

**0,2 s**

Measurement time/lens\*

**157 x 157**

Measurement spots\*

**7µm**

Inspection resolution\*

SHSInspect prio	
Technology	- Wavefront sensor and image processing technology - Measurement of contact lenses in air and in liquid
Functionality	- Measurement of sphere, cylinder, cylinder axis, prism, prism axis, add, power map, wave aberrations (Zernike) - Lens diameter & ellipticity - Toric mark detection <sup>a</sup>
Software license	SHSWorks PRO; SHSWorks autoCL; triple illumination (optional)
Wavelength refractive data	540 nm ± 10 nm
Sample stage	Static interface / manual y-stage / manual x-y-stage / motorised y-stage
Lens spherical power	- 35dpt ... +35dpt in air <sup>b,c</sup>
Lens cylinder power	Up to 10dpt in air <sup>c</sup>
Field of view	Refractive data: 8.5 mm <sup>d</sup> Lens image: 20 mm <sup>d</sup>
Side view camera	Up to 7mm lens height (1µm reproducibility; 1 σ, lens moved)* BCE calculated via CT, lens height and lens diameter
Lateral resolution	Refractive data: 91 x 91 measurement points 157 x 157 measurement points
	Lens image: 2 Mpix 9 Mpix
Power reproducibility	< 0.02 dpt (1 σ, as measured, lens moved) <sup>e</sup>
Power repeatability	< 0.002 dpt (1 σ, as measured, lens not moved) <sup>e</sup>
Power uncertainty	< 0.03 dpt <sup>e</sup>
Measurement duration	< 0.2 to 1 sec (data acquisition, evaluation <sup>f</sup> and display of results)
Dimensions / Weight	≈ 260 x 524 x 560 mm <sup>3</sup> (WxDxH) / 17 kg
Personal Computer	Included; Windows 11 LTSC 64bit (English or German)
Documentation	CE certificate, calibration certificate, user manual, etc.
Included accessories	- Tweezers and tools for system check and handling - Instrument cover

<sup>a</sup> Typical marks implemented as a standard, specific mark types can be implemented upon request

<sup>b</sup> 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

<sup>c</sup> Maximum power in strongest and weakest meridian is as stated in "Lens spherical power"

<sup>d</sup> ± 3 %

<sup>e</sup> executed with verification lenses at air

<sup>f</sup> autoCL activated, Zernike reconstruction, refractive data evaluation

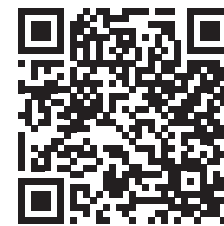
\* the device is calibrated at 4.5mm diameter

\*depending on system configuration

## Why Optocraft?

Optocraft has been developing and manufacturing Shack-Hartmann wavefront sensors since 2001. With decades of experience in optical measurement technology and design of optical systems, we constantly push the limits of this technology. Our systems can be found all over the world and cover even the most demanding applications. Our customers enjoy our dedicated and reliable support.

We love to be challenged, try us!



## Contact us!

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## Know your quality:

Fast | Accurate | Ergonomic | Multifunctional

OPTOCRAFT GmbH · Am Weichselgarten 7 · D-91058 Erlangen

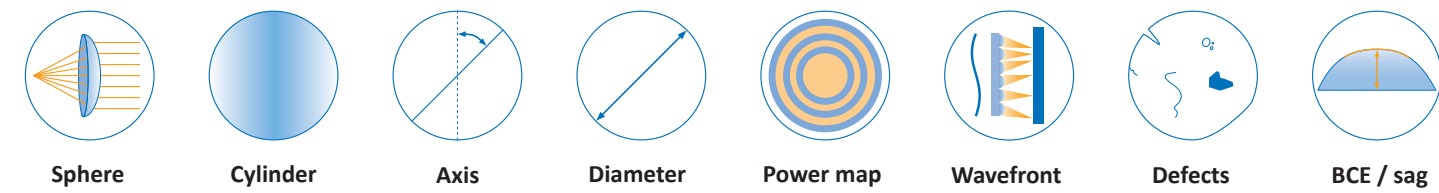


**SHSInspect prio**  
Leading metrology for CL/IOL

# Make lens quality your **priority!**

SHSInspect prio is the leading metrology solution for the measurement of contact lenses and intra-ocular lenses in air and liquid. Its modular design allows you to configure it exactly to your needs and to expand it later as your requirements grow.

