

# EYE Camera Systems



# Driving the Creation of Knowledge

EYE-12, and EYE-14 Live Image Camera Systems



WolfVision is a worldwide provider of products and services to leading universities, businesses, schools, and other organizations. An acknowledged 'technology leader' in the Visualizer and presentation solutions market, WolfVision is the company that takes the lead, setting standards worldwide for innovative, reliable, user-friendly, high performance presentation solutions.

The EYE-12 and EYE-14 are powerful HD Live Image Camera systems that give outstanding results, whether used as a Ceiling Visualizer (without light), or when mounted on tripods, pan-tilt zoom mounts or wall mounts designed for video or surveillance cameras. For ceiling use, these units can either be mounted directly onto the ceiling or integrated into a suspended ceiling.



Our extensive knowledge and expertise across all application sectors enables us to offer comprehensive consultative guidance on customized combinations of Visualizer and camera hardware, software, and accessories, which enhance communication, collaboration, and knowledge sharing across all environments. As part of each individual ✓Solution we offer not only pre-sales advice, but also post-sales support, training and service, ensuring that you receive maximum benefit from your investment.

Driving the Creation of Knowledge. Since 1966.





## Our Vision

When you've got something to say, we believe it is important that getting your message across and making an impact should be as easy as possible.

Our aim is to help you to explain it better, to give you the freedom to share your knowledge and collaborate with others - however you want, and whenever you want, when your audience is in the same room or on the other side of the world.

**Because knowledge matters -  
to all of us.**



# Outstanding Imaging Performance

WolfVision Live Image Camera systems are well-known for their unrivalled imaging quality, which is due to the perfect combination of high quality components and remarkable expertise. Our cameras deliver high resolution throughout the entire picture, true-to-life colors, and consistently high frame rates to ensure smoothness of motion. They have fast and accurate autofocus and zooming, giving best results every time!

WolfVision's state-of-the-art YSOP1 image processing engine enables the fast and efficient processing of high volumes of data ensuring the consistent real-time display of impressive high definition pictures with unsurpassed levels of accuracy and detail.

## High End Optics

Large premium quality lenses provide unrivalled imaging performance.



## Image Sensor

WolfVision's high resolution image sensors ensure the capture of image data of the highest quality.



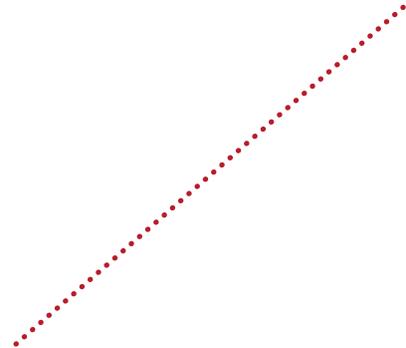
## Electronic Hardware

High quality components deliver high performance, stability, and reliability.



## Software (Firmware)

Sophisticated software maximises the hardware potential to guarantee excellent picture quality.



# Key Features



## Center Lasermarker for Easy Positioning of Objects (EYE-14)

A small dot of laser light, projected from the camera head down onto the working surface marks the center of the pickup area of the camera. This makes it very easy to position items correctly under the camera. The lasermarker is synchronized with the camera so that it does not appear in any onscreen or recorded images.

## Optional Dry-erase Working Surfaces

Self-adhesive dry-erase working surfaces are available as optional accessory items. This enables an EYE camera system to be used as a whiteboard or 'digital flip chart' for making handwritten notes during a lecture or presentation.

## Powerful HD Cameras

The EYE-14 features a 1-CMOS native 1080p HD camera giving 980 lines of visible resolution in every part of the picture including the edges. The EYE-12 comes with a high definition 1-CCD camera which can output native resolutions of SXGA-, WXGA and 720p.

## Plug-and-Play Connectivity

WolfVision's EYE-14 camera system supports the UVC standard, providing plug-and-play connectivity to Windows, Linux, and OS X (Mac) devices.

## Large Zoom Range

The EYE-12 and EYE-14 come with 12x and 14x optical zoom respectively. This gives great flexibility in presentations, because objects as large as an open book or as small as a postage stamp can easily be picked up - and for enlarging even smaller objects, a 4x digital zoom is also provided.

