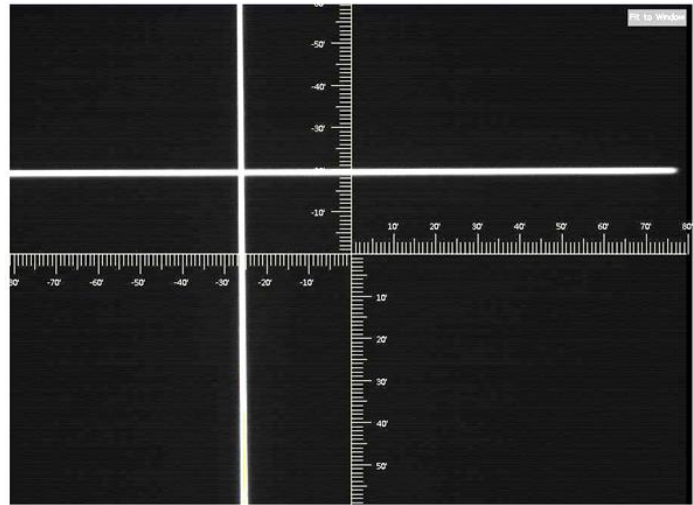
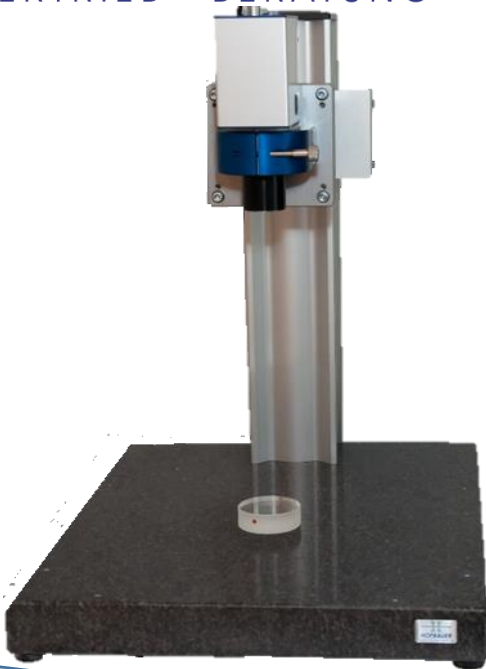


OPTIK · MESS- UND PRÜFTECHNIK
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ELWIMAT®-AKF VIS 1000

Visual autocollimator with minute graduation

The ELWIMAT-AKF VIS is an autocollimator with scale display for visual evaluation on a magnifying screen. It is used wherever visual autocollimators with eyepieces have been used so far. It offers a simple and inexpensive way to use an autocollimator in all known applications.

Fields of Applications

- Angle measurement on mechanical assemblies
- Angle measurement on optical assemblies
- Adjustment of opto-mechanical assemblies
- Wedge error on plane plates, wedges and prisms
- Centering measurement on lenses
- Radius measurement on spheres and cylindrical lenses
- Critical applications, even on antireflection coatings

Advantages

- Live image with 2 measuring axes
- Extremely compact
- Use in any position and inaccessible places
- Modern crosshair generator
- Screen monitor for comfortable working
- Multiple observers at the same time
- Integrated lighting, no additional equipment
- 5-10 times higher illuminance
- Power LED in selectable wavelengths
- High Contrast without intermediate image
- Adjustable scale graduation
- High scale resolution
- Variable image detail with zoom function
- Optional Software extension available



Large measuring ranges

- Standard focal lengths between 50 mm and 300 mm
- Large measuring ranges up to 4.0°
- Free Aperture: 9.6 mm to 48 mm
- Vignetting-free imaging even at large distances and angles

Scale division thanks to intelligent crosshair generator

Thanks to the intelligent crosshair generator, the graduation can be displayed in almost any color and contrast to the camera image and thus adapted to different needs and applications.

High reading accuracy - Window detail with variable 128 x zoom

In addition, a corresponding section can be enlarged up to a factor of 128 at any point in the screen so that details can be better read or estimated (see pictures and table). The reading accuracy results from the intelligent scale division (recommendation according to the table) and the corresponding pixel resolution.

