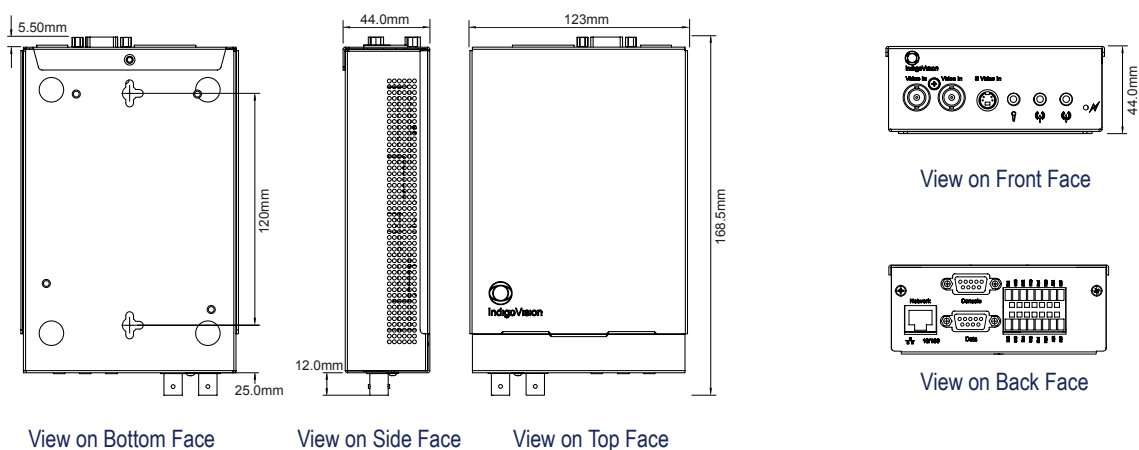| Dual Channel Encoder	9000E
Standard with Audio	769120
Extended Temperature with Audio (-30ºC to 65ºC)	769122

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

For more information:

70

Dimensions

View on Bottom Face

View on Side Face

View on Top Face

View on Front Face

View on Back Face

Specification

General Specification	
Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels
Video Compression	Full frame rate, full colour: H.264 (ISO 14496-10); 25fps guaranteed
Video Bit Rate	User-configurable bit rates from 32Kbps up to 6Mbps per video 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	Up to two simultaneous resolutions with guaranteed 25fps frame rate including: 4SIF, 2SIF, SIF
Video Analytics	Standard: ACF, ACF+, Motion Detection, Hooded (configurable per channel). Advanced: Dual Tripwire, Counterflow, Congestion, Museum (configurable per channel)*
Video Input	2 PAL composite video; 75 Ohms 1V p-p, standard BNC connectors; 1 S-Video connector
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 16 Bit, 16kHz sample rate Mono Input, Mono Output
Audio Input	2 Line in / Mic in with terminal block connector. Nominal voltage: 1V p-p, Mic 30mV p-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	4 Pull up inputs for non powered contacts; 2 solid state relay outputs
Data Input/Output	1 Data port: 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, RTP, ICMP, IGMP, SNMP, HTTP, HTTPS, SSH, TELNET
Network Security	Embedded Linux firewall. Salted passwords, with MD5 encryption
Time	Embedded real-time clock, NTP client with battery backup
Dimensions/Weight	168.5mm (d) x 123mm (w) x 44.0mm (h) and 0.6Kg (excluding power supply)
Regulatory	EN 55022 (2010) ITE emission standard – Class A, EN 55024 (1998) +A1:2000 +A2:2003, ITE immunity standard, CFR47(2008) 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
Power Supplies	Power supplies are separately orderable (Product code: 110004). Extended Temp. Option B comes with an internal heater and 24V AC/DC heater power supply included
ONVIF	Profile S*

	Standard	Extended Temperature B
Electrical	PoE (802.3af Class 0) or 24V AC/DC; 7W max	PoE (802.3af Class 0) Encoder. 24V AC/DC Encoder and Heater. 8W max (Encoder); 30W max (Heater)
Operating Temperature	0°C to 45°C	Single Channel Mode: -30°C to 65°C. Dual Channel Mode: -30°C to 55°C

* Firmware upgrade is required for ONVIF Conformance.

IndigoVision
Complete IP Video Security Solutions

Single Channel Decoder

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

Part of IndigoVision's 9000 range, the Single Channel Decoder delivers powerful and cost-effective migration from analogue to IndigoVision's renowned world class IP solution.

Completely integrated with IndigoVision's Control Center software and Network Video Recorders (NVRs), giving the same world class IP video solution that's trusted by some of the most demanding security installations in the world.

Key Features

COMPRESSION

H.264 | GUARANTEED 25fps | FPGA | AAC

INTELLIGENCE

ACF | Analytics | Motion Detection

OTHER

DNA | PoE | Firewall | BNC

PHYSICAL

Low Temp | High Temp

Product Codes

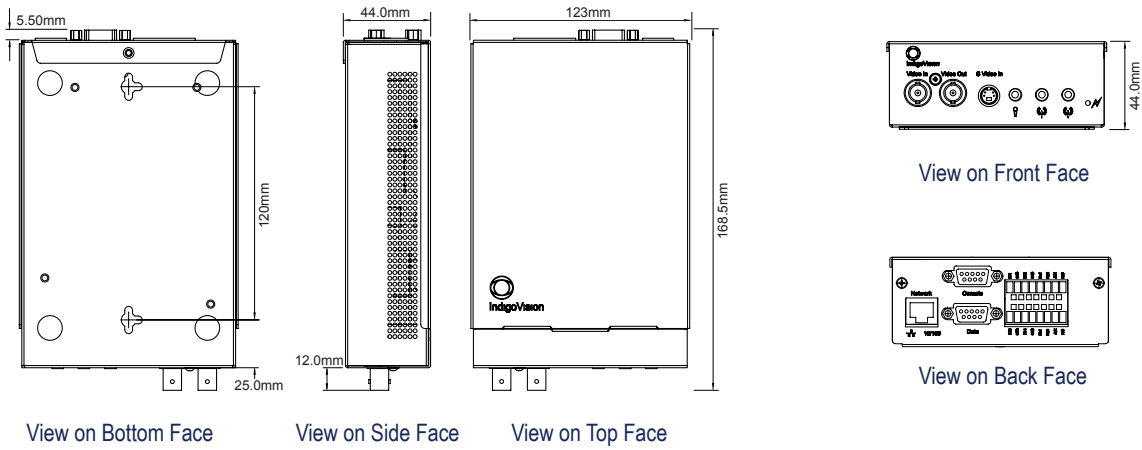| Single Channel Decoder	
Extended Temperature with Audio (-30°C to 65°C)	729129

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

For more information:

Dimensions

5.50mm

44.0mm

123mm

120mm

168.5mm

12.0mm

25.0mm

View on Bottom Face

View on Side Face

View on Top Face

44.0mm

View on Front Face

View on Back Face

Specification

General Specification	
Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels
Video Output	PAL composite video, 75 Ohms; 1V p-p, standard BNC connector
Video Decode	Decode IndigoVision MPEG-4 and H.264 video streams
Audio Compression	AAC-LC (ISO 144496-3)
Audio Protocol	RTP (RFC 3640)
Audio Resolution	16 Bit, 16kHz sample rate Mono Output
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, RTP, ICMP, IGMP, SNMP, HTTP
Network Security	Embedded Linux firewall. Salted passwords, with MD5 encryption
Time	Embedded real-time clock, NTP client with battery backup
Dimensions/Weight	168.5mm (d) x 123mm (w) x 44.0mm (h) and 0.6Kg (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	PoE (802.3af Class 0) Encoder. 24V DC/DC Encoder and Heater. 8W max (Encoder); 30W max (Heater)
Operating Temperature	-30°C to 65°C
Power Supplies	24V DC power supply included

BX100 Four Channel Encoder

Cost-Effective Analogue to World Class IP Video Migration

Part of IndigoVision's professional BX range, the BX100 Four Channel Encoder delivers cost-effective migration from analogue to IndigoVision's renowned world class IP solution. The BX100's outstanding H.264 compression means 20% less bandwidth, reduced storage and better video quality than other mid-range encoders.
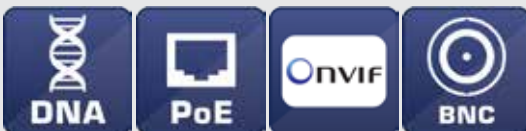
Completely integrated with IndigoVision's Control Center software and Network Video Recorders (NVRs), HD and Megapixel cameras can be added easily, giving the same world class IP video solution that's trusted by some of the most demanding security installations in the world.

Key Features

COMPRESSION

H.264 | UP TO 25fps | G.711

OTHER

DNA | PoE | Onvif | BNC

Product Codes

BX100 Four Channel Encoder	
Standard	511250
Standard with Management Software	561250

BX100 Four Channel Encoder Rack Mount Kit	
Rack Mount Kit	110103

For more information:

Dimensions - BX100 Four Channel Encoder

View on Front Face

View on Back Face

BX100 Four Channel Encoder Rack Mount Kit

Specification

General Specification	
Video Resolution	4SIF: 704 x 576 pixels 2SIF: 704 x 288 pixels SIF: 352 x 288 pixels
Video Compression	Full frame rate, full colour: H.264 (ISO 14496-10); up to 25fps
Video Bit Rate	User-configurable bit rates from 32Kbps up to 8Mbps per video channel
Video Multi-Streaming	Up to 32Mbps total video output; Unlimited multicast connections. Up to four 8Mbps unicast connections
Video Multi-Encoder	Up to two simultaneous streams per channel
Video Input	4 PAL video; 75 Ohms 1V p-p, standard BNC connectors
Audio Compression	G.711
Audio Bit Rate	64Kbps per channel
Audio Resolution	Full Duplex 8kHz sample rate. Mono Input
Audio Input	4 audio in, Nominal voltage: 2V p-p 1kOhms
Binary Input/Output	4 Pull up inputs for non powered contacts; 2 relay outputs @1A
Data Input/Output	1 Data port: half duplex RS485 up to 115.2 Kbps; 1 Console port; RS232 up to 115.2 Kbps
Network Interface	IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, RTP, RTSP, ICMP, IGMP, SNMP, HTTP, HTTPS, PPPoE, uPnP, DHCP
Time	Embedded real-time clock, NTP client
Dimensions/Weight	128mm (d) x 114mm (w) x 48.0mm (h) and 0.8Kg (excluding power supply)
Regulatory	EN 55022 (2010) ITE emission standard – Class A, EN 55024 (1998) +A1:2000 +A2:2003 ITE immunity standard, CFR47(2008) 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	PoE (802.3af Class 0) or 12V DC; 6W max
Operating Temperature	-10°C to 50°C
Power Supplies	Power supplies not included
Mounting Options	2U high rack mount kit available
IndigoVision Software Requirements	Control Center v11.0 or later
ONVIF	Profile S

Ethernet Extender

Power over Ethernet and network range extender

IndigoVision's Ethernet Extender allow IP cameras and encoders to be deployed where they are needed, without being constrained by the conventional limits of Ethernet cables. A single extender doubles the existing cable range, and this can be increased further with multiple units. Both regular 802.3af PoE and 802.3at PoE plus are available, with no configuration or setup required, making installation easy.

