

Large Precision Mirror Mounts

- Rock solid mounting
- For 4, 6, 8 and 10 inch diameter mirrors
- Larger sizes available upon request
- Dual fine/ultra-fine angular adjustment
- Sensitivity <math><3\text{arcsec}</math>

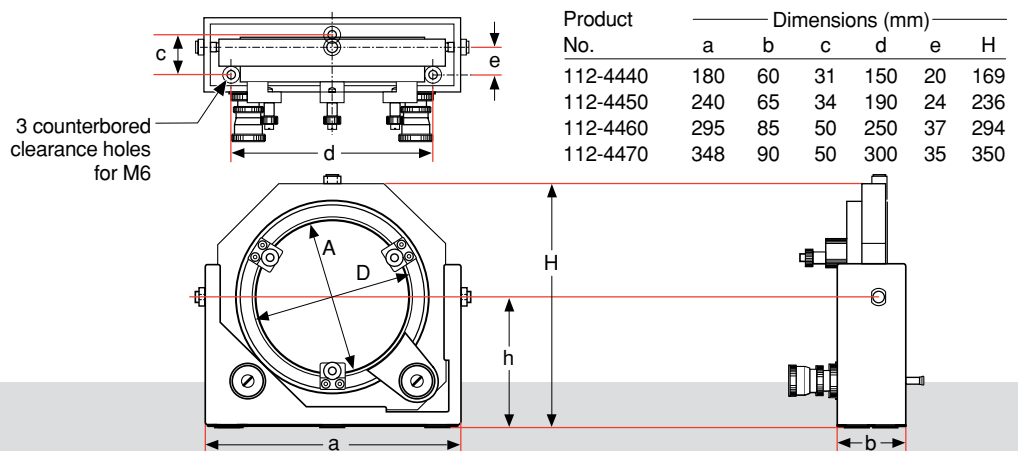


Large precision mirror mounts provide a secure and stable mounting platform for large mirrors such as laser beamsteerers or off-axis parabolic collimators. The cast base may be attached to a base plate for mounting onto an optical table or other support. Mirrors are retained in a mounting ring by means of three clamp screws. Angular alignment can be made about two axes, by means of dual action adjusters with fine screw and ultra-fine differential micrometer action. Using these mounts it is possible to align a mirror within a few arcseconds. Once set it will remain in place over a long period of time.

Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$
 Material: Cast aluminum
 Finish: Black anodized and painted
 Angular adjustment: Mirror diameter

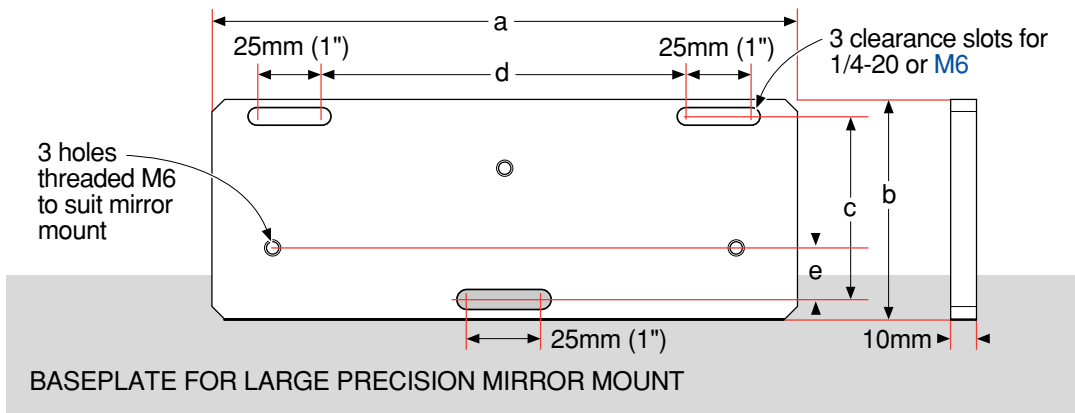
Mirror diameter	4inch	6inch	8inch	10inch
Range	$\pm 6^\circ$	$\pm 4^\circ$	$\pm 3.5^\circ$	$\pm 2.7^\circ$
Coarse per rotation	35arcmin	26arcmin	21arcmin	17arcmin
Fine per rotation	1arcmin	50arcsec	40arcsec	33arcsec
Sensitivity	2.7arcsec	2.0arcsec	1.6arcsec	1.3arcsec



LARGE PRECISION MIRROR MOUNT

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Large Precision Mirror Mounts

To Hold Mirror Diameter, D (inches) (mm)	Clear Aperture, A (mm)	Center Height, h (mm)	Maximum Mirror Thickness, t (mm)	Price	PART NUMBER
4.0 101.6	90	90	28	\$ 880.00	112-4440
6.0 152.4	145	120	38	\$ 995.00	112-4450
8.0 203.2	185	150	44	\$ 1,195.00	112-4460
10.0 254.0	240	180	54	\$ 1,245.00	112-4470

Larger mounts up to 18 inch or 500mm diameter can be supplied on request.

