

Davidson Optronics

A TRIOPTICS COMPANY

Putting Your Future in Focus

Coordinate Autocollimators | D-638



Operating ease and convenience are built into the D-638 Coordinate Autocollimator. The midsection turret with tilting eyepiece and adjoining, easily read micrometer drum enables technicians to take more readings with less effort. Hand adjustments of the mirrors in the line of sight is brought approximately 10 inches closer to the viewer so that one may stand normally and comfortably.

The D-638 measures angles around an X-Y axis or intermediate points between obliquely tilted surfaces. By rotating the turret assembly 90° the filar bisection of the target gives a corresponding read-out in arc minutes and seconds on the micrometer drum, either for azimuth or elevation. Azimuth and elevation adjustments are quickly made with fine thread adjustment screws mounted in base.

The Digital Autocollimator Upgrade Kit allows existing D-638 models to have all the digital functionality of the New Model D-720, Digital Two-Axis Autocollimator.

The upgrade kit replaces the autocollimator eyepiece assembly with a video imager. The included OptiAngle software allows results to be viewed in real-time, statistically analyzed and stored for later reference. The program includes routines for the measurements of angles about orthogonal axes, optical wedges, 90° prism errors, telescope angles and more. Certificates documenting test results are automatically generated.

Optional Accessories

- **D-165 High Intensity Light Source** may be required when autocollimating off of low reflectivity surfaces or small mirrors
- **D-247 Table Instrument Stand**
- **D-416B 220V 50Hz Power Supply**
- **104-0160 Autocollimator Alignment Aide**
- **105-2761-638 Analog Video Subsystem**
- **104-0170 Digital Autocollimator Upgrade Kit**

- **Two axis capability**
- **Center tilted eyepiece for**
- **Easy viewing**
- **Compact design for easy alignment**
- **Built in adjustable mounting base**
- **Certification of accuracy traceable to NIST**

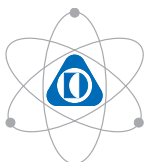
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Specifications	
Accuracy:	½ arc sec over one arc minute, 3 arc sec over 20 arc min (Calibration curve over full range at nominal cost)
Sensitivity:	0.1 arc sec (standard deviation 0.2 arc sec)
Measuring Range:	20 arc min graduations 0.2 arc sec
Seconds Scale:	One revolution equals one minute
Minute Scale:	Counts the revolutions of Seconds Scale; graduated from 0 to 20 arc min
Reticle Pattern:	Dot with illuminated rings
Aperture Diameter:	2.375 inch (60 mm)
Focal Length:	20 inch (508 mm)
Measuring Range:	30 ft ± 10 min; 125 ft ± 2 min (9.1 m; 38.1 m)
Base Elevation Adjustment:	± 2°
Base Azimuth Adjustment:	± 2°
Light Source:	Incandescent lamp with D-416, 6 VDC variable power supply 110V/ 60Hz or 220V/ 50Hz
Finish	Ivory enamel
Carrying Case:	Hardwood, fitted for instruction and light source
Weight:	21 lbs (9.5 kg)
Shipping Weight:	40 lbs (18.1 kg)



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