- Instantly doubles cable range to 200 metres

- Extends up to 700 metres with multiple units

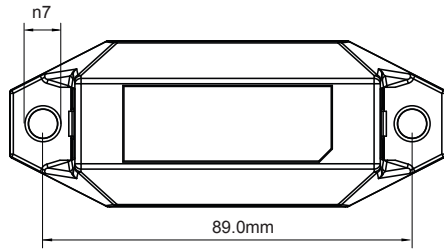- Full unrestricted network bandwidth

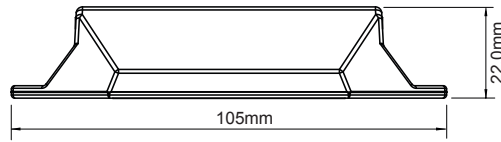- Extends POE and POE Plus

Product Code

	Product Code
Ethernet Extender	110424

For more information:

Dimensions

View on Front Face — n7 — 89.0mm

View on Top Face — 105mm — 22.0mm
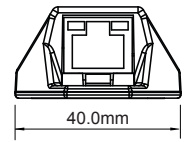
View on End Face — 40.0mm

Specification

General Specification	Ethernet Extender
Led Colours	Power good, network link/activity (both ports)
Dimension/Weight	105mm (d) x 40.0mm (w) x 22.0mm (h) and 45g
Housing	Polycarbonate/ABS
Protection Rating	N/A
Operating Temperature	-10°C to 50°C
Mounting	Two 7mm diameter mounting holes. Centres 89mm apart
Ethernet Interface	Two independently auto-configuring 10/100 ports (10BASE-T/100BASE-TX, half/full duplex) Patch or crossover cables supported
Regulatory	CE, FCC, RoHS, Up to 85%, non-condensing
Electrical	1.3 watts via POE
Forwarded POE Power	Up to 70 watts depending on standard. Maximum current 0.7 amps on data pairs. Maximum current 1.5 amps on spare pairs
POE Standards	IEEE 802.3af POE. IEEE 802.3at POE Plus (2-event signature). Custom POE (incl. "always-on 48V" and "4-pair")

Maximum Extension Distance

By installing an Ethernet Extender for every extra 100 metres of cable, POE and Ethernet can be extended for considerable distances with no loss of network bandwidth. The limit depends on which POE Source is used and on how much power the IP camera or other device requires:

Power Source	Power Required by Camera	
POE Source	6W	12W
POE Switch	400m	200m
PoE+ Injector	700m	400m

Ethernet Extender Diagram*

* A single Ethernet Extender doubles the cable range to a POE IP Camera. Each cable segment can be up to 100 metres.

IndigoVision
Complete IP Video Security Solutions

Ethernet over Coax Converters

Ethernet and POE-over-coax to IP cameras without the need to re-cable

IndigoVision's Ethernet over Coax Converters are easy to install and provide a straight, end-to-end RJ45 to RJ45 network connection using existing cabling. This connection operates as a full-duplex 100BaseT Ethernet connection and is completely transparent to any network device. These converters do not require MAC or IP address, and can function without any additional setup at all.

- Re-use existing coax cable for IP cameras
- Eliminate power cabling with POE-over-Coax
- Fully automatic - no configuration required
- Simple fast, cost-effective installation

Product Codes

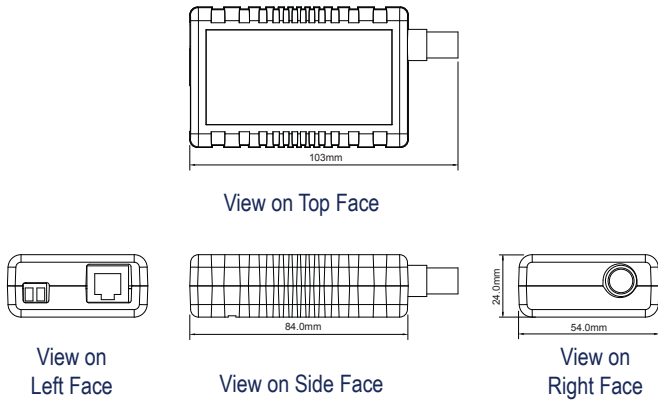| Ethernet over Coax Converters	
Ethernet over Coax Converter (Pair)	110420
Ethernet over Coax Converter (Base)	110421
Ethernet over Coax Converter (Camera)	110422

Accessories	
Rackmount Bracket	110428
Ethernet over Coax Converter PSU	110429

For more information:

Dimensions: Ethernet over Coax Converter

View on Top Face
— 103mm —

View on Left Face

View on Side Face
— 84.0mm —

View on Right Face
54.0mm / 24.0mm

Dimensions: 1U Rack Mount

View on Front Face
28.0mm / 44.0mm

View on Side Face
2.00mm

View on Top Face
393mm / 430mm / 9.00mm / 67.5mm
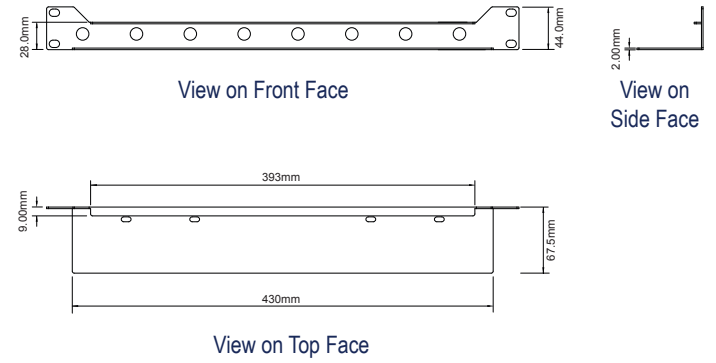
Specification

General Specification	
Coax Interface	Connector Type: BNC 75 Ohm Cable Type: Any 75 Ohm coaxial (other impedances supported) Range: Up to 300m on RG59 or 500m on RG11 at full rate Bandwidth: 200 Mbps (total up + down)
Ethernet Interface	Connector Type: RJ45 Cable Type: Patch or crossover, auto-detected Rate: 100Base-T full-duplex with auto-negotiation
Led Status Indicators	Coax link, Ethernet link/activity (BASE), Ethernet link/activity (CAMERA), POE-over-coax, POE to camera, Power available (5/10/15/20/25W)
Led Colours	Off - Disabled. Green - Enabled. Red - Fault
Dimension/Weight	103mm (d) x 54.0mm (w) x 24.0mm (h) (84.0mm excluding connector) and 140g
Regulatory	FCC, CE, RoHS, 85% non-condensing
Housing	Polycarbonate/ABS
Electrical	Unit Power: 1.5 watts Base POE In: IEEE 802.3af (POE) or IEEE 802.3at (POE Plus), 2-event, power class 4 Camera POE Out: IEEE 802.3af (POE) or IEEE 802.3at (POE Plus) DC Power Input: 40-57 volts, 0.7 amps maximum, class 2 isolated, detachable screw terminal
Operating Temperature	-10°C to 50°C (delivering POE <15w) -10°C to 40°C (delivering POE Plus >15w)

POE over Coax Range

Ethernet over Coax Converter deliver reliable power at long range, even over low-grade CCS cable, and confirms it automatically on installation. In most cases the full 25 watts required by the most powerful POE Plus cameras is available. The table below shows the range achievable by cable type, power source, and camera wattage.

Power Source	POE or POE Plus Switch				Ethernet over Coax Converter PSU			
Camera Power (watts)	5	10	15	20	5	10	15	20
RG-59 (22AW G CCS)	225m	125m	100m	60m	270m	265m	185m	140m
RG-59 (22AW G core)	300m	300m	265m	195m	300m	300m	300m	300m
RG-59 (20AW G core)	300m	300m	300m	300m	300m	300m	300m	300m
RG-11 (14AW G core)	500m	500m	500m	500m	500m	500m	500m	500m

Ethernet over Coax Converter Diagram

POE Network Switch

Power

BASE

Coaxial Video Cable

< 300M on RG59 / 500M on RG11 >

CAMERA

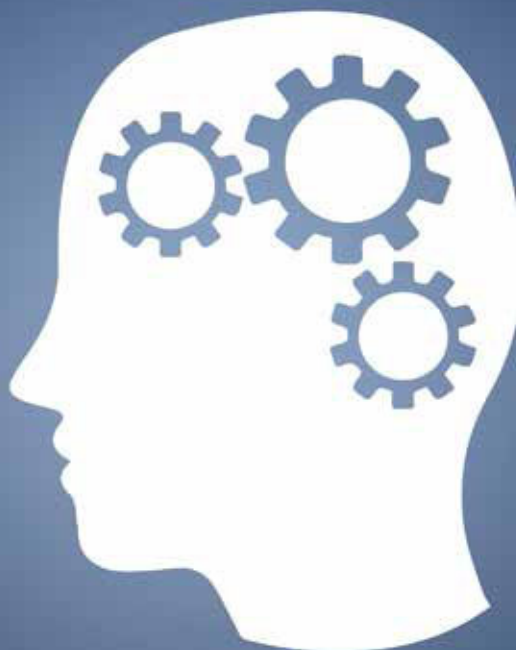IP Camera

Ethernet with POE

Diagram 1. Ethernet over Coax Converter delivers Ethernet and POE over legacy coax, for maximum reliability with minimal wiring.

IndigoVision
Complete IP Video Security Solutions

Advanced Analytics

Every Camera Monitored, 24/7.

IndigoVision's Advanced Analytics takes the burden of security surveillance away from the control room and puts it in the camera. Embedded within IndigoVision's class-leading SMART.core technology, the advanced analytics automates many aspects of visual security, leaving the users free to deal with operational tasks.

