



SHSOphthalmic cito

Results in the blink of an eye

SHSOphthalmic cito is the powerful and economic standard solution for the measurement of refractive data, diameter and imaging quality of contact lenses in air and in liquid. It is available pre-configured off the shelf.

Benefits:

- One single device for the measurement of refractive data, image quality and diameter
- Fast and accurate
- Ergonomic design with powerful, easy to use software
- Efficient and economic operation
- Robust system design

SHSOphthalmic cito	
Technology	Wavefront sensor and image processing technology Measurement of contact lenses in air and in liquid
Functionality	Measurement of sphere, cylinder, axis, prism, prism axis, add, power map, wave aberrations (Zernike) Lens diameter Toric mark detection ^a
Software license	SHSWorks PRO and SHSWorks autoCL
Wavelength refractive data	540 nm ± 10 nm
Sample stage	Manual ergonomic y-stage
Lens spherical power ^g	– 30dpt ... +30dpt in air ^b
Lens cylinder power	Up to 10dpt in air ^{b,c}
Field of view	Refractive data: 8.0 mm ^d Lens image: 16.5 mm ^d
Lateral resolution	Refractive data: 54 x 54 measurement points (cito) 93 x 93 measurement points (cito plus) Lens image: 680x680 pixels
Power reproducibility ^e	< 0.02 dpt (1 σ, as measured, lens moved)
Power repeatability ^e	< 0.002 dpt (1 σ, as measured, lens not moved)
Power uncertainty ^e	< 0.03 dpt
Measurement duration	< 0.2 sec (data acquisition, evaluation ^f and display of results)
Dimensions / Weight	≈ 260 × 500 × 560 mm ³ (W×D×H) / 15 kg
Personal Computer	Included; Windows 10 64bit (English or German)
Documentation	CE certificate, proprietary calibration certificate, user manual, etc.
Accessories	Plano cuvette with V-groove insert for measurement of soft lenses in liquid Object slide for measurement of rigid lenses in air Instrument cover 1 calibrated lens (with Optocraft proprietary calibration certificate) for system check

^a Typical marks implemented as a standard, specific mark types can be implemented upon request, see options

^b For measurement in cuvette/saline solution this corresponds to a power range of min. – 100 ... +100 dpt (prescription power value), depends on refractive index of the lens

^c Maximum power in strongest and weakest meridian is as stated in “Lens spherical power”,

^d ± 3 %,

^e executed with verification lenses

^f autoCL activated, Zernike reconstruction, refractive data evaluation

^g the device is calibrated at 4.5mm

Options and optional services

SHSWorks easyGUI	Software license
Barcode reader	Device to read the bar code into an input field
Barcode intelligence	Implementation of an interpretation of the barcode, e.g. for data base access
SQL database connection	Bidirectional data transfer (2 procedures) for in- and output with barcode as key
Custom mark types	Automatic recognition for custom mark type
Verification set	Optical elements (lenses, prism, stop) to check the system status, tweezers, cloth
Plano cuvette	For measurement of lenses in liquid
V-groove	For lens pre-centration in plano cuvette
Measurement glass	For measurement of rigid lenses and verification lenses in air
Installation	Installation of the instrument at customer site
Training	Typical content: operator and/or supervisor training
Service, consulting	Upon specific customer requests beyond standard service/support

Environmental conditions

- Low Vibration Environment
- Relative humidity: 20% - 80%, „non-condensing”
- Controlled room temperature: 20°C - 25°C (variations in temperature as small as possible)
- No direct airflow (air condition) may be targeted on the measurement device.
- Network access of workstation for remote support
- Mains voltage requirements: 100–240VAC, 50–60Hz, without voltage fluctuation

Outer box drawings

