# INVICTUS

# Ruggedised PTZ Surveillance Camera

## HD only or Hybrid HD & Analogue

If you're looking for great video quality combined with low light performance, choice of 23x or 32x zoom, optional IR to c200m / IR & white light to c140m, and a very competitive price tag, Invictus is the ideal choice!

**360 VISION**
TECHNOLOGY
technology that protects

# INVICTUS

## HD1080P or HYBRID

Multi stream 1080p (up to 60ips) allows flexibility for both live and record stream outputs via Industry compatible ONVIF or SDK connections.

Hybrid model offers HD with analogue video & RS485 control, allowing addition to legacy analogue systems without infrastructure upgrades. After infrastructure upgrades, customers benefit from stunning HD and IP control with no hardware changes.

## Ruggedised

Our ruggedised IP67 Invictus cameras are designed to withstand harsh environments, such as extreme temperatures, dust, moisture, and vibrations.

In addition, IK10 is the highest impact protection rating for electrical enclosures, meaning they can resist 20 joules of external mechanical shock or impact.

## Low Power

'Low Power Mode' for inactive periods of operation, 'Intelligent Illumination' and 'Night Setting Presets' to control the illumination activity and low consumption components.

That all adds up to greatly reduced power consumption for applications such as solar, fuel, battery and other low voltage sensitive applications. POE option also available.

## IR & LED White Light

Invictus can be selected without lighting, with integrated IR only to c200m or with IR & white light to c140m.

IR is ideal to produce clear evidential video quality images, whatever the lighting conditions.

White light offers powerful illumination for overt applications, such as intruder tracking and anti-social behaviour deterrence.

## On Board Recording

Optional full HD JPEG frame recording inside the camera. Trigger options include: network loss, alarm, preset position, scheduled, manual or always on recording.

File Transfer Protocol (FTP) option provides automated off camera recorded media transfer. Options for internal recording memory up to 256Gb, ensuring no information is lost. Can be used for Time-lapse event capture of construction site progress.

## Latest Camera Module

All Invctus cameras benefit from Ultra Low Light technology from the stunning new ULL sensors.

Larger sensor = brighter, crisper and more defined colour images at night.

## 360 Degree View

Continuous rotation pan, unobstructed 360° view, 160° tilt all contribute to unhindered views usually associated with dome alternatives.

## Attack Detect & Base Scan On Impact

Attack Detect & Base Scan on Impact features ensure that if a physical attack is detected, the camera will automatically recalibrate to its original position – ensuring alarms and positional presets are not compromised.

The camera will also look down and do an immediate 360° scan of the pole base to provide critical full video footage of the situation below.

## Direct Drive Mechanism

Unlike many competitor products that utilise belt based drive systems, Invictus incorporates ultra reliable and extremely quiet direct drive mechanisms.

This results in long life, high and consistent preset accuracy and long term reliability.

## Paint Options

Standard high quality black or white paint finish, with all RAL colours availale as options.

Optional long life 'Extreme' paint finish for marine/coastal applications available too, ensuring that the operational and aesthetic features of the Invictus are protected.

## Dedicated Setup Apps

3 apps for discovery, configuration and update. With an innovative thumbnail index, select and program from one central network point.

No need for browser add-ins, security permissions or Internet necessary updates.

## 3 Year Warranty

Our standard warranty is 3 years.