Baseplates for Large Precision Mirror Mounts

INCH **METRIC**

To Suit Mount Diameter, D (inches)	Dimension					Price	PART NUMBER	PART NUMBER
	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)			
4.0	180	90	76.2	101.6	11.3	\$ 60.00	112-4441	-
4.0	180	90	75.0	100.0	11.3	\$ 60.00	-	112-4445
6.0	240	90	76.2	152.4	21.1	\$ 75.00	112-4451	-
6.0	240	120	100.0	150.0	21.1	\$ 75.00	-	112-4455
8.0	295	120	101.6	203.2	25.8	\$ 85.00	112-4461	-
8.0	295	120	100.0	200.0	25.8	\$ 85.00	-	112-4465
10.0	348	140	127.0	254.0	38.5	\$ 110.00	112-4471	-
10.0	348	140	125.0	250.0	38.5	\$ 110.00	-	112-4475

Our advanced optical coating facility is computer controlled to ensure the highest performance coatings and excellent repeatability. See coatings (page 14) and mirrors (page 110) for a complete product listing.



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Ultra-stable™ Mirror Mounts

- High stability for mounting laser cavity mirrors
- For one and two inch diameter mirrors
- Adapters for other common sizes
- Gimballed mounting rotates about mirror surface
- Dual fine/ultra-fine angular adjustment
- Sensitivity <10arcsec



These mirror mounts maintain a low center of gravity and have a secure method for attachment to a base. Internal construction introduces hardly any instability so that mirrors will remain securely in place once set. Both intra-cavity and external mirrors will benefit from this ultra-stable form of mounting. The mounts are supplied for one inch and two inch diameter mirrors but adapters may be used for other mirror sizes. Mirrors are secured in place from the rear of the mount using a retaining ring.

The Gimballed mount permits angular movement of the mirror about its surface thereby eliminating any beam run-out during adjustment. There are two degrees of freedom about azimuthal and elevational axes and each is driven by a dual speed differential micrometer. This permits the mirror to be set up within about 5arcseconds. For convenience, the outer body has two flat bases so that the micrometers can be arranged to be either on the right or left of the mirror. The base plate has mounting holes for either 1/4-20 or M6 screws.

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Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$

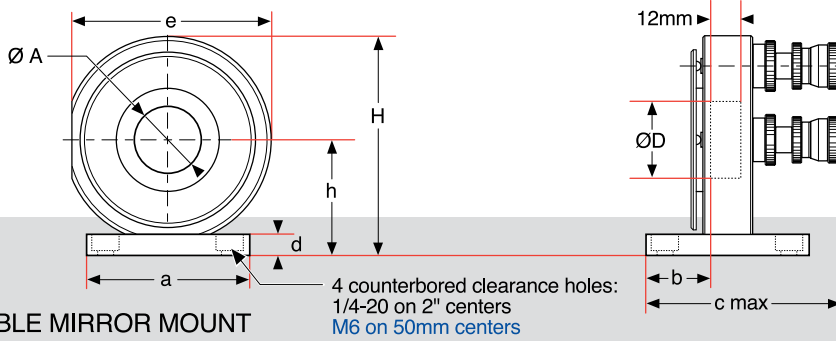
Material: Steel

Finish: Black chrome

Mirror Mounts

- Optic Holders
- Optical Baseplates
- Optical Rails and Carriers
- Bases
- Rod Mounting Systems
- Post, Post Holders, Clamps

Part Number	Dimensions (mm)									Specifications		
	a	b	c	d	e	h	A	D	H	Course per rotation (°)	Fine per rotation (°)	Sensitivity (° per 1/50 rev.)
112-6660/6665	65	25.5	86.5	8	77	45	22	25.4	85	1.04	-	0.021
112-6670/6675	65	25.5	86.5	8	77	45	26	30	85	1.04	-	0.021
112-6680/6685	65	20.3	84.5	9	96	55	46	50	105	0.79	-	0.016
112-6710/6715	65	25.5	82.5	8	77	45	22	25.4	85	1.04	0.104	0.0021
112-6720/6725	65	25.5	82.5	8	77	45	26	30	85	1.04	0.104	0.0021
112-6730/6735	65	20.3	76.5	9	96	55	46	50	105	0.79	0.79	0.0021



