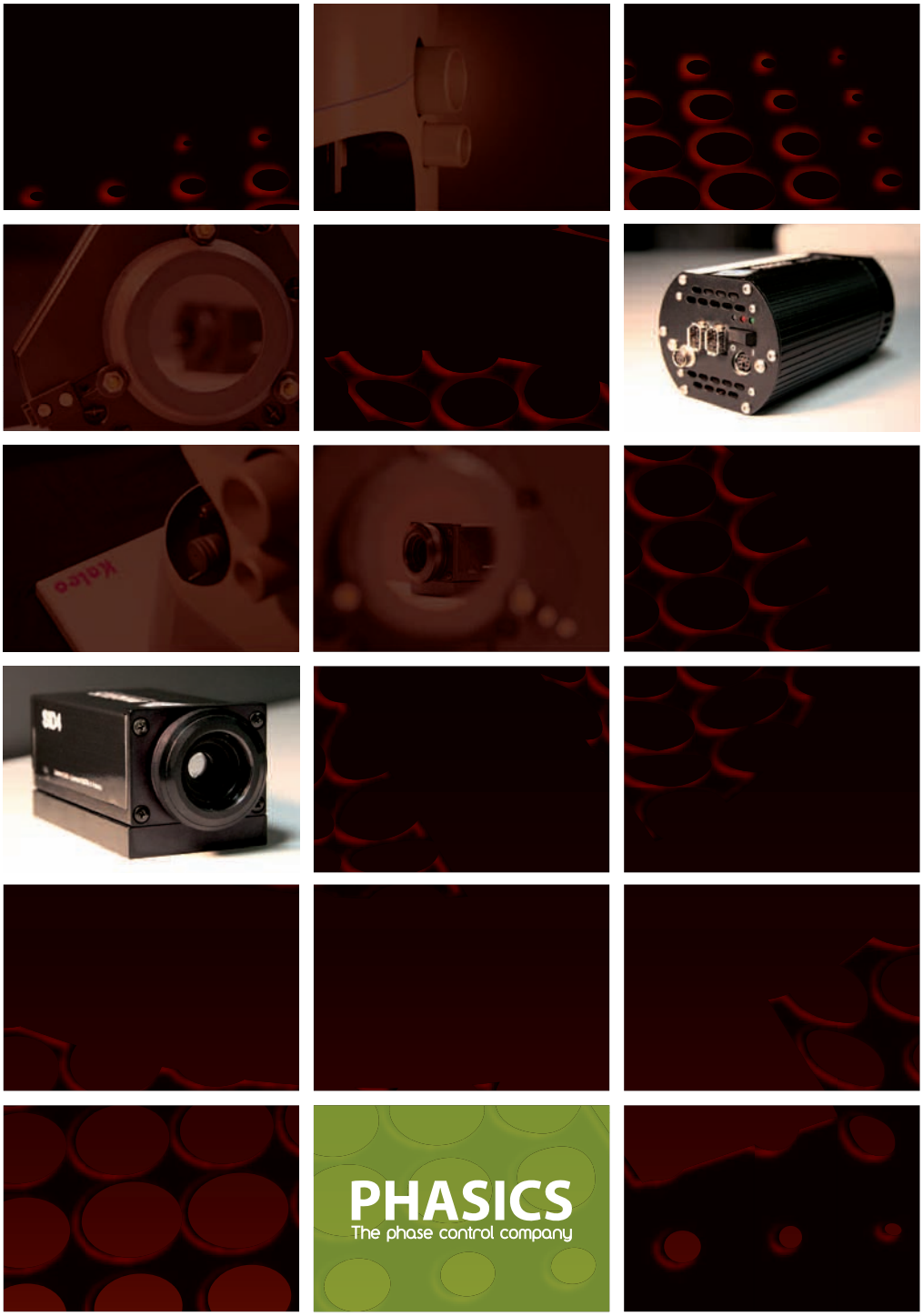
SID4



SID4

KEY FEATURES

- High transverse resolution (160x120)
- Achromaticity
- Large spectral acceptance
- Intensity profile characterization (BeamView)
- Compact and versatile (controlled by laptop, “plug'n play”)
- Multi-user, multi-device interface
- Easy to implement and user friendly software
- Various acquisition mode (real time, triggered, programmed acquisition…)

SID4 wave front sensor is an extremely compact device which combines classical interferometry advantages (sensitivity, high resolution & dynamic range measurement) with an easy implementation.

SID4 advantages come from the 4-Wave Lateral Shearing Interferometry* (based on the Modified Hartmann Mask Diffractive Optics) an innovative technology developped at ONERA for metrology needs.

“A REVOLUTION IN WAVE FRONT SENSING”

SID4 is an essential tool for laser beam characterization and find numerous applications in optical metrology.

WAVE FRONT SENSOR

SPECIFICATIONS

Aperture dimension	3.6 x 4.8 mm^2
Spatial resolution	29.6 µm
Phase and intensity sampling	160 x 120 (> 19000 points)
Wavelengt range	350 - 1100 nm
Accuracy (absolute/relative mode)	10 nm RMS / 3 nm RMS
Sensitivity	3 nm RMS
Dynamic	> 100 µm
Radius of curvature	20 mm (5 mm optional)
Curvature repeatability	5. 10^{-4} m^{-1}
Numerical aperture	0.1NA f/5 (0.3 NA f/1.6 optional)
Analysis rate (full resolution)	> 10 fps
Acquisition rate	60 fps
Dimensions (l x H x L)	49 x 35 x 110 mm
Weight	250 g

SID4 wave front sensor controlled by laptop

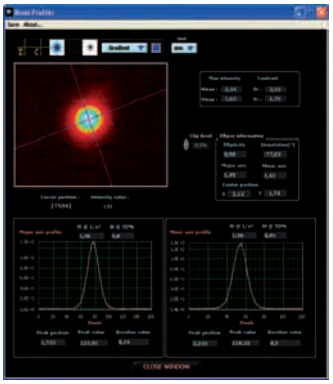
SOFTWARE FEATURES

Phase map interpretation modules

- Tilt
- Divergence
- Zernike polynomials
- Legendre polynomials

Beam analysis

- Simultaneous phase and intensity maps
- M^2 calculation
- Strehl ratio
- Far-field analysis



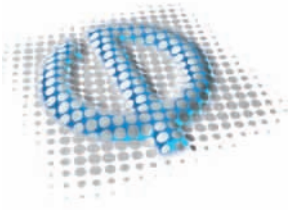
BeamView module window

Ergonomics

- Intuitive software
- Multi-user interface
- Automatic mask analysis adjustement

BeamView (option)

- Complete beam analysis
- Intensity profiles
- Gaussian fit



PHASICS S.A.
XTEC Bât. 404
Campus de l'Ecole Polytechnique
Route de Saclay
91128 Palaiseau - France

Tel : +33(0)1 69 33 89 99
Fax : +33(0)1 69 33 89 88

E-Mail : contact@phasics.fr
www.phasics.fr