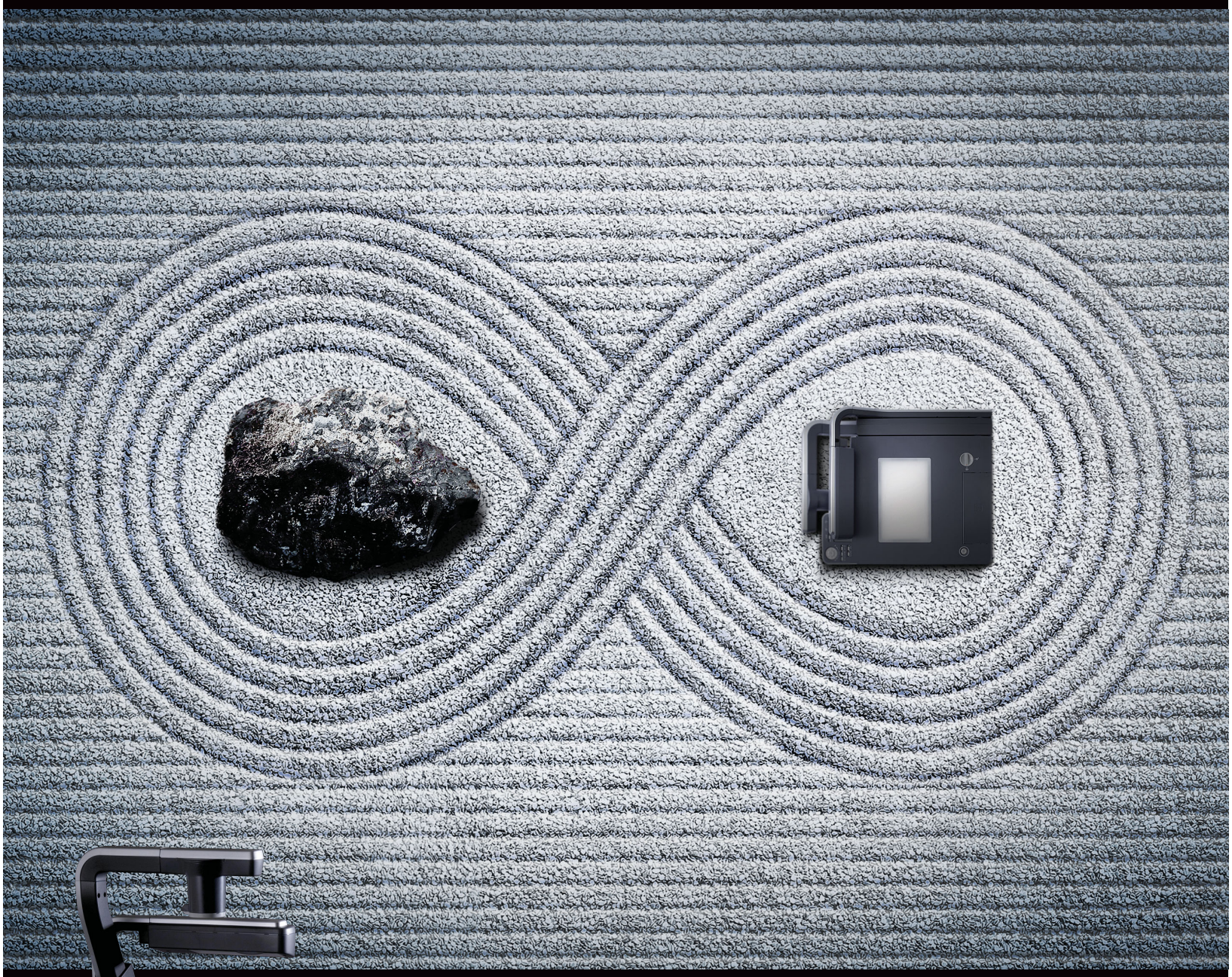
ELMO

VISUAL PRESENTER

P100
P100N

The mirror of infinite reality



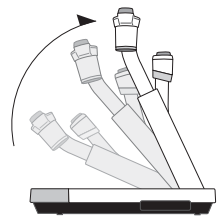
NEW The Ultimate Document Camera P100/P100N

