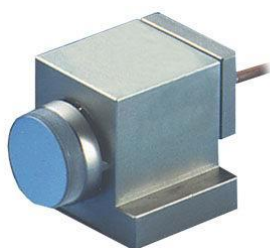


Fast Steering Mirror Combines Highest Dynamics and Compact Design



S-224 • S-226

- + Optical beam deflection to 4.4 mrad
- + Sub- mrad resolution
- + Sub- ms response time
- + Frictionless, high- precision flexure guiding system
- + Includes BK7 mirror
- + Optional position sensor
- + Outstanding lifetime due to PICMA[®] piezo actuators

Specifications

	S-224.00	S-226.00	Unit	Tolerance
Active Axis	θ_x	θ_x		
Open- loop tip / tilt angle, 0 to 100 V	2.2*	2.2*	mrad	±20 %
Closed- loop tilt angle	–	2.0*	mrad	
Integrated feedback sensor	–	SGS		
Resolution, closed- loop / open- loop**	– / 0.05	0.1 / 0.05	μrad	
Linearity error, closed- loop	–	0.2	%	typ.
Repeatability, full travel	–	±3	μrad	typ.
Electrical capacitance	1.5	1.5	μF	±20 %
Dynamic operating current coefficient (DOCC)***	0.1	0.1	μA / (Hz × μm)	
Unloaded resonant frequency	9.0	9.0	kHz	±20 %
Resonant frequency Ø 15 mm × 4 mm glass mirror	7.5	7.5	kHz	±20 %
Resonant frequency Ø 15 mm × 4 mm copper mirror	5.7	5.7	kHz	±20 %
Distance of pivot point to platform surface	4	4	mm	
Platform moment of inertia	215	215	g × mm ²	
Operating temperature range	-20 to 80	-20 to 80	°C	
Voltage connection	LEMO FFA.00.250	LEMO FFA.00.250		
Sensor connection	–	LEMO FFA.0S.304		
Mass without cable	98	98	g	±5 %
Material (case / platform)	N- S / N- S	N- S / N- S		
Recommended amplifiers / controllers	E-663 E-610.00	E-665.SR E-610.S0 E-621.SR E-625.SR		

* Mechanical tilt, optical beam deflection is twice as large.

** Resolution of PI piezo scanners is not limited by friction or stiction. Value given is noise equivalent motion with E -503 amplifier.

*** Dynamic Operating Current Coefficient in μA per Hz and μrad. Example: Sinusoidal scan of 100 μrad at 10 Hz requires approximately 0.1 mA drive current.

Ask about custom designs!

Order Information

S-224.00

Compact Piezo Tilt Mirror, 4.4 mrad optical, BK7 Mirror Ø15 mm × 4 mm

S-226.00

Piezo Tilt Platform 2.2 mrad (4.4 mrad optical) with Mirror, SGS Sensor, BK7 Mirror Ø15 mm × 4 mm

Ask about custom designs!

Controllers / Drivers / Amplifiers

[E-503 Piezo Amplifier Module](#)

[E-509 Signal Conditioner / Piezo Servo Module](#)

[E-621 Piezo Servo- Controller & Driver](#)

[E-663 Three- Channel Piezo Driver](#)

[E-610 Piezo Amplifier / Controller](#)

[E-665 Piezo Amplifier / Servo Controller](#)

[E-625 Piezo Servo- Controller & Driver](#)

Related Products

[S-310 – S-316 Piezo Z / Tip / Tilt Scanner](#)

[S-325 Piezo Z / Tip / Tilt Platform](#)

[S-330 Piezo Tip / Tilt Platform](#)

[S-334 Piezo Tip/ Tilt Mirror](#)

Drawings / Images