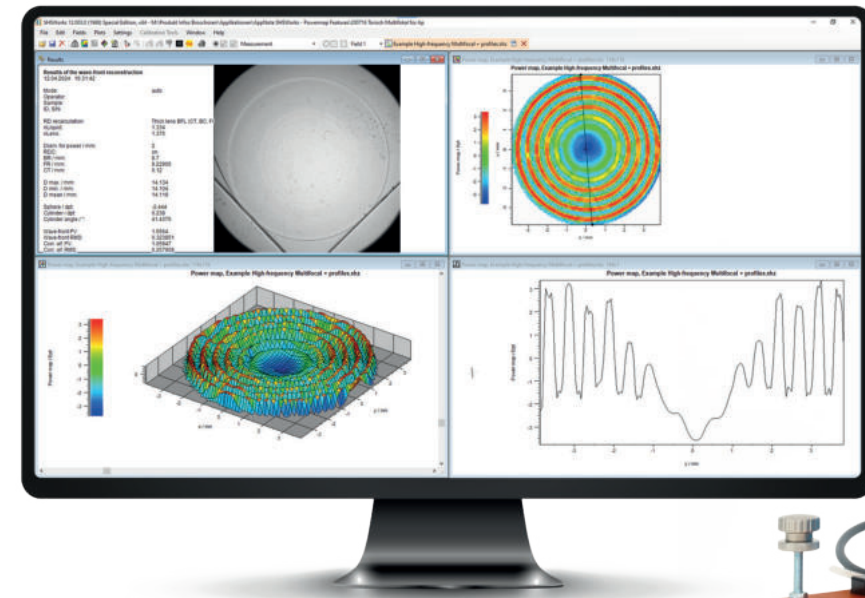
## Functionality and key features



## Why SHSInspect prio ?

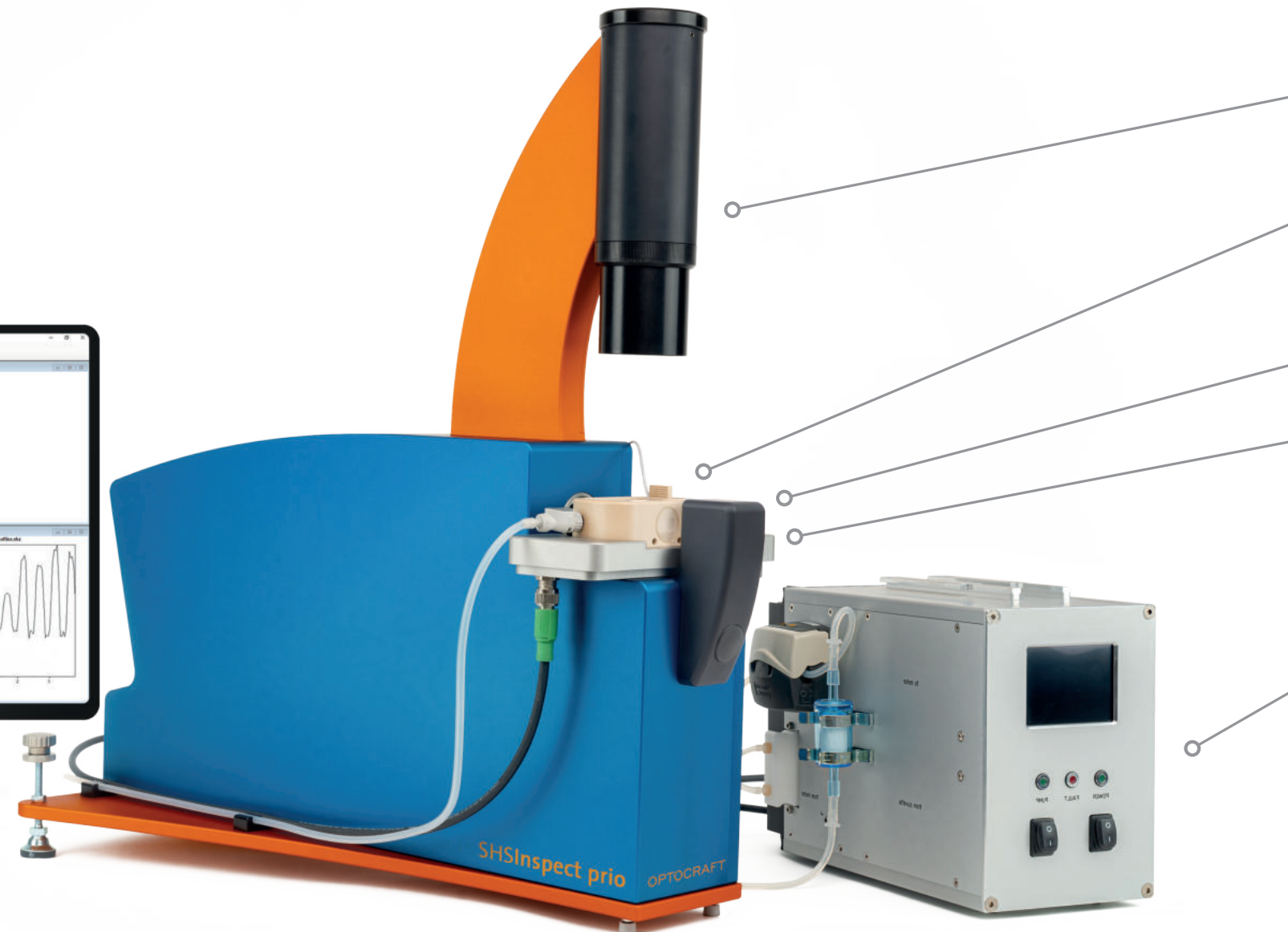
SHSInspect prio offers a variety of amazing benefits and key features in a mature form factor. This makes your measurement process reliable and efficient.

- Excellent precision and accuracy
- High speed evaluation
- Ergonomic
- Robust
- Upgradable in the field
- Advanced mark detection
- Visualization of defects and optical zones (triple illumination)



# The SHSInspect prio

The SHSinspect prio measures both contact lenses (RGP, soft, ortho-k, scleral, etc.) as well as intra-ocular lenses with spherical, toric, multifocal and wavefront guided designs.



# Mix & Match

### Lateral Wavefront Resolution >

- 91 x 91
- 157 x 157

### Vision Control Resolution >

- 2 MPix
- 9 MPix

### Illumination<sup>1</sup> >

- Bright field
- Dark field
- Telecentric

### Cuvette<sup>1</sup> >

- Object slide (dry CL / RGP)<sup>3</sup>
- Plano cuvette (wet CL / IOL)
- Open-top cuvette (wet CL)

### SVC >

- Side View Camera (for sag and BCE evaluation)

### Stage / Interface<sup>1</sup> >

- Static Interface
- Manual Y-stage
- Manual X-Y-stage
- Motorised Y-stage

### Temperature Control / Pump<sup>1,2</sup> >

- Filtered and temperature controlled pump

### PC System / Software<sup>1</sup> >


- SHSWorks Pro
- autoCL software (automated lens detection)
- Desktop PC station
- FocalPoints integration (for CL-industry)
- Barcode reader





**Advanced feature detection**

With the **triple illumination** even the faintest features such as marks, zone boundaries, etc. can be visualized and detected.



The tried and tested **open-top cuvette**.

- Fastest lens handling in the market
- Temperature controlled
- Filtering of saline or DI-water

**What makes the SHSInspect prio stand out?**

- **Single shot, high precision** measurement based on Optocraft's industry leading wavefront sensor technology
- **Robust and reliable:** minimum requirements on the operating environment
- **Modularity:** helps you to grow / grows with your needs

<sup>1</sup> upgradable in the field  
<sup>2</sup> only in combination with open-top cuvette  
<sup>3</sup> shape depends on stage / interface