OCULUS | Binoptometer® 4P

Professional Vision Testing Device

OCULUS®

We focus on progress

Innovative

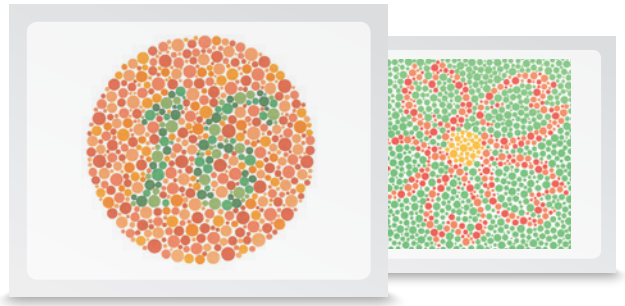
Test presentation on a high-resolution color display

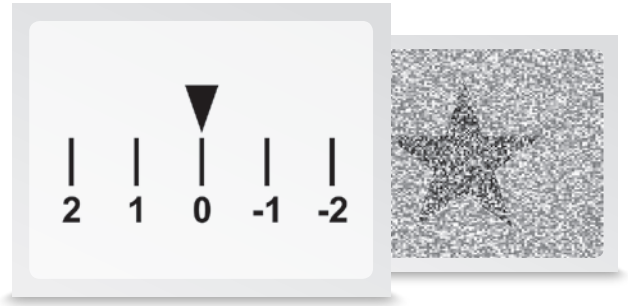
Visual acuity test

- Landolt rings conform to DIN EN ISO 8596
- Tests include numbers and letters and, optionally, tumbling E and child-friendly picture optotypes
- Levels of visual acuity: 20/200, 20/100, 20/63, 20/50, 20/40, 20/32, 20/25, 20/20, 20/16
- Optional presentation of single optotypes*

Color perception test

- Large selection of color test plates
- Video display precisely calibrated to color temperature for optimal color reproduction
- Presentation time of color plates can be limited for improved test accuracy
- Color test plates for children (optional)*





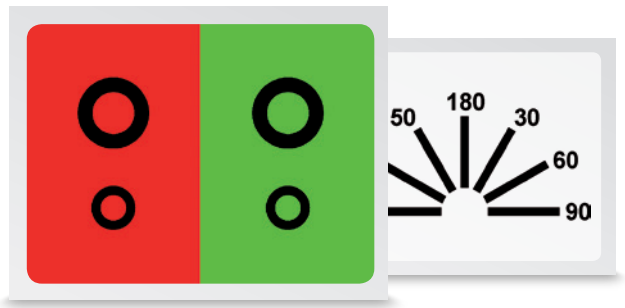
Binocular tests

These binocular tests are generated via a modern LCD shutter system which imitates natural vision. A number of integrated stereo and phoria exams accurately test for binocular vision.

- Optional: Additional child-friendly, easy-to-grasp stereo and phoria test charts*.

Refraction test

The astigmatism chart and the red-green test allow fast screening for significant refraction errors.



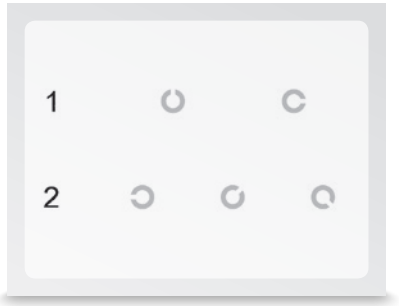
* included in the optional software module "vision tests for children"

Unbeatable

Vision testing device for contrast vision, mesopic vision and glare sensitivity

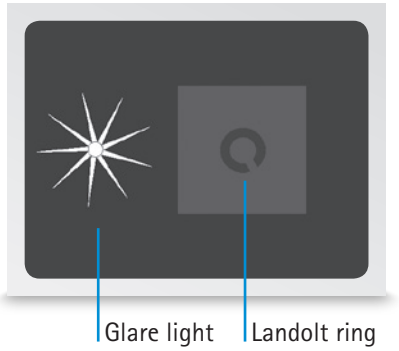
Contrast vision test

Similarly to visual acuity tests, photopic contrast acuity tests are conducted against a high intensity background light. Unlike visual acuity testing, where test characters are presented in high contrast, in photopic contrast vision testing, the contrast is reduced in stages. Contrast vision can optionally be tested with Landolt rings, letters or numbers at different visual acuity levels.



