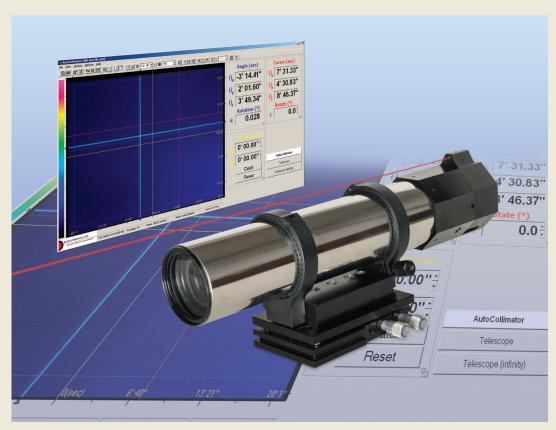
# Flectronic Autocollimator HR High Resolution

# A precise USB 2.0 device combining the functionality of autocollimator and alignment telescope

Our Electronic Autocollimator HR performs high precision measurement of reflection from a miror surface. The device offers high resolution measurement capability down to 0.01 arc sec or  $0.05~\mu Rad$ .



#### Main Applications

The Electronic Autocollimator's applications are mainly related to the detection and measurement of small angular displacements. Examples include:

- Straightness measurement of linear stages
- Characterization of rotation stage
- Measurement of wedge, prism and polygon angles
- Measurement of reflecting surface parallelism
- Measurement of surface flatness

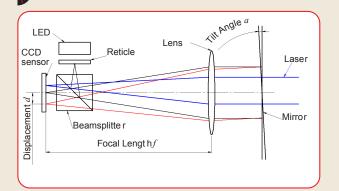
- Alignment of optical setups including lasers
- Measurement of mirror angle
- Machine alignment
- CD/DVD ROM alignment
- Thermal stability measurements
- Vibration analysis



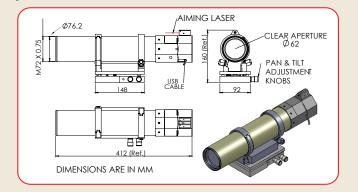
#### **DUMA OPTRONICS LTD.**

### **Measurement Specifications**

#### Concept



#### **Mechanical Dimensions**





## **Specifications**

Field of view

 Autocollimator
 20' (H) (1200 sec of arc)

 Telescope
 40' (H) (2400 sec of arc)

 Resolution
 0.01 sec of arc (0.05 μRad)

Accuracy 1 sec

CCD Camera 1/2" (1/3" Optional)

Light SourceLEDInterfaceUSB 2.0Clear aperture62mm

**Retro-reflector for alignment** Ø64mm, N.W. 280g

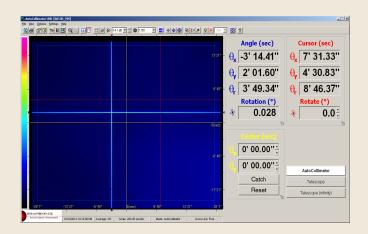
Thread Ø16mm, <5"

Coarse alignment laser 638nm power < 1.0 mW

Class 2 laser product,

IEC60825-1

Weight 5.2 kg including cable Pan & Tilt knobs Tilt ±2°, Pan ±2.5°



Built in pan & tilt adjustment
Built in coarse aiming laser

#### **Hardware Requirements**

Pentium, 2.4GHz, 2GB RAM, 512 MB 24 bit color graphic adapter, 1 free High Speed USB2.0 port, Win XP/7/8.



#### **Ordering Information**

**PN: EAC-HR** Complete system including a collimator unit with USB2.0 CCD camera, software on CD disk, retro-reflector for infinity adjustment, carrying case.



#### **Features**

- Real time measurement of angular displacement
- Automatic angle deviation display
- Relative measurements
- Multiple results display
- Low Light low reflection capability
- Reticule targets (single or multiple)
- Data logging with detailed statistics
- Software controlled electronic shutter & gain
- Data exporting to another computer via RS232 or TCP/IP
- Video with playback, snapshot files



#### **DUMA OPTRONICS LTD.**