ULTRA-STABLE MIRROR MOUNT

Ultra-stable™ Mirror Mounts

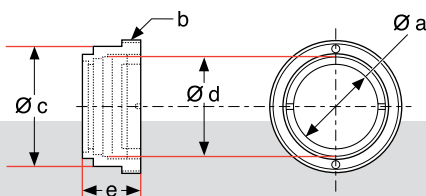
INCH METRIC

Item	To Hold Mirror Diameter (inches)	To Hold Mirror Diameter (mm)	Price	PART NUMBER	PART NUMBER
Ultra-stable Mount	1.00	25 or 25.4	\$ 495.00	112-6660	112-6665
Ultra-stable Mount	1.18	30	\$ 565.00	112-6670	112-6675
Ultra-stable Mount	2.00	50 or 50.8	\$ 595.00	112-6680	112-6685
Mount, Differential Mic.	1.00	25 or 25.4	\$ 595.00	112-6710	112-6715
Mount, Differential Mic.	1.18	30	\$ 665.00	112-6720	112-6725
Mount, Differential Mic.	2.00	50 or 50.8	\$ 695.00	112-6730	112-6735

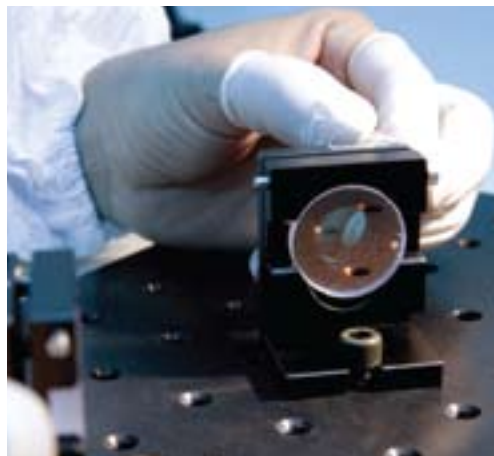
Mirror Mount Adapters

To Hold Mirror Diameter, d (inches)	To Hold Mirror Diameter, d (mm)	To Fit Mount Diameter, D (inches)	To Fit Mount Diameter, D (mm)	Price	PART NUMBER
0.50	12.7	1.00	25.4	\$ 33.00	112-0440
0.75	19.1	1.00	25.4	\$ 33.00	112-0450
1.50	38.1	2.00	50.8	\$ 39.00	112-0480

Product No.	Dimensions (mm)				
	a	b	c	d	e
112-0440	10.5	M26.25	24	12.7	12
112-0450	17	M26.25	24	19.05	12
112-0460	8	M30.8	29	10	12
112-0470	27	Ø 50	44	30	15
112-0480	35	M51.65	49	38.1	16



INCH SIZE OPTIC ADAPTORS



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Mirror Mounts

- Optic Holders
- Optical Baseplates
- Optical Rails and Carriers
- Bases
- Rod Mounting Systems
- Post, Post Holders, Clamps

Gimballed Mirror and Beamsplitter Mounts

- Full 360 degree gimballed rotation about mirror surface
- For one inch, two inch and 30mm diameter mirrors
- Micrometers for precise angular positioning
- In-line or vertical adjusters
- Thinner version for beamsplitters
- May be post or base mounted
- Sensitivity <math><1\text{arcmin}</math>

By maintaining an open architecture these mirror mounts permit full 360 degree rotation of the mirror about its surface. This is extremely useful when aligning laser systems as the beam can easily be directed over a wide angular range. Once roughly set, the mount may be locked and fine motion is then controlled by the micrometer adjusters. These provide rotation for both azimuth and elevation. They are normally mounted in line with the mirror but for situations where the adjusters need to be kept out of the optical path, vertical mounted versions are offered. For beamsplitters, normally used at 45 degrees, thinner mounts are offered. They accept 2 inch (50mm) or 30mm beamsplitters and provide a clear aperture at 45 degrees of 1 inch and 1/2 inch respectively. The base of these mirror mounts has an 8-32 or M4 threaded hole which can be used for post, pedestal or base mounting.



Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$

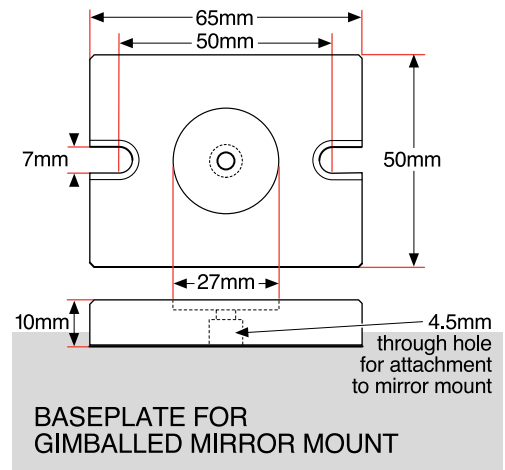
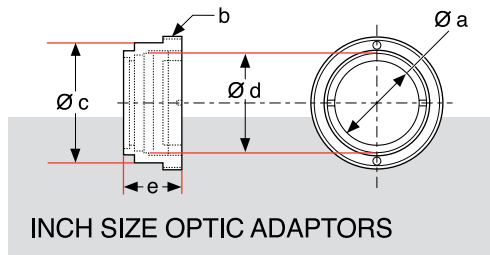
Material: Aluminum

