

VZ-C12³ and VZ-C32³



The Visualizer
on the ceiling

Unique Ceiling Solution

VZ-C12³ and VZ-C32³ Ceiling Visualizers

WolfVision is a globally successful family owned company based in Austria/Europe. As 'technology leader' in the Visualizer market, WolfVision is the company that sets the worldwide standards of product quality, innovation, reliability and ease of use. The Ceiling Visualizer - introduced by WolfVision in 2002 is one of WolfVision's most famous innovations.

The basic idea behind the Ceiling Visualizer is to keep the speaker's table or lectern free, so that nothing disturbs the view between the speaker and audience, and that large objects can be easily displayed. In situations like this presentation of architectural diagrams, it would be impossible to place everything the audience is supposed to see on a working surface of a "Desktop Visualizer".



Outstanding Mechanical Stability and Long Lifetime

Outstanding mechanical quality and durability are basic requirements for all WolfVision products. WolfVision units are solid and not easily damaged. They are built to last for a very long time.



Outstanding Picture Quality

WolfVision Visualizers have always been famous for their outstanding picture quality, which is due to a perfect mix of high end components and remarkable know-how. Perfect picture quality means high resolution throughout the whole picture (including the edges). It means lifelike colors, a high frame rate, fast and precise auto focus, smooth zooming, an overall distortion free picture, even lighting without reflections or hot spots and much more.

WolfVision's high priority on perfect picture quality can be seen throughout the entire Visualizer product line - from entry level models right through to the top of the range units. The picture quality of a Visualizer or camera can only be as good as it's weakest component. Five basic elements are responsible for perfect picture quality:



Synchronized Lightfield

...developed by WolfVision!

A light projector inside the unit projects a lightfield the same size as the pick-up area of the built-in camera onto the working surface. The image is recorded by the camera using the same light path. The lens of the light projector and the camera are synchronized so that when zooming in and out, the size of this lightfield changes accordingly. The illuminated part of the working surface is always identical to the pick-up area of the camera. So a user always knows exactly where to place objects or documents. There is no need to look at a monitor.



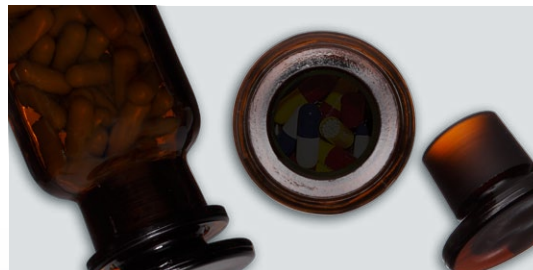
Illumination of Hollow Objects / No Light Adjustments

Due to the special light system of the Ceiling Visualizers, every part of the recorded picture is always perfectly illuminated. Hollow objects or complex 3-dimensional

objects are always completely illuminated - even on the inside. As a result, there is never any need to adjust the light.



Illuminated on the inside

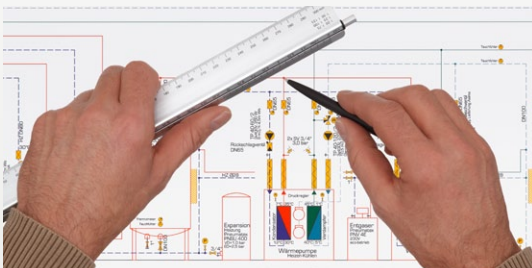


Not illuminated on the inside

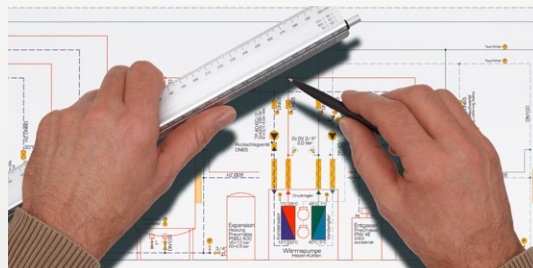
Shadow Free Illumination

As the camera and the light projector are situated side by side within the Visualizer and follow the same path, shadows are almost completely eliminated. During a presentation, it is often necessary to write on a document

on the working surface or to point to a certain detail with a finger or a pencil. Ceiling Visualizers are perfectly suited for this, as there are practically no shadows created, that might otherwise cover up important details.



