



VISUSCOUT 100 from ZEISS
Handheld Fundus Camera
Simple mobile retina imaging



We make it visible.

Fundus imaging – wherever you need it

Truly portable imaging from ZEISS

Reliably detecting and monitoring retinal disorders is key to ensuring high-quality care and to maintaining the vision of your patients. The VISUSCOUT™ 100 from ZEISS lets you do precisely that. As a mobile fundus camera, it is the perfect imaging companion.



Retinal diagnosis that reaches every patient

With its lightweight and compact design, the ZEISS VISUSCOUT 100 allows simple retinal imaging and great flexibility when and wherever the need arises.

- For checkups and documentation of retinal conditions such as diabetic retinopathy, glaucoma and AMD
- As a secondary device for immobile patients
- Ideal for outreach programs, mobile eye care and satellite offices
- When working with children
- For general consultations and home visits
- As a simple fundus camera for small practices with space constraints
- Well-suited for health care professionals interested in an easy, cost-effective fundus imaging solution

Packed into a small, rugged carrying case, the ZEISS VISUSCOUT 100 can be conveniently transported and easily fits into any practice setup. Thanks to the camera's non-mydriatic operation and precise autofocus function, dilation of the eyes is not required. Its battery power provides added flexibility. The optional WiFi functionality enables instant transfer of images to a PC or mobile device.

2.

Dėl nemidiatrinio fotoaparato veikimo ir tikslaus automatinio fokusavimo funkcijos, akių išplėtimo medikamentai nereikalingi

The ZEISS VISUSCOUT 100 comes with an ergonomic charging station. A slit lamp adapter is available as an option.

ZEISS VISUSCOUT 100 naudoja standartinius failų formatus, kurie leidžia peržiūrėti vaizdus ir vaizdo įrašus naudojant plačiai prieinamus, jau paruoštus programinės įrangos sprendimus.

Highlights at a glance

Image quality

Take color and red-free images instantly with the 40° field of view. The device fulfills all relevant ISO 10940 fundus camera standard requirements.

Easy capture

With its on-screen targeting aid and integrated autofocus function, using the device is easy and convenient. Nine internal fixation LEDs help align the patient correctly and also facilitate the capture of peripheral images. Thanks to its battery-powered, lightweight design, system handling is not restricted by cables.

Built-in simplicity

Operating the ZEISS VISUSCOUT 100 is simple and straightforward following a brief training session. Examinations are quickly performed and reviewed without needing to move the patient. Even medical staff can operate the device, enabling cost-effective image capture prior to the examination.

Optional viewing software

15. The ZEISS VISUSCOUT 100 uses standard file formats that allow you to view images and videos with widely available, off-the-shelf software solutions.

13.2

16.

When combined with the optional VISUSCOUT 100 viewing software, the device can be connected to a DICOM-based patient management system such as FORUM® from ZEISS. FORUM allows you to access patient work lists. It also enables you to transfer the data to a central archive.

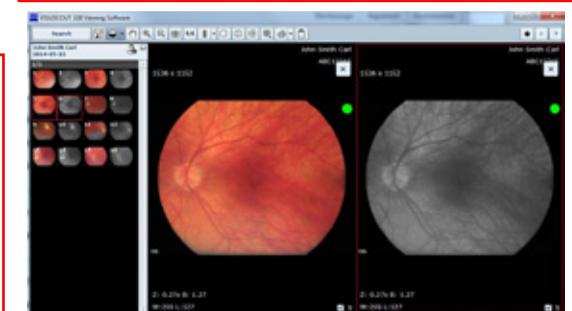
Sujungus su pasirinkama VISUSCOUT 100 peržiūros programine įranga, įrenginį galima prijungti prie DICOM pagrįstos pacientų valdymo sistemos, tokios kaip ZEISS FORUM®. FORUM leidžia pasiekti pacientų darbų sąrašus. Tai taip pat leidžia perkelti duomenis į centrinį archyvą.

1.

Privalumai:
Belaidis, patogus naudojimas akių dugno vaizdavimui bet kuriuo metu, kai jums reikia
Lengvas nuotraukų ir vaizdo įrašų fiksavimas su kokybe, kurios paprastai nesitikima iš mobilaus prietaiso

Key benefits for you

- Wireless flexibility for fundus imaging wherever you need it
- Easy capture of images and videos in a quality normally not expected of a mobile device
- Integrates with DICOM-based data management systems using optional viewing software
- Simple to operate, even for medical staff and assistants



