MRA-50 Autocollimator Data Sheet (16 June 2020)

1.0 Introduction

The MRA-50 is a compact pinhole autocollimator that provides a visual representation of angular alignment.

2.0 Manufacturer

Micro-Radian Instruments, 131 E. Grover St, Lynden, WA 98264 USA (CAGE 50223)

3.0 General Specifications

Recommended maximum working distance	1 meter
Emitted beam diameter (nominal)	18 mm
Recommended minimum target mirror size	5 mm diameter
Maximum angular measuring range	±3600 arc-seconds
Resolution (typical)	5 arc-seconds
Pinhole diameter	100±5 microns, subtends 100±5 arc-seconds
Eyepiece magnification	20X
Reference reticle (optional)	10x10 grid or crosshairs with concentric circles
Light source	white LED
Power input requirements	100VAC to 240VAC
Weight	297 g

4.0 Housing

All housing components are machined from a solid block of 6061 aluminum and black anodized inside and out. There are no identification markings on the body.

5.0 Electronics

The MRA-50 is a purely visual device and contains no electronics. Image viewing is done through an adjustable focus eyepiece. An external plug-in power supply is provided to power the autocollimator LED light source. The power supply has a switching transformer that will automatically switch to accommodate inputs in the range of 100VAC to 240VAC. The power supply provides a DC voltage output and has an adjustment knob to adjust the light source intensity.

6.0 Calibration

The MRA-50 pinhole diameter subtends 100 arc-seconds (nominal). There is no electronic calibration and the autocollimator does not require recalibration.

7.0 Outline and Mounting (Inches)