



Illustra Flex 2MP PTZ 20x Indoor

Illustra Flex 2MP PTZ 20x Outdoor

# Quick Start Guide

## Notice

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### Notice of Use

- This manual is designed for administrators and users of the network camera. Please read it carefully before use. All requirements should be followed before using this camera.
- We are not responsible for any technical or typographical errors and reserve the right to change the product and manuals without notice.
- Keep this document for future reference.
- It is intended that this camera utilizes a PoE power source that complies with LPS requirements.
- The camera must be installed on a solid mounting surface.
- Keep the camera and other accessories dry.
- We are not responsible for any damage caused by inappropriate use.

**Safety Notice**

The recessed indoor camera models are rated as suitable for use in environmental air handling spaces, except inside air ducts or furnace plenums.

CAUTION: Risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

**ESD Precautions:**

With the covers removed during installation and alignment this product is sensitive to electrostatic discharge. The installer should take appropriate ESD control measures such as the use of a ESD wrist strap connected to the chassis of the camera.

**Note:**

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PoE networks that are connected to IP Encoders should not be routed to the exterior or outside of the installed plant location.

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## Features

- Mega pixel HD 1080p Resolution 30fps, 20x Optical zoom with 10x Digital Zoom
- Supports three independently configurable streams
- Unicast and Multicast Streaming capability
- Motion detection analytics & metadata event generation
- Supports setup of Privacy Zones
- Supports up to 4 Alarms in and 2 alarms Out
- Support for Events action on DIO & analytics
- Audio In and bidirectional Audio out support
- PoE+ and POE++ powering capability
- Presets Patterns, Scans and Sequences
- IPv4 support includes full DHCP support
- Dynamic DNS
- Supports FTP, SNMP and CIF
- Supports microSD Recording
- Enhanced security, https & 802.1 support
- Automatic white balance (AWB) or adjustable Manual White Balance (MWB)
- True day night (TDN)
- Open Shutter (DSS) to extend low light performance
- Wide Dynamic Range Mode (WDR)
- 802.3 at 60W PoE + Support for Heater Activation (outdoor models only)
- IP66 International (outdoor models only)
- ONVIF Support
- No plugin or third party dependencies

