

PTS 1000 Technical Data

Examination bowl	300 mm radius, closed type, ventilated
Tested field range	100 ° (160 with fixation shift horizontally)
Perimetry technique	Static, kinetic
Stimulus size	Goldmann Sizes I-V
Stimulus colors	white, blue, red, green
Stimulus speed in kinetic perimetry	2-10°/s
Maximum Stimulus intensity	10000 asb
Fixation method	control of blind spot position or digital detection of pupil position
Patient response time	adaptive to patient speed or set manually from 0,1 to 9,9s
Background illumination	depends on stimuli type-31,5 asb for white and red stimuli, 10 asb for green, 314 asb yellow background for blue stimuli, set automatically
Maps	24 (24° with extent to 30°nasally), 30 (central 30°), Full (50° in every directions) Central (30° in horizontal axis and 22° in vertical axis) Glaucoma (30° with extent up to 50° in nasal direction) Peripheral (from 30° to 50°), Macula (up to 10°) Extended (special field for drivers examination – 50° in nasal direction; 80° in temporal direction), Fast (up to 30° with scarce points) Binocular Drivers Test (up to 80° in horizontal axis, up to 50° in vertical axis) User (up to 50° user defined)
Strategies	Kinetic, Screening, Threshold, 3-zone, Fast threshold, BSV (Binocular Single Vision), Flicker (Critical Fusion Frequency), Blue On Yellow (SWAP) BDT (Binocular Drivers Test), Advanced – Reduced field option – Neurological defects option
Result maps	age norm deviation (total deviation), pattern deviation, hill of vision deviation defect probability graph,defects progress analysis, ,results overview Bebie curve, Pupil movement graph, 3D visualization of patients HOV.
Interface	USB
Dimensions	693 x 585 x 444 HxWxD
Operating Voltage	100-250V 50-60Hz
Additional features	Eye monitoring by means of built-in video camera. Advanced auto-detection of eye position. Automatic pupil diameter measurement. Automatically controlled chin-rest enables to set proper patient's position precisely and easily Printout manager with predefined printout styles. Network capabilities (remote database, networked review stations). Direct database back-up. Special ventilation system is used to keep fresh air throughout examination inside stimulation bowl



PTS 1000

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Automated Perimeter PTS 1000

is a modern diagnostic instrument for precise and fast testing of field of vision.



PTS1000 is all you need for modern perimetry:

- Goldmann kinetic and static perimetry
- Threshold, Fast Threshold, Advanced, Screening, 3-zone
- Flickering (CFF), Blue on Yellow (SWAP), BSV for testing diplopia
- Binocular Drivers Test (160°) with Esterman standard score
- 4 stimuli colors: white, blue, red, green
- Advanced analysis tools for easy diagnosis
- Advanced fixation control for high reliability

It offers static and kinetic stimuli with all Goldmann stimuli sizes and all stimuli colors used in perimetry. Wide range of strategies and analysis tools combined with intuitive interface give you powerful diagnostic tool whose handling you will enjoy. Built-in maps and possibility of creating own ones give a chance to examine only these areas, which are necessary. With PTS1000 examination doesn't have to be tiring anymore.

STANDARD VISION TESTS

Depending on chosen test strategy, it enables defining the sensitivity threshold of retina in a given area, as well as making a fast screening test. Accurate threshold, Intelligent advanced threshold, Screening and quick 3-zone can be selected according to needs and patient's condition.

TIME SAVING

Advanced strategy which utilizes special algorithm allows quicker examination without loss in result resolution. 30-2 field can be tested in less than 3 minutes. Additionally 3 accuracy levels can be selected. "Reduced Field" and "Neurological Field Reduction" options help reduce examination time for other strategies.

RELIABILITY

Examination reliability can be estimated on the basis of false negative and false positive tests. Built-in digital camera allows eye-detection during examination and during setting patient's position. Thanks to pupil tracking system it allows a continuous automatic control of fixation. When patient loses fixation, blind spot is examined and special attraction mechanism turned on. Well known Heijl-Krakau method allows tracking of a blind spot and monitoring of examination reliability. All reliability indices are presented in examination results and on the printout.

KINETIC TEST

Thanks to kinetic strategy it is possible to examine hardly cooperating patients with big defects for whom static examination is difficult to perform. 4 stimuli colors, I-V Goldmann sizes, adjustable stimuli velocity, silent operation, built-in programs together with option of retesting arbitrary vectors defined by user make PTS1000 a top product for kinetic perimetry.

FLICKERING TEST

The device also enables examination by means of flickering stimuli for CFF (Critical Fusion Frequency) measurement. CFF is used as an index of fatigue and it is clinically applied to neuro-ophthalmologic disorders derived from optic nerve disorder, especially for diagnosis and evaluation of glaucoma.

COLOUR PERIMETRY

PTS 1000 offers white, blue, red and green stimuli on white or yellow background. Except classic perimetry it enables to use "blue on yellow" (SWAP) examination method which utilizes fact of earlier loss of sensitivity to color based stimuli than to white-on-white stimuli based testing. Red color can additionally be used for diagnosis of toxic vision losses.