P100/P100N Quality—Broadening the Potential of Communication

Not only for teaching and presentations, the ELMO Visual Presenter P100/P100N goes further
by featuring advanced technologies and concepts to enhance a wide range of communications.
It's the perfect presentation tool, allowing users to easily break through the constraints and
obstacles that previously seemed to hamper communication. And it's easier to understand,
easier to use, and best of all, it gives you more power to communicate.
Everything about it was developed with the goal of transforming communication for the better.
It is certain to evoke an unprecedented, gratifying response from your audience,
giving you a well-deserved sense of satisfaction.

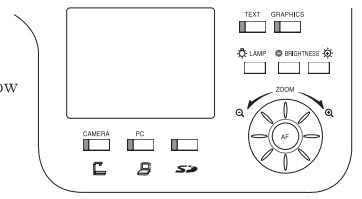
For telling your story better. For communicating your

Quick setup facilitates a smooth start, enhancing the communication of your message.



With only one action, camera and light are ready. In most cases, the quality of your presentation depends on whether you get off to a good start or a bad start. The P100/P100N helps you to get your presentation off to a skilled, effortless start. Moreover, you can fold it up right away thanks to its compact size. That means you can put it away without hassle right in the middle of your teaching or presentation or when you're finished.

When the speaker stops speaking, the audience stops thinking. **Simple design for easy operation**



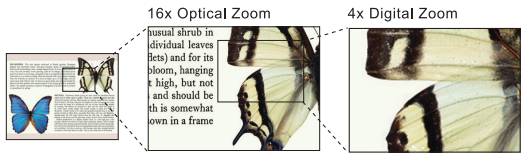
All the functions that you use frequently, like zoom, autofocus, and Input selection, are concentrated conveniently at your right hand. You can deliver your message effectively without interrupting its flow because the P100/P100N's buttons and dials are in plain view, even if you have reference materials at hand on stage. This means that you can proceed without interrupting the concentration of your audience. This is true ingenuity – the big difference in enhancing the quality of your communication.

Enhancing your power of persuasion by facing your audience **Integrated LCD Monitor**

On top of everything else, you have a built-in 3.5" LCD monitor at your right. Viewable from most angles, it allows you to straighten out the position of your materials immediately. You don't have to turn around to look at the image on the screen behind you. This means you can proceed smoothly while facing your audience, thus boosting the concentration of your audience as well as your persuasiveness.

The truly important things are often in the details. **Advanced 64x zoom** (16x optical zoom and 4x digital zoom)

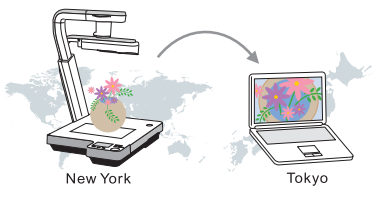
To display all materials with maximum clarity, ELMO insisted on high magnification optical zoom in particular. Our 64x zoom will become the industry standard. It will faithfully display in high resolution the details of a wide range of books and texts as well as three-dimensional objects and special materials such as slide films. Moreover, it can display subjects of very small sizes without distorting their image. It can handle almost any kind of material without hassle. This paves the way to remarkable improvements in communication speed and understand, thus broadening the reach of teaching and meetings. Of course, it also is equipped with One-Push Autofocus. It automatically, instantly, and smoothly determines and sets the right focus for a wide range of subjects.



Approx.**1,300,000 pixels,** yielding both high resolution and understanding **CMOS Image Sensor**

You need convincing high image quality to deal with people who are used to high-quality TV and PC display performance. ELMO has been working constantly on developing what you need, focusing on the key elements that determine image quality. With the P100/P100N, you can display vivid images clearly without hassle in a wide range of presentations, thanks to its horizontal resolution of 800 lines, meeting the highest industry standard, and its highly precise 1,350,000 pixels CMOS image sensor. Moreover, it produces beautiful, homogeneous images without any unevenness because of its exclusively designed lens with minimum light falloff at edges and distortion. The P100/P100N, featuring proper and precise display performance, enabling speakers to teach and make presentations with the utmost confidence.