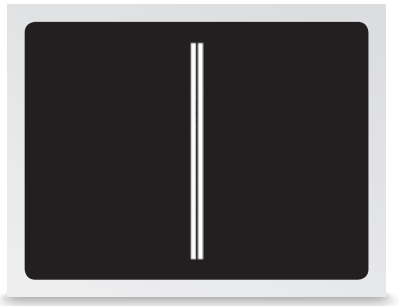
Mesopic vision and glare sensitivity test (optional)

Visual performance varies according to lighting conditions. To test visual function under mesopic conditions, a Landolt ring is presented in an environment of low light density (0.032 cd/m²), as it occurs during night driving. The Landolt ring (visual acuity level 20/200) is presented at four different contrast levels (23:1 / 5:1 / 2,7:1 / 2:1). Glare sensitivity is tested by simulating the dimmed light of an approaching vehicle. These tests with glare light are conducted at the same four contrast levels.



Determination of accommodation amplitude

Determination of the accommodation amplitude can be a valuable tool in deciding whether specific VDU workstation glasses are needed. The Duane test figure in combination with a kinetic process is particularly suitable for determining the accommodation amplitude. Result are determined quickly and conclusively.

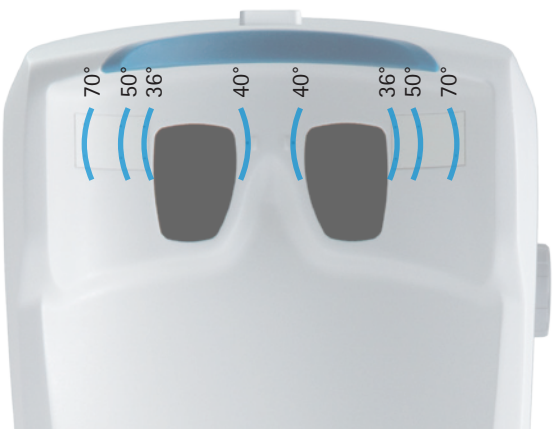


Hyperopia test (test for latent far-sightedness and presbyopia)

In cases of suspicious visual acuity values, a test can be run to determine whether the use of convex lenses (plus-lenses) will improve visual acuity. This test can be performed at all distance settings.

Peripheral visual field perception

Perception is tested at 7 points each for the right and left field of vision. Unique feature: The check of fixation proceeds through symbols changing in the center. By checking these symbols a fixation test is obtained.



All Features at a Glance

Fast

With peripheral visual field exam
(7 points per eye) – ideal for fast screening.

Patient-friendly

The user-friendly design prevents
condensation on the viewing windows while
providing protection against irritating light.

Portable

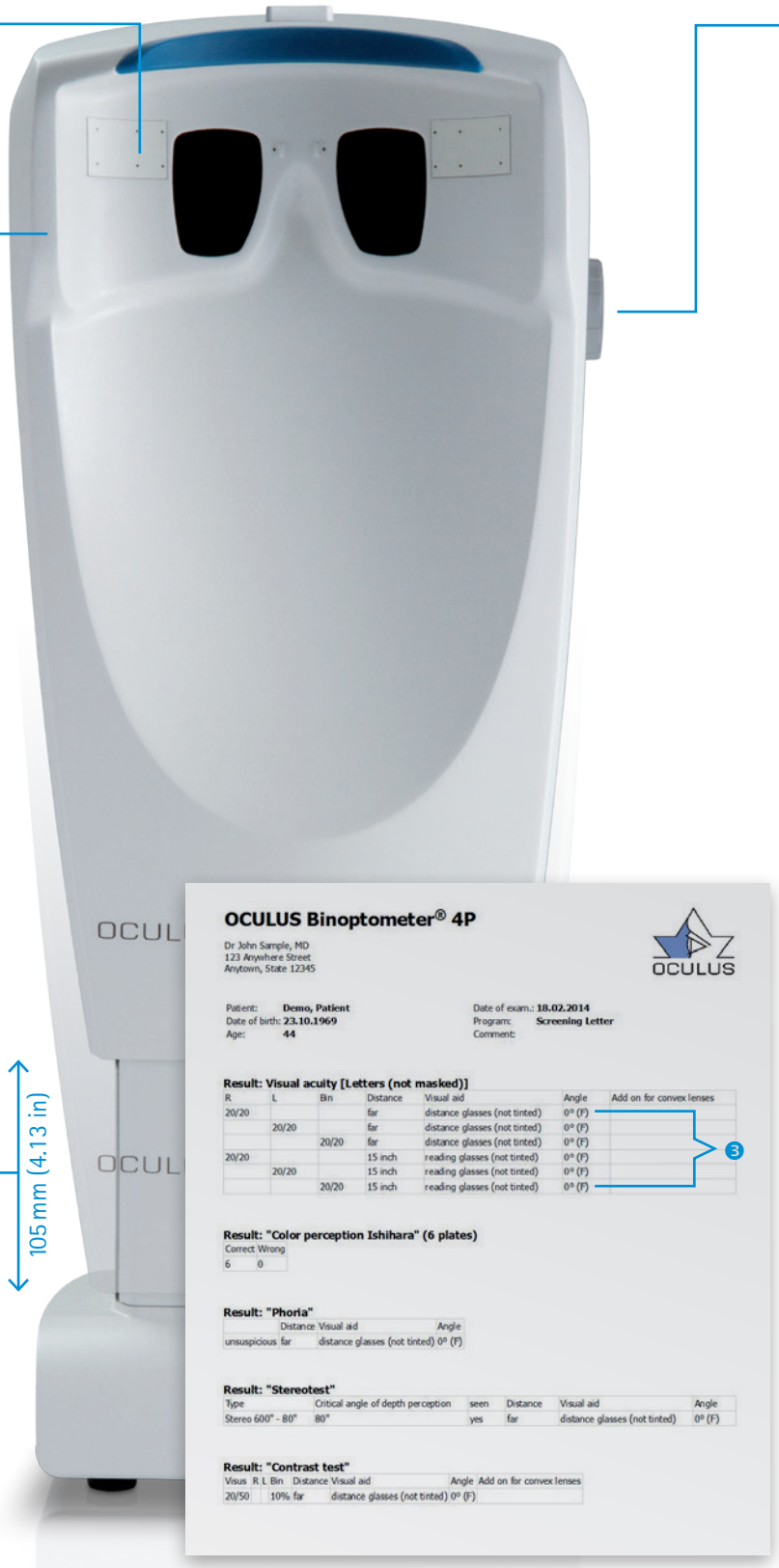
With a weight of just 4.8 – 5.6 kg (10.6 – 12.3 lbs)
(depending on accessories) the Binoptometer® 4P
is easy to move around.

