




AXIS 212 PTZ Network Camera

Full overview and instant zoom – yet no moving parts



AXIS 212 PTZ Network Camera

A whole new definition of PTZ



The AXIS 212 PTZ is no ordinary PTZ. It's the only PTZ network camera that provides full overview, and instant, one-click pan/tilt/zoom – with maintained sharp image resolution. And it's all done without moving parts, so there's no wear and tear. In short, it's a whole new definition of PTZ.

These distinguishing features make a unique combination:

FULL OVERVIEW >

A full 140° field of vision provides video of the entire monitored area. Conventional PTZ cameras can view only one part of the whole video scene at a time.

INSTANT PAN/TILT/ZOOM >

Zooming in from full overview to close-up is instant, in one-step clicks. There's no delayed reaction. Pan and tilt work in the same instant way.

NO MOVING PARTS >

The AXIS 212 PTZ is also unique in using a wide-angle lens and a 3 megapixel sensor to achieve PTZ functionality. No moving parts are needed, which means no wear and tear.

MAINTAINED RESOLUTION >

Many cameras cannot deliver an overview with sharp resolution, nor maintain resolution when zooming. The AXIS 212 PTZ maintains sharp images at all times.

PERFECT FOR INDOOR VIDEO SURVEILLANCE >

The AXIS 212 PTZ is perfect for indoor surveillance of premises up to 150 m²/1600ft², such as shops, reception areas, banks, server rooms and other places where you need to see the whole area and have the possibility to zoom in for detailed inspection and monitoring. Add powerful event management functionalities such as pre- and post-alarm image buffering, and you have a highly efficient video surveillance solution.

The AXIS 212 PTZ also incorporates a number of other features that it shares with many other Axis network cameras:

BUILT-IN POWER OVER ETHERNET, SIMULTANEOUS MOTION JPEG AND MPEG-4, TWO-WAY AUDIO, COMPREHENSIVE SET OF NETWORK SECURITY FEATURES, TAMPER-RESISTANT DESIGN, POWERFUL API, AND MORE.

FULL OVERVIEW

Conventional PTZ cameras allow the user to pan, tilt and zoom, but not to see the whole video scene – just one portion at a time. The AXIS 212 PTZ gives the user the whole picture, then allows instant pan/tilt/zoom to get the details.



The dotted lines show the limited area covered by conventional PTZ cameras. If the man on the left was shoplifting, he would be out of view.

The AXIS 212 PTZ lets you view the entire monitored area. There are no hidden areas.

INSTANT PAN/TILT/ZOOM

The 3x zoom provides instant, one-click optical zoom functionality. Consequently, from the overview image, a security officer can zoom in 3 times on any suspicious behavior by just clicking on the part of the image where it's happening. No other PTZ camera can zoom in instantly on off-centered action. And since there is no movement in the lens system, the camera instantly changes the field of view.

It's this simple:

- > Overview of the whole scene in perfect image quality
- > Pan, tilt and zoom with one click
- > Follow a visitor with one click
- > Return to overview with one click



Whether in overview or fully zoomed in, you get up to 30 frames per second in VGA resolution. Zooming – the instant, one-click, 3x zoom – does not decrease the image quality. Edges do not become jagged. More importantly, when you zoom in on suspicious behavior, you increase your chances of being able to identify what is happening and who is involved.

NO MOVING PARTS

The AXIS 212 PTZ achieves full overview as well as instant pan/tilt/zoom without any moving parts, which means no wear and tear. This unique feature is based on two determining factors:

- > A wide-angle lens combined with a 3 megapixel sensor
- > Utilization of the full "windowing" possibilities: the camera captures predetermined sections of the overview without mechanical motion.

The advantages of no moving parts are considerable:

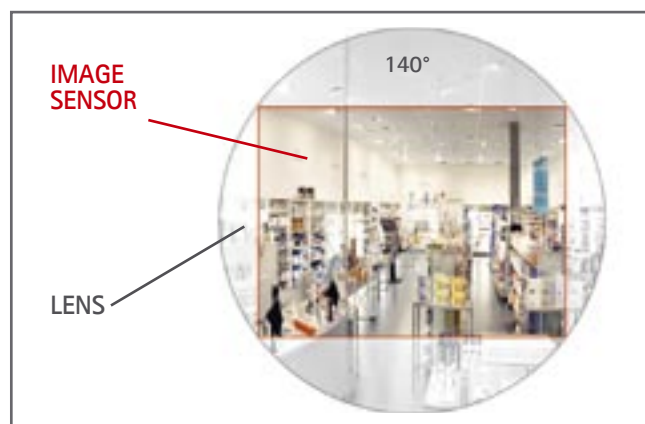
- > No wear and tear – and a level of durability and reliability far ahead of conventional PTZ.
- > No noise – thus making the camera even more discreet.
- > No way to tell where the camera is looking. In fact, the camera seems to follow anyone on the premises.
- > No delay for mechanical movement – enabling instant pan/tilt/zoom, and thus no time lag in the images.