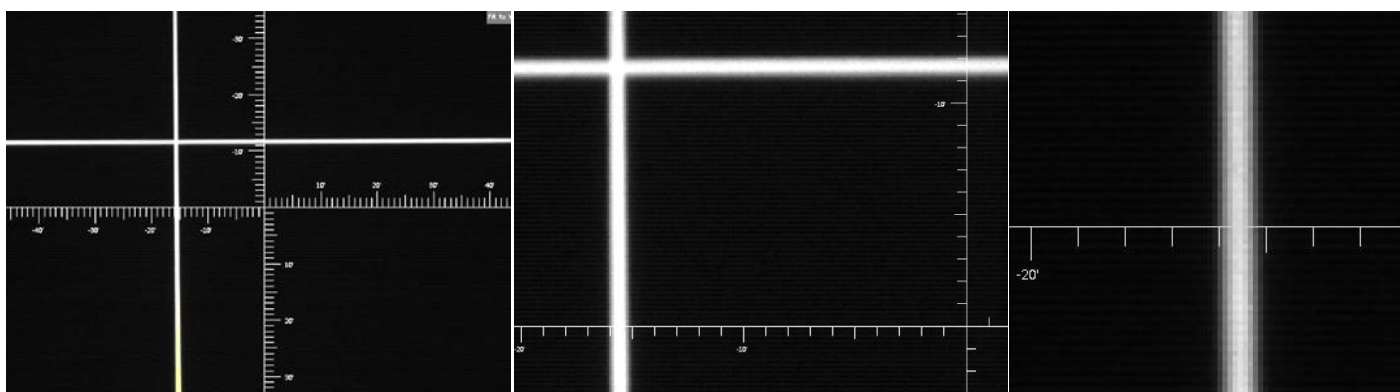


Fig.: AC 90/40, Zoom 1,5x

Zoom 8x

Zoom 16x

High Contrast and Reflectivity of Specimen

With our high-contrast standard autocollimators, visually contrast differences of less than 5% can be visually recognized and read off optimally on the intelligent and variable graduation. The minimum size of reflective surfaces is indicated for different specimen reflections to facilitate selection.

Technical data for standard versions

Focal length/ Diameter		50/40	80/40	100/40	140/40	200/40	300/40	200/65	300/65	560/65 ³⁾
Number of measurement axis		2	2	2	2	2	2	2	2	2
Measurement range 2w ¹⁾ / °		4,0°	2,2°	1,8°	1,25°	0,9°	0,6°	0,9°	0,6°	4,8°
Scale division (advised)/ arcmin		2′	1′	0,9′	0,5′	0,5′	0,2′	0,5′	0,2′	0,1′
Reading / estimation accuracy	wmin	0,4′	0,2′	0,2′	0,1′	0,1′	0,05′	0,1′	0,03′	0,03′
	wsec	24″	12″	10″	6″	6″	3″	6″	1,6″	1,8″
Accuracy, Linearity		< 1 % of Readout + estimation accuracy								
Wavelength of LED / nm		405 / 480 / 530 / 630 / 880 / 905								
Free Aperture / mm		9,6	28	28	28	28	28	48	48	48
min. Reflector Ø/ mm @R > 60%		1	1,8	2,2	3	4	6	4	6	12
min. Reflector Ø/ mm @R = 4 %		4	7,2	8,8	12	16	24	16	24	45
Weight AC-Sensor/ kg		0,7	0,8	0,8	0,8	0,9	1	2,3	2,5	1,9
Dimensions AC-Sensor		Ø 40 f8; 107 x 62 x 110 mm ³						Ø 65 f8; 107 x 62 x 110 mm ³		
Interfaces		USB 3.0 / HDMI								
Scope of delivery		Autocollimation sensor with integrated camera and powerful LED lighting unit, mini-PC, 16" monitor ²⁾ , sensor cable, crosshair generator, HDMI cable								
Order no.		801 20C	801 20A	801 20B	801 203	801 204	801 205	801 206	801 207	on request

1) in X- Direction; depending on the working distance (applies up to a distance of about 1.5 to 3 times the focal length); Y-dir. = 0,75°X

2) optional touch-screen with 19" or 22"

3) Nominal focal length and corresponding data in the table result from the article with 140 focal length and 4x beam converter.