## Dimensions

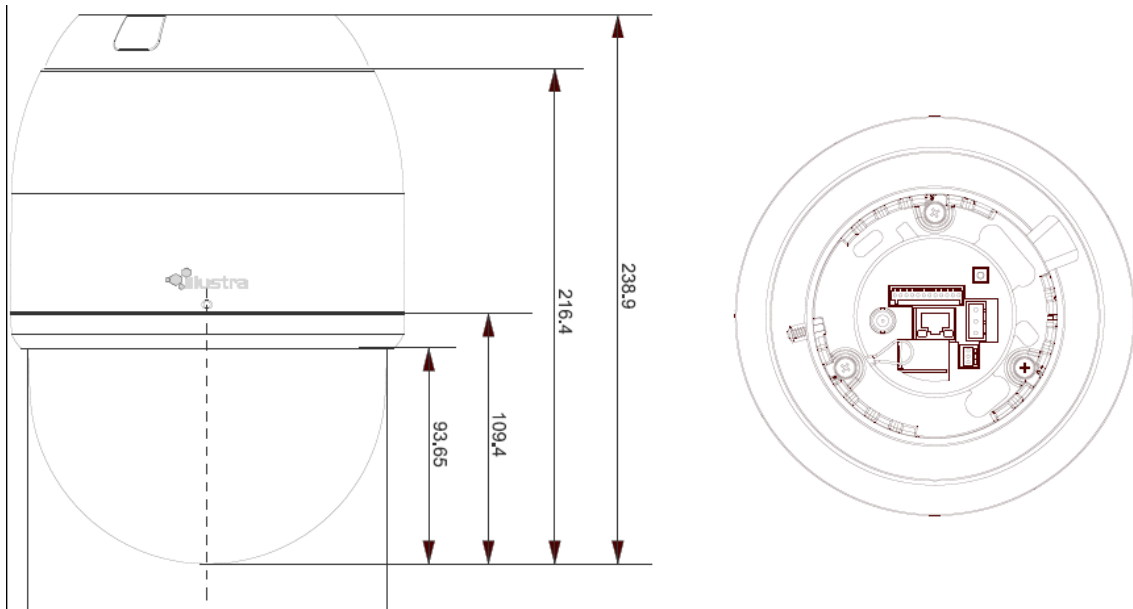


Figure 1 Indoor Model

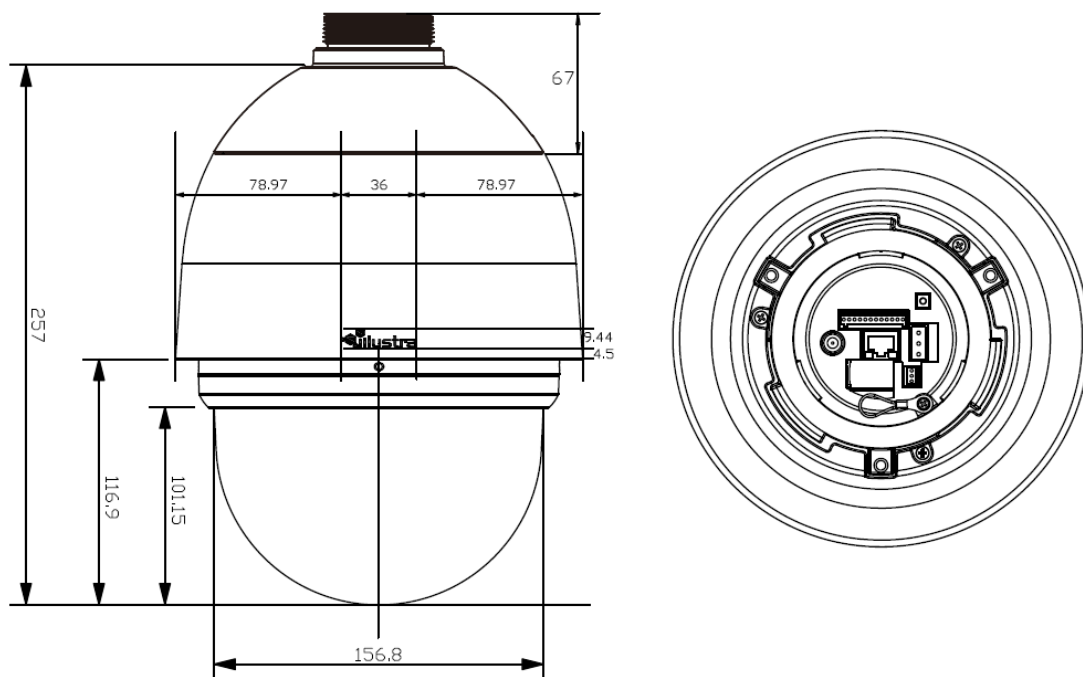
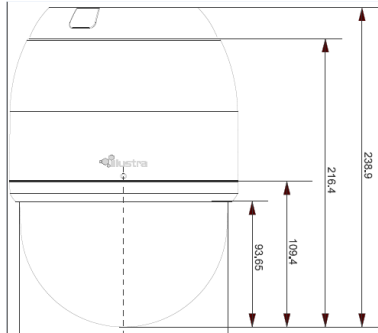


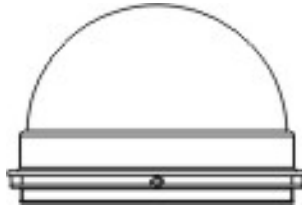
Figure 2 Outdoor Model

## What's in the Box

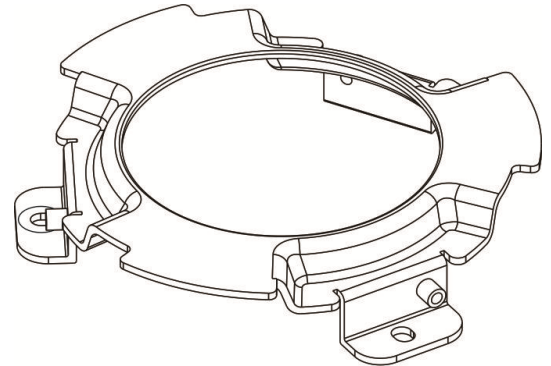
Please check the box contains the items listed here. If any item is missing or has defects do not install or operate the product and contact the dealer for assistance.



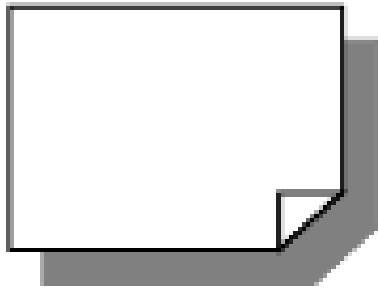
Flex PTZ Camera



Optical Cover



Hard Ceiling Mount with 5x M4 screws and 5x plastic anchors



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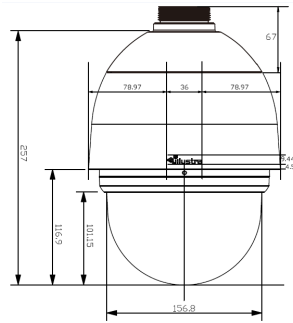
CD containing User Manual and Illustra Connect discovery tool

**Figure 3 Indoor Model**

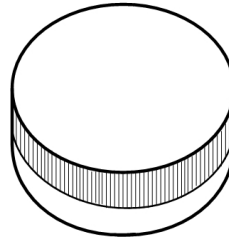
The package should also contain the following items:

Security Torx Driver (x1), M3 security screw for trim ring (x1), Audio Terminal Block (x1), AC Terminal Block (x1), IO Terminal Block (x1)), Regulatory document (x1).





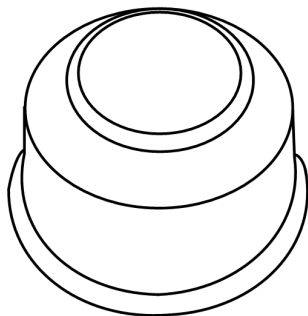
Outdoor Flex PTZ Camera with Outdoor Mounting Kit



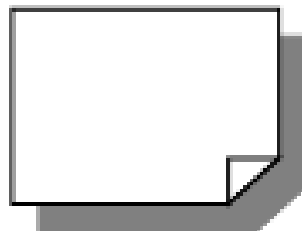
Lubricant



Security Torx



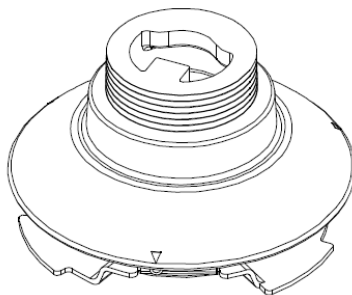
Waterproof Rubber Seal



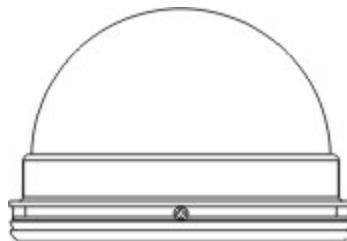
Quick Start Guide



CD containing User Manual and Illustra Connect discovery tool



NPT Outdoor Pendant Cap



Optical Cover

**Figure 4 Outdoor Model**

The package should also contain the following items:

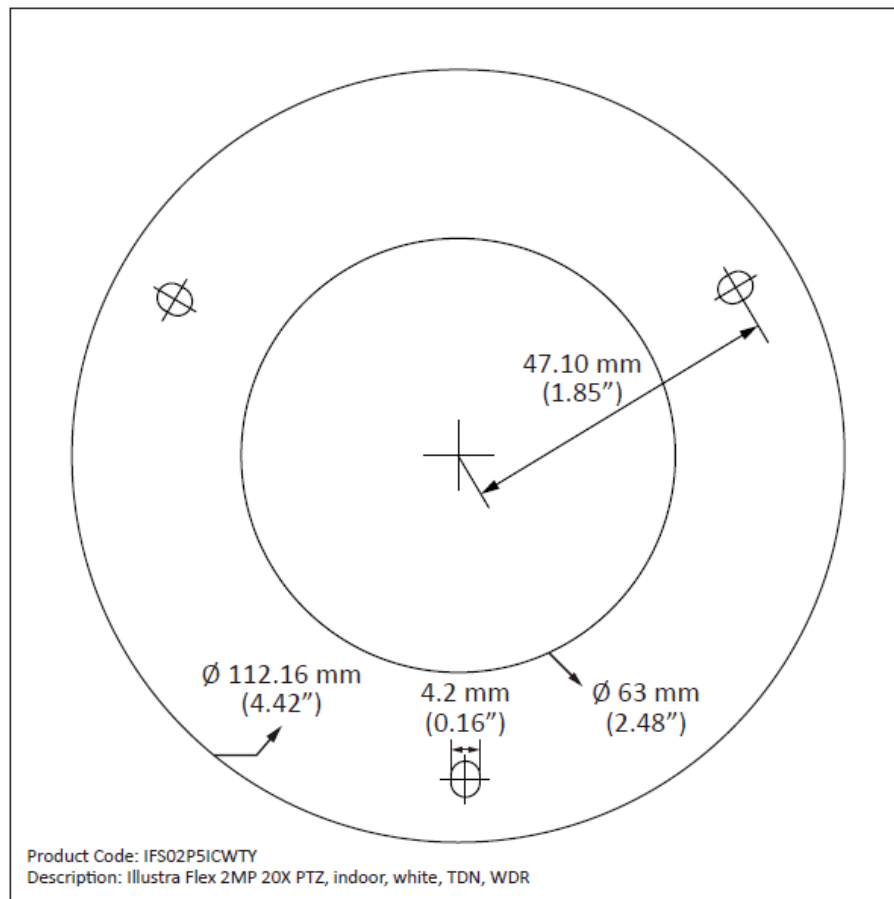
M3 Standard Screw for Trim Ring (x2), M3 Standard Screw for Trim Ring (x2), M5 Standard Screw (x2), Audio Terminal Block (x1), AC Terminal Block (x1), IO Terminal Block (x1), NPT Outdoor Pendant Cap (x1), Regulatory document (x1).

# Mounting the Camera

Select the type of mounting required and refer to the relevant procedure.

Use the mounting template provided below to guide you.

## Mounting the camera using the Hard Ceiling Mount



**Figure 5 Hard Ceiling Mount Installation Template**

**Note:**

- You can also print and use the template provided on the disk in the box when mounting the camera.
- Size of actual template is 120mm x 120mm.

## Mounting the camera using the Hard Ceiling Mount

Follow the steps below to install the camera using the hard ceiling mount.

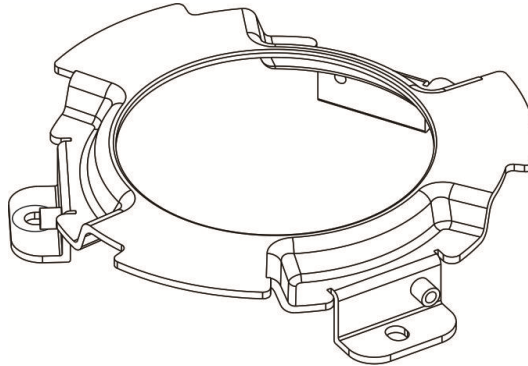
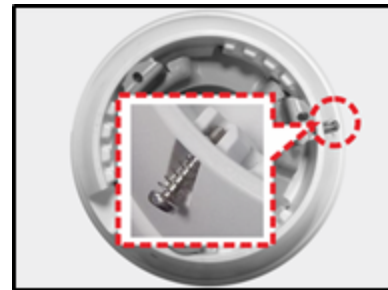
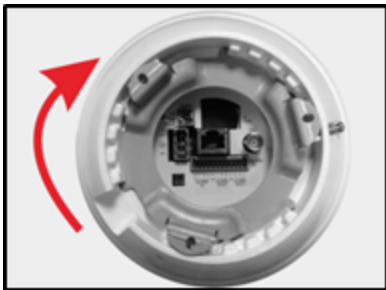


Figure 6 Hard Ceiling Mount

### Mounting the camera using the hard ceiling mount

Step	Action
1	Mark the positions of the three screw holes on the hard ceiling mount at the chosen installation location.
2	In the marked locations, drill each hole slightly smaller than the supplied Screw Anchors, and put supplied anchors into these drilled holes. Then faster the hard ceiling mount with the three self-tapping screws.
3	Thread the data cable and the ethernet cable through the center hole of the mount and connect the cable to the camera body.
4	Install the camera on the fixed hard ceiling mount by turning the camera clockwise. Then tighten the screw at the side of the fixing plate.