Advanced Analytics algorithms bring significant benefits in both live-monitored and incident review operations, work 24 hours a day, 365 days a year and don't get tired or lose interest or concentration. Their use allows improved operational performance and an increased workload to be accommodated without an increase in staff headcount.

Advanced Analytics unlocks the power of ACF+, that can save up to 95% of storage.

Advanced Analytic features include:

- Dual Tripwire
- Congestion Detection
- Counter Flow
- Museum Mode

Product Codes

	Product Code
Advanced Analytics*	317700

* Only available on SMART.Core products i.e. 8000, 9000, and 11000 ranges and the Ultra 2K cameras.

For more information:

ACF+

Unique to IndigoVision, IndigoVision's Advanced Analytics (ACF+) can dramatically reduce your storage needs. By using tripwire or counterflow you can save up to 95% of storage.

General Requirements
IndigoVision SMART.core Camera
IndigoVision NVR-AS Alarm Server
Advanced Analytics Licence

Dual Tripwire

Virtual Tripwires can be used to protect boundaries such as railway tracks, freeways and building perimeters. The operator is informed when a tripwire is crossed. Virtual Tripwires can be used to count how many people enter or leave buildings. Up to two Virtual Tripwires can be placed in the scene and combined with logic, e.g. alarm only if both Tripwires are crossed.

General Requirements
IndigoVision SMART.core Camera
IndigoVision NVR-AS Alarm Server
Advanced Analytics Licence

Congestion Detection

Congestion Detection can look for increased numbers of people or vehicles in an area. This can improve public safety in train platforms, public spaces, highways or security search areas.

General Requirements
IndigoVision SMART.core Camera
IndigoVision NVR-AS Alarm Server
Advanced Analytics Licence

Counter Flow

Counter Flow is available to alert a user to a person or vehicle moving in an unauthorized direction, e.g. a vehicle travelling in the wrong direction on a carriageway or a person moving the wrong way through airport security. Counter flow analysis can help optimize crowd control in public areas, such as the underground or train stations.

General Requirements
IndigoVision SMART.core Camera
IndigoVision NVR-AS Alarm Server
Advanced Analytics Licence

Museum Mode

Museum mode can be used to detect theft of static objects. In this mode sensitivity is configurable and moving foreground objects are ignored. It can also be used when reviewing recorded footage, for example, of a warehouse or a stockroom. It can quickly identify when a particular item was moved or removed from the scene.

General Requirements
IndigoVision SMART.core Camera
IndigoVision NVR-AS Alarm Server
Advanced Analytics Licence

Record
Reliable. Robust. Resilient.

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

IndigoVision's Network Video Recorders (NVRs) provide powerful, fully integrated recording and playback of video. By using IndigoVision's unique Distributed Network Architecture 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, Windows or Linux storage options - when coupled with IndigoVision's IP capture hardware, IndigoVision's NVRs deliver unbelievable evidence at a diminutive cost.

Storage Capacity					
Storage Options	Large Enterprise NVR-AS (up to 700 streams)	Enterprise NVR-AS (up to 200 streams)	NVR-AS 3000 (up to 64 streams)	Compact NVR-AS 3000 (up to 20 streams)	Compact NVR-AS 4000 (up to 20 streams)
RAID 0	n/a	n/a	n/a	1TB, 2TB, 3TB	1TB
RAID 1	n/a	n/a	n/a	n/a	n/a
RAID 5	n/a	9TB, 12TB	3TB, 6TB, 9TB	n/a	n/a
RAID 6	200TB, 400TB, 600TB	24TB, 40TB	n/a	n/a	n/a

Record Index

Large Enterprise NVR-AS

Enterprise Recording. Intelligently Designed.

With seven times the performance of the nearest alternative, the IndigoVision Large Enterprise NVR-AS can record up to 700 cameras, has data throughput of 2000 Mbps and up to 600TB of usable storage. Guaranteed tamper free evidence, automatic failover and integrated backup. The Large Enterprise NVR-AS can also integrate other security systems for complete alarm management and has recording support for multiple camera manufacturers including ONVIF.

Key Features

COMPRESSION

H.264 | H.264 | JPEG 2000 | MJPEG | MPEG-4

GUARANTEED 25fps | AAC | G.711

OTHER

DNA | Firewall | Onvif | W | Windows

PHYSICAL

19" Rack | | | Fans

STORAGE

RAID6 | Dual RAID | SAS

Product Codes

350 Channel	Inc. Hardware ProSupport
Large Enterprise NVR-AS 200TB 5U	980401
Large Enterprise NVR-AS 400TB 9U	980402
Large Enterprise NVR-AS 600TB 13U	980404
700 Channel	Inc. Hardware ProSupport
Large Enterprise NVR-AS 400TB 10U	980403

Enhanced Management Software Licences

Number of Channels	1 Channel	Failover Channel
ONVIF or Camera Gateway™ license per device	314001	314071

For more information:

Specification

	350 Channel			700 Channel
Form Factor	5U 1x 1U Storage Array Server + 1x 4U Storage Array	9U 1x 1U Storage Array Server + 2x 4U Storage Array	13U 1x 1U Storage Array Server + 3x 4U Storage Array	10U 2x 1U Storage Array Server + 2x 4U Storage Array
Disk Space (TB)	200	400	600	400
Minimum Retention Time (Days)	20	40	60	20
Recording Hard Drive Bays	60 (Hot-swappable)	120 (Hot-swappable)	180 (Hot-swappable)	120 (Hot-swappable)
Performance (Streams)^	350 Recording plus simultaneous playback of 75 streams			700 Recording plus simultaneous playback of 150 streams
Performance (Throughput)^	1000 Mbps in; 800 Mbps out; 1800 Mbps total			2000 Mbps in;1600 Mbps out; 3600 Mbps total
System Dimensions/Weight	825.5mm (d) x 482.6mm (w) x 220.6mm (h) and 117Kg	825.5mm (d) x 482.6mm (w) x 398.4mm (h) and 222Kg	825.5mm (d) x 482.6mm (w) x 576.2mm (h) and 327Kg	825.5mm (d) x 482.6mm (w) x 441.2mm (h) and 234Kg
Electrical	Total - 1920W	Total - 3286W	Total - 4652W	Total - 3510W

General Specification

Operating System	Windows Server® 2008 R2 for Embedded Systems Essentials
Video	Simultaneously record and playback full frame rate, full resolution video streams from any IndigoVision IP Camera or Encoder. Record and playback from other devices**
Audio*	Recording and playback of AAC and G.711 audio
Thumbnails*	Indexed recordings for rapid display of time-based, alarm-based or motion-based thumbnails
Alarms	Recording and logging of alarms and events
Bookmarks	Recording and logging of bookmarks in association with recordings
Integrated Data	Recording and logging of millions of data records from LPR, EPOS and other integrations
Analytics*	Recording and playback of motion analysis data from cameras
Redundancy and Failover	Full DNA support, sophisticated failover and mirroring strategies amongst multiple NVRs for increased resilience and redundancy
Automatic Storage Management	Policy based management options for automatic deletion or protection of old footage
Digital Watermarking	Digital signing at point of recording and at export
Recording Hard Drive	3.5in Nearline SAS
Operating System Hard Drive Bays	Dual redundant separate mirrored drives
RAID Controller	Dual Hardware RAID Controller with battery and flash backed cache configured as RAID6
Attached Storage	Direct attached, Dual redundant 6Gbps SAS
Network Interface	Dual Port Redundant 10Gb SFP+ (Video), Dual Port Redundant 1Gbps (Management), TCP, UDP, ICMP, IGMP, SNMP, HTTP, NTP, Telnet, FTP
Network Security	Enhanced Windows Server 2008 Firewall, Network Access Protection (NAP)
Dimensions/Weight	Storage Array Server - 607mm (d) x 434mm (w) x 43.0mm (h) and 12Kg Storage Array - 825.5mm (d) x 482.6mm (w) x 177.8mm (h) and 105Kg
Regulatory	EN 60950-1, IEC 60950-1, EN 62311, EN 55022, CISPR 22, EN 61000-3-2, EN 55024, IEC 61000-3-2 (Class D), EN 61000-3-3, IEC 61000-3-3, CISPR 24
Housing	Mild Steel Chassis and Fascia
Operating Temperature	10°C to 35°C
Electrical	Storage Array Server - 350W, 100-220VAC, 50/60 Hz, Auto Switching, Dual Hot Swappable PSU Storage Array - 1755W, 220VAC, 50/60 Hz, Auto Switching, Dual Hot Swappable PSU
Processor	Intel Xeon E5
Memory	12GB RAM (3 x 4GB)
System Management	iDRAC7 Express
Supplied Accessories	Rack Mount Kit (brackets, static rails and mounting hardware), removable lockable fascia, 3m Direct Attach twinax cable kit with SFP+ connectors, PDU power cords (x2) and USB restore media
Onboard Diagnostics	Disk, Redundancy, Controllers, Enclosures, Fans, Power Supplies, Temperatures

* Features may vary based on capabilities of camera model.
** ONVIF or supported via IndigoVision Camera Gateway™
^ With or without Digital Watermarking enabled.

Accessories

Accessories	Product Code
Direct Attach twinax cable kit with SFP+ connectors – 1m	110351
Direct Attach twinax cable kit with SFP+ connectors – 3m^^	110352
Direct Attach twinax cable kit with SFP+ connectors – 5m	110353
Large Enterprise NVR-AS 4000 4TB SAS Hard Disk Caddy & Disk	110314
10GBASE-SR fibre optic SFP+ transceiver	110361

^^ Included as standard with every Large Enterprise NVR-AS.

Enterprise NVR-AS

Enterprise Recording. Intelligently Designed.

With double the performance of the nearest alternative, the IndigoVision Enterprise NVR-AS can record up to 200 cameras, has data throughput of 500 Mbps and up to 40TB usable storage. Guaranteed tamper free evidence, automatic failover and integrated backup. The Enterprise NVR-AS can also integrate other security systems for complete alarm management and has recording support for multiple camera manufacturers.