Specifications and technical data

VISUSCOUT 100 from ZEISS

	Dimensions (W x D x H)	115 x 216 x 199 mm	
18.	Weight	800 g	svoris
3.	Sensor resolution / type	5 MP / CMOS	Vaizdo jutklio raiška 5 milijonai vaizdo elementų
	Protection class	1	
17.	Charging station	akumuliatorius pakraunamas, ličio jonų	pakrovimo stotelė
		100 - 240 V ~0.4 A 47 - 63 Hz, Output: 9 V, 1.1 A, 10 W	
	Battery	Rechargeable Li-Ion 3.7 V, 1950 mAh	
9.	Field of view	40°	akies dugno apžvalgos kampas
10.1/10.2/10.3	Capture mode	Color, red-free, IR	← spalvotas, beraudis, infraraudonaisiais spinduliais apšviestas vaizdas
7.	Focus range	-20D to +20D	fokusavimo diapazonas
5.	Fixation	9 x LED, internal	fiksacija 9 led, vidinė
	Minimum pupil size	3.5 mm	
4.1/4.2/4.3	Display	3.97", TFT-LCD, 800 x 480 px, 16.7 M colors, anti-glare coating	Įstrižainė 10,08 cm; TFT-LCD tipo; Raiška (800 x 480) vaizdo elementų.
14.1/14.2	Data connectivity	USB WIFI	Duomenų perkėlimo sąsaja USB wifi
13.1/13.2	Data formats	JPEG, MPEG4/1 (DICOM optional)	duomenų formatai: JPEG, MPEG4/1 (Dicom pasirenkamas)
12.	Memory	8 GB Micro or WiFi SDHC	vidinė atmintis 8 Gb mikro arba Wifi SDHC (perkėlimui į kompiuterį)



The ZEISS VISUSCOUT 100:
flexible and mobile fundus imaging



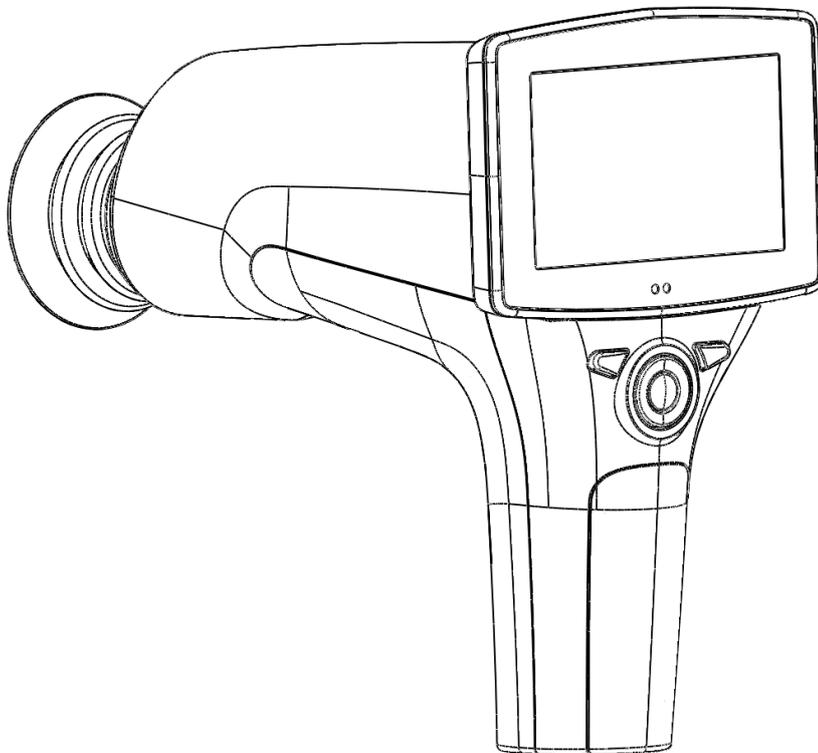
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VISUSCOUT 100

Mobile Retinal Camera

User Manual



message: “Active folder is empty. Cannot create a new folder”. Take an image and try to update the camera again.

Basic use – starting up, shutting down and taking an image

Device is powered on by pressing left soft key.

It is possible to capture both still images and video. Image capture mode is changed from camera menu that opens by pressing right soft key for 1s.

6.

Still image

Rankinis fokusavimas

- **Manual focus:** Still image is captured using the dual action shutter to the second position. Use this mode in case patient’s refractive error is known. For inexperienced users this mode is recommended.
- AF assist; In this mode the camera takes the image automatically when in focus. Still image is captured by using the dual action shutter either to the first or second position. This mode is recommended for trained users who are skilled in the focusing procedure or for use with the optional slit lamp adapter.

automatinis fokusavimas

- **Auto focus:** Still image is captured using the dual action shutter to the second position. Use this mode in case the patient’s refractive error is not known.

Video recording

In order to record video camera has to be set for video imaging. Video is captured by keeping the dual action shutter pressed down in the second position. It is recommended to use mydriasis when capturing videos.

Taken image will stay on display until it is cleared by pressing right / left soft key or shutter button. Image can be zoomed in instant preview by pressing middle key. There are 4 zoom levels. Pressing middle key activates the next level. Move around the image by using navigation key.