- 5 After installing the camera on the hard ceiling mount, put the dome cover back on. Then fasten the screw on the side of the dome cover.

- End -

## Mounting the camera using the NPT Pendant Cap

Follow the instructions below to mount the camera using the NPT pendant cap.

This method may be used for mounting the indoor and outdoor versions of the camera.

Refer to mounting kit instructions for details on how to use the pole kit or pendant arm accessories with the NPT pendant cap and camera.

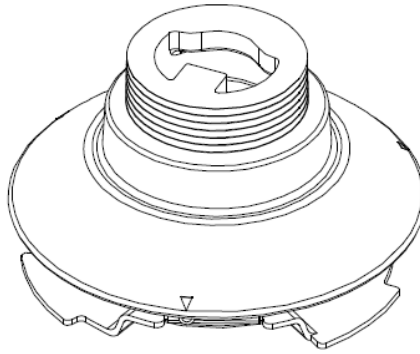


Figure 7 NPT Pendant Cap (1 1/2 ")

### Mounting the camera using the NPT pendant cap

Step	Action
1	Attach the waterproof rubber seal (with outdoor model camera only) to the mount. Use lubricant if necessary to help ease the rubberproof seal onto the mount.
2	Thread the data cable and ethernet cable through the center hole of the mount and connect the cable to the camera body.
3	Install the camera on the NPT pendant cap by turning the camera clockwise. Then tighten the screw at the side of the fixing plate.
4	After installing the camera on the NPT pendant cap, put the dome cover back on. Then fasten the screw on the side of the dome cover.
<b>Note:</b> The Illustra Flex PTZ outdoor adaptor (IFPTZORECADTR) may be used for mounting an outdoor PTZ camera into a recessed mount (IFPTZWRECMT).	

- End -

# Connecting the Camera.

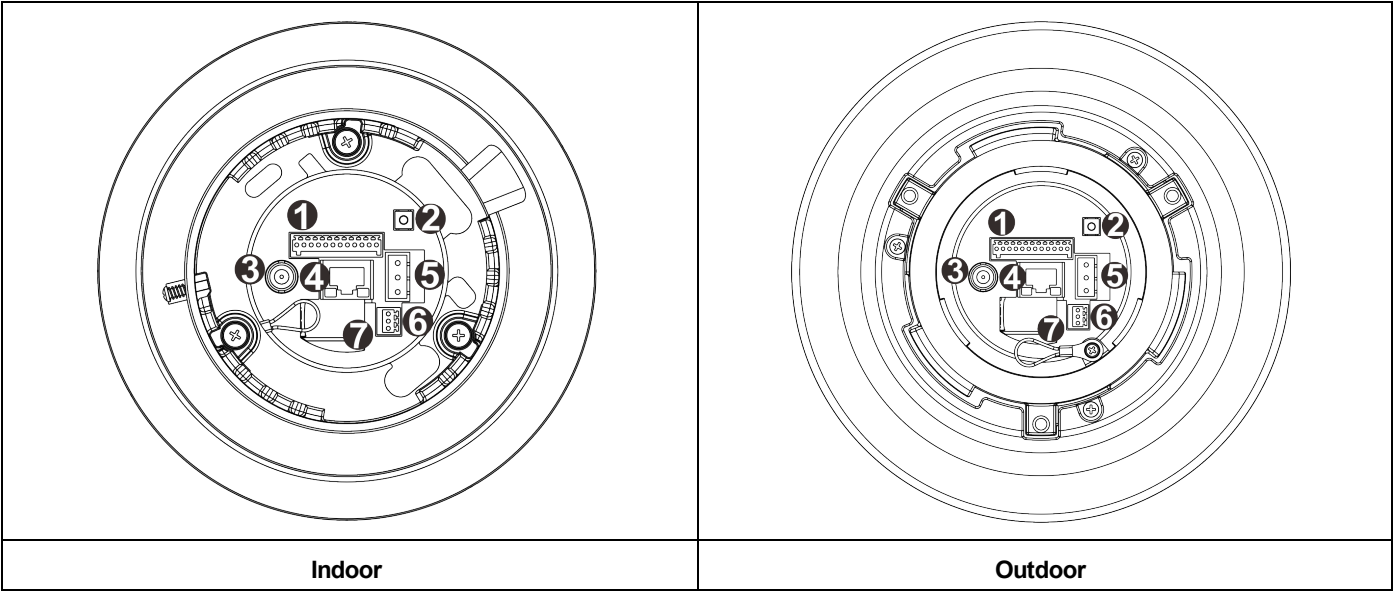


Figure 8 Camera connectors

No.	Connector	Definition
1	Alarm I/O	Alarm I/O connection
2	Reset Button	Press the button with one finger for at least 20 seconds to restore the system
3	BNC	For analog video output
4	RJ-45	For network and PoE+ connections
5	Power (AC 24V)	Power connection
6	Audio I/O	Audio I/O connection
7	microSD Card Slot	Insert the microSD card into the card slot to store videos and snapshots.

**Note:**

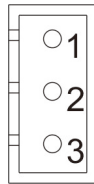
If you are using a switch, note that the switch will need to support 60 watt PoE+ to power the outdoor model of the camera.

