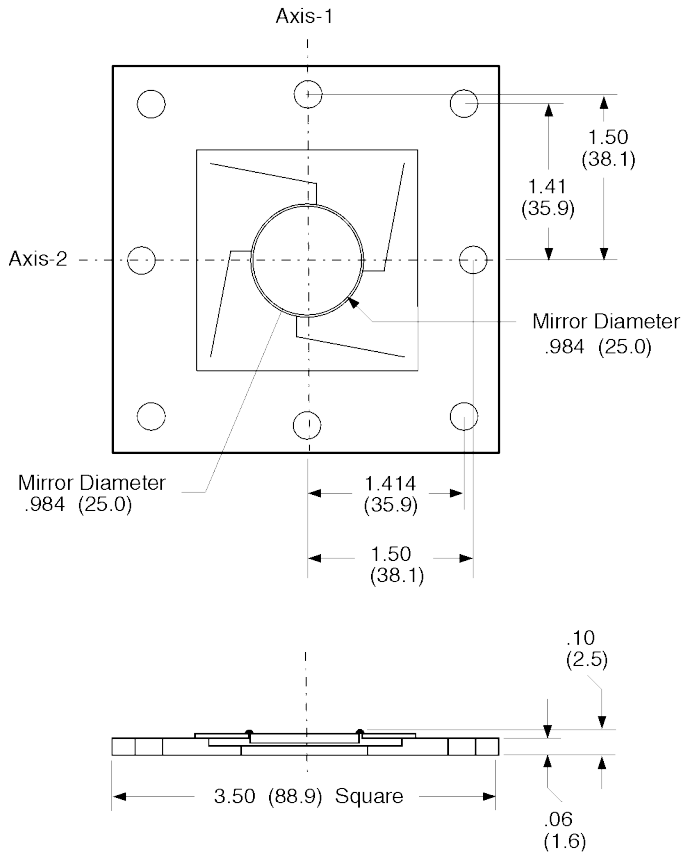
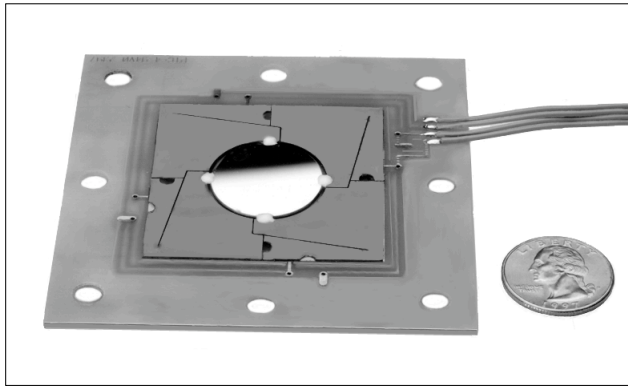


**2-AXIS PIEZO MIRROR TILTER, ± 1.6°  
ULTRA THIN PROFILE**



**DESCRIPTION**

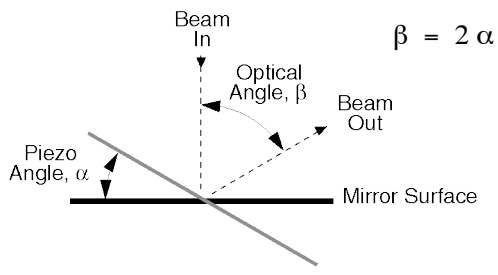
The 2-Axis Piezo Mirror Tilter is a low profile device designed for insertion between closely spaced components in an optical path. It may be used for either reflective or refractive optical elements. The tilter delivers precise angular motions for dynamic beam steering, adjustment, or stabilization (with user provided feedback). The mirror tilter is best utilized when driven with continuous harmonic waveforms.

The tilter delivers ± 1.6° (± .028 radians) of optical angular motion while providing the fine resolution associated with piezoelectric devices. Mirror elements may be provided separately for individual custom applications.

Independent drive of each axis requires an electrical driver capable of supplying up to ± 180 volts peak (127Vrms) to deliver full range rotational output. Two EPA-104 Piezo Amplifiers are suitable for this purpose.

Mounting is accomplished using the #1/4 clearance holes on 3-inch centers for the English version. And using M6 clearance holes on 75 mm centers for the Metric version.

Custom Configurations: Piezo mirror tilters are available in custom configurations.



**DOUBLE AXIS MIRROR TILTER PERFORMANCE**

PART NUMBER	WEIGHT	CAPACITANCE (PER AXIS)	RESONANT FREQUENCY	BROADBAND RANGE	RATED VOLTAGE	OPTICAL ANGLE, $\beta$	ANGULAR RESOLUTION
	grams	nF	Hz	Hz	±Vp	± milliradians	degrees
IAG2-005-E	28	35	~325	0 - 150	± 180	± 28	± 1.6

**ORDERING INFORMATION**

	PART NO.	1 pc.	5 pc.	25 pc.	100 pc.
2 - Axis Mirror Tilter, ± 1.6° English version	IAG2-005-E	\$3,299	\$1,759	\$989	\$659
2 - Axis Mirror Tilter, ± 1.6° Metric version	IAG2-005-M	\$3,299	\$1,759	\$989	\$659



**SPECIFICATIONS**

**2 - AXIS PIEZO MIRROR TILTER,  $\pm 1.6^\circ$**

**MECHANICAL**

Overall Dimensions (L x W x H)	inches (mm)	3.5 x 3.5 x .10 (89 x 89 x 2.5)
Overall Weight	grams	28
Mirror (Round, Flat)		
Dimensions (Dia. x T)	inches (mm)	$\varnothing$ .984 x .039 ( $\varnothing$ 25.0 x 1.0)
Material		Crown Glass
Coating		Protected Aluminum (100 nm - 950 nm)
Flatness		$3 \lambda$ per 25 mm
Mounting		#1/4-20 Clr holes, 8 places

**ELECTRICAL**

Rated Input Voltage (Vp)	Vp	$\pm 180$
Capacitance (per axis)	nF	35
Cable		4 conductor flat cable, unterminated 0.9 meters (36 inches) long

**ENVIRONMENTAL**

Thermal Operating Range	$^\circ$ C	-20 to +60
Thermal Storage Range	$^\circ$ C	-30 to +70

**PERFORMANCE**

Optical Angular Range (@ $\pm 180$ Vp)		$\pm 1.6$ degrees ( $\pm .028$ radians)
Resolution		$\pm .3 \times 10^{-3}$ degrees ( $\pm 6 \times 10^{-6}$ radians)
Broadband Operating Range	Hz	0 - 150
Resonant Frequency	Hz	$\sim 325$

**ROHS** Compliant. Piezo exempt.