Sending the high resolution image via network can expand presentation versatality (P100N only)

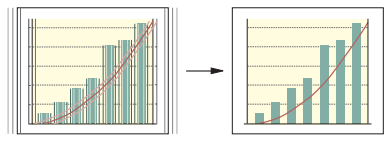


Connecting the P100N to the PC, you can view the live image on the browser software. FTP client feature enables you to store the still image into the FTP server. These network functions raise the infinie possibility and versatility of the document camera.

message better.　ELMO Visual Presenter P100/P100N

High image quality enhances the quality of communication
30 Frames Per Second Technology

Stroboscopic effects produced when the zoom adjusts itself, the subject is moved, and afterimages produced when the subject is changed are caused by the small number of frames per second (images per second). This is why the P100/P100N achieves 30 frames per second. By facilitating smooth, natural movements, this helps the audience to continue concentrating its attention on the speaker.

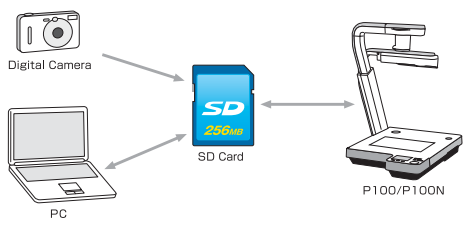


USB 2.0 terminals, linking the P100/P100N with PCs, facilitate more effective communication.

You can deliver your message more effectively, thanks to its drawing function, which allows you to enter lines and letters that show key parts from the PC in the still images captured to PC from P100/P100N. At the same time, there is a screen separation function that can display a wide range of information.

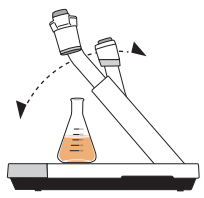
All you need is one card to start with Accommodates **SD cards**

If you store your images in an SD card (sold separately), you can teach and make presentations using slide shows stored in the card, without bringing along PCs and other hardware.



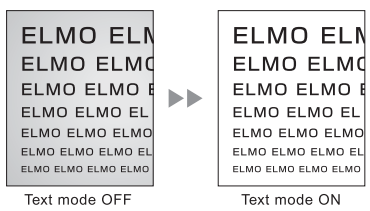
Flexible Free-Arm Function broadens the reach of teaching and presentations

You can photograph the points of the subject that you want to emphasize from any angle. You also can project things that need to be shown from the side, like beakers with liquids, and three-dimensional objects from effective angles. By fixing the arm at the most suitable location, including photography from locations lower than usual, you can produce a wider range of more effective presentations. And this broadens your repertoire of communication techniques.



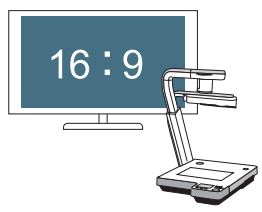
Clear Text Mode, to accent image quality by clear contrast

Many textual subjects are monochrome manuscripts. The P100/P100N is equipped with a text mode to accentuate the contrast between black and white. It facilitates clear reading of small text through its capability to clearly reproduce letters. If the text of a document is hard to see, it is difficult to convey the main points. With the P100/P100N, you don't need to worry about images of texts hampering effective communication.



Accommodates **High Definition TV,** complying with the diversifying high image quality of output devices

The display does not become oblong, even with 16:9 high definition TV monitors, thanks to its HDTV output of 1280x720 dots. The P100/P100N supports progressive scan so flickering and blurring does not occur on the screen. As such, it is a communications tool that is very useful in a wide range of situations.



