

Contact-free Eye Mark Recorder EMR-AT VOXER



100% Contact-free, thus an examinee does not wear any special device (helmet, headband, glasses, and others) for measurements. NAC EMR-AT VOXER allows users to track gaze position on monitor/display without any physical contact with the examinee.

Features

- Contact-free/Nonbinding System
The examinee does not wear any special device for measurements. Neither has to fix the head stable during measurements.
- Auto-Tracking/Auto-Focusing
VOXER tracks head motion of examinee (right to left, up and down, back and forth). This makes it possible for users to conduct long-time and natural measurement.
- Absolute Coordinate System
VOXER outputs the data of gaze position in absolute coordinate system on a monitor (the origin is set at upper left corner pixel) for quantitative analysis.
- Code data superimposition onto video signal
Gaze position is displayed on a monitor of the Control Unit for qualitative analysis. The data can be saved with the Control Unit and also DV camera/VCR (superimposed onto a video signal).
- Analysis System (Optional)
The analysis software supports an instantaneous viewing analysis, a convergence angle analysis and a measurement of pupil diameter in addition to analysis of eye movement.

Applications

Human Engineering

- VDT operation analysis
- CG Research
- Comparison between beginner's view and expert's view
- Comparison between adult's view and child's view
- Evaluation of web-site

Psychology/Cognitive Psychology

- Research on hallucination
- View at changing of mind
- Research on the recognizing process for color and shape

Medical Science

- Comparison between patient's view and healthy people's view
- Research on weak-sighted people
- Discrimination of medicine

Education

- Research on educational effect
- Research on reading books
- Producing text
- Relationship between feeling and eye movement

Environmental Engineering

- Design of architecture
- Research on exhibition effect
- Research on products layout

Contact-free Eye Path Tracking System

Specifications

Detection Method	Pupil/Cornea Reflection Method
LED lighting Wavelength	850nm
Sampling Rate	60Hz (either right or left eye selectable)
Detection Resolution	0.3 degree
Detection Angle	40 degree circle (from LED lighting)
Detection Range	240(W)X+/-100(H)X+/-100(D)mm (In case the distance between cameras and eye is 600mm)
Input Signal	NTSC Video Signal (VBS signal and viewing images) External Counter Reset Signal (TTL/Contact) External Cue Signal (TTL/Contact)
Output Signal	NTSC Video Signal (including VBS signal, gaze position coordinate, code data, field counter and others) Serial Data (gaze position coordinate, field counter and others) * These signals can be stored in the control Unit.
Dimensions / Weight	Approx. 350(W)X170(H)X178(D)mm (Detection Unit) / Approx. 5.5kg

System Configurations