## Powering the Camera

To power up the camera, connect an AC 24V power adaptor to the power connector of the camera and the power outlet. Refer to the diagram and the pin definition table below for connection. Alternatively, users can use an Ethernet cable and connect it to the RJ-45 connector of the camera and an IEEE 802.3 at 60W PoE+ switch.

**Note:**

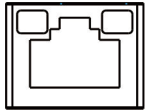
- The indoor camera requires the use of 60W PoE.
- If you are using a switch, note that the switch needs to support 60 watt PoE+ to power the outdoor model of the camera.



Pin	Definition
1	AC 24V 1
2	GND
3	AC 24V 2

## Ethernet Cable Connection

Connect one end of the Ethernet cable to the RJ-45 connector of the camera, and plug the other end of the cable to the network switch or PC. Check the status of the Link Light.



**Green Link Light indicates good network connection.**

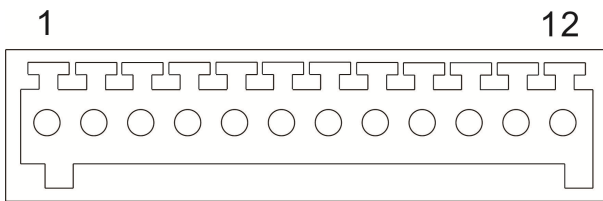
**Orange Activity Light flashes for network activity indication.**

**Note:**

- If the LEDs are unlit, please check the LAN connection.
- In some cases, Ethernet crossover cable might be needed when connecting the camera directly to the PC.

# Alarm I/O Connection

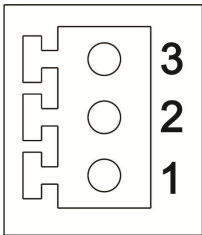
Refer to the diagram and the pin definition table below for alarm I/O connection.



Pin	Definition
1	Alarm Out NO 1
2	Alarm Out NC 1
3	Alarm Out COM 1
4	GND
5	Alarm Out NO 2
6	Alarm Out NC 2
7	Alarm Out COM 2
8	GND
9	Alarm In 4
10	Alarm In 3
11	Alarm In 2
12	Alarm In 1

# Audio I/O Connection

Refer to the diagram and the pin definition table below for audio I/O connection.



Pin	Definition
1	Audio Out
2	GND
3	Audio In

# Accessing the Camera for the First Time

The camera comes with a web-based setup utility, allowing you to view the video of the camera and configure the camera for optimal use in your environment.

To access the camera's web-based control utility, you need a PC that uses one of the following browsers:

Internet Explorer 10 or later, Firefox, Chrome or Safari.

## Accessing the camera for the first time

Step	Action
1	Make appropriate network and power connection (typically PoE). The camera will automatically get an IP address if connected to a DHCP network. If DHCP addressing is not available, the camera will use its default fixed address: 192.168.1.168.
2	Find camera(s) on the network using Illustra Connect or another utility; or if using fixed addresses, connect to the camera on its default address.
3	Enter the default ID and password when prompted—ID: admin, Password: admin.
4	Select security type: standard or enhanced.

### Note:

Both security types ask the user to change the username and password, this is advised in standard security mode and required when selecting enhanced security. Creating a new username at this stage automatically replaces the default admin/admin.

- End -

## Illustra Connect

Illustra Connect is the camera discovery tool created by Tyco Security Products and can be downloaded at [illustracameras.com](http://illustracameras.com)

Connecting to IP cameras and configuring them can be a time-consuming and error-prone process. Typing static IP addresses, or naming cameras without seeing where they are pointed, often results in longer installations. Illustra Connect eliminates all of these issues with a unique feature set that includes a one-touch IP conflict resolver and snapshot tool. Simply bring up all of the cameras out of the box, enter the IP range provided by the customer's IT department and click **OK**.

## Key functions of Illustra Connect

- **Resolve All Conflicts** button instantly alerts you to all IP addresses that are the same and provides a number of options to fix issues
- Reduces installation time by automatically supplying static IP addresses from a configurable range of IP addresses
- Snapshot views of all the cameras
- "Save Device List" allows you to create a .csv file of all information regarding the camera settings



- Set IP addresses to DHCP
- Configure IP settings and rename cameras
- Upload firmware to individual or selectable group of cameras
- Set date and time or direct the cameras to a specific NTP server
- Assign user name and password
- Uses icons common to victor unified client to display camera status
- Compatible with Illustra IP cameras

## Discovering the Illustra Camera

The following information states how to install and access the camera.

### Illustra Connect

The following information states how to install and access the camera on your network using the Illustra Connect discovery tool.

Illustra Connect enables automatic discovery of compliant devices on IP networks and is the recommended method for installation and detection of the camera on the network.

### Discovering the Illustra Camera using Illustra Connect

Step	Action
1	Connect the camera to the computer or network which will be used for the configuration and power on. The camera will begin its initial boot up sequence which will take approximately 1 to 2 minutes. Out of the box, or when using a DHCP Server the camera will automatically be assigned a Network IP address.
2	Install the Illustra Connect software that is provided with the camera. Refer to the Illustra Connect manual for more information.
3	When the installation is complete, run Illustra Connect. It will search the network and display all devices.
4	Select the camera you wish to configure, locating it by its unique MAC address. Illustra Connect allows basic configuration of the camera. Refer to the Illustra Connect manual for more information.
5	Right-click the camera and select <b>Launch Web GUI Configuration</b> .
- End -	

### Configure the Illustra Camera using DHCP Server Logs

Step	Action
1	Connect the camera to the computer or network which will be used for the configuration and power on. The camera will begin its initial boot up sequence which will take approximately 1 to 2 minutes.
2	Out of the box or when using a DHCP Server the camera will automatically be assigned a Network IP Address.
3	View the DHCP Server system logs and make note of the IP address assigned to the camera.