In addition, our low cost 5 year warranty extension package offers peace of mind and additional layers of benefit for customers' framework and maintenance agreements.
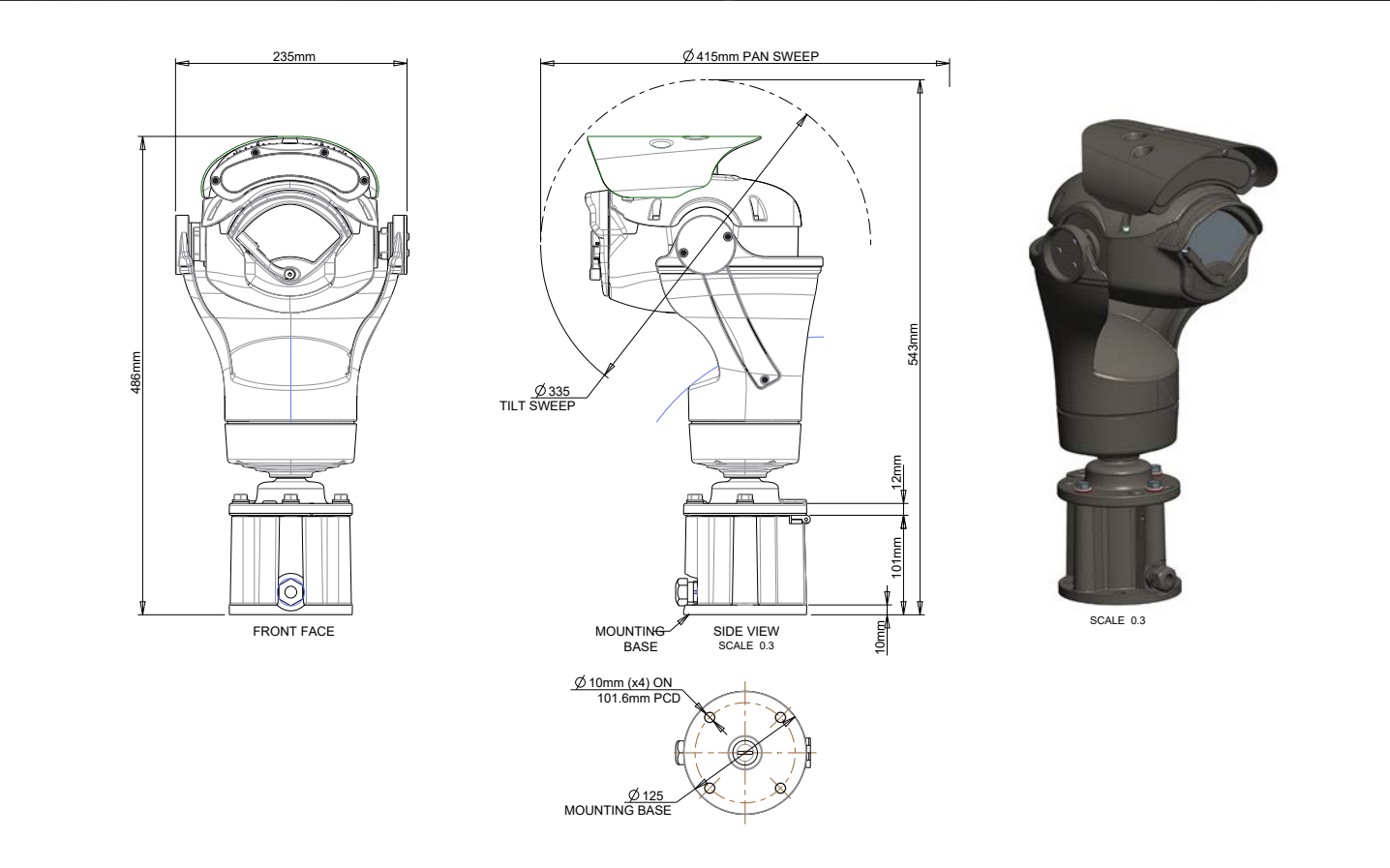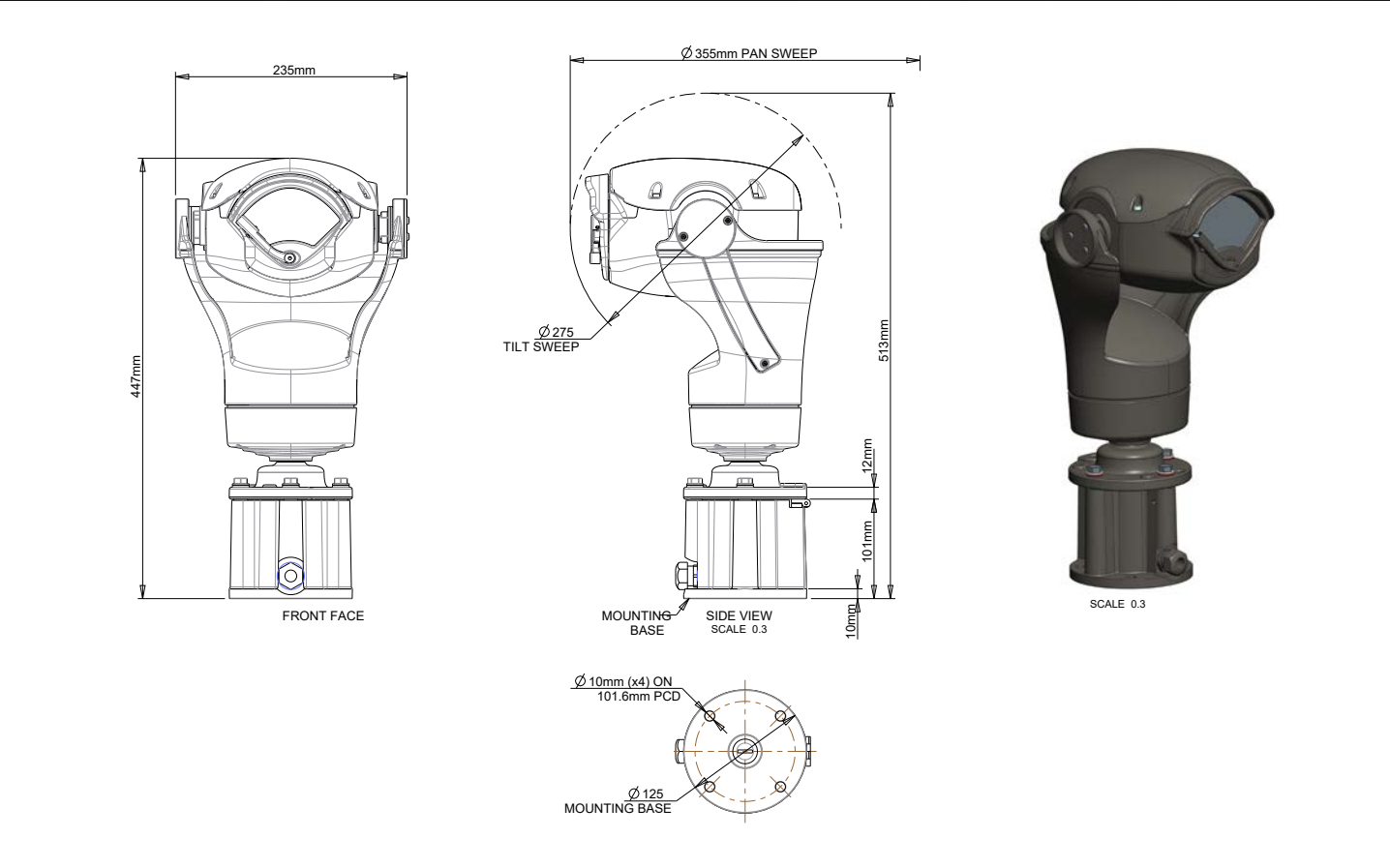
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# Camera Specifications

