



Vision Monitor MonCV3

MULTIFUNCTION VISUAL FIELD PERIMETER

MonCV3 is a multifunction system combining, in a single compact apparatus, several tests needed for a complete, throughout evaluation of visual functions.

MonCV3 performs standard automated perimetry

MonCV3 can perform, as options, manual Goldmann perimetry for the central field, blue over yellow perimetry and motion perimetry.

A number of other tests are also available, as described in the following table:



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|---|--------|--|----------------|
| • Visual field exam (automated static perimetry) | PVM-CV | • Macular pigments exam | PVM-PI |
| • Visual field PRO exam (Goldmann, Blue/Yellow & Motion perimetry) | PVM-CW | • Attention visual field exam | PVM-UF |
| • Dark and light adaptation exam (ganzfeld dark adaptometry) | PVM-AO | • Video and eye movement recording (during visual field and other exams) | PVM-CF |
| • Contrast sensitivity exam | PVM-SC | • Video oculography exam | PVM-YE |
| • Metamorphopsia exam | PVM-ME | • Pupillometry exam | PVM-PU |
| • Visual aptitude exam (Landolt rings, ETDRS, glare test, color test) | PVM-AC | • Eye gaze strategy exam | PVM-SA |
| | | • Baby vision exam | PVM-EN |
| | | • Electric table | HVM-TABLE |
| | | • Optical correction set with large lenses | HVM-OPTI |
| | | • High speed camera | HVM-camera-200 |

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Visual field exams

MonCV3 includes a high-resolution monitor with calibrated luminance and contrast which is used to test the central visual field, up to 30 degrees of eccentricity. By shifting the fixation spot, the peripheral field can be tested up to 60 degrees of eccentricity. Additional light sources are placed along the horizontal meridian and allow the evaluation of the horizontal limits up to 75 degrees of eccentricity.

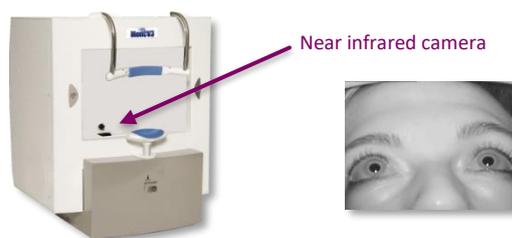
Background luminance 10 cd/m²

Stimulus size Goldmann III and V



Video monitoring

The near infrared camera allows the video monitoring of fixation. It can also be used to record eye movements and pupil size. The eye speed camera is recommended for the study of the delay and velocity of saccade eye movements.



Near infrared camera

Blue/Yellow perimetry



The apparatus can generate blue color tests with Goldmann size V which are projected over a high luminance yellow background (100 cd/m^2), for the detection of early glaucoma deficits.

Motion perimetry



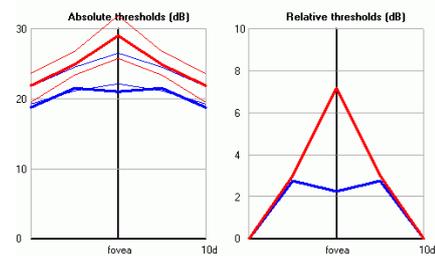
Motion stimulation has increased sensitivity for the detection of deficits of the magnocellular system (glaucoma).

Motion stimulation is also less sensitive to optical factors and allows reducing artifacts due to ocular media diffusion and refractive blur.

Macular pigment density exam

This program performs an estimation of the macular pigment optical density by comparing the threshold of detection of red and blue stimuli presented in the foveolar, para-foveolar and macular zones.

It allows also the follow-up of exams and the comparison of results to the eye fundus image.



ESTIMATION DE LA DENSITE DES PIGMENTS MACULAIRES = 4.92dB (1.44 6.07)

Visual aptitudes: visual acuity, Landolt and ETDRS



LANDOLT and ETDRS tests for visual acuity are performed at distances of 1 m, 2.5 m and 4 m.

The optotype luminance is 100 cd/m^2 .



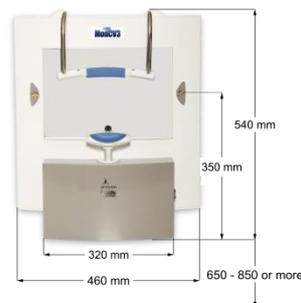
The contrast sensitivity tests are performed with sinusoidal gratings with controlled spatial frequencies, luminance and contrast.



For the glare test, the instrument is equipped with sources of very high luminance ($> 20\,000 \text{ cd/m}^2$) positioned on the side of the screen.

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Dimensions



Specifications

Electrical specifications : classe I - type B

Power requirements : 230V, 0.7A or 110V, 1.4A, 50 or 60Hz.

To prevent electric shock, the instrument must be plugged into an earth grounded outlet.

Weight

25 kg (without PC, printer and electric table)

Interface

Connects to a standard PC via two USB2 cables.