RESOLUTION – SHARP AND MAINTAINED

Many cameras cannot deliver an overview with sharp resolution, nor maintain resolution when zooming. The AXIS 212 PTZ can, because it has such outstanding image resolution to start with.

OVERVIEW – THE STARTING POINT

By having a full overview of 140° (pan), the AXIS 212 PTZ wastes no pixels. This means that the full image sensor can be used for image quality purposes – and the difference is astonishing.



180/360° degree cameras cover a bigger area, but at the expense of spreading the amount of available pixels (resolution) over areas that are often of no interest. With the AXIS 212 PTZ, you see everything you need to see, and the image is sharper.

SUPERIOR IMAGE QUALITY

The AXIS 212 PTZ offers progressive scan and advanced signal processing based on a 3 megapixel CMOS sensor.

OVERSAMPLING

Oversampling is a technology that uses the advantages of a high-resolution sensor (2048x1536 pixels) in its full format. This means that, whether in full overview mode or when zooming in, full 1:1 VGA resolution of 640x480 pixels is maintained - resulting in a brighter image, more detail and higher contrast.



When you zoom in 3 times, you obtain normal VGA 1:1 resolution

BANDWIDTH SAVER

Another obvious advantage of VGA resolution combined with enhanced image quality is lower requirements on bandwidth and storage capacity. The AXIS 212 PTZ is able to efficiently "window" a specific portion of the 3 megapixel sensor grid. In doing so, the camera filters out unnecessary information that offloads your network and storage capacity, and lets you capture a well-defined "image concentrate".

Resolution	Bandwidth	Storage
VGA	2.4 Mbit/s	4 GB / day
3 megapixel	24 Mbit/s	40 GB / day

Example based on Motion JPEG compression. File size of 30 vs 300 kB. Frame rate for viewing 10 fps, storage 6 fps. Motion detection set at 25%.

ADVANCED SECURITY AND NETWORK MANAGEMENT

The AXIS 212 PTZ comes with a comprehensive set of network security features such as multi-level password protection, IP address filtering and HTTPS encryption.

Using AXIS Camera Management, you can manage your AXIS 212 PTZ and other Axis network video devices seamlessly. It helps you locate and show connection status on the network, set IP addresses, configure single or multiple units, manage firmware upgrades and user access rights.

ADVANCED VIDEO AND EVENT MANAGEMENT

You can access live and recorded video at any time from any computer anywhere. The AXIS 212 PTZ supports AXIS Camera Station video management software, offering all the advanced capabilities you need: remote video monitoring, recording and playback. It also lets you perform scheduled event management, using its embedded features: video motion detection, audio detection, inputs/output for connecting additional devices such as external relays and sensors to activate light or open/close doors. The pre- and post-image alarm buffer further contributes to powerful event management, by securing images just before and after an alarm.

The AXIS 212 PTZ includes the Axis Application Programming Interface, AXIS VAPIX™ API, facilitating the development of customized applications. It also ensures you benefit from the widest available range of third party applications, available via Axis Application Development Partners.

EASY INSTALLATION

The AXIS 212 PTZ is optimized for wall mounting, but may also be mounted on the ceiling. An adapter is provided for angled mounting, so that when positioned at a specific angle, the camera can monitor a specific area along a wall or corridor, for instance.



ANGLE ADAPTER FOR LEFT AND RIGHT MOUNTING

The angled wall mount will help you optimize the direction of the tunnel vision so that no sensor space is wasted.



BUILT-IN POWER OVER ETHERNET

Built-in Power over Ethernet enables power to be delivered to the AXIS 212 PTZ via the network, consolidating power for higher reliability as well as further reducing cabling requirements and installation costs.