Key Features

COMPRESSION

H.264 | H.264 | JPEG 2000 | MJPEG | MPEG-4

GUARANTEED 25fps | AAC | G.711

OTHER

DNA | Firewall | Onvif | W | Windows

PHYSICAL

1U Height | 2U Height | 19" Rack | |

STORAGE

RAID5 | RAID6 | SATA

Product Codes

| 100 Channel	Inc. Hardware ProSupport	Exc. Hardware ProSupport
Enterprise NVR-AS RA6TB Windows	980465	980460
Enterprise NVR-AS RA9TB Windows	980466	980461
Enterprise NVR-AS RA12TB Windows	980467	980462
200 Channel	**Inc. Hardware ProSupport**	**Exc. Hardware ProSupport**
Enterprise NVR-AS RA24TB Windows	980478	980473
Enterprise NVR-AS RA40TB Windows	980477	980472

Enhanced Management Software Licenses

Number of Channels	1 Channel	Failover Channel
ONVIF or Camera Gateway™ license per device	314001	314071

For more information:
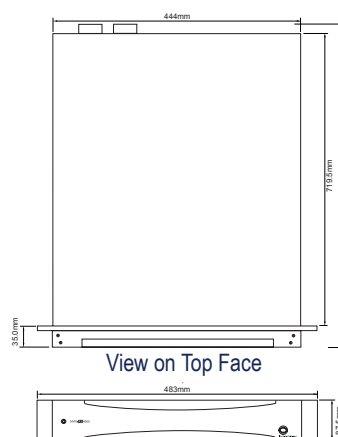
Dimensions - 1U Chassis

View on Top Face
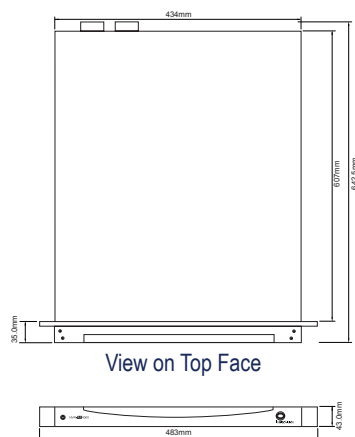
1U View on Front Face (with removable lockable fascia)

Dimensions - 2U Chassis

View on Top Face

2U View on Front Face (with removable lockable fascia)

Specification

	100 Channel			200 Channel	
Form Factor	1U	1U	1U	2U	2U
Disk Space (TB)	6	9	12	24	40
Recording Hard Drive Bays	4 (Hot-swappable)			12 (Hot-swappable)	
Operating System Hard Drive Bays	On recording hard drives			Dual redundant separate mirrored drives	
RAID Controller	Hardware RAID Controller configured as RAID5			Hardware RAID Controller with Flash Backed Cache configured as RAID6	
Performance (Streams)^	100 Recording plus simultaneous playback of 25 streams			200 Recording plus simultaneous playback of 25 streams	
Performance (Throughput)^	128 Mbps in; 200 Mbps out; 328 Mbps total			500 Mbps in; 200 Mbps out; 700 Mbps total	
Network Interface	Dual Port Redundant 100/1000 BaseT RJ-45 Connections, TCP, UDP, ICMP, IGMP, SNMP, HTTP, NTP, Telnet, FTP			Quad Port Redundant 100/1000 BaseT RJ-45 Connections, TCP, UDP, ICMP, IGMP, SNMP, HTTP, NTP, Telnet, FTP	
Dimensions/Weight	607mm (d) x 434mm (w) x 43.0mm (h) and 19.3Kg			719.5mm (d) x 444mm (w) x 87.5mm (h) and 29.5Kg	
Electrical	350W, 100-240VAC, 50/60 Hz, Auto Switching, Single Hot Swappable PSU, Secondary Dual-Redundant Hot Swap PSU support			750W, 100-240VAC, 50/60 Hz, Auto Switching, Single Hot Swappable PSU, Secondary Dual-Redundant Hot Swap PSU support	
Processor	Intel Xeon E5			Intel Xeon E5	
Memory	6GB RAM (3 x 2GB)			8GB RAM (4 x 2GB)	

General Specification	
Operating System	Windows Server® 2008 R2 for Embedded Systems Essentials
Video	Simultaneously record and playback full frame rate, full resolution video streams from any IndigoVision IP Camera or Encoder. Record and playback from other devices**
Audio*	Recording and playback of AAC and G.711 audio
Thumbnails*	Indexed recordings for rapid display of time-based, alarm-based or motion-based thumbnails
Alarms	Recording and logging of alarms and events
Bookmarks	Recording and logging of bookmarks in association with recordings
Integrated Data	Recording and logging of millions of data records from LPR, EPOS and other integrations
Analytics*	Recording and playback of motion analysis data from cameras
Redundancy and Failover	Full DNA support, sophisticated failover and mirroring strategies amongst multiple NVRs for increased resilience and redundancy
Automatic Storage Management	Policy based management options for automatic deletion or protection of old footage
Digital Watermarking	Digital signing at point of recording and at export
Recording Hard Drive	3.5in Nearline SATA
Network Security	Enhanced Windows Server 2008 Firewall, Network Access Protection (NAP)
Regulatory	EN 60950-1, IEC 60950-1, EN 62311, EN 55022, CISPR 22, EN 61000-3-2, EN 55024, IEC 61000-3-2 (Class D), EN 61000-3-3, IEC 61000-3-3, CISPR 24
Housing	Mild Steel Chassis and Fascia
Operating Temperature	10°C to 35°C
System Management	iDRAC7 Express
Supplied Accessories	Rack Mount Kit (brackets, static rails and mounting hardware), removable lockable fascia, PDU power cord and USB restore media
Onboard Diagnostics	Disk, Redundancy, Controllers, Enclosures, Fans, Power Supplies, Temperatures

* Features may vary based on capabilities of camera model.
** ONVIF or supported via IndigoVision Camera Gateway™
^ With or without Digital Watermarking enabled.

Accessories

Accessories	Product Code
Enterprise NVR-AS 100 Channel Redundant PSU	110014
Enterprise NVR-AS 200 Channel Redundant PSU	110015
Enterprise NVR-AS 3TB SATA Hard Disk Caddy & Disk	110303
Enterprise NVR-AS 4TB SATA Hard Disk Caddy & Disk	110304

IndigoVision
Complete IP Video Security Solutions

Network Video Recorder

Powerful and integrated recording and playback system

With recording for up to 64 cameras and simultaneous playback of up to 20 cameras, the IndigoVision NVR-AS 3000 has extremely low power consumption and heat dissipation. The NVR-AS 3000 has up to 9TB storage from either integrated fixed disks or hot-swappable removable disks and has recording support for multiple camera manufacturers.

Key Features

COMPRESSION

H.264 | H.264 | MJPEG | GUARANTEED 25fps

AAC | G.711

OTHER

DNA | Firewall | ONVIF | W | 🐧

PHYSICAL

2U Height | 19" Rack | ⏚ | 🖧

STORAGE

RAID5 | SATA

Product Codes

NVR-AS 3000	
RA3000 RAID5	980397
RA6000 RAID5	980398
RA9000 RAID5	980399

Caddies including Disks	
1000GB	980010
2000GB	980020
3000GB	980030

Enhanced Management Software Licenses

Number of Channels	1 Channel	Failover Channel
ONVIF or Camera Gateway™ license per device	314001	314071

Dimensions

View on Left Face

443mm

254mm

18.0mm

View on Top Face

View on Right Face

View on Back Face

87.0mm

483mm

View on Front Face
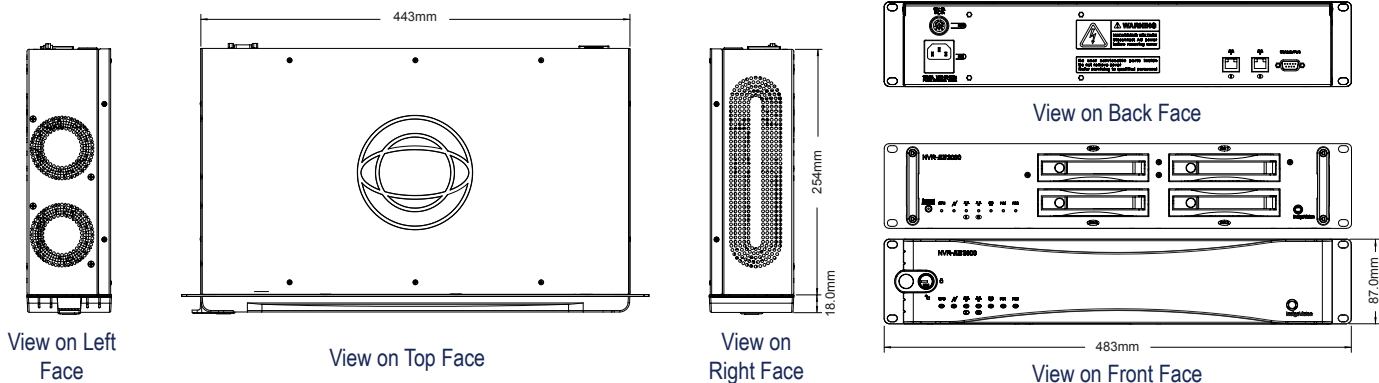
Specification

	RA 3000 RAID5	RA 6000 RAID5	RA 9000 RAID5
Disk Space (GB)	3000	6000	9000
General Specification (RAID5)			
Recording Hard Drive Bays	4 (Hot-swappable)		
Operating System	Embeded Linux		
Video	Simultaneously record and playback full frame rate, full resolution video streams from any IndigoVision IP Camera or Encoder. Record and playback from other devices**		
Audio*	Recording and playback of AAC and G.711 audio		
Thumbnails*	Indexed recordings for rapid display of time-based, alarm-based or motion-based thumbnails		
Alarms	Recording and logging of alarms and events		
Bookmarks	Recording and logging of bookmarks in association with recordings		
Integrated Data	Recording and logging of hundreds of thousands of data records from LPR, EPOS and other integrations		
Analytics*	Recording and playback of motion analysis data from cameras		
Redundancy and Failover	Full DNA support, sophisticated failover and mirroring strategies amongst multiple NVRs for increased resilience and redundancy		
Automatic Storage Management	Policy based management options for automatic deletion or protection of old footage		
Digital Watermarking	Digital signing at point of recording and at export		
Recording Hard Drive	3.5in SATA Seagate SV35 Series optimised for 24x7 video storage. 3-year warranty		
RAID Controller	Hardware RAID Controller configured as RAID5		
Performance (Streams)^	64 Recording Streams when recording 9000 and 11000 Range Cameras. 32 Recording Streams when recording BX and Ultra Range Cameras or third party ONVIF cameras		
Performance (Throughput)^	40 Mbps in; 40 Mbps out; 80 Mbps total		
Network Interface	Dual redundant 100/1000 BaseT RJ-45 Connections, TCP, UDP, ICMP, IGMP, SNMP, HTTP, NTP, Telnet, FTP		
Network Security	Embedded Linux firewall		
Dimensions/Weight	272mm (d) x 483mm (w) x 87mm (h) and 8.2Kg		
Regulatory	EN 55022 ITE emission standard – Class A, EN61000-3-2 Mains Harmonics – Class A, EN61000-3-3 Voltage Fluctuation, EN55024 ITE immunity standard, UL 60950-1 , Information Technology Equipment - Safety Part 1: General Requirements CFR47: 2002 Part 15 Sub Part B (US federal code of regulations), Information Technology Equipment - Safety - Part 1: General Requirements CSA C22.2 No. 60950 - 1 - 07, EN 60068-2-30 Humidity up to 95% Non Condensing		
Housing	Mild Steel Chassis – Plastic (ABS) Fascia		
Electrical	Operating Voltage: Input 100-240V ~ 47-63Hz 1A. Connector for redundant external power supply. Power consumptions: 53W (max)		
Operating Temperature	0°C to 45°C		
Processor	Intel IOP341 1.2GHz		
Supplied Accessories	Rack Mount Kit (brackets), removable lockable fascia and PSU		
Onboard Diagnostics	Disk, CPU, Motherboard Temperatures, Redundant Power and Network Status, Cooling Fan Status		

