

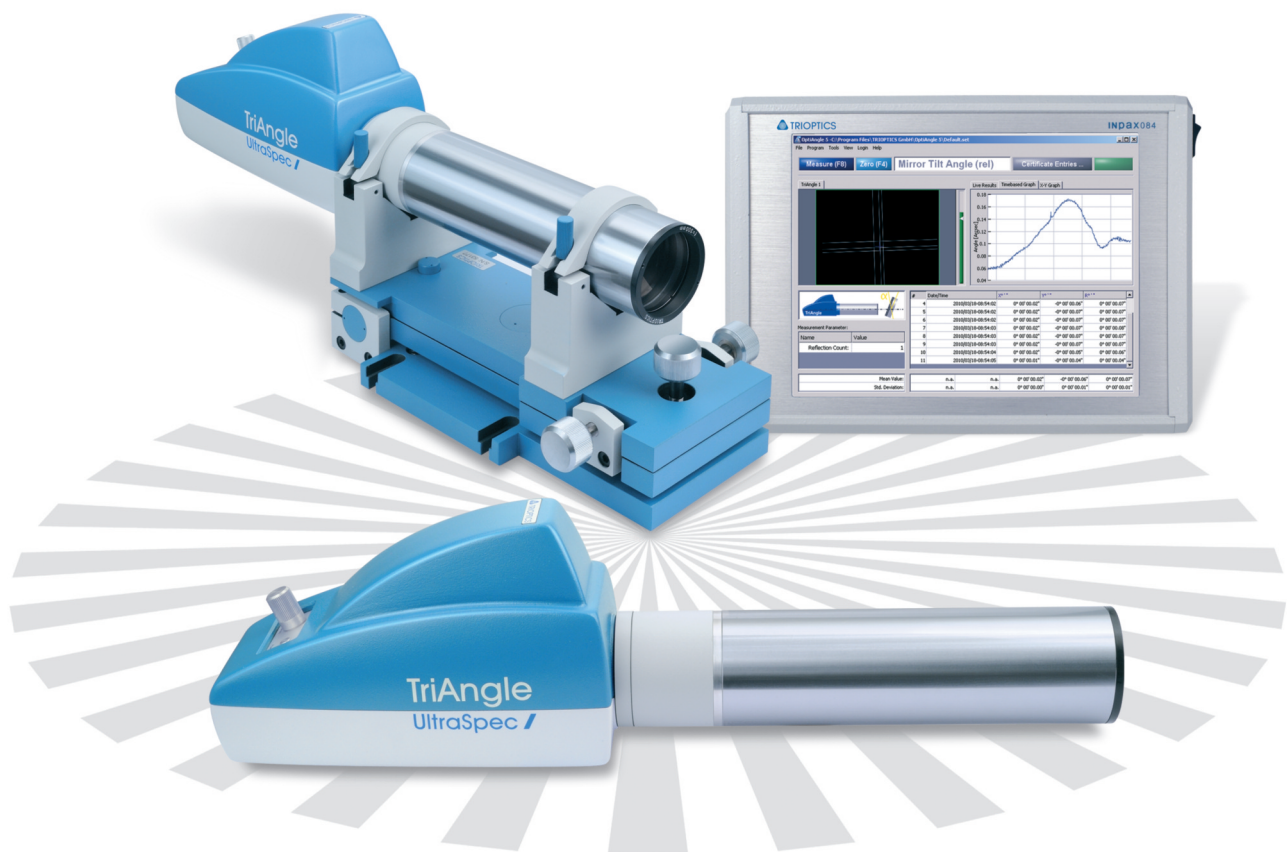


# TRIOPTICS

TRIOPTICS GMBH · OPTICAL TEST EQUIPMENT

## TriAngle® UltraSpec

### Precision Electronic Autocollimator



The electronic autocollimators of the TriAngle® UltraSpec Series represent high-precision angle measurement systems for extremely high demands on angle resolution and measuring accuracy. TriAngle® UltraSpec autocollimators are used for a wide variety of measuring, testing and adjustment processes where highest precision and reliability in angle determination are required, for example:

- adjustment and verification of the straightness of linear stages
- run out measurement of rotary tables
- measurement of large-area surface flatness
- adjustment of optical components
- alignment of machines and equipment
- stability studies
- and much more...

Each autocollimator of the TriAngle® UltraSpec Series is calibrated with PTB angle standards and supplied with test certificates and individual calibration curves.

Traceability of the measuring results to international standards of the angle measuring variable is consistently ensured.

The mechanically and thermally optimized design of the TriAngle® UltraSpec permits consistently precise measurements even under difficult conditions outside the measuring lab. The optical system of the TriAngle® UltraSpec autocollimators consists of a superbly corrected objective lens with very small distortion and a high-resolution digital CCD camera with extremely low sensor noise.

The light source consists of a stabilized high power LED illuminating a newly developed reticle for enhanced angle resolution.

TRIOPTICS offers the TriAngle® UltraSpec autocollimator as a complete measuring system including a mobile touchscreen control unit. The user-friendly OptiAngle® software is installed on the control unit and covers all common measuring requirements with an advanced, menu-guided graphical user interface. User-specific measuring functions can simply be added.

### Specifications TriAngle® UltraSpec

Measuring range	3000" (horiz.) × 2200" (vert.) within approx. 2 m measuring distance, diminishing beyond this
Focal Length	300 mm
Clear aperture	45 mm
Resolution	0,01"
Measuring accuracy	±0.05" within 10" measuring range ±0.10" within 20" measuring range ±0.25" within the total measuring range
LED wavelength	530 nm
Measuring rate	> 10 measurements / sec.
Scope of delivery	<ul style="list-style-type: none"> <li>• TriAngle® UltraSpec autocollimator</li> <li>• Mobile touchscreen control unit</li> <li>• PC interface</li> <li>• Interface cables</li> <li>• OptiAngle® software package on CD</li> <li>• Individual calibration certificate</li> <li>• Operating Instructions</li> </ul>



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