BINOCULAR CAPABILITIES

Implemented BSV strategy allows examination of diplopic areas. Testing of drivers is also possible thanks to included extended field, which enables testing field up to 80 degrees temporally and Binocular Drivers Test with Esterman score.



ANALYSIS TOOLS

PTS 1000 in standard offers all analysis tools required to make a diagnosis. Age normative data and age norm deviation (total deviation) graph allow to quickly state condition of the patient. Bebie curve points the size and character of vision field defect while HoV and pattern deviation graphs highlight its irregularity. OverView window can be used to display previous examinations for long term analysis.

STRATEGIES

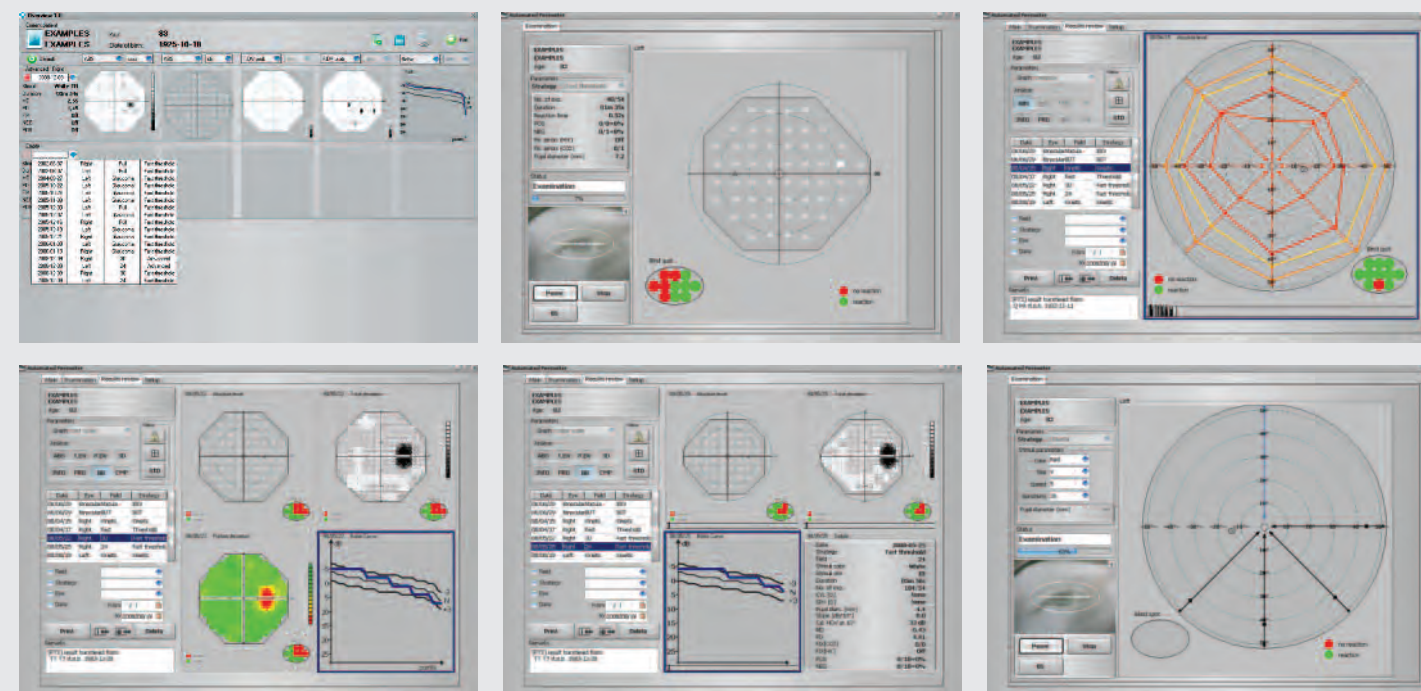
- Examination strategies:
- Kinetic test
 - Screening
 - Threshold
 - 3-zone
 - Fast threshold
 - BSV (Binocular Single Vision)
 - Flicker (Critical Fusion Frequency measurement)
 - BDT (Binocular Drivers' Test)
 - Advanced

OVERVIEW MODULE

Overview module allows review of 5 different analysis graphs (5 columns) of up to 8 examinations simultaneously. User can freely select analysis tool and graph type. All this information can be printed or saved as image file.

FIELDS

- 24 – 24/30°
- 30 – 30°
- central 30°
- full 50°
- peripheral 30° – 50°
- macula 10°
- glaucoma 22° / 50°
- extended nas. 50° / temp. 80°
- fast 30°
- user defined 50°
- BDT – Binocular Drivers' Test (80° horizontal, 50° vertical)



INTERFACE

Test result is presented as four easy-to-interpret graphic charts which contents can be freely selected from available analysis tools. Results can be presented in form of numerical maps of sensitivity in dB, intuitive dot scale or color map for

faster identification of out-of-norm regions. New interface allows easy follow up. It is possible to take a look into present and past examinations of one patient on one screen.

PRINTOUT

PTS 1000 software has a new printout manager module. It gives great degree of freedom in deciding what should be on a printout and where it should be. Possibility to save own layouts as well as access to predefined templates makes PTS 1000 software very powerful tool which is easy to handle even by non experienced operator. Printouts may look and contain information as Octopus' or Humphrey's depending on doctor's custom.