| | INVICTUS 32x<br>**HD:** 1080P HD, low light, wiper, black<br>Part no **INVHD3-32-B**<br>**HYBRID:** 1080P HD + analogue video & RS485 control, low light, wiper, black<br>Part no **INV3-32U-B** | INVICTUS 32x with 140m IR<br>**HD:** 1080P HD, low light, wiper, IR, black<br>Part no **INVHD3-32-IR-B**<br>**HYBRID:** 1080P HD + analogue video & RS485 control, low light, wiper, IR, black<br>Part no **INV3-32U-IR-B** | INVICTUS 32x with 140m IR & WL<br>**HD:** 1080P HD, low light, wiper, IR & white light, black<br>Part no **INVHD3-32-IRWL-B**<br>**HYBRID:** 1080P HD + analogue video & RS485 control, low light, wiper, IR & white light, black<br>Part no **INV3-32U-IRWL-B** | INVICTUS 32x POE<br>**HD:** 1080P HD, low light, wiper, black, POE<br>Part no **INVHD3-32-B-POE**<br>**HYBRID:** Not available | INVICTUS 32x POE with 140m IR<br>**HD:** 1080P HD, low light, wiper, IR, black, POE<br>Part no **INVHD3-32-IR-B-POE**<br>**HYBRID:** Not available | INVICTUS 32x POE with 140m IR & WL<br>**HD:** 1080P HD, low light, wiper, IR & white light, black, POE<br>Part no **INVHD3-32-IRWL-B-POE**<br>**HYBRID:** Not available | INVICTUS 32x with 200m IR<br>**HD:** 1080P HD, low light, wiper, long-range 200m IR, black<br>Part no **INVHD3-32-IR200-B**<br>**HYBRID:** 1080P HD + analogue video & RS485 control, low light, wiper, long-range 200m IR, black<br>Part no **INV3-32U-IR200-B** |
|---|---|---|---|---|---|---|---|
| Hybrid (Analogue Video and RS485)† | ○ | ○ | ○ | - | - | - | ○ |
| Optical Zoom/Digital Zoom | 32/12 | 32/12 | 32/12 | 32/12 | 32/12 | 32/12 | 32/12 |
| Weight (kg) | 7.7 | 8.2 | 8.2 | 7.7 | 8.2 | 8.2 | 8.2 |
| **Power Consumption (w)** | | | | | | | |
| Idle (Power Saving Enabled) | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| +100% Illumination* | - | 25 | 25 | - | 25 | 25 | 25 |
| +Full PTZW Control | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Total Power Full Load ** | 23 | 48 | 48 | 23 | 48 | 48 | 48 |
| **IR Illumination (850nm)** | - | ● | ● | | ● | ● | ● |
| Range (m)*** | - | 140 | 140 | - | 140 | 140 | 200 |
| Top Angle° | - | 30 | 30 | - | 30 | 30 | 30/10 |
| Bottom Angle° | - | - | - | - | - | - | - |
| **White Light Illumination** | - | - | ● | - | - | ● | - |
| Range (m) | - | - | 140 | - | - | 140 | - |
| Top Angle° | - | - | 30 | - | - | 30 | - |
| Bottom Angle° | - | - | - | - | - | - | - |
| **Options** | | | | | | | |
| Wiper | ● | ● | ● | ● | ● | ● | ● |
| Washer Control **** | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| POE - Power Option (90w) | ◊ | ◊ | ◊ | ● | ● | ● | ◊ |
| Hinge Mount Adapter (HMA) | ● | ● | ● | ● | ● | ● | ● |
| Covert IR (940nm) in place of 850nm†† | - | ◊ | ◊ | - | ◊ | ◊ | ◊ |
| On-board Recording††† | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Rainshield | ● | ● | ● | ● | ● | ● | ● |
| Sunshield | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Bird Spikes | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Heater and Thermostat (-30°C, +14W) | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Dual Heater and Thermostat (-40°C, +28W) | - | - | - | - | - | - | - |
| TX/TXA - transmission over 4G/5G/satellite/wireless | ◊ | ◊ | ◊ | - | - | - | ◊ |
| **Standard Paint** | | | | | | | |
| Black (indicated by "B" in part no above) | ● | ● | ● | ● | ● | ● | ● |
| White (substitute "W" for "B" in part no above) | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Light Grey | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Mid Grey | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Bespoke | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| **Extreme Paint** | | | | | | | |
| Black | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| White | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Bespoke | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |

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# Camera Specifications

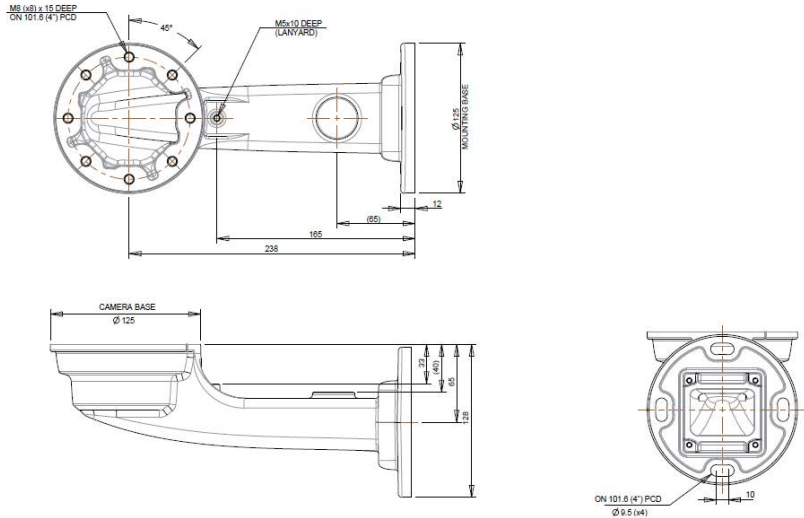| Key | |
|---|---|
| ● | Standard |
| ○ | Option |
| ◊ | Additional Cost Option |

| | INVICTUS 23x<br>**HD:** 1080P HD, low light, wiper, black<br>Part no **INVHD3-23-B**<br>**HYBRID:** 1080P HD + analogue video & RS485 control, low light, wiper, black<br>Part no **INV3-23U-B** | INVICTUS 23x with 140m IR<br>**HD:** 1080P HD, low light, wiper, IR, black<br>Part no **INVHD3-23-IR-B**<br>**HYBRID:** 1080P HD + analogue video & RS485 control, low light, wiper, IR, black<br>Part no **INV3-23U-IR-B** | INVICTUS 23x with 140m IR & WL<br>**HD:** 1080P HD, low light, wiper, IR & white light, black<br>Part no **INVHD3-23-IRWL-B**<br>**HYBRID:** 1080P HD + analogue video & RS485 control, low light, wiper, IR & white light, black<br>Part no **INV3-23U-IRWL-B** | INVICTUS 23x POE<br>**HD:** 1080P HD, low light, wiper, black, POE<br>Part no **INVHD3-23-B-POE**<br>**HYBRID:** Not available | INVICTUS 23x POE with 140m IR<br>**HD:** 1080P HD, low light, wiper, IR, black, POE<br>Part no **INVHD3-23-IR-B-POE**<br>**HYBRID:** Not available | INVICTUS 23x POE with 140m IR & WL<br>**HD:** 1080P HD, low light, wiper, IR & white light, black, POE<br>Part no **INVHD3-23-IRWL-B-POE**<br>**HYBRID:** Not available |
|---|---|---|---|---|---|---|
| Hybrid (Analogue Video and RS485)† | ○ | ○ | ○ | - | - | - |
| Optical Zoom/Digital Zoom | 23/12 | 23/12 | 23/12 | 23/12 | 23/12 | 23/12 |
| Weight (kg) | 7.5 | 8.0 | 8.0 | 7.5 | 8.0 | 8.0 |
| **Power Consumption (w)** | | | | | | |
| Idle (Power Saving Enabled) | 12 | 12 | 12 | 12 | 12 | 12 |
| + 100% Illumination * | - | 25 | 25 | - | 25 | 25 |
| + Full PTZW Control | 11 | 11 | 11 | 11 | 11 | 11 |
| Total Power Full Load * * | 23 | 48 | 48 | 23 | 48 | 48 |
| **IR Illumination (850nm)** | | ● | ● | | ● | ● |
| Range (m) * * * | - | 140 | 140 | - | 140 | 140 |
| Top Angle° | - | 30 | 30 | - | 30 | 30 |
| Bottom Angle° | - | - | - | - | - | - |
| **White Light Illumination** | - | - | ● | - | - | ● |
| Range (m) | - | - | 140 | - | - | 140 |
| Top Angle° | - | - | 30 | - | - | 30 |
| Bottom Angle° | - | - | - | - | - | - |
| **Options** | | | | | | |
| Wiper | ● | ● | ● | ● | ● | ● |
| Washer Control * * * * | ○ | ○ | ○ | ○ | ○ | ○ |
| POE - Power Option (90w) | ◊ | ◊ | ◊ | ● | ● | ● |
| Hinge Mount Adapter (HMA) | ● | ● | ● | ● | ● | ● |
| Covert IR (940nm) in place of 850nm†† | - | ◊ | ◊ | - | ◊ | ◊ |
| On-board Recording††† | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Rainshield | ● | ● | ● | ● | ● | ● |
| Sunshield | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Bird Spikes | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Heater and Thermostat (-30°C, +14W) | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Dual Heater and Thermostat (-40°C, +28W) | - | - | - | - | - | - |
| TX/TXA - transmission over 4G/5G/satellite/wireless | ◊ | ◊ | ◊ | - | - | - |
| **Standard Paint** | | | | | | |
| Black (indicated by "B" in part no above) | ● | ● | ● | ● | ● | ● |
| White (substitute "W" for "B" in part no above) | ○ | ○ | ○ | ○ | ○ | ○ |
| Light Grey | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Mid Grey | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Bespoke | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| **Extreme Paint** | | | | | | |
| Black | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| White | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |
| Bespoke | ◊ | ◊ | ◊ | ◊ | ◊ | ◊ |

