

# Electronic Autocollimator

A versatile compact extremely accurate autocollimator



- Precise USB3.0 device combining the functionality of autocollimator with focusing feature for alignment.
- High resolution of down to 0.01 arc sec or 0.05  $\mu$ rad, with clear aperture of 36 mm.
- Built-in computer controlled laser pointer for easy alignment.
- Built-in Pan & Tilt adjusting mechanics.
- Hybrid autocollimator fusing together alignment & beam analysis.

## Specifications

FoV Autocollimator	$\pm 40'$ (H) x $\pm 25'$ (V)
FoV Telescope & Beam Profiler	$\pm 1^\circ 20'$ (H) x $\pm 50'$ (V)
Clear Aperture	36 mm
Autocollimator's Resolution	0.01 sec
Autocollimator's Accuracy	1.0 sec
Light Source	LED: 670 nm Optional: RGB / 850 / 1060
Retro-reflector for alignment	$\varnothing 64$ mm, N.W 280 g Thread $\varnothing 16$ mm, <5"
Line of Sight Retention as Function of Focusing	+/- 2.5 seconds
Min. Focusing Distance	Less than 17.5 cm
Built in coarse aiming Laser Pointer	638 nm power <1.0 mW Class 2 laser product, IEC60825-1
Spectral Response	350 - 1100 nm (Telescope Mode)
Sensor Active Area (mm)	11.3 x 7.1

Resolution (H x V pixels)	1936 x 1216 sensor can be divided into multiple active areas, working in parallel for up to 400 sectors (NEW)
Gain Control	x400 Max.
Dynamic Range	16 bit, read noise 3.5e
Exposure Speed	32 $\mu$ sec to 2 sec
Frame Rate	30 fps (16 bit full resolution) Optional - Up to 250 fps (8 bit) minimum AOI – Hardware dependent
Sensor type	Proprietary CMOS
Pixel Size	5.86 $\mu$ m x 5.86 $\mu$ m
Background Subtraction	User activated
Trigger	Internal Software
Pan & Tilt knobs	Large Pan, Tilt $\pm 2.5^\circ$ ,
Power Requirements	$\sim 2$ Watt (Via USB 3.0 interface)
Dimensions (L x W x H) in mm	250 x 125 x 190
Weight (typical)	3 kg including cable
Min. Hardware Requirements	CPU i3 1.6 GHz, 4 GB RAM Min. Resolution 1366 x 766
Interface	USB 3.0, Windows 7/8/10 (32 & 64 bit)
Operating Temperature	0 $^\circ$ – 35 $^\circ$ C

## Ordering Information

**EAC-1012-19-Revision E:** Complete system including a collimator unit with USB3.0 camera, software on CD and a retro-reflector for infinity adjustment.

**DUMA OPTRONICS LTD.**

Website: <http://www.dumaoptronics.com>

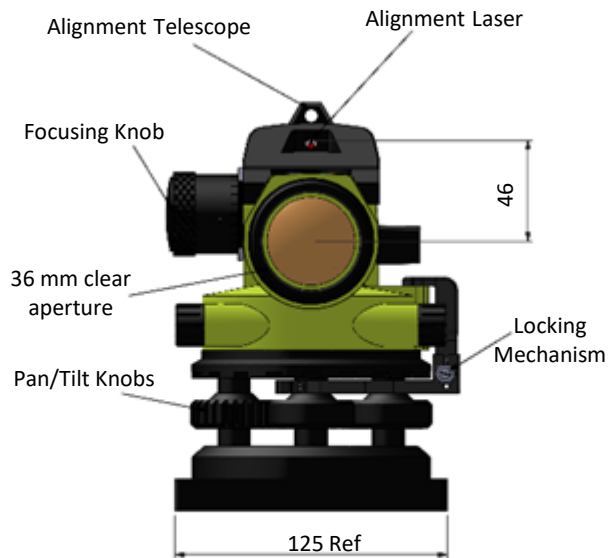
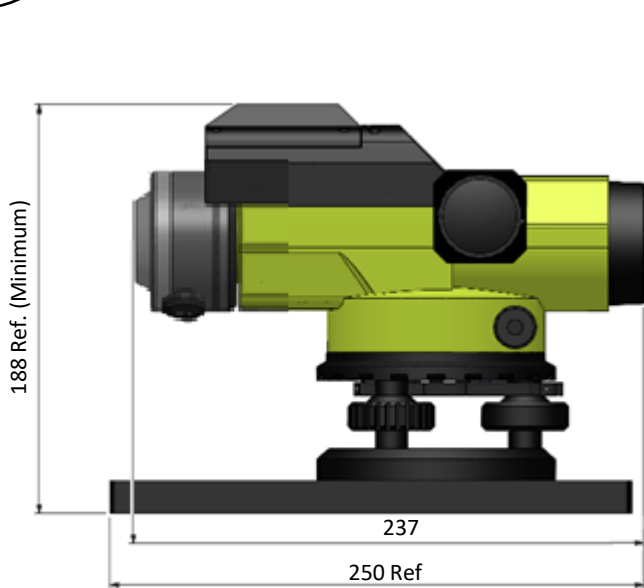
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October 2022



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Dimensions are in mm.

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