## Power over Ethernet (PoE)

The LAN port provides Power over Ethernet (PoE) and Power over Ethernet Plus (PoE+) to the EYE-12 and EYE-14 respectively. This is a popular way of saving on cabling and installation costs.

# Recording Made Easy

## HD Video Recording (EYE-14)

The EYE-14 Camera system features onboard recording functionality allowing entire presentations and lectures to be captured in exceptional quality. It's the quickest and easiest solution for in-house production of training videos or lecture capture. The EYE-14 is an innovative 'all-in-one HD recording solution'.

The easy-to-use interface requires no advanced technical knowledge, enabling presenters to capture exactly the material that they wish to record. Using the pause button allows multiple segments of a presentation to be recorded and saved as a single file, eliminating the need for subsequent editing and time-consuming post-production. A line level input is provided for situations where audio capture is required.



## Flexible Memory Options

Recorded videos and pictures can be saved to the 8GB internal memory of the EYE-14 which has enough capacity to store thousands of images, or an average of 10 hours of video footage (depending on the content). USB

sticks or external hard drives can also be used to provide additional storage space if required. The EYE-14 can store up to 9 images internally, and recall them by pressing one of the numerical keys on the remote control.



## Optional BYOD Pack (Feature Pack for EYE-14)

The optional BYOD feature pack enables wireless connectivity. It comprises a WLAN stick and an accompanying firmware upgrade that allows wireless configuration of the camera. The EYE-14 can either provide its own WLAN to

users, or it can be integrated into existing WLAN infrastructure. This feature pack also enables the EYE-14 to be used with our powerful vSolution Connect for iPad app.



## CIRCULAR ORBITS

$$F_c = \frac{mv^2}{r} = \frac{GMm}{r^2} = F_g$$

$$v^2 = \frac{GM}{r} = \left( \frac{2\pi r}{P} \right)^2$$

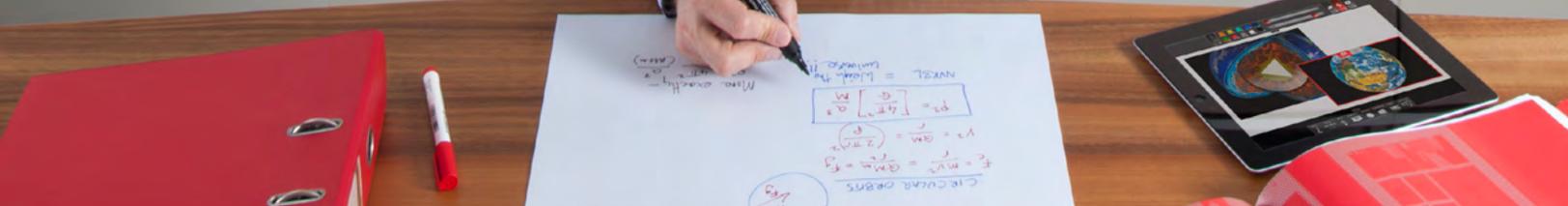
$$P^2 = \left[ \frac{4\pi^2}{G} \right] \frac{a^3}{M}$$

NVK3L = Weigh the universe !!



## Lecture recording - for all of your material!

Using an EYE-14 combined with a WolfVision Dry-erase working surface gives you the freedom to present your ideas visually to both small and large groups. Handwritten material is easily displayed onscreen, and for lecture capture applications, it's a perfect way to ensure that every last detail of your presentation or lecture is recorded using the onboard recording feature.

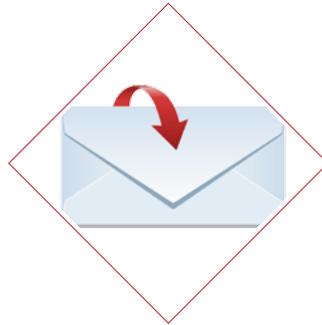


# Innovative Sharing Options



## Efficient Knowledge Transfer via Streaming

EYE Camera Systems or connected WolfVision vSolution Link software can stream video and audio to computers, tablets or smartphones on the internal network or the internet.



