

RED

Technical Specification



Human interface design	Contact-free, remote-controlled infrared eye camera with automatic eye and head tracker Modular design - integrated with 22" widescreen monitor (19" optional) and stand-alone setup for TV and projections
Eye tracking principle	Non-invasive, image based eye tracking Pupil with corneal reflection
Temporal resolution	Binocular 120 Hz and 60 Hz
Calibration mode	2 / 5 / 9 points
Spatial resolution	0.03°
Gaze position accuracy	0.4°
Operating distance	60cm-80cm (subject to Eye Tracking Device)
Tracking range (head box)	40x20cm at 70cm distance
Head movement velocity (max.)	25cm/s
System latency (end to end)	<17ms: 60 Hz
Processing latency	<0.5ms
Blink recovery time (max.)	16ms (60 Hz)
Tracking recovery time (max.)	135ms (60 Hz)
Gaze tracking range	40° horizontal (+/- 20°), 60° vertical (+ 20/- 40°)
Eyewear compatibility	Works with most glasses and contact lenses
Real-time operator feedback	Gaze position, pupil diameter, pupil position, corneal reflex position, tracking status, eye image
Aux devices	Compatible with EEG and other sensors
API/SDK	Free SDK/API, sample code (e.g. EPrime, Matlab, C, C#, Python)
Digital data access	Network connection (Ethernet/UDP), serial port (RS-232), Optional Direct AOI™ port (16-channel TTL I/O)
Norm compliance	CE Declaration of Conformity Electrical Safety EN61010-1:2001 Eye Safety EN60601-1-2 + EN55011, class B

SensoMotoric Instruments GmbH
Warthestr. 21
14513 Teltow
Germany
Phone: +49 (3328) 39 55 - 10
Fax: +49 (3328) 39 55 - 99

SensoMotoric Instruments, Inc.
28 Atlantic Avenue
236 Lewis Wharf
Boston, MA 02110 USA
Phone: +1 (617) 557 - 00 10
Fax: +1 (617) 507 - 83 19



www.smivision.com