



Translation Stages

Motorized Mirror Mounts

Rotation Stages

3 Axis Flexure Stages & Accessories

4, 5 & 6-Axis Stages

Drive Electronics & Auto-Alignment

Actuators & Adjusters

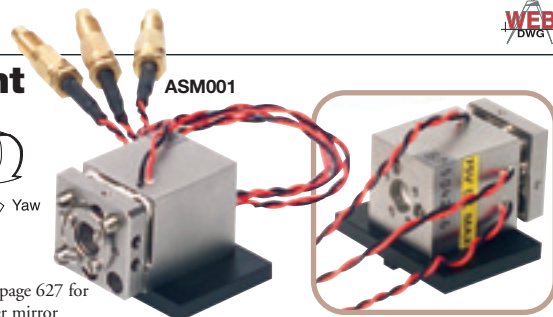
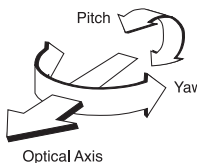
Motion Control

Piezoelectric Controlled Optics Mount

This compact piezo controlled mirror mount uses a flexure mechanism and a series of low voltage piezoelectric elements to ensure an angular resolution of better than 1 arc second. The piezoelectric elements, embedded within the housing of the mount makes the extremely high angular resolution possible. The mount has a 6mm clear aperture and is designed to accept 7mm diameter optics.

Three fine pitch manual adjusters (0.3mm/revolution) provide for $\pm 2^\circ$ of angular control, or if all three are adjusted 1mm of translation. The three piezo elements can also be used simultaneously to provide a pure translation.

The piezo elements when driven by our MDT693A series piezo drivers are capable of operating at up to 2kHz, please see page 340 for details on the MDT693A series controllers. This makes the ASM series ideal for use as a laser cavity mirror holder when rapid scanning of a resonator cavity length is required.



See page 627 for silver mirror

Specifications

NanoFlex™ Miniature Piezo Flexure Mirror Mounts

	ASM001	ASM003
Weight	22g (0.8oz)	35g (1.2oz)
Load Capacity	100g (0.2lbs)	100g (0.2lbs)
Piezoelectric Pushing Force	100 N max	100 N max
θy, θz Rotation:		
Fine Thread	4°	4°
Piezo Actuator	1 arcmin	2 arcmin
x-Axis Travel:		
Fine Thread	1mm	1mm
Piezo Actuator	3.5µm	7µm
Resolution:		
x-axis Fine Thread	1µm	1µm
Piezo Actuator	20nm	20nm
θy, θz Fine Thread	15 arcsec.	15 arcsec.
Piezo Actuator	<1 arcsec.	<1 arcsec.



Standard 12.5mm Beam Height.

The photograph shows the ASM003 piezoelectric controlled mirror mount on the deck of a RollerBlock™ x-y-z translator. See page 237 for details on our 13mm cross-roller bearing translator.

ITEM#	\$	£	€	¥	DESCRIPTION
ASM001*	\$ 859.74	£ 505.73	€ 758,60	¥ 141,604	Piezo Controlled Flexure Mirror Mount, 3.5µm Extension
ASM003*	\$ 1,530.00	£ 900.00	€ 1,350,00	¥ 252,000	Piezo Controlled Flexure Mirror Mount, 7µm Extension

*Imperial and Metric Models are Compatible

1" Compact Motorized Mount



The ZM1 offers a slim compact motorized beam steering solution. Driven by two rotary encoded DC servo motors the ZM1 provides arcsec resolution at speeds up to 1 degree per second with a full range of ± 4 degrees.

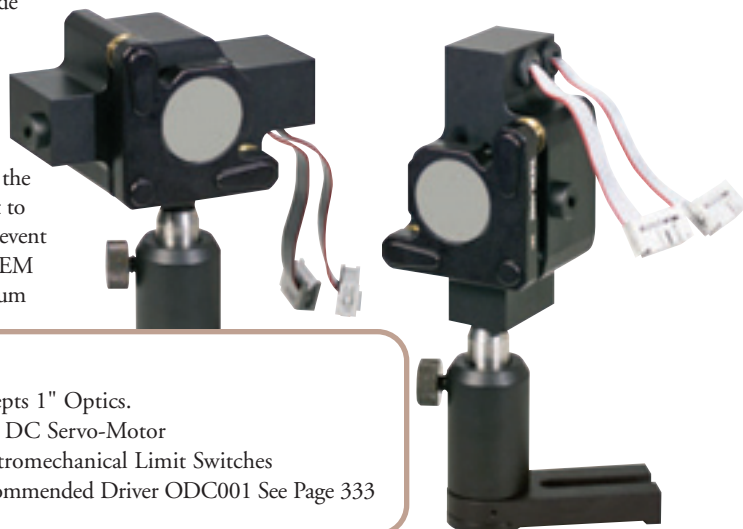
Integrated mechanical limit switches provide repeatability of 1µm ideal for homing both X and Y axes. The unique rack and pinion design allows the depth of the mount to be minimized to prevent

occupying excess table space. This feature lends itself well to OEM applications as well as tight quarters in the optics lab. For vacuum

compatible versions contact one of our application engineers at 973-579-7227

Features:

- Accepts 1" Optics
- Compact Design for Use in Tight Locations
- Ideal for OEM Applications



Specifications

- Range of Motion: $\pm 4^\circ$
- Resolution: 2 arcsecond
- Speed Range: min. 1 arcsec./sec. max. 1°/sec.
- Accepts 1" Optics.
- 12V DC Servo-Motor
- Electromechanical Limit Switches
- Recommended Driver ODC001 See Page 333

ITEM#	METRIC ITEM #	\$	£	€	¥	DESCRIPTION
ZM1	ZM1/M	\$ 735.00	£ 551.25	€ 771,75	¥ 124,950	1" Compact Motorized Mirror Mount