P100/P100N Specifications

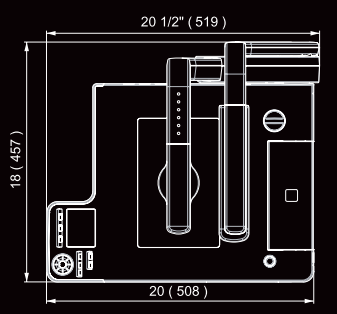
Model			P100/P100N
Camera	Image pick-up device		1/3" CMOS, Approx.1,350,000 pixels
	Total pixels		1312 (H) x 1032 (V)
	Effective pixels	SXGA output	1280 (H) x 1024 (V)
		HDTV 720p output	1280 (H) x 720 (V)
		XGA output	1280 (H) x 960 (V)
	Frame rate		30 frames/sec.
	Resolution	RGB output	800 (H) x 800 (V) TV lines or more
		Video output	450 (H) TV lines or more
Optics	Zoom		16x optical, 4x digital
	Lens		F2.7, f = 4.9 ～ 78.4mm
	Shooting area	SXGA output	Max. 16" x 12 3/4" (405 x 324mm) Min. 1 1/8" x 1" (30 x 24mm)
		HDTV output	Max. 16" x 8 7/8" (405 x 224mm) Min. 1 1/8" x 5/8" (30 x 17mm)
		XGA output	Max. 16" x 12" (405 x 303mm) Min. 1 1/8" x 7/8" (30 x 23mm)
	Limit of focus adjustment	with Close-up lens	TELE : 9 7/8" x 16 1/8" (250 ～ 410mm), WIDE : 3 3/8" x 16 1/8" (85 ～ 410mm) from close-up lens
		without Close-up lens	TELE : 19 3/4"～ ∞ (500mm ～ ∞), WIDE : 4"～ ∞ (100mm ～ ∞) from zoom lens
	Focus		Auto/Manual (powered)
	Iris		Auto (with level adjustment) / Manual
Functions	White balance		Full-auto/One-push/Manual
	Negative/Positive conversion		Provided
	Color/B&W selection		Provided
	Gamma adjustment		Provided (GRAPHICS mode only)
	Pause mode		Provided
	Image rotation		Provided (0°,180°,Automatic rotation by 180° for forward shooting)
	Image mode		TEXT1 / TEXT2 / TEXT3 / GRAPHICS
	State presetting		Provided (Up to 8 user settings)
	Edge enhancement		Provided (GRAPHICS mode only)
	Drawing function		Provided (on PC screen)
	Screen separation		Provided (on PC screen : Live image+Saved image)
	Image save		Provided (onto SD memory card)
	Split display		Provided (SD memory card image, 9-splits, 16-splits)
	Slide show		Provided (SD memory card image)
	Sync.system		Internal
Output	DVI output x1		TMDS data signal 0.5V (p-p) 50Ω terminated — SXGA(1280 x 1024@60Hz): Compliant with VESA
	Analog RGB output x1		0.7V(p-p) 75Ω unbalanced — Horizontal frequency 63.98kHz, Vertical frequency 60.02Hz
			Sync. signal : SXGA positive polarity — HDTV(1280 x 720@60Hz): Compliant with HDTV
			HDTV negative polarity — Horizontal frequency 44.7kHz, Vertical frequency 60Hz
			XGA negative polarity — XGA (1024 x 768@60Hz) : Compliant with VESA
			Horizontal frequency 48.363kHz, Vertical frequency 60.004Hz
	Composite video output x1		Compliant with NTSC / PAL
	Audio output (stereo) x1		Provided (P100N only)
	Terminal type		DVI output : DVI-D 24P connector, female
			RGB output : Mini Dsub 15P connector, female
			Composite video output : RCA pin jack / 75Ω unbalanced (NTSC / PAL)
			Audio output (stereo) : RCA pin jack / compatible impedance, 1kΩ or more 300mV(rms) (P100N only)
	Video output selection		Provided (NTSC / PAL)
	Video output size		Over scan / Under scan
Input	RGB input x1		Mini Dsub 15P connector, female
	Audio input (stereo) x1		φ3.5mini stereo Jack / 300mV(rms) impedance, 20kΩ or more (P100N only)
	Microphone Input (mono) x1		φ3.5mini Jack / comatible impedance, 6.9kΩ 30mV(rms) (P100N only)
	Input selection		Int. / RGB
PC interface	RS-232C port		Dsub 9P connector, male x1
	USB 2.0 port		Type B receptacle x1
Memory card	SD Memory Card slot		Provided
Lighting	Upper lighting unit		Twin fluorescent lamp
	Base lighting unit		Cold-cathode tube
Others	Supplied Accessories		AC adapter, Power cord (1.5m),Video RCA cable (3m), Analog RGB cable (Dsub 15P connector) (2m), DVI cable (2m), I/R remote control, Batteries (Type R03, AAA), Instruction manual, USB cable (1.8m), Warranty card, Installation manual for Utility Software, Utility Software CD-ROM, Ethernet cross cable (1m) (P100N only)
	I/R remote control		Provided
	Application software		Image Mate for Presentation,TWAIN driver [Windows 2000 (SP4 or later)/ Windows XP (SP2 or later)]
	Storage mode		Provided [Windows 2000(SP4 or later) / Windows XP(SP2 or later)]
	Built-in 3.5" LCD preview monitor		Provided
	Dimensions (W x D x H)	Set up	18" x 20 1/2" x 23 1/8" (457 x 519 x 587 mm)
		Folded	18" x 22 1/8" x 5 1/2" (457 x 562 x 138 mm)
	Weight		Approx. 18.7 lbs (8.5kg) (Main unit only)
	Power source		DC12V (AC adapter : AC100 to 240V)
	Power consumption		P100 : 30W (AC adapter included), P100N : 35W (AC adapter included)

