



OIM102.3 Elliptical Fast Steering Mirror

**FEATURES:**

- Flexure suspension allows stiction free motion of the mirror with an infinite fatigue lifetime
- Built in optical sensor allows the user to monitor both axes of mirror motion
- Moving magnet design allows coils to be heat sunk to the mirror base structure
- New coil design eliminates coil overheating problems, no need to monitor coil temperature
- Removable optical table mounting foot allows easy mounting to standard optical tables
- Mirror coating to customer requirements
- Wave-front quality 1/4th wave rms
  - Substrate 1/4<sup>th</sup> wave p-v
- Useable aperture 1.8" x 2.7"

## OIM102.3 Mirror Specifications

Specification	Typical	Units
<b>Dynamic Performance</b>		
Mirror Angular Range (mechanical)	+/- 1.5	degrees
Angular resolution	<2	urads
3dB Bandwidth (small angle 10mV)	> 500	Hz
Linearity	1%	% Full Scale
Step Response (1 mrad step)	<10	ms
<b>Mirror Substrate</b>		
Material	Fused silica	
Mirror substrate size	2.1" x 3.0"	
Coating	Protected Gold	
Reflectivity	>95% from 700nm – 10um	
Wavefront quality	$\lambda/4$ @ 633nm	waves rms
Clear Aperture	1.8" x 2.7"	inches
<b>Electrical</b>		
Peak power	30	Watts
<b>Mechanical</b>		
Mirror head size	2.3 X 2.3 X 2.2	inches
Controller size	2.0 X 4.0 X 6.1	inches

### Pricing

Complete mirror system (mirror head, controller, cables, and power supply)		
Includes: Fast Steering Mirror Head Protected gold mirror substrate* Analog Servo Controller 6 foot cable FSM to Controller Table top power supply	OIM102.3	\$5100

\* Contact Optics In Motion to obtain a price for other mirror coatings.