



# WaveMaster® SmartGage

## Ideal metrology solution for monitoring and controlling

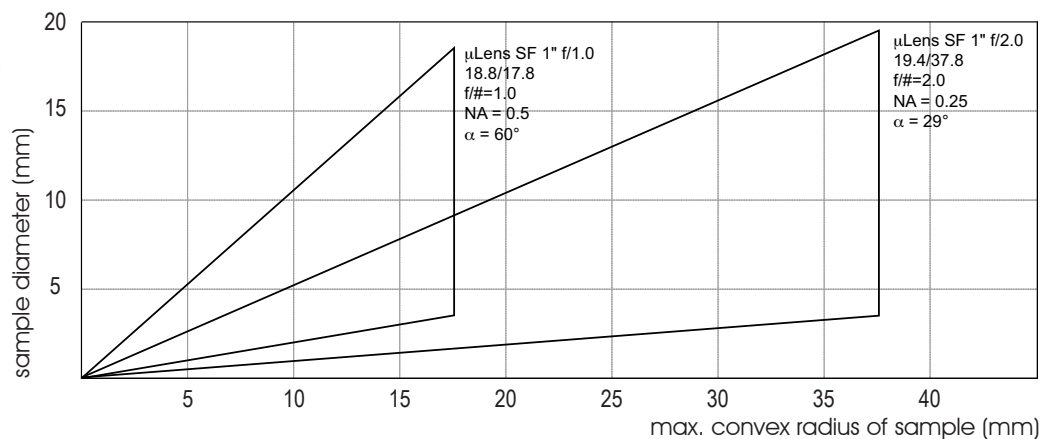
in just one second. The stand-alone instrument represents innovative Shack Hartmann technology to achieve highest quality management levels in production areas.

### SAMPLE CHARACTERISTICS

- Material: All polished surfaces like glass, ceramics, plastics and crystals
- Processes: Polishing processes, glass and plastic moulding, and ultra precision machining
- Sample Diameter: up to 1" free aperture
- Sample Reflectivity: 1 - 100 %

The WaveMaster® SmartGage is the ideal metrology solution for monitoring and controlling production processes of small optic components. The metrology instrument allows pass/fail analysis of surface deviation measurements on spherical and flat components

### Spherical Lens Selection Diagram



### Versions

	BASIC	STANDARD	ADVANCED
Measurement of flat and spherical samples	+	+	+
PV, RMS, ISO Zernike and Seidel Coefficients	+	+	+
PASS / FAIL Indication	-	+	+
Graphical Data Display	2D	2D	2D
Relative ROC Measurement	-	+	+
Measurement Data Protocol Generator	-	-	+
Measurement Data Export	-	USB	USB, LAN
Use of customized Templates	-	-	+
Upgrade	+	+	

## Specifications WaveMaster® SmartGage

Measurement Tasks	Spherical surface in reflection Flat surface in reflection Relative radius of curvature measurement (optional)
Measurement Wavelength	635 nm
Exit Beam Diameter	1"
Measurement Aperture	f/1.0 and f/2.0
Measurement Time incl. Analysis	≤ 1s
Travel Range of Sample Holder	Z-Stage: 80 mm X-Stage: 2 mm Y-Stage: 2 mm Tilting table (tip,tilt): tilting range 1°
Light Intensity	< 1mW manually adjustable
Mechanical Interface	Standard mount for spherical objectives
Working Position	Table top unit, bottom up measurement setup
PV Repeatability RMS Repeatability Measurement Accuracy Relative Radius Measurement	$\lambda / 100$ ( $\lambda @ 635\text{nm}$ ) $\lambda / 500$ ( $\lambda @ 635\text{nm}$ ) $\lambda / 10$ ( $\lambda @ 635\text{nm}$ ) $5 \times R^{-1.5} \%$ ( $R = \text{mm}$ )
Dimensions (W x D x H)	220mm x 275mm x 205mm
Weight	4.5 kg
Power Consumption	Input: 90 - 264 VAC / 47 - 63 Hz Output: 12 VDC / 15 W
Temperature	18° - 30° working temperature 10° - 35° storage temperature
Humidity	< 80 % relative humidity in working and storage conditions (without condensation)
Safety Compliance	CE Compliant Standard: EN60825-1:2001 Laser: Class 2/II
Laser Type	Integrated Diode Laser
Laser Protection Class	2



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