- 4 Open Microsoft Internet Explorer and enter the URL of the camera as shown in the DHCP Server log.

**Note:**

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At factory default, after enabling DHCP manually or if it is the first time the camera has been configured; the camera will reboot using the Failover IP of the last known static IP address until a DHCP address request is authorised by the DHCP server. The DHCP requests will remain active unless cameras are changed to Static IP.

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- End -

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## Configuring the Illustra Camera using a Static IP Address

The following information states how to install the camera on your network when no DHCP Server is available. In this situation the camera will be assigned a Static IP Address.

Connect the camera to the computer or network which will be used for the configuration and power on.

**Note:**

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- We recommend that once you are logged into the Web Configuration pages you change the Static IP Address of the camera so that conflicts can be avoided when using the same Static IP Address to setup additional cameras.
  - In a situation where IP address conflicts arise, Illustra Connect can be used to discover the device.
-

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# Physical Reset of the Camera

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It is possible to perform a physical reset to factory defaults using the reset button located on the underside of the camera.

## Resetting the Camera to Factory Default Settings Using the Reset Button

The reset button can be used to restore the camera to the factory default settings.

**Note:**

It is not possible to retain network settings, presets, patterns or sequences when using this procedure. If you need to maintain these settings it is recommended to reset the camera using the GUI.

---

## Reset the Camera to Factory Default Settings Using the Reset Button

Step	Action
1	Locate the reset button on the underside of the camera.
2	Press and hold the reset button for at least 20 seconds.
3	Release the reset button.
	It may take up to 2 minutes for the camera to restart.

**Note:**

It is also possible to reset the camera through the **Maintenance** tab located in the **System** menu.

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- End -

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# Technical Specifications

Illustra Flex Model Description	Product Codes
Illustra Flex 2MP 20x PTZ Indoor, white,TDN, WDR	IFS02P5OCWTY
Illustra Flex 2MP 20x PTZ, outdoor, white, TDN, WDR	IFS02P5OCWTY

Please refer to the Illustra Cameras website ([www.illustracameras.com](http://www.illustracameras.com)) to ensure that you have the most current version of this Configuration and User Guide. Release Notes are also available on the website for each software release to document any known limitations not covered in this user guide.

This section provides information on the technical, environmental and operating specifications for the Illustra Flex PTZ camera.

Specification	Details
Optical Zoom	20x
Digital Zoom	10x
Privacy Zones	16
Alarm Inputs	4
Auxiliary Output	Alarm out 2
Language Selection	English (default), Arabic, Czech, Danish, Dutch, German, Russian, Spanish, French, Italian, Korean, Japanese, Polish, Portuguese (Brazilian), Turkish, Chinese Traditional, Chinese Simplified, Russian.
Browser Compatibility	IE 10-11, Safari, FireFox, and Chrome

## Technical Details

Category	Details
Scanning System	Progressive
Image Sensor	1/2.8" CMOS Progressive Scan
Output Pixel Format	2048(H) x 1536(V) 2MP
Pixel Size	2.5 um square
Shutter Speed	1/10,000 to 1 second
Lens Design	Aspherical
Optical Zoom	20 X

# Video Compression

## MJPEG/JPEG Compressor Key Functionality

The JPEG codec supports the JPEG baseline DCT encoding process with the following additional configuration option:

- Quality: 1-100

## H.264 Compressor Key Functionality

The H.264 codec supports the JPEG baseline DCT encoding process with the following additional configuration options:

Category	Details
Profile	High
GOP Length	1-255
Rate Control	CBR VBR CVBR
Frame Skip	Slow shutter mode
Bit Rate (CBR)	Selectable 64 - 20480Kbps
Quality (VBR and CVBR)	Highest, High, Medium, Low, Lowest.
Constrained Variable Bit Rate (CVBR)	Selectable 64-20480Kbps

## Resolution

	Illustra Flex PTZ Stream Table				
	1st H.264/MJPEG	2nd H.264/MJPEG	3rd MJPEG (locked)	PTZ Analog Video BNC Output	
2 MP 30fps maximum resolution	(1920x1080) 1080p 16:9			(720x480)NTSC (720x576)PAL D1 4:3	
	(1664x936) 16:9				
	(91280x720) 720p 16.9				(1280x720) 720p 16:9
	(1024x576) PAL+16.9	(1024x576) PAL+ 16:9	(640x360) nHD 16:9		
	(640x360) nHD 16:9	(640x360) nHD 16:9			
	(384x216) 16:9	(384x216) 16:9	(384x216) 16:9		
Stream 1 & 2 can be H264 or MJPEG					
Stream 3 is always MJPEG and can be used simultaneously at selected resolution forSnapshot for Illustra Connect and ONVIF					
A further stream is supplied by the camera under analogue video BNC output - which is enabled by default. Its availability can be managed via the web GUI.					

## Network

This section covers the technical aspects and operation of all the core network related components.

