Product Datasheet

PLX Electronic Autocollimator – ACT-HR100

ACT-HR100 High Accuracy – Large Aperture Electronic Autocollimator

A precise USB 3.0 Autocollimator combining the functionality of Autocollimation with a large input aperture of 100 mm.

PLX Autocollimator

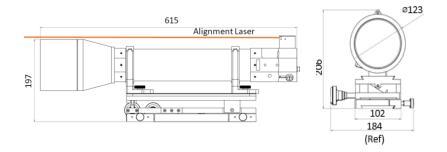**ACT-HR100 High Accuracy – large Aperture Electronic Autocollimator**

ACT-25B Electronic Autocollimator

ACT-25FO Autofocusing Electronic Autocollimator

ACT-HR High-Resolution Electronic Autocollimator

ACT-WF Wide-Field Electronic Autocollimator

ACT-HR100 High-Accuracy – Large Aperture Autocollimator

ACT-HR100:

- High resolution of down to 0.01 arc sec or 0.05 µrad, with clear aperture exceeding 100 mm.
- Built-in computer controlled laser pointer for easy alignment. Built-in Pan & Tilt adjusting mechanics.
- Hybrid autocollimator fusing together alignment & beam analysis.

Software

All PLX autocollimators come with software, and the software automatically displays angle deviation and can give the relative position of multiple targets.

Data logging is supported and can be configured to record for a predetermined time or a fixed number of data points. The recording interval can also be set. The data can be saved to a file or streamed to a remote location via RS-232 or TCP/IP. The communication setting for both RS-232 and TCP/IP is fully configurable from the software.

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ACT-HR100 Specifications

Specification	Value
FoV Autocollimator	±17.2' (H) x ± 10.3' (V) ± 5 (H) , ± 3 (V) [mrad]
FoV Telescope & Beam Profiler	±34.4' (H) x ± 20.6' (V) ± 10 (H) , ± 6 (V) [mrad]
Clear Aperture	100 mm
Autocollimator Resolution	0.01 sec
Autocollimator's Accuracy	0.5 sec
Light Source	LED- 650 Optional: 1060, RGB
Retroreflector For Alignment	⌀64 mm, N.W 280 g Thread ⌀16 mm, <5"
Min. Focusing Distance	Focused at Infinity
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)
Resolution (H x V pixels)	1920 x 1200 sensor can be divided into multiple active areas, working in parallel for up to 400 sectors (NEW)
Gain Control	1x – 24x
Dynamic Range	60 dB , 12 bit
Exposure Speed	39 µsec to 20 sec
Frame Rate	30 fps – up to 550 fps@ fast mode (NEW)
Pixel Size	5.86 µm x 5.86 µm
Background Subtraction	User activated
Objective Aperture	M72 x 0.75 mm
Trigger	Internal Software Hardware Falling or Rising Edge Trigger Delay 0.015ms - 4.0 sec
Pan & Tilt knobs	Tilt ±2°, Pan ±2.5°
Power Requirements	~2 Watt (Via USB 3.0 interface)
Dimensions (L x W x H) in mm	635 x 184 x 208
Weight (typical)	5 kg
Min. Hardware Requirements	CPU i3 1.6 GHz, 4 GB RAM Min. Resolution 1366 x 766
Interface	0° – 35° C
Laser Alignment Accessory	Offsetting alignment laser to coincide with aperture center