* Features may vary based on capabilities of camera model. ** ONVIF or supported via IndigoVision Camera Gateway™
^ 32 Recording Streams and 32 Mbps Performance Throughput when Digital watermarking is enabled.

Examples of Recording Duration in Days

Motion Level	20 Cameras	40 Cameras	64 Cameras
Occassional	170 days	85 days	50 days
Intermittent	34 days	17 days	10 days
Frequent	18 days	9 days	5 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 Encoders only use required bandwidth, the actual recording capacity may be more or less than shown.

For more information:

ID: NVR-AS-3000 14.7 NOV 14

IndigoVision
Complete IP Video Security Solutions

Compact Network Video Recorder

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

With recording for up to 20 cameras and simultaneous playback of up to 20 cameras, the IndigoVision Compact NVR-AS 3000 offers a small and powerful recording platform with up to 3TB storage. Able to withstand temperature ranges of 0°C to 50°C, it is ideal for installation outside of traditional machine rooms such as retail or banking applications and has recording support for multiple camera manufacturers.

Key Features

COMPRESSION

H.264 | H.264 | MJPEG | GUARANTEED 25fps

AAC | G.711

OTHER

DNA | Firewall | ONVIF | W | (Linux)

PHYSICAL

1U Height | (network port)

STORAGE

SATA

Product Codes

Compact NVR-AS 3000	Product Code
RD1000	980107
RD2000	980108
RD3000	980109

Enhanced Management Software Licence

Number of Channels	1 Channel	Failover Channel
ONVIF or Camera Gateway™ license per device	314001	314071

For more information:

Dimensions

255mm

View on Back Face

263mm

View on Left Face

View on Top Face

View on Right Face

3.5" Removeable Disk Caddie

Compact NVR-AS 3000

45.0mm

294mm
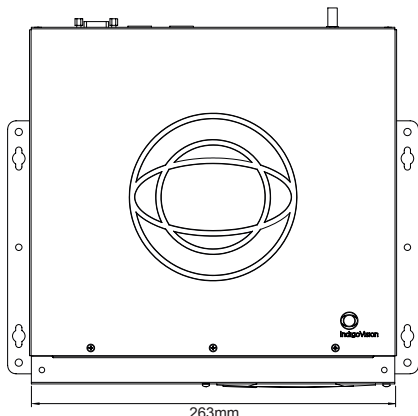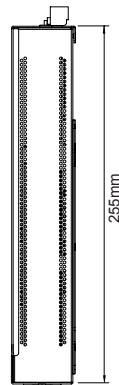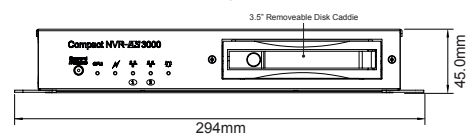
View on Front Face

Specification

	RD 1000	RD 2000	RD 3000
Disk Space (GB)	1000	2000	3000
General Specification			
Recording Hard Drive Bays	1 (Hot-swappable)		
Operating System	Embeded Linux		
Video	Simultaneously record and playback full frame rate, full resolution video streams from any IndigoVision IP Camera or Encoder. Record and playback from other devices**		
Audio*	Recording and playback of AAC and G.711 audio		
Thumbnails*	Indexed recordings for rapid display of time-based, alarm-based or motion-based thumbnails		
Alarms	Recording and logging of alarms and events		
Bookmarks	Recording and logging of bookmarks in association with recordings		
Integrated Data	Recording and logging of data records from LPR, EPOS and other integrations		
Analytics*	Recording and playback of motion analysis data from cameras		
Redundancy and Failover	Full DNA support, sophisticated failover and mirroring strategies amongst multiple NVRs for increased resilience and redundancy		
Automatic Storage Management	Policy based management options for automatic deletion or protection of old footage		
Digital Watermarking	Digital signing at point of recording and at export		
Recording Hard Drive	3.5in SATA Seagate SV35 Series optimised for 24x7 video storage. 3-year warranty		
RAID Controller	Hardware RAID Controller configured as RAID0		
Performance (Streams)^	20 Recording plus simultaneous playback of 20 streams		
Performance (Throughput)^	40 Mbps in; 40 Mbps out; 80 Mbps total		
Network Interface	Dual redundant 100/1000 BaseT RJ-45, TCP, UDP, ICMP, IGMP, SNMP, HTTP, NTP, Telnet, FTP		
Network Security	Embedded Linux firewall		
Dimensions/Weight	255mm (d) x 263mm (w) x 45mm (h) and 2.2Kg		
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		
Housing	Mild Steel Enclosure		
Electrical	Operating Voltage: Input 100-240V ~ 47-63Hz 1A; Power consumption: 32W (max). 12V DC power supply included		
Operating Temperature	0°C to 50°C		
Processor	Intel IOP341 1.2GHz		
Supplied Accessories	External PSU		
Onboard Diagnostics	Disk, CPU, Motherboard Temperatures, Network Status, Cooling Fan Status		

* Features may vary based on capabilities of camera model.
** ONVIF or supported via IndigoVision Camera Gateway™
^With or without Digital Watermarking enabled.

Examples of Recording Duration in Days

Motion Level	5 Cameras	10 Cameras	20 Cameras
Occassional	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.

IndigoVision

Complete IP Video Security Solutions

Compact Network Video Recorder

Small Size. Huge Performance.

With recording and simultaneous playback for up to 20 cameras, the IndigoVision Compact NVR-AS 4000 is ideal for smaller installations or for installations designed with distributed storage. With a Hard Disk Drive (HDD) that's optimised for 24/7 video recording, the Compact NVR-AS 4000 has recording support for multiple camera manufacturers and is completely integrated with IndigoVision's Control Center video management software.

Key Features

COMPRESSION

H.264 | H.264 | JPEG 2000 | MJPEG | MPEG-4

GUARANTEED 25fps | AAC | G.711

OTHER

DNA | ONVIF | W | (Linux)

PHYSICAL

1U Height | (ethernet port)

STORAGE

SATA

Product Codes

20 Channel	
Compact NVR-AS 1TB	980411

Enhanced Management Software Licence

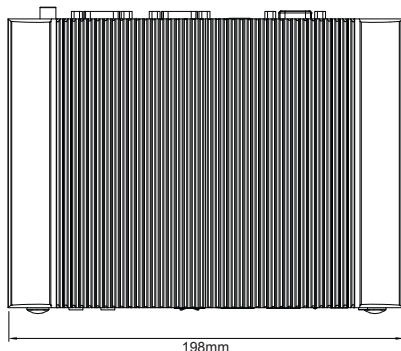| Number of Channels	1 Channel	Failover Channel
ONVIF or Camera Gateway™ license per device	314001	314071

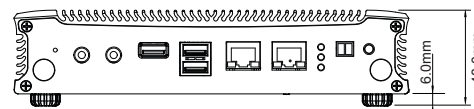For more information:

Dimensions

View on Left Face

View on Top Face

198mm

View on Right Face

145mm

View on Back Face

View on Front Face

6.0mm 48.0mm
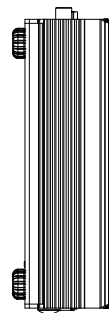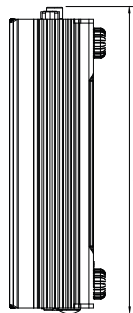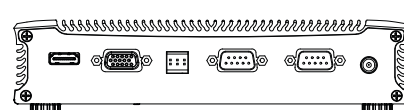
Specification

General Specification	
Disk Space (GB)	1000
Operating System	Embedded Linux
Video	Simultaneously record and playback full frame rate, full resolution video streams from any IndigoVision IP Camera or Encoder. Record and playback from other devices**
Audio*	Recording and playback of AAC and G.711 audio
Thumbnails*	Indexed recordings for rapid display of time-based, alarm-based or motion-based thumbnails
Alarms	Recording and logging of alarms and events
Bookmarks	Recording and logging of bookmarks in association with recordings
Integrated Data	Recording and logging of hundreds of thousands of data records from LPR, EPOS and other integrations
Analytics*	Recording and playback of motion analysis data from cameras
Redundancy and Failover	Full DNA support, sophisticated failover and mirroring strategies amongst multiple NVRs for increased resilience and redundancy
Automatic Storage Management	Policy based management options for automatic deletion or protection of old footage
Digital Watermarking	Digital signing at point of recording and at export
Recording Hard Drive	1 x 2.5" Western Digital AV series optimised for 24x7 video storage. 3-year warranty
Performance (Streams)^	20 Recording plus simultaneous playback of 20 streams
Performance (Throughput)^	40 Mbps in; 40 Mbps out; 80 Mbps total
Network Interface	Dual redundant 100/1000 BaseT RJ-45, TCP, UDP, ICMP, IGMP, HTTP, NTP, SSH, SFTP
Dimensions/Weight	145mm (d) x 198mm (w) x 48.0mm (h) and 1Kg
Regulatory	EN55022 (2010) ITE – Class A, EN55024 (2010), 47CFR47: 2011 Part 15 subpart B -Class A, EN60068-2-29:1993 (15G), EN60068-2-64:1995 (Random) EN60068-2-96:1996 (Sine), EN60068-2-30, EN60068-2-1 at 0ºC, EN60068-2-2 at +50ºC
Housing	Aluminium and mild steel enclosure (fanless)
Electrical	Operating Voltage: Input 100-240V ~ 47-63Hz 1A; Power consumption: 19W (max). 12V DC power supply included
Operating Temperature	0°C to 50°C
Processor	Intel Celeron N2930 2GHz
Supplied Accessories	External PSU
Onboard Diagnostics	Disk
Mounting Options	Wall Mount, Rack Mount, VESA Mount, DIN Mount Accessory Kit

* Features may vary based on capabilities of camera model. ** ONVIF or supported via IndigoVision Camera Gateway™. ^ With or without Digital Watermarking enabled.

