Autofocusing Electronic Autocollimator – E

- A Precise USB3.0 device combining the functionality of an autocollimator with motorized feature for focusing at finite distances.
- High resolution of down to 0.01 arc sec or 0.05 µrad, with clear aperture of 36 mm.
- Built-in computer-controlled laser pointer for easy alignment.
- Built-in Pan & Tilt adjusting mechanics.
- Far Field & Near Field Optical Measurements

Specifications

FoV Autocollimator Mode	±29' (H) x ± 16.5' (V)
FoV Beam Analysis Mode	±58' (H) x ± 33' (V)
Clear Aperture	36 mm
Autocollimator's Resolution	0.005 sec
Autocollimator's Accuracy	1.0 sec
Light Source	LED: RGB Optional: 870, 1060 nm
Retro-reflector for Alignment	⌀35 mm, N.W 160 g, <5"
Line of Sight Retention as Function of Focusing	±2.5 seconds
Focusing Distance	Calibrated from 18 cm to infinity
Built-in Coarse Aiming Laser Pointer	650 nm power <1.0 mW Class 2 laser product, IEC60825-1
Power Requirements	External power supply provided

Spectral Response	350 - 1100 nm
Resolution (H x V pixels)	3800 x 2100
Gain Control	600
Exposure Speed	32 µsec to 2 sec
Frame Rate	50 fps, a few hundreds on ROI mode
Pixel Size	2 µm x 2 µm
Pixel Bit Depth	12 bits
Background Subtraction	User activated
Trigger	Internal Software
Fast Mode Measurement	Up to 1,000 fps for partial ROI
Beam Analysis	
Laser Beam Orientation	±58' (H) x ±33' (V) ±16.8 mrad (H) x ± 9.6 mrad (V)
Laser Beam Divergence Measurement	Down to 0.1 mrad
Resolution of Beam Divergence	Better than ±1 µrad Position ±0.5 µrad
Multiple Beams Measurement in Parallel	Standard – up to 400.
Wavelength	350 - 1100 nm
Fast Mode Measurement	Up to 1,000 fps for partial ROI
Straightness Measurement	
Lateral Measurement on Object Plane	With micron accuracy dependent on object distance
Virtual Image Creation*	-2.5 [m] to -Infinity
Cooperative Cross Target	Automatic display of lateral deviation along -2500 [mm] to -Infinity

Ordering Information

EAC-1012-19-FO-E-25: Complete system including a collimator unit with USB3.0 camera, focusing mechanism, software on Flash Drive and a retro-reflector for infinity adjustment.

*** Typical Application -** Adjustment of projected laser beam to certain distance as dictated by the virtual image setting

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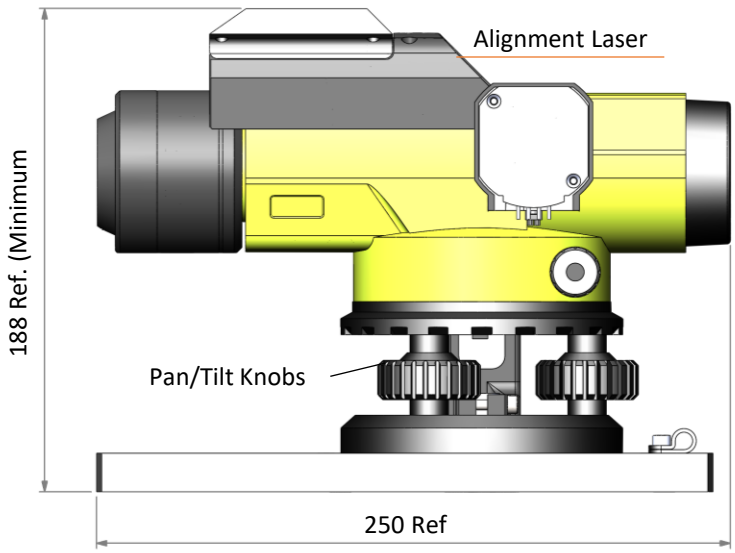

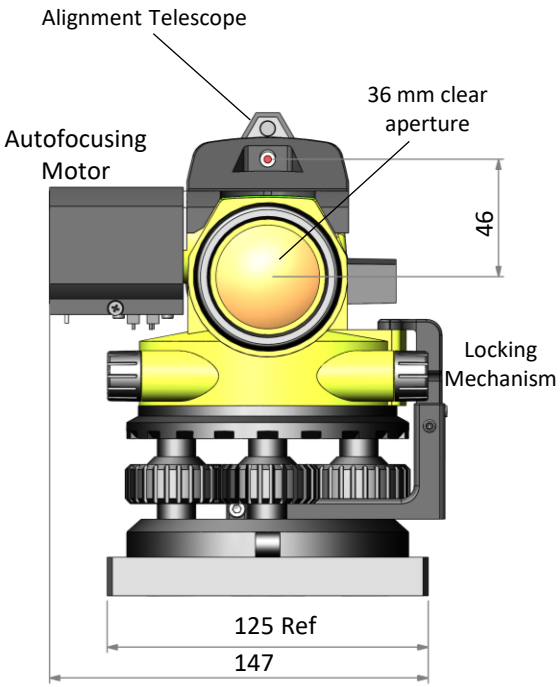

Dimensions are in mm.