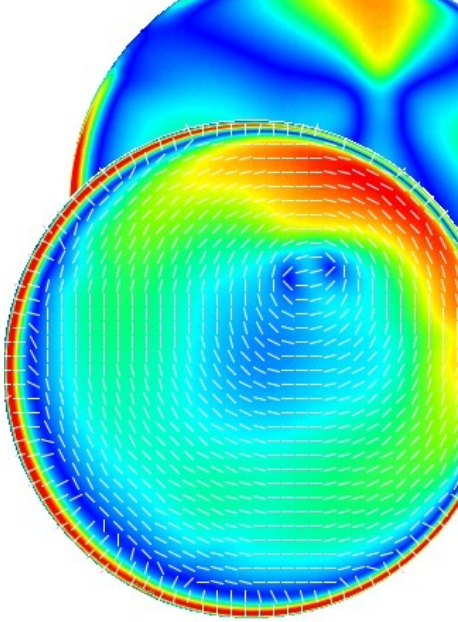
StrainScope Flex



Versatile real-time polarimeter for fast and precise measurement of residual stresses in glass and plastics

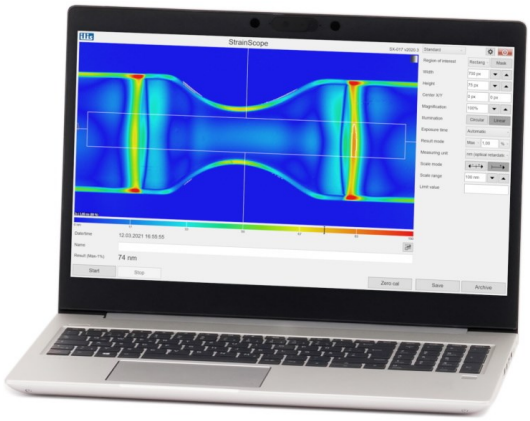
The StrainScope® Flex is the ideal solution for varying measuring tasks or the realization of special solutions, e.g. in development and process automation.

The design is compact and modular. All important components such as camera, lens and optical filters are directly accessible. Changing the lens or adjusting the working distance is done quickly and without tools.

The StrainScope® Flex can be used with both linearly and circularly polarized lighting. In addition, the camera and the compact light source unit can be separated, e.g. for easier integration into existing processes.

Features and Benefits

- ✓ Fast and easy operation
- ✓ Objective, reproducible and precise measurement results
- ✓ Maximum flexibility for research, development and process automation
- ✓ Fully compatible with the powerful StrainScope® software



StrainScope®
Flex

Technical Data

Operation	external Windows PC
Illumination	LED array (diffuse), linearly or circularly polarized
Image acquisition	matrix camera with varifocal lens (3x zoom)
Image resolution	800 x 600 pixels (max. 2400 x 2000 pixels)
Working distance	approx. 300 mm (adjustable)
Measuring field size	approx. 152 x 114 mm to 55 x 41 mm
Lateral resolution	approx. 0.19 mm to 0.07 mm
Measuring results	polarization angle (°) optical retardation (nm) normalized retardation (nm/cm, nm/mm, nm/in) integrated stress (MPa, psi)
Measuring range	approx. 0 to 120 nm optical retardation (circular) approx. -280 to +280 nm optical retardation (linear)
Measuring resolution	approx. 1 nm optical retardation, approx. 1° azimuth angle
Measuring frequency	up to 30 Hz (depending on PC performance and resolution)
Interfaces	USB 3.0 (optionally GigE), USB 2.0, foot switch (¼" jack)
Power supply	100–240 V (AC), 50/60 Hz, 100 VA (max. 1.1 A)
Operating conditions	15-30 °C, 30-70 % relative humidity, non-condensing
Dimensions	approx. 580 mm (H) x 310 mm (W) x 300 mm (D), excl. PC
Weight	approx. 9.2 kg (excl. PC and accessories)

Accessories

Macro lens (6x zoom, parfocal)	working distance: measuring field size: lateral resolution:	approx. 200 mm (adjustable) approx. 56 x 42 mm to 9.5 x 7 mm approx. 0.07 mm to 0.012 mm
Telecentric lens (magnification 0.3x)	working distance: measuring field size: lateral resolution:	approx. 225 mm (fixed) approx. 18.5 x 14 mm approx. 0.023 mm
Sample positioning	height-adjustable rotary table with 40 mm free aperture	
Reference standard	reference sample for verifying the measurement accuracy	

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