## Quick and Convenient Distribution

WolfVision offers several possibilities for taking snapshots with EYE Series cameras, and emailing or printing them using our software components. This facilitates quick and easy distribution of materials during a presentation when required.



## Easy Cloud Storage / FTP Upload (EYE-14)

Using the BYOD Pack upgrade for the EYE-14 enables vSolution Connect software for iPad to be used. This facilitates uploading and downloading of material to and from Dropbox. When using vSolution Connect during a presentation, content stored in Dropbox is always easily available. The EYE-14 also enables videos and pictures to be either automatically or manually uploaded directly from the camera to an FTP server if required.



# Flexible Network Integration

## Wired or Wireless Network Connection

For maximum stability and reliability, EYE System Cameras can be connected to existing wired LAN infrastructure using encrypted security. Ethernet functionality of the Camera can be restricted and access can be password protected. Using the optional BYOD Pack with the EYE-14 adds wireless connectivity and facilitates integration into existing wireless LAN infrastructure using encrypted security.

## Wireless Encryption (EYE-14)

The EYE-14 with BYOD Pack upgrade supports WEP, WPA and WPA2 wireless encryption. This allows for straightforward integration into the enterprise level IT networks commonly found in universities and other organizations, and ensures that no compromises in network security are required.

## Single User Authentication

When using a smartphone or iPad with EYE Series systems, Single User Authentication ensures a quick and easy wireless connection between device and Camera, and prevents any third party from interrupting the connection during a presentation.

## Wireless Connectivity (Access Point)

The EYE-14 with BYOD Pack upgrade can also be configured to operate using an encrypted ad-hoc wireless network. This 'standalone' option allows for the direct wireless connection of smartphone, tablet, and PC devices, and means that full bandwidth is available for EYE-14 use. It gives users maximum flexibility, particularly if the camera is required to be used in multiple locations.