THE SECURITY BENEFITS

Market trends for cameras, particularly those for use within security applications, indicate a growing interest in PTZ network cameras, as network video has made it possible to easily manage cameras remotely with no extra cables.

Built-in Power over Ethernet further contributes to this by enabling power to be delivered to the AXIS 212 PTZ via the network, consolidating power for higher reliability as well as further reducing cabling requirements and installation costs.

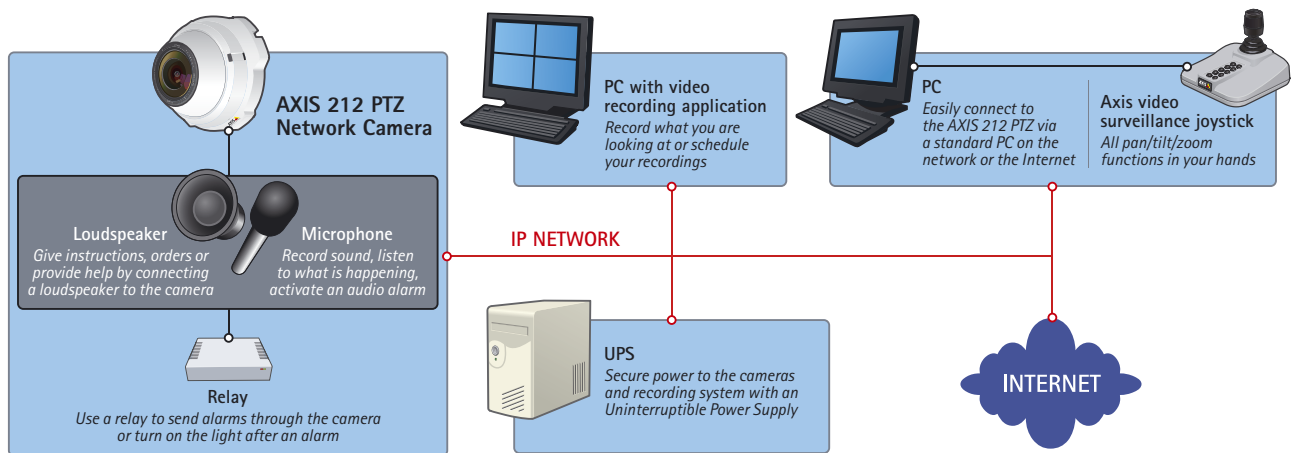
The lack of moving parts contributes to operating reliability as well as resistance to tampering. Even though the camera does not need to move to capture a full field of view, it gives the impression of following anybody within its range. This can be a significant security factor, as people tend to act responsibly if they feel they're being watched.

Simultaneous MPEG-4 and Motion JPEG video streams for optimized quality and bandwidth usage together with pre- and post-alarm image buffering, video motion detection, scheduled and triggered event functionality with alarm notification provide effective indoor monitoring. The built-in two-way audio support enables remote users to not only view, but also listen in on an area and communicate orders or requests to visitors or intruders, thereby increasing the monitoring options.



In short, this compact and discreet camera is ideal for indoor environments where you need an overview and the possibility to instantly pan, tilt and zoom for detailed inspections. Add open integration capacities, flexibility, scalability and the added security that comes with a reliable product from a reliable supplier, and you have the ideal solution for indoor video surveillance.