Examples of Recording Duration in Days

Motion Level	5 Cameras	10 Cameras	20 Cameras
Occassional	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 a 1TB model with different numbers of cameras assuming full frame rate, Standard Definition 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.

Accessories

Accessories	Product Code
Wall Mount Bracket	110371
19" Rack Mount Bracket	110372
VESA Mount Bracket	110373
DIN Mount Accessory Kit	110374

![IndigoVision logo]

IndigoVision
Complete IP Video Security Solutions

20 Channel Windows NVR-AS

Exceptional value. Incredible Features.

Perfectly sized for small to medium sized installations and with all the features of an enterprise solution, the 20 channel Windows NVR-AS brings an exceptional value option to the NVR-AS range. The Windows NVR-AS offers simultaneous recording and playback of up to 20 channels, plus alarms, bookmarks, and integrated data together with options for integrating with a wide range of third party systems.

Key Features

COMPRESSION

H.264 | JPEG 2000 | MJPEG | GUARANTEED 25fps

AAC | G.711

OTHER

DNA | Firewall | Onvif | W | Windows

Product Codes

Window Network Video Recorder	Product Code
20 Channel Windows NVR-AS license dongle	311116

Enhanced Management Software Licenses

Number of Channels	1 Channel	Failover Channel
ONVIF or Camera Gateway™ license per device	314001	314071

Requires a USB license dongle for each recording server. The Windows NVR-AS software is included on the Control Center management software CD, product code: 317803.

For more information:

[QR code]

94

Specification

General Specifications	
Maximum Channels	20
Maximum ONVIF or Camera Gateway™ device licenses	5
Included ONVIF or Camera Gateway™ device licenses	0
Supported Operating Systems	Windows Server® 2008 R2, Windows 7® 64-bit, Windows 8® 64-bit, Windows Server 2012®
Video	Simultaneously record and playback full frame rate, full resolution video streams from any IndigoVision IP Camera or Encoder. Record and playback from other devices**
Audio*	Recording and playback of AAC and G.711 audio
Thumbnails	Indexed recordings for rapid display of time-based, alarm-based or motion-based thumbnails
Alarms	Recording and logging of alarms and events
Bookmarks	Recording and logging of bookmarks in association with recordings
Integrated Data	Recording and logging of data records from LPR, EPOS and other integrations
Analytics*	Recording and playback of motion analysis data from cameras
Redundancy and Failover	Full DNA support, sophisticated failover and mirroring strategies amongst multiple NVRs for increased resilience and redundancy
Automatic Storage Management	Policy based management options for automatic deletion or protection of old footage
Digital Watermarking	Digital signing at point of recording and at export
Performance (Streams)	See Performance Guide

* 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 1Mpbs recording streams	Network Card	Hard Disk Type	CPU Power Required	OS
20	100Base-T	SATA (Min 1 disk)	Intel Pentium 4 1.4Ghz	Windows 7® 64-bit

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 7® 64-bit. 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.

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.

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.

If you need more monitors, have as many as you want with IndigoVision's IP Video Wall software.

Manage Index

IndigoVision
Complete IP Video Security Solutions

Control Center

Powerful and intuitive video viewing software

Control Center is IndigoVision's complete suite of management software. 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 Network Architecture (DNA) gives you the option to locate operators anywhere on the network and manage you 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 Profile S

Product Code

Control Center	
IndigoVision Product CD - Control Center Intrepid®	317803

For more information:

Specification

General Specification	Supported on IndigoVision 9000 & 11000 Ranges & Ultra 2K Cameras	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 / H.264	MPEG-4 / H.264 / MJPEG / JPEG2000
Video Resolutions	up to 1080p	up to 20MP
Audio	Receive / Transmit	Receive / Transmit
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 (Decoders)	✓ (9000 Range)	✗
Video Wall	✓	✓
Playback	25 streams	25 streams
Synchronous Playback	✓	✓
Reverse Playback	✓	✓
Frame Step	✓	✓
Bookmarking	✓	✓
Search (Alarms and Bookmarks)	✓	✓
Motion and 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 and Guard Tours	✓	✓
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
Matrix Numbering	1 - 9,999,999	
Keyboard Support	IndigoVision / Pelco / American Dynamics / Panasonic	
Procedure Documents	HTML / Text / URL	
Time Schedules	✓	
Alarms on Maps	✓	
Alarm Reports	✓	
Integrated Data	Manage millions of data records from LPR, EPOS and other integrations	
User Authentication	Windows authentication / Basic password	
User Groups	✓	
Access Permissions	Object and function based permissions	
Architecture	Fully distributed, no central server	
Licencing	Unlimited users	
Third Party Inputs	Using IndigoVision Binding Kit	
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	
ONVIF	Profile S	
Supported Operating System	Windows 7 ® 64-bit, Windows 8 ® 64-bit	

* Features may vary based on capabilities of camera model.

![IndigoVision logo — Complete IP Video Security Solutions]

Mobile Center™

Control Center on the go

IndigoVision Mobile Center™ extends the surveillance capabilities of Control Center 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

Mobile Center™ Service Licence

Mobile Center™ connects to an IndigoVision Control Center 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 Control Center installation that they have permission to view.

Mobile Center™ Service requires a licence key attached to the USB port on the Windows server. The licence key determines how many mobile devices can be connected to the Control Center installation at any one time. The product codes for ordering the licence 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 10 device licences	n/a	311109
Additional 10 device Mobile Center™ Service dongle upgrade	n/a	311111

For more information:

Specification

General Specification	
Mobile Devices	iPhone 4 or later, iPad 2 or later; Android arm-based smartphones and tablets
Mobile OS	iOS 6 and iOS 7; Android 2.3 or later
Supported Cameras and Encoders	IndigoVision 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 Control Center site database, configurable user permissions
Multiple Languages	5+, including: English, French*, German*, Portugese*

* iOS only.
** Excludes IndigoVision BX range.
^ Excludes IndigoVision BX100 Four Channel Encoder.

Mobile Center™ Diagram
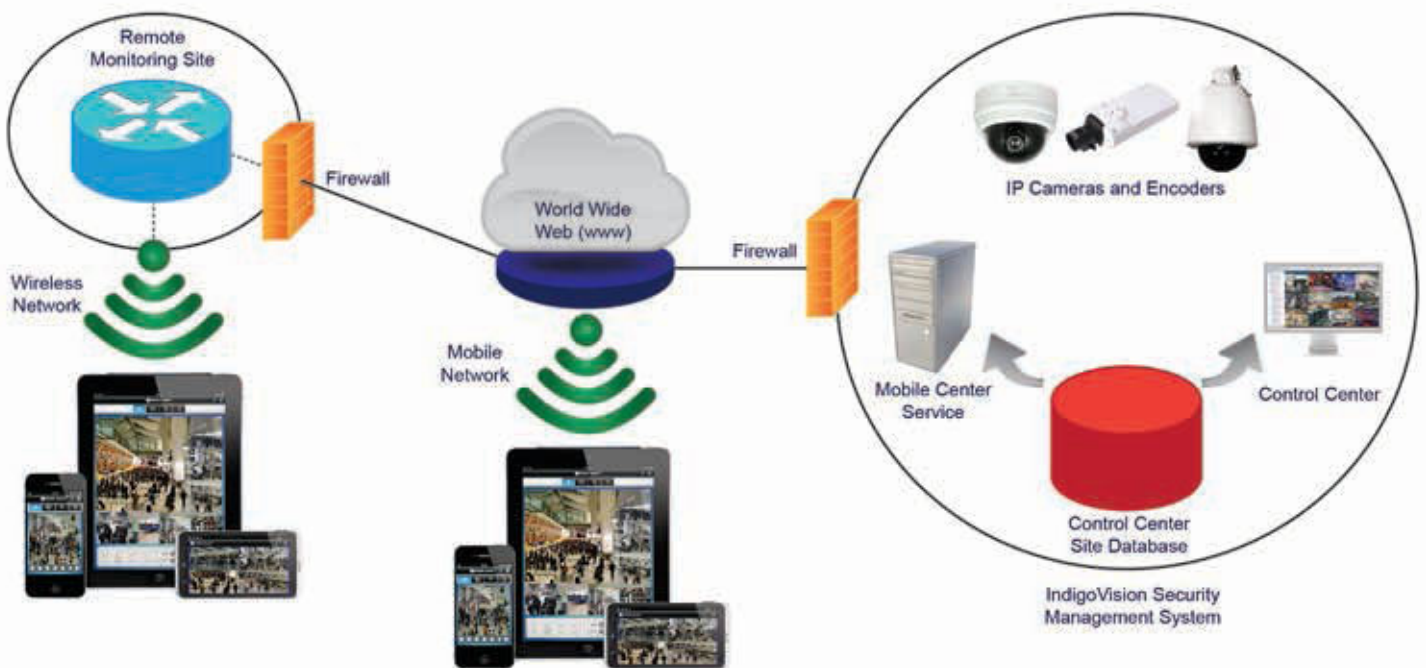
![IndigoVision - Complete IP Video Security Solutions]

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 and Panasonic.