Category	Details
Base Protocol	TCP/IP - RFC4614
Internet Layer Addressing	IPv4 - RFC791; IPv6 - RFC2460
Transport Layer	TCP - RFC973 UDP - RFC768
Data Transmission	HTTP/HTTPS - RFC2616 FTP - RFC959
Network Address Configuration	DHCP - RFC2131 Zeroconf - RFC3927 Static IP address
Network Name Resolution	DNS - RFC5395 DDNS - RFC 2136
Time Synchronization	NTP - RFC1305 IETF NTP Working Group 1/day poll rate
E-mail	SMTP - RFC5321 Authenticated SMTP - RFC4954
Authentication and Security	IEEE.802.1X HTTPS (HTTP over TLS) - RFC2818

Category	Details
	WS-Security Multi-level password protection IP address filtering HTTPS encryption User access log
Streaming	RTP - RFC3550 RTSP - RFC2326 Unicast Streaming Multicast RFC 1112 level 1
External Interface Protocol	SOAP - SOAP 1.2 ONVIF WS-Addressing WS-Eventing

## Base Protocol and Underlying Layers

- The camera is an IP camera compatible with TCP/IP protocol.
- The camera supports both IPv4 and IPv6, running either in single stack mode or dual stack mode (supporting both IP versions at the same time).
- TCP is used for two way communication and UDP will be used for broadcasting protocols.
- HTTP is used for the ONVIF protocol as transport mechanism for SOAP calls.

## Network Address Configuration

- **DHCP** is enabled by default on the camera. During the boot process, the camera will attempt to acquire a network address via DHCP.
- **Static IP** can be used if the camera cannot be found on the network using DHCP. In this mode, the static IP address, subnet mask, default router and primary and secondary DNS server can be configured. This will be used by the camera when turned on. It is possible to assign a static IPv4 address while still allowing the IPv6 addressing to be Link Local (automatically assigned).
- **Dynamic DNS or DDNS Dynamic Domain Name System** is supported for updating, in real time a changing IP address on the Internet to provide a persistent domain name for a resource that may change location on the network. RFC 2136 Dynamic Updates in the Domain Name System. In this situation the camera talks only to the DHCP server and the DHCP server is responsible for updating the DNS server. The camera sends its hostname to the DHCP server when requesting a new lease and the DHCP server updates the DNS records accordingly. This is suitable for an intranet style configuration where there is an internal DHCP and DNS service and the user wants only to access their camera within their own network.

By default, when making a DHCP request the camera will transmit its hostname as part of the DHCP request. This option is not user configurable. The cameras hostname matches the configurable parameter "camera name" on the web GUI. Any DHCP request will contain the cameras hostname for use of the DHCP server to forward to an appropriate DNS server.

## Network Name Resolution

The camera uses DNS protocol to resolve network names. DNS server address will be acquired via DHCP or manually set for static IP configuration. Camera configuration supports symbolic names for all remote end-points (except DNS servers) but in this mode will depend on a working and correctly configured remote DNS server.

## Email

The camera can send email alerts via SMTP to one specified mailbox using a specified SMTP server. Support is provided for basic authenticated SMTP using username and password for login on the SMTP server.

## Authentication and Security

Optionally, HTTPS (HTTP over TLS) can be used for the Web GUI. HTTP connections to the camera IP will automatically be redirected to the HTTPS login page.

The ONVIF service uses WS-Security Username Token Digest.

## Firewall

The camera will provide a firewall, which is disabled by default. The firewall will be able to block selected IP or MAC addresses and allow access exclusively to selected IP and MAC addresses.

Note: Using the "Deny" mode could result in a mis-configuration and require resetting the camera through the physical reset button.

## Discovery

The product supports WS-Discovery and UPnP Discovery.

## UPnP Discovery

UPnP (Universal Plug and Play) broadcasts information about the camera to other devices on the network.

The information broadcasted about the camera includes:

- Device Name: <Product Code><Serial Number>
- Manufacturer and manufacturer URL
- Model (product code) and model URL (same as manufacturer URL)
- Device webpage (camera homepage)
- Serial number
- MAC address



- Unique Identifier: uuid<unique id for that camera type><serial number>
- IP address

**Supported:**

- Windows XP, Windows 7, Windows 8 and Windows 10
- HTTP and HTTPS

**Unsupported Key Functions:**

- Video Streaming
- Audio Streaming
- API command to enable and disable UPnP feature

## Illustra API Version

AD iAP13

## ONVIF Video and Control Interface

The primary video and control interface to the camera is the Open Network Video Interface Forum global standard for the interface of network video products. This uses SOAP over HTTP. The camera provides ONVIF for integration to internal and external systems.

### Interface Technical Specifications

Category	Details
Description Language	WSDL
Web Services Specification	DPWS
Web Services Tool Kit	WS4D
Web Services Protocol	SOAP
Message Format	XML
Discovery	WS-Discovery
Security	WS-Security
Video Transport	RTP/RTSP
Audio Transport	RTP/RTSP
Event Handling (alarms)	WS-Eventing WS-Base Notification WS-Topics

Category	Details
Service Connection	WS-Addressing
Security Permissions	WS-Policy
Data Object Exchange Specification	WS-Transfer

## ONVIF Functions Supported

The following ONVIF functions are supported on the camera:

- Quality priority and maximum AGC settings adjustable via user GUI, IAP13, or and ONVIF
- Manual Red and Blue adjustments available via user GUI, IAP13, and ONVIF
- The product can interwork with Genetec via ONVIF
- ONVIF GetSnapshotUri command
- Auto-discovery
- Ws-discovery
- Automatic addressing
- SetDiscoveryMode
- Default and Reset functions

## microSD Card

External access is provided for a microSD card for video alarm storage and audio output pre-recorded clips. The following microSD cards can be used with the camera:

- 2GB, 8GB, 16GB AND 32GB with class 2 or 10 support
- 64GB with class 10 support



### Caution

If you wish to use the SD card, it must be present when the camera boots up or it will require mounting manually via the WebGUI.