To transfer images to a PC via USB connection, place device to the cradle. The image transfer and charging are indicated with green and blue LED-lights, and text on LCD-screen (for 15 seconds). When VISUSCOUT 100 Client is open, images are transferred to the PC automatically via USB or WIFI connection if the automatic image transfer is enabled from Client settings.



If images are corrupted or not transferred to the PC, the original images are saved to the memory card. The device will try to transfer the images again, but if it fails repeatedly restart the device and/or VISUSCOUT 100 Client.

VISUSCOUT 100 verifies if image data is erased when:

- Device is powered on from power off mode
- Device is removed from the cradle

It is recommended that image data storage is always erased between patients if the images have been transferred to workstation.

STEPS FOR RETINAL IMAGING:

1. The examination room should be as dark as possible.
2. Both the patient and the examiner shall be seated while taking the images.
3. Either autofocus or manual focus can be used. Autofocus range is from -15 to +10 diopters and manual focus range is from -20 to +20 diopters.

If patient has a refractive error and **autofocus is off**, focus needs to be adjusted:

- Hyperopia: camera is focused to distance by pressing arrow key up. One click of the key is approximately 1 diopter.
- Myopia: camera is focused closer by pressing arrow key down. One click of the key is approximately 1 diopter.

4. **Aiming light is automatically turned on** when camera enters live view.
5. **The middle fixation target is lit when pressing left soft key** and it provides a macula centered image. To change the fixation target use navigation key to navigate between the 9 targets as shown in the graphics in lower left corner of the display. If fixation target is turned off, ask patient to look at a target in a wall 2-3 meters behind the operator.

8. 6. Light is adjusted using left and right arrow key. There are altogether 10 brightness levels. Default value is 5. Suitable illumination is typically 2 for bright eyes to 8 for very dark eyes. **For small children it is recommended to set the illumination as low as possible (1-3).** When using IR/White capture mode changing illumination brightness affects only the white capturing flash. If using IR/IR or White/White both aiming and capturing light are changed.

Šviesa reguliuojama rodyklių į kairę ir dešinę klavišais. Iš viso yra 10 ryškumo lygių.

7. **Aim help circle on the screen guides user when to take image.** When retina is not fully in view the circle is red. Once the aim is good and retina fully appears on screen, the circle turns green indicating a good moment for capturing the image.

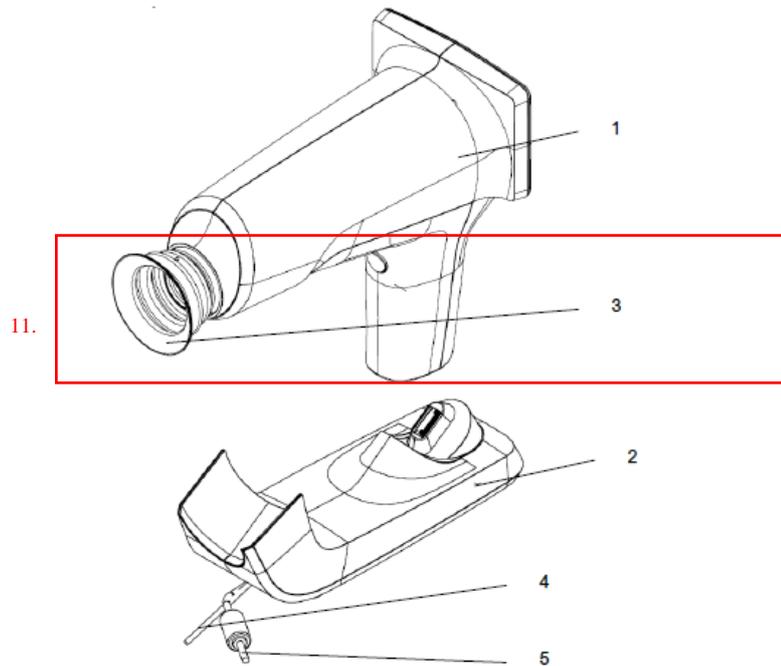
NOTICE: Some eye diseases and certain eye colors may prevent aim help from turning green. In this case images can be taken normally, except AF assist mode cannot be used.

8. Approaching the eye is started from 10 centimeters (4 inch) distance. If internal fixation target is not used patient is asked to look at a target in a wall 2-3 meters behind the operator (patient's eye targets to infinity and stays still). Pupil is approached until the reflection from the eye fundus can be seen.

Package check list

The VISUSCOUT 100 basic device is supplied with the parts shown below.

Carl Zeiss VISUSCOUT 100 retinal camera and accessories:



1. VISUSCOUT 100 handheld camera
2. Cradle
11. 3. Eye Rubber [akies guminis antgalis](#)
4. USB Cable
5. Power Supply Cable

In addition, the sales case includes:

- Batteries (2 pcs)
- Spare Eye cup
- Cleaning cloth
- User manual
- USB memory stick (includes VISUSCOUT 100 Client, VISUSCOUT 100 SYNC Software and User Manual)

Fig. 1 VISUSCOUT 100 package check list