Shadow-free



With shadows

Presentation Benefits



High Depth of Focus

Ceiling Visualizers are equipped with professional telezoom lenses with a very high depth of focus. This is especially important when working with larger 3-dimensional objects. Even at high magnification, images are always sharp

from top to bottom. The Ceiling Visualizer models are also equipped with a One-Push-Autofocus. However, due to the great depth of focus it is rarely necessary to adjust the focus.



Professional PowerPoint Integration

A Visualizer can greatly improve an otherwise stiff PowerPoint presentation by adding the "live factor". It's also the perfect solution to show an unexpected item during a PowerPoint presentation. Simply connect the computer to the external input of the Visualizer and switch between PowerPoint and Visualizer images using the fade-over effects of the integrated Seamless Switch. This makes the live image of the Visualizer ap-

pear to be an integrated part of the PowerPoint presentation.

The "Live to Freeze" comparison feature is also perfectly suited for PowerPoint integration. By using the Preset key the PowerPoint image is frozen and minimized as a little image in the lower left corner of the picture, while the live image of the Visualizer is displayed in the main part of the picture.



Internal Image Memory

9 images can be stored and then recalled by simply pressing one of the numerical keys on the remote control. By pressing the „View All“

key, a split image with all 9 pictures of the memory can be displayed, enabling easy selection.

More detailed feature descriptions,
photos and 3D animation at

www.wolfvision.com

Advanced Connectivity

USB Device Port / Connectivity Software

The Ceiling Visualizers can be connected to a computer using the USB 2.0 or the LAN port together with the WolfVision Connectivity Software or a WIA, Twain or video capture driver. The supplied Connectivity 2 Software allows for saving still images and videos onto a PC or Mac, con-

trolling the unit, updating the firmware, adding annotations, instant printing of Visualizer screenshots and even streaming live images over a network. Firmware updates allow new features and technical improvements to be added at no cost!



External Controlling

A wide range of connectivity options ensures that effective external controlling is possible. Serial RS232, USB, LAN and infrared connections can be used to control the Visualizers from external devices, such

as a room control system, a video-conferencing system or a computer. When connected to a WLAN router, Ceiling Visualizers can also be controlled using WolfVision's smartphone apps. The big advantage of this is the Live Preview display function.



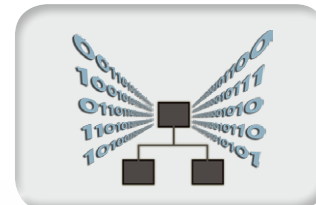
LAN Port / Additional Network Features

The LAN port is a key feature of all high end Visualizers from WolfVision. It makes the Visualizer a part of the internal computer network and it can be used for communication over the Internet, if it is assigned an official (WAN) IP address.

Administrators of a larger number of Visualizers can use the LAN port to control, support and update all of their units from their

local desktop PC. It can be used for controlling, capturing still images, viewing live video streams, firmware updates, adjustments, menu settings, and maintenance purposes.

The VZ-C12³ and VZ-C32³ offer streaming of live images directly from the Visualizer (without a connected PC) in Singlecast (Unicast) and Multicast mode.



Intelligent Design

The Ceiling Visualizers come in a small and elegant housing, intelligently designed for optimum usability. Accessing the cable

connectors on the top side of the unit is very easy, as the Visualizer can be opened from below with just one pull.



