



## Description

The AC400 Series Autocollimator is a compact high performance two-axis digital angular displacement sensor. It was specifically developed for companies that produce instrumentation or tooling requiring high precision alignment. The autocollimator also provides a means to inspect and characterize material and components. The system is comprised of the main sensor module and a handheld color touch screen interface. The sensor module projects a very small diameter beam of collimated red (670nm) laser light. An external reflector reflects the beam back into the instrument, where the collimator's optics focus the beam onto a photo detector. Internally the AC400 has a DSP to process the signals and compensate for system distortions to achieve unparalleled accuracy. The AC400 Series Autocollimator has more than 24 powerful ASCII commands for control and operation. Both the laser and sensor are temperature controlled to make the AC400 nearly insensitive to environmental disturbances. Because the autocollimator uses light to measure angles, it never comes into contact with the test piece. The convenient easy-to-use AC400 handheld interface has both graphical and numeric readouts of beam position. The sensor unit has a networkable RS232 interface for direct connection to your computer. A Windows application with source code is provided as a launching point for more complex data collection and analysis purposes. The AC400 Autocollimator serves as a valuable and indispensable tool for users requiring rapid and precise measurement of surface profiles and alignments.

## Equipment Solutions, the Company

Equipment Solutions, Inc. (ESI) prides itself in giving OEMs and VARs precisely the tools they need to make the best system possible. We believe in long-term relationships. We pledge our undivided attention to our customers. After all, your success ensures ours. Applications support is our highest priority. When you deal with ESI, knowledgeable engineers will help you analyze your problem and reach the best solution, even before you become a customer.

## FEATURES:

- Two Axis
- Visible Laser Pointer Function
- Long Range
- Wide sensing angle
- High resolution
- Large Aperture
- Handheld Interface
- Light Weight
- Compact package.
- Low Noise
- Interface to PC
- Patent Pending technology
- Low cost.

## AC453 SPECIFICATIONS:

Mech. Angular Range:	±0.65° (±11.5mrad)
Sensitivity:	3.6arcsec (18µrad)
Beam Diameter:	<3mm typical
Laser Light Source:	Class 2, 670nm
Optical Aperture:	2.9in (7.4cm)
Max. Working Distance:	84in. (2.1m)
Power:	9VDC
Size:	14.0 x 5.5 x 6.9in 35.6 x 14.0 x 17.5cm
Weight:	15.0 lbs. (6.8kg)

## AC400 Series Options:

- Stand / Mounting Base
- Reference Mirrors
- RS-232 Computer Interface
- Translation Displacement Sensor