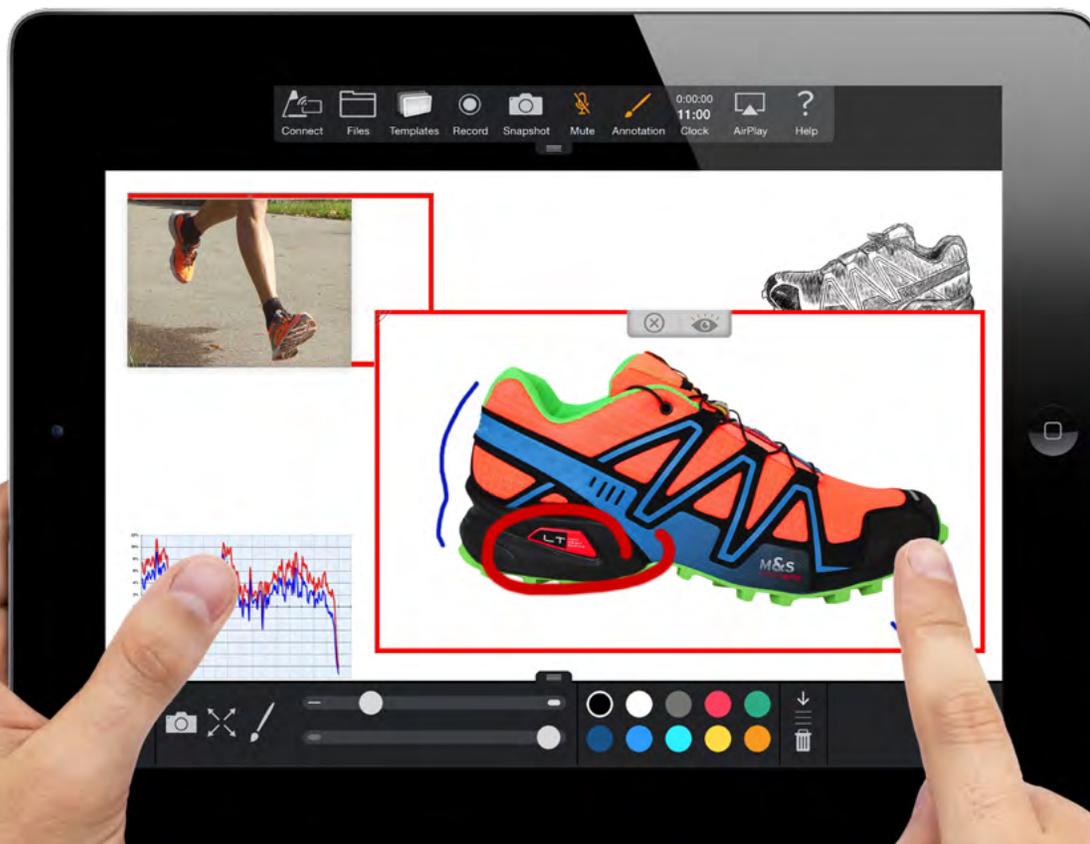
# Bring Your Own Device

## ✓Solution Connect for Tablets

Connecting a tablet to an EYE-14 (optional BYOD Pack required) allows it to be used as a multimedia control dashboard during a presentation or lecture. All media types can be integrated and controlled from a single device, allowing material stored either locally on the tablet or in Dropbox to be added seamlessly into presentations.

The easy-to-use recording functionality of vSolution Connect also enables entire presentations including any external content, to be recorded, and saved to the tablet memory. A Live Image preview shows exactly what the audience sees onscreen at all times and wireless connectivity allows presentations or lectures to be delivered from anywhere in the room.

The annotation feature is ideal for making notes, sketching, and highlighting documents, charts, and pictures. A dedicated whiteboard function also provides a separate space for making and displaying notes onscreen during a presentation.



++ Video ++

# Transforming Presentations

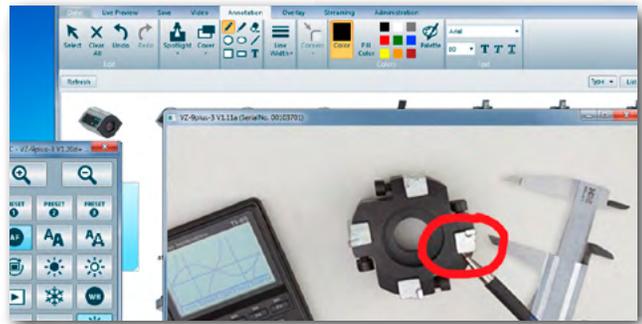
## ✓Solution Control for Smartphones

The vSolution Control App enables EYE-12 and EYE-14 cameras to connect to an iPhone, Windows 8, Windows Phone 8 or Android device via WLAN. This intuitive and easy to use app allows presenters to use the device keypad and Live Image Preview to control a presentation or lecture wirelessly from anywhere in the room.



## ✓Solution Link for PC and Mac

vSolution Link allows a user to connect a computer directly to an EYE camera. The software allows for saving, printing and emailing of images, recording of videos, adding annotations and video streaming. It also provides useful tools for automatically applying firmware updates, which helps to extend the life of your investment, and allows new features and technical improvements to be added at no cost!



Fast Multimedia Source Switching	✓	✓	✓
Live Image Camera Remote Control	✓	✓	✓
Live Image Preview	✓	✓	✓
Image Snapshot	✓	✓	✓
Video Recording with Audio	✗	✓	✓
Image Annotation	✗	✓	✓
Live Web Streaming	✗	✗	✓
Access to Web-based Material	✗	✓	✓
Display Content From Device	✗	✓	✓
Multiple Source Preview	✗	✓	✗