Innovative Technology

Flexible Installation

Ceiling Visualizers can be either mounted on the ceiling, or integrated into a suspended ceiling. To suspend the Visualizer from the ceiling (in order to get bigger enlargements), any standard ceiling mount for projectors can be used. The automatic height adjustment mode facilitates easy installation, and also offers the possibility to expand the optical zoom range if a height adjustable table or ceiling mount is used.

Plenum Rating

The Ceiling Visualizer Series design and material adheres to all fire safety regulations and allows for quick installation into any ceiling. Both the VZ-C12³ and VZ-C32³ are plenum rated.

Large Zoom Range

The Ceiling Visualizers come with professional telezoom lenses with 16x optical zoom factor. In combination with the 4x digital zoom, the total zoom range of the Ceiling Visualizers is 64x. This facilitates installation in rooms with differing heights. The Ceiling Visualizers can zoom in very closely, as well as picking up very large objects.



100% Reflection-Free

With the special light system of WolfVision's Ceiling Visualizers, it is impossible that the Visualizer's light is reflected back into the camera. The entire working surface is always 100% reflection-free.

High Resolution/ 1-CCD and 3-CCD Cameras

The difference between the two Ceiling Visualizers is the built-in camera. The VZ-C12³ comes with a state of the art 1-CCD SXGA-camera with 820 lines resolution, while the VZ-C32³ features a 3-CCD SXGA-camera with 1200 lines resolution and 100% lifelike colors.



Ideal for Videoconferencing and Telepresence

The big advantage of a Ceiling Visualizer in a videoconferencing or telepresence application is that it is completely invisible to the audience.