## Notes

*
Illumination can be programmed to 100, 80, 60, 40 or 20% Power Usage

* *
Total Power Full Load excludes optional heaters

* * *
Based on 25ips. See additional table for DORI and Frame integrated ranges

* * * *
Recommended to be used with Washer Control Power Supply

††
For Covert 'No Glow' 940nm IR option see additional detail

†††
Onboard JPG Recording options for 128 or 256Gb

Part No camera colour identification:

B   Black

W   White

X   Custom colour

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# Dimensions



235mm

Ø 355mm PAN SWEEP

Ø 275 TILT SWEEP

513mm

447mm

12mm

101mm

10mm

FRONT FACE

MOUNTING BASE

SIDE VIEW
SCALE 0.3

SCALE 0.3

Ø 10mm (x4) ON
101.6mm PCD

Ø 125
MOUNTING BASE

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235mm

Ø 415mm PAN SWEEP

Ø 335 TILT SWEEP

543mm

488mm

12mm

101mm

10mm

FRONT FACE

MOUNTING BASE

SIDE VIEW
SCALE 0.3

SCALE 0.3

Ø 10mm (x4) ON
101.6mm PCD

Ø 125
MOUNTING BASE

# Invictus mounting bracket options

## Invictus Wall Bracket
### INV-WBRKT

M8 (x8) x 15 DEEP
ON 101.6 (4") PCD

45°

M5x10 DEEP
(LANYARD)

Ø125
MOUNTING BASE

238

165

(65)

12

CAMERA BASE
Ø 125

ON 101.6 (4") PCD
Ø 9.5 (x4)