- Seamless control of live and recorded video

- Desktop keyboard with 3-axis joystick (pan/tilt/zoom)

- Full variable PTZ control of speed domes

- Full control of Control Center virtual matrix

- Multi-function keys and menu structure

- Backlit LCD graphic display

Product Code

Surveillance Keyboard	
Surveillance Keyboard	110066

For more information:

Dimensions
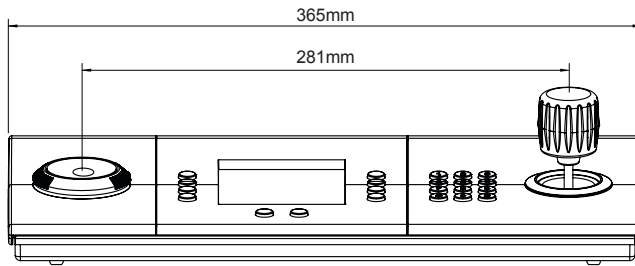
View on Front Face
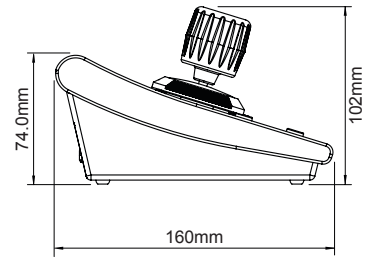
View on Left Face
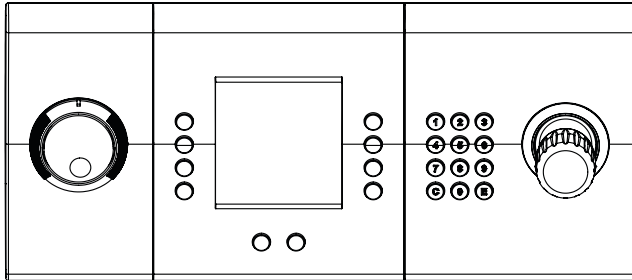
View on Top Face

Specification

General Specification	
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
Operating Temperature	5°C to 40°C
Dimensions/Weight	160mm (d) x 365mm (w) x 102mm (h) x and 1.06Kg
RS232 connections	1 Serial Line (COM) Female DB9 Connector
Regulatory	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)

![IndigoVision logo — 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 displays up to 100 panes of video across 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 SD, HD and higher resolutions up to 20MP

- Display video, site maps and alarm status

- Dynamically change the video layout of a monitor

Product Code

IP Video Wall	
IP Video Wall Slave Dongle	317301

For more information:

Specification

General Specification	
Master PCs	Unlimited
Slave PCs	Up to 98 individually licensed PCs
Maximum Monitors per Slave	4
Maximum Panes per Monitor	25
Maximum Totat Video Wall Panes	9800
Supported CCTV Keyboards	IndigoVision Surveillance Keyboard, Pelco KBD300A, American Dynamics ADCC1100, American Dynamics AD2088, Panasonic WV-CU650
Supported Actions	Select camera into pane, Stop video on pane, Pan/Tilt/Zoom/Focus/Iris/Preset control, Sequence control (start/stop/pause/next/previous), Salvo control (start/stop), Guard Tour control (start/stop), Change monitor layout
Supported Operating Systems	Windows 7 ® 64-bit, Windows 8 ® 64-bit
Supported Network	Windows Domain

IP Video Wall Diagram
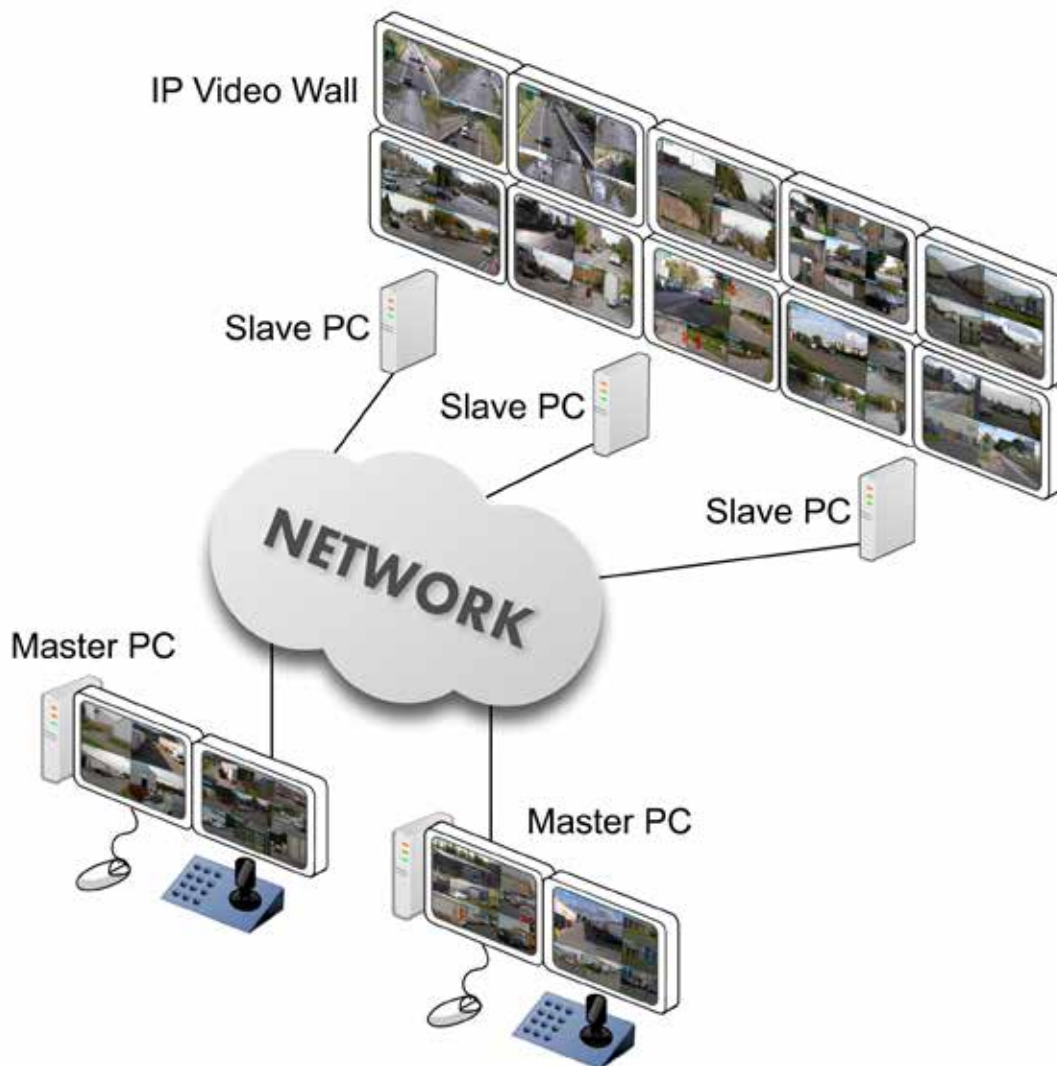
Integrate
For a truly open solution

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 Network Video Recorders (NVRs). 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.

If 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 Index

Camera Gateway™

Freedom to choose any camera

The IndigoVision Camera Gateway™ enables cameras from a range of other manufacturers to be connected to the IndigoVision Control Center suite. It takes video streams from other manufacturers' cameras using their native protocols and integrates them into the Control Center front-end application.

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 MJPEG, MPEG-4 or H.264

- PTZ control

- Audio receive

- Dual streaming - select different profiles for live viewing and recording

- Events and outputs

For more information:

Specification

General Specification	
Live Video	Live video streaming: MJPEG, 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: MJPEG, MPEG4, H.264 Record on alarm Playback video Thumbnails, bookmarks
Alarms and Events	Events from other cameras: Motion Detection / Binary Inputs and Outputs
Supported Devices	Cameras from a wide range of manufacturers, including: 3S Ganz ACTi Grandeye Antrica Grandstream Arecont Mobotix Axis Panasonic Basler Pelco Bosch Samsung Canon SightLogix Digital Barriers Sony DRS Vivotek
Supported Operating Systems**	Windows 7 ® 64-bit, Windows Server 2008 ® R2
Hardware Requirements	Server class PC; Current generation Intel Xeon Processor with 3.10 Ghz clock speed; 4GB RAM
Performance	Maximum incoming bandwidth (cameras to Camera Gateway™), 150Mbps. Maximum outgoing bandwidth (Camera Gateway™ to Control Center and NVR), 450Mbps. Maximum number of cameras, provided the bandwidth is within the limits above: 100.

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

Camera Gateway™ Diagram

Other manufacturers' cameras

Camera Gateway ™

Control Center

NVR-AS

Up to 100 cameras
Maximum total incoming
bandwidth: 150Mbps

Unlimited streams
(with multicast)
Maximum total outgoing
bandwidth: 450Mbps

Software Development Kit

The IndigoVision Software Development Kit (SDK) allows software developers to integrate third party applications with the IndigoVision IP Video and Alarm Management System.

- ⬭ Available to Authorised Partners free of charge, on the IndigoVision Product CD*

- ⬭ SDK consists of five components:
  - • IndigoVision Binding Kit - Integrate with third party systems through an application exchanging events and alarms (i.e. access control systems, alarm management systems)
  - • Custom Objects - Create new functionality within the Control Center front end interface
  - • Control Center Automation Interface - Interface programmatically with the Control Center front end
  - • IndigoVision Snap - Automatically take snapshots at configurable intervals
  - • Video Integration Kit* - Integrate video from IndigoVision devices in third party applications

Product Code

Software Development Kit	
IndigoVision Binding Kit	Included on the IndigoVision Product CD - Control Center Intrepid® - 317803
Custom Objects/Control Center Plugins	
Control Center Automation Interface	
IndigoVision Snap	
Video Integration Kit*	Contact your Sales Agent for more information

* Although part of the Software Development Kit the 'Video Integration Kit' component is not available on the IndigoVision Product CD, this is obtainable by contacting your Sales Agent.