Adjustable examination distance

The testing distance is continuously adjustable
from 30 cm (11 inches) to infinity.

Ergonomic

A height adjustment range of 10.5 cm
(4.13 inches) accommodates patients of
different size. (optional)



Flexible

The viewing angle can be adjusted continuously. Ergonomic test procedures are thus possible also for patients with multifocal or progressive lenses.
The adjustment angle ❶ is presented on the display ❷ and documented in the printout ❸, ensuring reproducible test results.

Versatile

- Concise printout
- Automated PDF generation
- Easy transfer to electronic medical records

Programmable and customizable

Several programs are pre-loaded:

- Screening with Landolt rings, numbers and letters
- VDU workstation
- Driver's license regulation
- Glare sensitivity
- Pilots Class 2
- and many more

Make it your very own

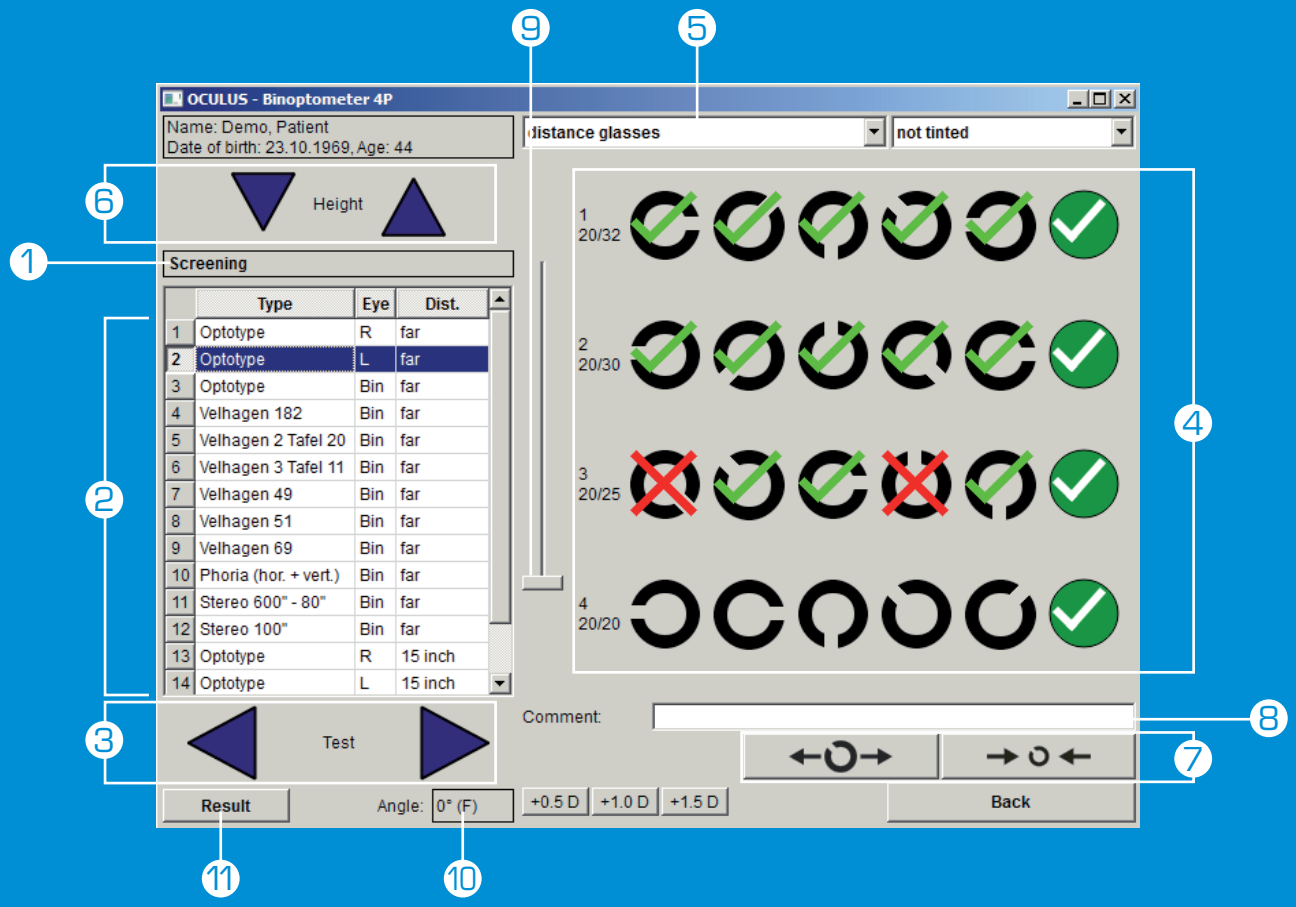
If want to run your own programs, we'll be happy to incorporate them. You can also customize the printout with your own logo and practice information.