13

**Weight 1kg**

## Invictus Corner Bracket
### INV-CB100

222.8

84.2

22

196

140

281.4

70

4x M8 THREADED STUDS
ON 101.6 PCD FOR FIXING
TO PREDATOR WALL
BRACKET

CORNER
OF WALL

4x (5.5 x 10.5) SLOTTED HOLES
ON EACH SIDE
FOR FIXING TO WALL

Ø 20

100

130
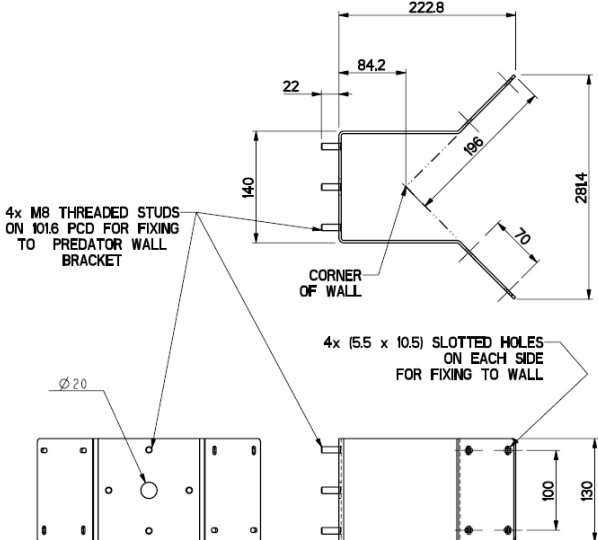
**Weight 2.2kg**

## Invictus Pole Mount Bracket
### INV-PMB
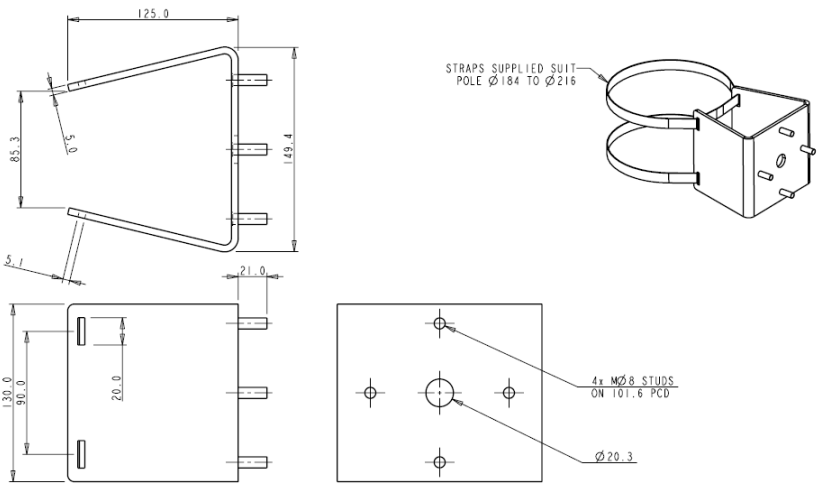
125.0

85.3

169.4

STRAPS SUPPLIED SUIT
POLE Ø184 TO Ø216

5.1

21.0

130.0

90.0

20.0

4x M∅8 STUDS
ON 101.6 PCD

Ø20.3

**Weight 2.5kg**

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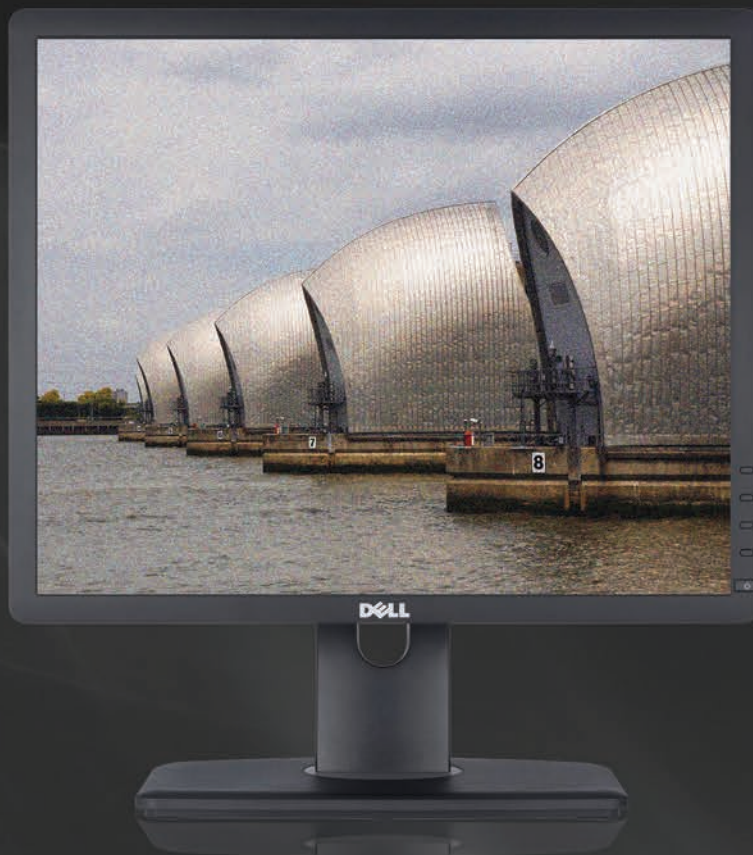
| PRODUCT SPECIFICATION | 23x | 32x |
|---|---|---|
| Colour/Mono | Yes | Yes |
| Imager (CMOS) | 1/1.9" | 1/1.9" |
| Pixels (Megapixels) | Approx 2.38 | Approx 2.38 |
| Horizontal view angle | 60°(W) - 3.2°(T) | 60°(W) - 2.2°(T) |
| Lens Size | 6 - 138mm | 6 - 192mm |
| Min Sensitivity - colour | 0.002 Lux | 0.002 Lux |
| Min Sensitivity - mono Int | 0.0002 Lux | 0.0002 Lux |
| Signal Noise Ratio | >50dB | >50dB |
| Picture Flip | Yes | Yes |
| Picture Freeze | Yes | Yes |