# Technical Data

	EYE-12	EYE-14
Camera	1/3" CCD	1/3" CMOS
Pictures per second (as picked up by the camera)	30 frames (in all resolutions)	
Effective Pixel (=pixels actually used for image information)	1280x960 (=1,228,800)	1920x1080 (=2,073,600)
Total pixels of camera sensor	1,228,800	2,073,600
Pixels processed per second (=effective pixels x frames per second)	36,864,000	62,208,000
Color reproduction / precision	very good colors (sRGB color precision)	
Native signal output	SXGA- (1280x960), WXGA (1280x800), 720p HD (1280x720)	1080p HD (1920x1080)
Converted output signals (4:3 and 5:4)	SXGA+ (1400x1050), SXGA (1280x1024), XGA (1024x768), SVGA (800x600)	SXGA (1280x1024), XGA (1024x768), SVGA (800x600), UXGA (1600x1200)
Converted Widescreen output signals (16:9 and 16:10)	1080p HD (1920x1080), WSXGA+ (1680x1050), WXGA+ (1440x900), WXGA (1360x768)	WUXGA (1920x1200), WXGA (1280x800), 720p HD (1280x720)
Resolution (measured)	820 lines	980 lines
Brightness control	automatic and manual	
White balance adjustment	automatic and manual	
Autofocus / Speed	yes (continuously working, high speed)	
Manual focus	yes	
Center lasermarker for easy positioning of objects	-	yes, single dot, in center of working surface, invisible onscreen
Live to freeze comparison ( Picture in Picture, and Side by Side)	-	yes
On screen menu, and onscreen help	yes	
Firmware Updates via	USB, RS232, LAN	USB, LAN, USB stick
Zoom	48x zoom (12x optical, 4x digital)	56x zoom (14x optical, 4x digital)
Lens	wide angle, f= 5.8 - 70mm	wide angle, f= 4.7 - 66mm
vSolution Link Software (USB / LAN, for controlling, image and video capture and firmware updates)	included (for 32- and 64-bit Windows and Macintosh, Twain/WIA compatible, with video capture driver)	
UVC driver for Windows, Linux, and OS X (Mac)	-	yes
User programmable presets	3	
Image memory	9 pictures	8GB internal memory + additional storage on USB stick or external hard drive
Browsable memory (scrollable thumbnails + 1 larger preview image)	9 picture 'show-all' split screen function	yes
User defined settings on USB stick	-	yes
Special working surface for transparencies	with optional working plate	
Alternative Image display	negative / negative-blue / black and white	
Seamless cross-fading between image sources	-	yes
WolfVision image processing engine YSOP1	-	yes
Connectors	1x DVI Out, 2x RGB (15-pin D-Sub/VGA-plug), IP addressable LAN port 10/100Mbps with PoE, Trigger port (RCA (+BNC adapter), max.15 pulses / sec, delay: 1/30 sec, RS232 (9-pin D-Sub), 1xUSB 2.0 Device port	1x HDMI Out, 1x RGB 15-pin D-Sub/VGA-plug, IP addressable LAN port 10/100Mbps with PoE+, (if RS232 is required external LAN to RS232 adaptors can be used), 1x USB 2.0 device port and 2x USB 2.0 Host ports, Audio Line In/Line Out
Outputs	DVI ( and HDMI via optional DVI-HDMI cable or adaptor), RGB	HDMI (and DVI via optional HDMI-DVI cable or adaptor), RGB
LAN streaming modes (multicast and unicast)	MJPEG	RTP H264 + audio, RTP MJPG + audio, MJPG
WLAN (Dual band stick for 2.4GHz and 5GHz)	-	optional
Onboard video recording including audio	-	yes (720p HD, up to 30 frames per second, AVI container, H.264 codec, .AVI file format
Audio	-	yes (Audio Line In, Line Out)
Advanced controlling with professional protocol	yes, via RS232, LAN, and USB	yes, via LAN and USB
Dimensions in operation (L x W x H)	133mm x 125mm x 91mm (5.2" x 4.9" x 3.6")	127mm x 125mm x 91mm (5.0" x 4.92" x 3.58")
Weight	0.8 kg (1.7 lbs)	1.0kg (2.24 lbs)
Infrared remote control	yes, internal Infrared, optional: external receiver (with 10 m cable and status LED)	
Anti-theft device	T-Lock (Kensington® Lock)	
Tripod mount / ceiling mount	2 tripod mounts (on top and bottom, 1/4-20 UNC) plus u-shaped mounting clip (for attaching the camera on the back of the unit)	
Plenum rated	yes	
Power	External power pack: multi range 100-240 V, 10W power consumption, Power over Ethernet (IEEE802.3af standard)	External power pack: multi range 100-240 V, 21W power consumption, Power over Ethernet Plus (IEEE 802.3at standard), adjustable standby power consumption
Warranty	5 years	

All units made in the European Union (Austria)

Design and specifications subject to change!

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