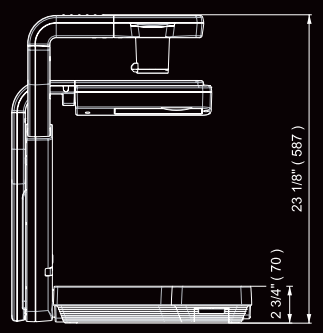
P100N Network Specification

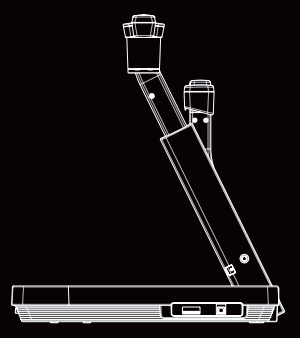
Network		
	Interface	10BASE-T/100BASE-TX (RJ-45)
	Protocol	IP, ARP, ICMP, TCP, HTTP, FTP, Telnet
	Recommended browser	Internet Explorer 6.0 or newer
	OS	Windows 2000 (SP4 or newer) /XP (SP2 or newer) /Vista
	Connection port No.	HTTP:80, FTP:20, 21, telnet:23
	Language	English, Japanese
	Image format	Motion-JPEG
	Image size	SXGA : Horizontal 1280, Vertical 1024 HDTV : Horizontal 1280, Vertical 720 XGA : Horizontal 1280, Vertical 960
	Frame rate	Max. approx. 5fps
	Number of clients simultaneously connectable to live screen	5 clients
	Number of clients simultaneously connectable to FTP server	1 client
	Still image display	JPEG
	Main unit remote function	ZOOM, LAMP, BRIGHTNESS, FOCUS, GRAPHICS, TEXT, EDGE EFFECT, IMAGE ROTATION, POSI/NEGA, COLOR/B/W

Profile

All dimensions in inches (mm)







Rear Panels

P100

P100N

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ELMO's Helping to Provide a Greener Future for Our Children

This ELMO product complies with RoHS Directive 2002/95/EC (Restriction Of the use of certain Hazardous Substances in electronic equipment). This compliance helps to ensure a healthier and greener environment for all our children.

ISO 9001 JP 95/05165QA
ISO 14001 TW 01/19851EM

ELMO CO.,LTD. (Head Office and Factory)'s QMS/EMS has been registered to ISO 9001 & 14001 : 2004.

FOCUS ON THE FUTURE

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