| PRODUCT FEATURES | All Invictus units have the following functions |
|---|---|
| Analogue Protocols (Hybrid version) | 360 Vision / Pelco D / Pelco P / Forward Vision baud rates 9600, 4800, 2400. Note - coax telemetry is NOT supported |
| Analogue Video | 1V pk-pk PAL/NTSC 25/30FPS (50/60 fields per second) 4:3 aspect ratio |
| Focus/Iris | Auto/Manual |
| Presets | 101 |
| Tours | 4 (max 90 presets per tour) |
| Learned Patrols | 4 mimic tours - up to 10 minutes duration each |
| Privacy Zones | Up to 24 |
| Variable pan speed/coverage | 0.1 - 120°/sec, 360° continuous rotation, absolute positioning |
| Variable tilt speed/coverage | 0.1 - 120°/sec, 160°, absolute positioning |
| Auto Homing | Goes to preset, tour or mimic tour after prescribed time |
| Col/Mono Changeover | 4 levels - 3 fixed, 1 custom/user defined or off |
| Operating temperature | -30°C (with optional heater) to +65°C |
| Power | 22-36VDC as standard; POE option at cost (HD only) |
| Mounting options | Wall, Corner, Pole and Soffit |
| Certification | UKCA, CE & FCC approval: Ingress IP67; IK10 Independent power certification and Elexon Charge Codes available |

| CODEC | 25/50fps | ASPECT | 30/60fps |
|---|---|---|---|
| 1080P | 1920x1080 | 16:9 | 1920x1080 |
| 720P | 1280x720 | 16:9 | 1280x720 |
| 576P | 1024x576 | 16:9 | 1024x576 |
| 480P | 720x480 | 3:2 | 720x480 |
| 240P | 320x240 | 4:3 | 320x240 |
| D1 | 720x576 | 4:3 | 720x480 |
| VGA | 640x480 | 4:3 | 640x480 |
| SXGA * | 1280x1024 | 5:4 | 1280x1024 |
| XGA * | 1024x768 | 4:3 | 1024x768 |
| QVGA | 320x240 | 4:3 | 320x240 |
| Distribution * | Multi Streaming Codec, 2 independently configurable profiles | | |
| Image Compression | H.264, MJPEG, H.265 | | |
| Protocols | TCP/IP, IPv4, ONVIF (S), 802.1x, MD5, TLS, PEAP, HTTP, HTTPS, RTP, RTSP, RTSP over HTTPS, 360SDK, QoS, IGMP v3, SNMP v3, NTP, FTP, Digest Authentication | | |
| Compression levels | CBR, VBR | | |