For more information:

SDK Components

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 NVR-AS. Alarm status events are generated by NVR-AS when new alarms occur and when existing alarms are assigned, acknowledged or deleted.
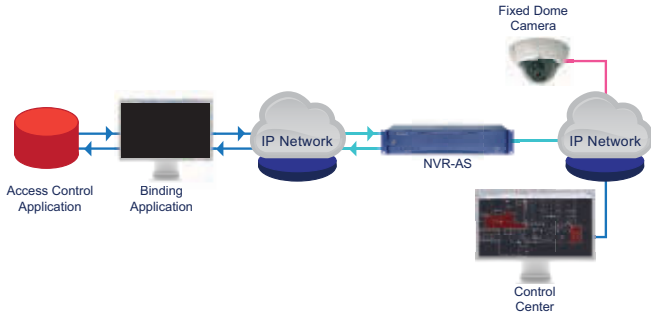

Custom Objects

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.
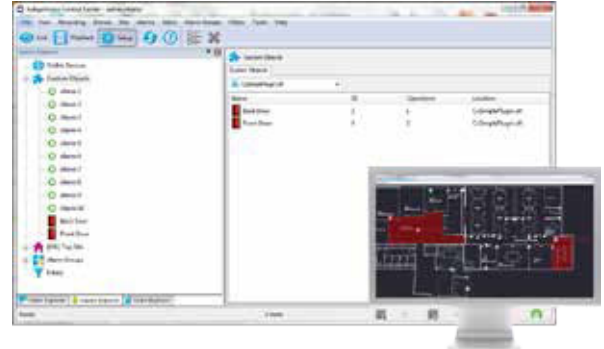

Control Center Automation Interface

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.
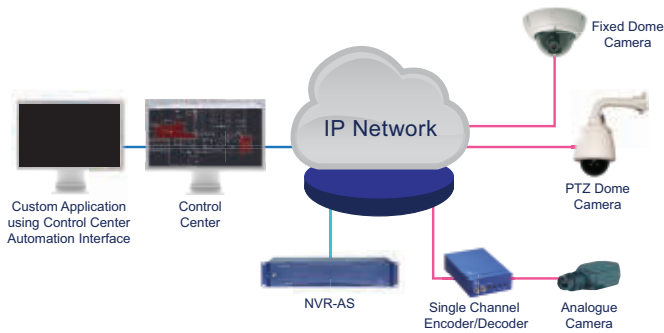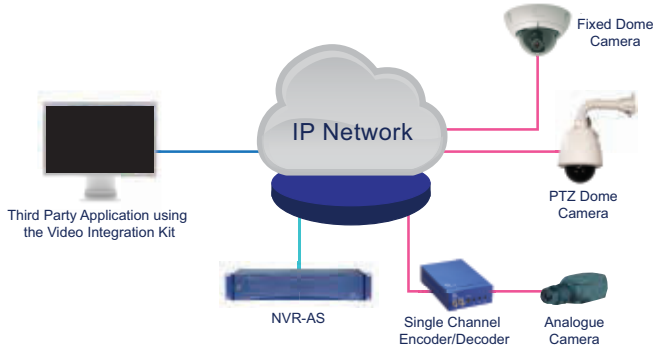

IndigoVision Snap

The IndigoVision Snap utility allows you to grab frames from a specified IndigoVision device 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.
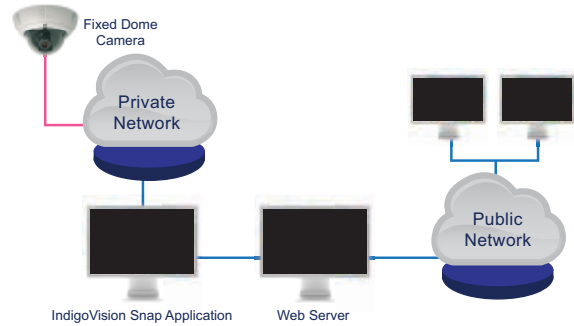
Video Integration Kit

The IndigoVision Video Integration Kit supports the integration of live and recorded video from an IndigoVision system into third party systems. This can be used together with the IndigoVision Binding Kit to provide full alarm and video integration with i.e. third party alarm management and access control systems. Please contact your IndigoVision Sales Agent for more information.

IndigoVision
Complete IP Video Security Solutions

Alarm Panel

The simplest way to connect third party systems to IndigoVision

The IndigoVision Alarm Panel connects directly to a Ethernet LAN and provides 32 binary inputs and 8 relay outputs. The Alarm Panel is IndigoVision 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 the Control Center front-end application 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.

Key Features

DNA

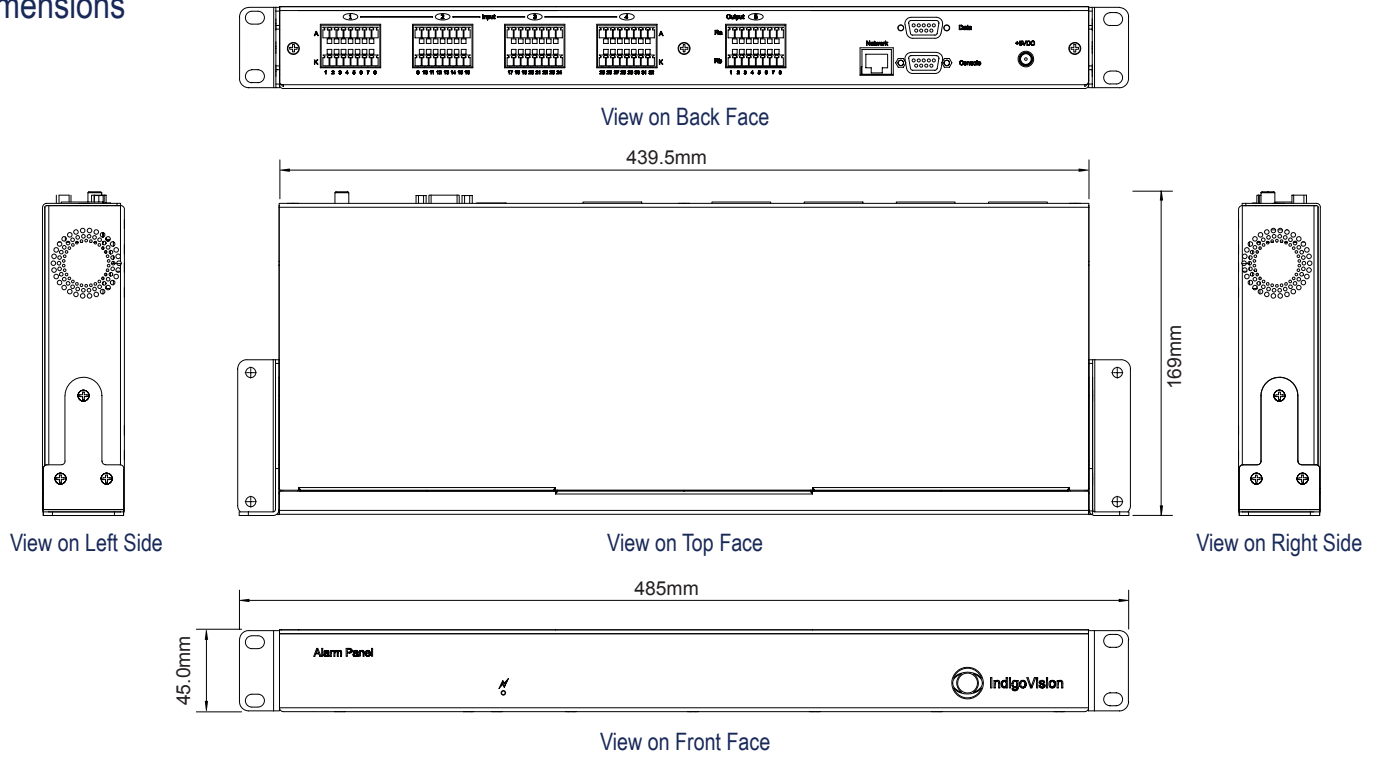**1U Height**

19" Rack

OTHER

PHYSICAL

Product Codes

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

For more information:

Dimensions

View on Back Face

439.5mm

169mm

View on Left Side

View on Top Face

View on Right Side

485mm

45.0mm

Alarm Panel

IndigoVision

View on Front Face

Specification

General Specifications	
Ratings	Normally open relay outputs: Maximum ON resistance 40 Ohms Maximum carry current 100mA; Maximum voltage 50Vpk
Binary Input/Output	32 opto-isolated or supervised tamper-detect inputs; 8 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	Ethernet IEEE802.3 and IETF standards: 10/100 Base-T Ethernet, TCP, UDP, ICMP, IGMP, SNMP, HTTP; Embedded Linux firewall
Time	Embedded real-time clock, NTP client
Dimensions/Weight	169mm (d) x 485mm (w) x 45.0mm (h) and 4.4Kg
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)
Electrical	Operating voltage: 5V DC @ 1.2A; Power consumption: 5W (typical) 6W (max)
Operating Temperature	0ºC to 50ºC

Integration Module Matrix

IndigoVision's Integration Modules integrate third party systems such as access control and intruder detection systems with Control Center, IndigoVision's complete suite of management software. 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.

	CONTROL CENTER ACTING AS FRONT END			THIRD PARTY SYSTEM ACTING AS FRONT END		
Access Control						
BOSCH	X					
GALLAGHER	X			X	X	X
Honeywell Pro-Watch	X					
Honeywell Galaxy	X					
LENEL Facility Commander Wnx	X	X		X	X	
LENEL OnGuard	X		X	X		
MASC Solutions	X			X		
MAXESS	X					
PAC	X					
Paxton	X					
S2 SECURITY	X					
SOFTWARE HOUSE A Tyco International Company C•CURE 800/8000	X	X		X	X	
SOFTWARE HOUSE A Tyco International Company C•CURE 9000	X			X		X

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	CONTROL CENTER ACTING AS FRONT END			
Communication Systems				
COMMEND	X			
GAI-TRONICS (A Hubbell Company)	X			
Building Management				
Schneider Electric	X			
Electronic Point of Sale				
InfoGenesis	X			X
shopAlert···IP	X			
Perimeter Detection				
GEOQUIP WORLDWIDE	X			
SENSTAR	X			
SOUTHWEST MICROWAVE	X		X	

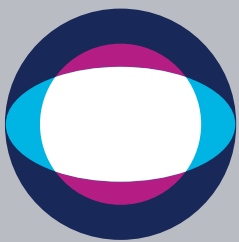|	CONTROL CENTER ACTING AS FRONT END			THIRD PARTY SYSTEM ACTING AS FRONT END		
Open Interfaces						
Microsoft SQL Server	X					
System Integrations tested with Control Center - Honeywell: Pro-Watch v3.7						
OPC FOUNDATION	X			X	X	
System Integrations tested with Control Center - Schneider Electric: Andover Continuum						

The IndigoVision Integration Modules are compatible with SMS4™ r2/Control Center v11.0 or later.

To see the complete datasheets for the Integration Modules please visit http://www.indigovision.com/integration-modules-downloads. For an overview of the latest version numbers of the Integration Modules please visit the downloads section of our website at http://www.indigovision.com/support-downloads.

For more information:

ID: IV-IMM 15.1 MAR 15

Notes

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