Easy to use

The Binoptometer® 4P can be easyly operated using a Windows computer (netbook, laptop, PC or tablet).

Operator Friendly

Intuitive operation. Easy to understand.



1) Selected examination program

2) Test steps from selected examination program

3) “Forward” and “Back” arrows for easy navigation through the program

4) Tests presented to the patient

5) Selection field “Visual aid being used by patient ”

6) Height adjustment of Binoptometer® 4P (optional)

7) Change character size

8) Info text field for adding comments

9) Adjustment of examination distance

10) Display of adjusted viewing angle

11) Call-up of results printout

12) Plus lenses for hyperopia and presbyopia test

Optional Accessories

Mesopic vision testing under true-to-life conditions.

The external light shield of the Binoptometer® 4P permits mesopic vision tests independent of room conditions. It protects the eyes against incident light, allowing examinations also to be conducted in bright rooms.

Carrying case for Binoptometer® 4P

If you need to use it elsewhere, just pop your Binoptometer® 4P in this practical carrying case. Big enough to also accommodate the netbook as well as test sets and cables.

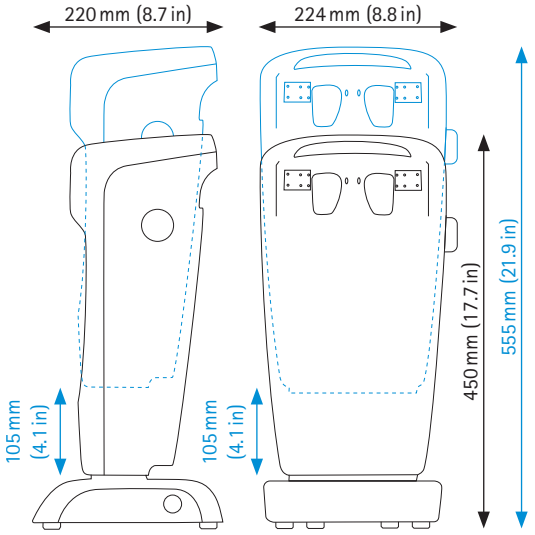
Transport trolley for Binoptometer® 4P

Maximum protection and convenience for your Binoptometer® 4P. Stable trolley with large rollers and extendable handle.

Technical Data
OCULUS Binoptometer® 4P

Binoptometer® 4P	
Brightness of exam field	approx. 300 cd/m² equivalent to standard light D 65 (color test D55)
Generation of vision test	Using a 800 x 600 pixel micro color display
Power supply	100-240 VAC, 30 VA, 50 – 60 Hz
Weight	Unit with height adjustment 5.6 kg (12.3 lbs), incl. power cable Unit without height adjustment 4.8 kg (10.6 lbs), incl. power cable
Dimensions (W x D x H)	Unit with height adjustment 224 x 220 x 450 – 555 mm (8.8 x 8.7 x 17.7 - 21.9 inches) Unit without height adjustment 224 x 220 x 450 mm (8.8 x 8.7 x 17.7 inches)
Interface	USB
Operating system	Windows® XP or higher

CE In accordance with the provisions of Directive 2007/47/EEC for medical devices.



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OCULUS is certified by TÜV according to DIN EN ISO 13485

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