AXIS 212 PTZ NETWORK CAMERA: A TYPICAL INSTALLATION



TECHNICAL SPECIFICATIONS – AXIS 212 PTZ NETWORK CAMERA

Image sensor	3.1 Megapixel 1/2" progressive scan CMOS	Casing	Tamper-resistant casing Polycarbonate base Tamper-proof mounting directly on wall or with angled wall mount
Lens	Fujinon, F1.8, 2.7 mm, fixed iris	Processors and memory	CPU, video processing and compression: ARTPEC-A RAM: 32 MB, Flash: 8 MB Battery backed-up real-time clock
Angle of view	Horizontal viewing angle: 44° - 140° Vertical viewing angle: 35° - 105°	Power	4.9 - 5.1 V DC max 3.6 W, or Power over Ethernet (IEEE 802.3af) with power classification: Class 1 (max 3.84 W)
Zoom	3x instant (less than 0.1 sec from wide to tele)	Operating conditions	5 - 40 °C (41 - 104 °F) Humidity 20 - 80% RH (non-condensing)
Min illumination	Wide mode: 10 lux, F1.8 Tele mode: 20 lux, F1.8	Installation, management and maintenance	AXIS Camera Management tool on CD and Web-based configuration Configuration of backup and restore Firmware upgrades over HTTP or FTP, firmware available at www.axis.com
Pan range	140°	Video access from Web browser	Camera live view, sequence tour capability for up to 20 Axis video sources, customizable HTML pages
Tilt range	105°	Minimum Web browsing requirements	Pentium III CPU 500 MHz or higher, or equivalent AMD 128 MB RAM AGP graphic card, Direct Draw, 32 MB RAM Windows XP or 2000, DirectX 9.0 or later Internet Explorer 6.x or later For other operating systems and browsers see www.axis.com/techsup
Max speed	400°/s	System integration support	Powerful API for software integration available at www.axis.com , including AXIS VAPIX API, AXIS Media Control SDK, event trigger data in video stream and embedded scripting. Full support for Axis joystick. Watchdog secures continuous operation, can be monitored by other systems via event notification. Embedded operating system: Linux 2.6
Video compression	Motion JPEG MPEG-4 Part 2 (ISO/IEC 14496-2) with motion estimation MPEG-4 profiles: Advanced Simple Profile and Simple Profile	Supported protocols	IPv4, TCP, ICMP, ARP, RTSP, RTP, RTCP, UDP, IGMP, DHCP, DNS, DynDNS, SOCKS, NTP, UPnP, Bonjour, HTTP, HTTPS, SSL/TLS*, SNMPv1/v2c/v3 (MIB-II), SMTP, FTP, etc. More information on protocol usage available at www.axis.com <i>* This product includes software developed by the Open SSL Project for use in the Open SSL Tool kit (www.openssl.org)</i>
Resolutions	9 resolutions from 640x480 to 160x120 via API 6 selections via configuration Web page	Included accessories	Installation Guide, CD with installation and management tools, demo software and User's Manual, mounting and connector kits, angled wall mount, power supply PS-H 5.1 V DC, MPEG-4 licenses (1 encoder, 1 decoder), MPEG-4 decoder (Windows)
Frame rate	Up to 30 frames per second in VGA	Video management software (not incl.)	AXIS Camera Station - Surveillance application for viewing, recording and archiving up to 25 cameras See www.axis.com/partner/adp_partners.htm for more software applications via partners
Video streaming	Simultaneous Motion JPEG and MPEG-4 Controllable frame rate and bandwidth Constant and variable bit rate (MPEG-4)	Accessories (not incl.)	AXIS 295 Video Surveillance Joystick
Image settings	Compression levels: 100 Configurable color level, brightness, sharpness, white balance, exposure control Overlay capabilities: time, date, text, image	Approvals	EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, FCC Part 15 Subpart B Class B, VCCI Class B, ICES-003 Class B, C-tick AS/NZS CISPR 22, EN60950 Power supply: EN60950, UL, CSA
Pan/tilt/zoom	20 preset positions Guard Tour Sequence mode Control queue Designed for continuous movements	Dimensions (HxWxD) and weight	78 x 144 x 132 mm (3.0" x 5.6" x 5.2") Weight: 504 g (1.1 lbs)
Shutter time	1/5 to 1/10000 second		
Audio	Configurable for built-in or external microphone Audio compression Audio in: AAC LC 8-32 kbit/s, G.711 PCM 64 kbit/s, G.726 ADPCM 32 or 24 kbit/s Audio out: G.711 PCM 64 kbit/s, G.726 ADPCM 32 or 24 kbit/s Half duplex, simplex or audio off Audio alarm at a configurable detection level		
Security	Multiple user access levels with password protection, IP address filtering, HTTPS encryption		
Users	20 simultaneous users Unlimited number of users using multicast (MPEG-4)		
Alarm and event management	Events triggered by multi-window video motion detection, audio detection, external inputs or according to a schedule Image upload over FTP, email and HTTP Notification over TCP, email, HTTP and external output Pre- and post alarm buffer of 9 MB (approx 5 min of 320x240 resolution video at 4 frames per sec)		
Connectors	Ethernet 10BaseT/100BaseTX, RJ-45 Mini DC power jack Terminal block for 1 alarm input and 1 output 3.5 mm jack for Mic in (max 80 mVpp) or Line mono input (max 6.4 Vpp), 3.5 mm jack for Line mono output (max 1.3 Vpp) to active speaker		

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