Technical Data

	VZ-C12 ³	VZ-C32 ³
Camera	1-CCD 1/3" Progressive Scan	3-CCD 1/3" Progressive Scan
Pictures per second (as picked up by the camera)	30 frames (in all resolutions)	30 frames (in all resolutions)
Effective Pixel	1280 x 960 (=1,228,800)	3 x 1280 x 960 (=3,686,400)
Total pixels of CCD(s)	1,320,000	3,960,000
Pixels processed per second	36,864,000	110,592,000
Color reproduction / precision	very good colors (sRGB color precision)	100% lifelike colors (sRGB color precision)
Native signal output	SXGA- (1280x960) and WXGA (1280x800) and 720p HD (1280x720)	SXGA- (1280x960) and WXGA (1280x800) and 720p HD (1280x720)
Converted output signals (4:3 and 5:4)	UXGA (1600x1200), SXGA+ (1400x1050), SXGA (1280x1024), XGA (1024x768), SVGA (800x600)	UXGA (1600x1200), SXGA+ (1400x1050), SXGA (1280x1024), XGA (1024x768), SVGA (800x600)
Converted Widescreen output signals (16:9 and 16:10)	WUXGA (1920x1200), 1080p HD (1920x1080), WSXGA+ (1680x1050), WXGA+ (1440x900), WXGA (1360x768)	WUXGA (1920x1200), 1080p HD (1920x1080), WSXGA+ (1680x1050), WXGA+ (1440x900), WXGA (1360x768)
Resolution (measured)	820 lines	1200 lines
Resolution in Image Turn mode	1050 lines	1550 lines
Image Rotation	90, 180 and 270 degrees	90, 180 and 270 degrees
Iris and White balance adjustment	automatic and manual	automatic and manual
Autofocus	one-push-autofocus (focusing is rarely necessary due to high depth of focus)	one-push-autofocus (focusing is rarely necessary due to high depth of focus)
Manual focus	yes	yes
Synchronized lightfield (for easy positioning of objects)	yes (in size of pick-up area of camera) with 4:3 / 16:10 switching	yes (in size of pick-up area of camera) with 4:3 / 16:10 switching
Text Enhancer	yes	yes
Live to Freeze comparison (on two monitors or screens with just one Visualizer)	yes (RGB, DVI and Preview outputs can output different signals. One can output a live image and another one a "freeze" image)	yes (RGB, DVI and Preview outputs can output different signals. One can output a live image and another one a "freeze" image)
On screen menu with Help	yes	yes
Firmware Updates via	USB, RS232, LAN, USB stick	USB, RS232, LAN, USB stick
Zoom / Lens	two telezoom lenses, 64x zoom (16x optical + 4x digital)	two telezoom lenses, 64x zoom (16x optical + 4x digital)
Max object height on working surface	no limit	no limit
Max. pick-up area on working surface	depending on installation height	depending on installation height
Min. pick-up area on working surface	depending on installation height	depending on installation height
Depth of focus on small object (42 x 33 mm)	larger than 70mm (2.75")	larger than 70mm (2.75")
Depth of focus on large object (360 x 270 mm)	larger than 250mm (9.7")	larger than 250mm (9.7")
Shadow free illumination	yes	yes
Illumination of hollow objects	yes	yes
Light source	Maintenance free high-brightness LED light system (high light output, low power consumption), lamp lifetime: 30,000 hours	Maintenance free high-brightness LED light system (high light output, low power consumption), lamp lifetime: 30,000 hours
Connectivity Software (USB/LAN, for controlling, image and video capturing and firmware updates)	included for 32- and 64-bit Windows + Macintosh, Twain/WIA compatible, with video capture driver	included for 32- and 64-bit Windows + Macintosh, Twain/WIA compatible, with video capture driver
Reflection free working surface	whole working plate	whole working plate
User programmable presets	3 (+ 8 fixed presets through RS232, USB or LAN)	3 (+ 8 fixed presets through RS232, USB or LAN)
Special working surface for transparencies	yes (special working plate included)	yes (special working plate included)
Slide pick-up	with optional lightbox	with optional lightbox
Bottom light	optional external lightboxes (extremely large models like WolfVision's LB-38 can be used)	optional external lightboxes (extremely large models like WolfVision's LB-38 can be used)
External computer input / Input switch	yes (15-pin D-Sub/VGA plug)	yes (15-pin D-Sub/VGA plug)
Built-in digital scaler for the computer input	yes (processes the signal from computer input for RGB- and DVI-output)	yes (processes the signal from computer input for RGB- and DVI-output)
Seamless switch with fading effects	yes	yes
Advanced keystone correction	yes	yes
Image memory (with "Show all" function / split-screen)	9 pictures in internal memory + unlimited number on USB stick	9 pictures in internal memory + unlimited number on USB stick
Alternative Image display	negative, negative-blue and black/white image	negative, negative-blue and black/white image
RGB output	two (2x 15-pin D-Sub/VGA-plug)	two (2x 15-pin D-Sub/VGA-plug)
DVI output (HDMI compatible via adapter or cable)	DVI-I (digital and analog)	DVI-I (digital and analog)
USB standard / port	USB 2.0 Device Port and Host Port	USB 2.0 Device Port and Host Port
Ethernet/LAN port, IP-addressable	yes, 10/100 Mbps	yes, 10/100 Mbps
Additional LAN-features: multicast and singlecast (unicast) streaming, authentication	yes	yes
RS232 port	9-pin D-Sub	9-pin D-Sub
Advanced controlling with professional protocol	yes - via RS232, LAN and USB	yes - via RS232, LAN and USB
Dimensions (L x W x H)	452mm x 352mm x 206mm (17.8" x 13.9" x 8.1")	452mm x 352mm x 206mm (17.8" x 13.9" x 8.1")
Weight	12 kg (25 lbs)	12 kg (25 lbs)
Infrared remote control	yes (with laserpointer), internal and external receiver (with 10 m cable and status LED)	yes (with laserpointer), internal and external receiver (with 10 m cable and status LED)
Anti-theft device	T-Lock (Kensington® Lock)	T-Lock (Kensington® Lock)
Ceiling mount	included	included
Power	multi range 100-240 V, 50W	multi range 100-240 V, 50W
Warranty	5 years	5 years

All units made in the European Union (Austria)

Design and specifications subject to change!

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