## Environmental

The product is designed to meet the following environmental conditions:

<b>Operating Temperature:</b> Indoor Outdoor	0°C to 40°C (32°F to 104°F) -40°C to 50°C (-40°F to 122°F)
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Storage Temperature	-15°C to 65°C (5°F to 149°F)
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## Power

Power can be provided by PoE, PoE+ or by a 24 VAC power line.

### PoE+

The camera uses power over Ethernet Plus and is compliant to POE IEEE 802.3at™ with up to 100m (300 feet) of cable.

If you are using a switch, note that the switch will need to support 60 watt PoE+ to power the outdoor model of the camera.

The indoor camera requires the use of 30 watt PoE.

## Regulatory Compliance

The Illustra Flex PTZ Camera meets the following regulatory requirements:

Category	Details.
Emissions	USA (FCC): CFR 47 Part 15 Canada: ICES-003/NMB-003 Issue 5 European Union: EN 55022:2010 European Union: EN 61000-3-2:2006/A2:2009 European Union: EN 61000-3-3:2008 Australia/New Zealand: AS/NZS CISPR 22:2009
Immunity	EN50130-4:2011
Safety	CB Scheme: IEC 60950-1:2005/A1:2009 European Union: EN 60950-1:2006/ A11:2009 + A1:2010 + A12:2011 USA: UL 60950-1:2007/A1:2011 d. Canada: CAN/CSA-C22.2 NO. 60950-1A-07/A1:2011 Outdoor Housing: United States: UL 60950-22 Canada: CAN/CSA-C22.2 NO. 60950-22-07 Global: IEC 60529 Recessed housing: United States: UL 2043
Environmental	RoHS, WEEE
Vandal Resistant Rating	IK10

## Appendix A: Camera Defaults for PTZ Flex Camera

Image Settings			
Video Codec	Primary Stream	Codec	H.264
		Resolution	1920X1080 max
		Frame Rate	25 fps max
		GOP Length	25 fps
		Rate Control	CVBR High
		Bit Rate	8192 Kbps
		Max Bit Rate (CVBR)	8192 Kbps
		Image quality (QP Settings)	High
	Secondary Stream	Codec	H264
		Resolution	1280x720 max
		Frame Rate	30 fps max
		GOP Length	30 fps max
		Rate Control	CVBR
		Quality	High 4096 Kbps
	Third Sream	Codec	MJPEG
		Resolution	640x360 max
Quality		70	
Frame Rate		7fps	
Mirror Orientation		OFF	
Audio	Audio In	Codec	G.711
		Audio In Enable	OFF
		Input Volume	10dB
	Audio out	Output Enable	off
		Output Volume	15dB
Privacy Zone		Privacy Zone	Disabled
Network Settings			
IP & Ethernet		Camera name	Same as camera friendly name

Network Settings		
User management	Default account	Authority: administrator
		Username/Password: admin/admin
Language	Basic Settings	English
IP Settings	DHCP	Enabled
	IP v4	Always on
	IPv6	Enabled
	IP v6 address	Camera specific
	IP v4 address	192.168.1.168
	IP v4 Subnet Mask	255.255.255.0
	Default Gateway	192.168.1.254
	DNS	0.0.0.0
	HTTP Port	80
FTP	Enabled	Off
	FTP Server IP Address	0.0.0.0
	FTP Server Port	21
	Username	Null
	Password	Null
	File Upload Path	Default folder Null
SNMP	Enabled	Off
	SNMP Server IP Address	0.0.0.0
	SNMP Port #	161
	SNMP TRAPS Port #	160
SMTP	Enabled	Off
	SMTP Server Requires Authorization	Disabled
	SMTP Server IP Address	0.0.0.0
	Server Port	25
	User Name	Null
	User Authentication	off
	Password	Null
	Sender	Null
	Receiver	Null
CIFS	Enabled	Off

Network Settings		
	Network Path	Null
	Domain	Null
	Username	Null
	Password	Null
Date and Time	NTP Server IP Address	pool.ntp.org
	Time Zone	GMT-5:00 Eastern Time (US & Canada)
	Date and Time	Manual
	NTP	Off
RTSP	Primary Video Stream Port	rtsp://CAMERAIP/videoStreamId=1&audioStreamId=1
	Secondary Video Stream Port	rtsp://CAMERAIP/VideoStreamId=2&audioStreamId=1
	Tertiary Video Stream Port	rtsp://CAMERAIP//videoStreamId=3&audioStreamId=1
ONVIF	Discovery via ONVIF	Enabled
	User Authentication	Enabled
Dynamic DNS	off	
Address Filtering	off	

Event Settings		
Motion Detection	Profile	1
	Enable Motion detection	Off
	Sensitivity	High
	Size	20
	Hysteresis	3
	Action	None
Network Loss Detection		Disabled

Picture Settings		
White Balance	Auto White Balance	Auto
	Red	50%
	Blue	50%

Picture Settings		
Picture Adjustment	Brightness	50%
	Sharpness	33%
	Saturation	50%
WDR	Enabled	Off
Exposure	<b>Auto Mode</b>	On
	Max Gain	24dB
	P-Iris	F16
	Max Exposure	1/30s
	<b>Manual Mode</b>	Off
	Gain	6
	Iris	F11

PTZ Settings		
Scan Limits	Left	0
	Right	359
Flip	Automatic Flip	Off