Finish: Black anodized

Angular adjustment: Mirror diameter

Mirror diameter	1inch	30mm	2inch
Range (fine)	$\pm 4^\circ$	$\pm 4^\circ$	$\pm 4^\circ$
Azimuth per rotation	43arcmin	43arcmin	29arcmin
Elevation per rotation	32arcmin	32arcmin	22arcmin
Sensitivity	50arcsec	50arcsec	30arcsec

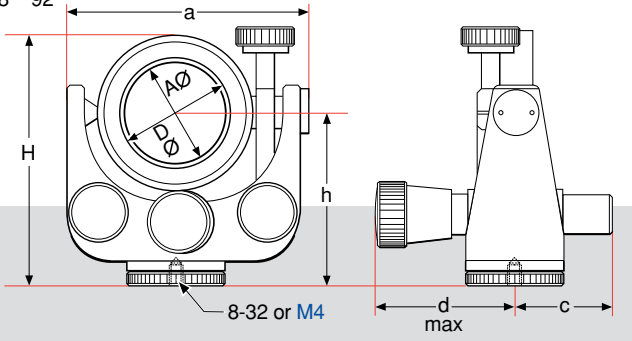
Product No.	Dimensions (mm)				
	a	b	c	d	e
112-0440	10.5	M26.25	24	12.7	12
112-0450	17	M26.25	24	19.05	12
112-0460	8	M30.8	29	10	12
112-0470	27	$\text{\O} 50$	44	30	15
112-0480	35	M51.65	49	38.1	16



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Product No.	Dimensions (mm)						
	a	d	c	h	A	D	H
112-2830/2835	64	39	25	45	22.0	25.4	66
112-2840/2845	64	39	25	45	27.0	30.0	66
112-2850/2855	86	39	25	60	47.0	50.8	92



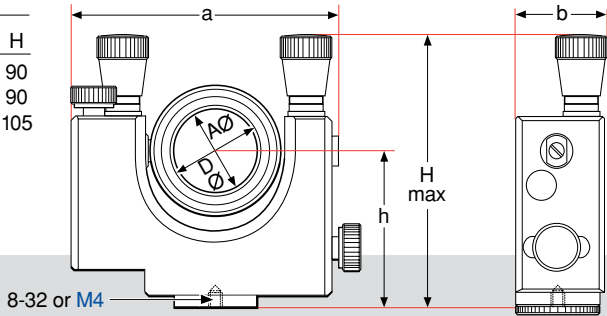
GIMBALLED MIRROR MOUNT WITH INLINE ADJUSTERS

Gimballed Mirror and Beamsplitter Mounts

INCH **METRIC**

Item	Adjuster Position	To Hold Mirror Diameter, D (inches)	To Hold Mirror Diameter, D (mm)	Price	PART NUMBER	PART NUMBER
Mirror Mount	In-line	1.00	25 or 25.4	\$ 237.00	112-2830	112-2835
Mirror Mount	Vertical	1.00	25 or 25.4	\$ 295.00	112-2630	112-2635
Mirror Mount	In-line	1.18	30	\$ 275.00	112-2840	112-2845
Mirror Mount	Vertical	1.18	30	\$ 355.00	112-2640	112-2645
Mirror Mount	In-line	2.00	50 or 50.8	\$ 305.00	112-2850	112-2855
Mirror Mount	Vertical	2.00	50 or 50.8	\$ 395.00	112-2650	112-2655
Beamsplitter Mount	In-line	1.18	30	\$ 280.00	112-3430	112-3435
Beamsplitter Mount	In-line	1.97	50	\$ 300.00	112-3450	112-3455
Base for Gimballed Mirror Mounts	-	-	-	\$ 22.00	147-0610	147-0610

Product No.	Dimensions (mm)					
	a	b	h	A	D	H
112-2630/2635	84	29	50	22.0	25.4	90
112-2640/2645	84	29	50	27.0	30.0	90
112-2650/2655	110	30	65	47.0	50.8	105



GIMBALLED MIRROR MOUNT WITH VERTICAL ADJUSTERS

Mirror Mount Adapters

To Hold Mirror Diameter, d (inches)	To Hold Mirror Diameter, d (mm)	To Fit Mount Diameter, D (inches)	To Fit Mount Diameter, D (mm)	Price	PART NUMBER
0.39	10.0	1.18	30.0	\$ 35.00	112-0460
0.50	12.7	1.00	25.4	\$ 33.00	112-0440
0.75	19.1	1.00	25.4	\$ 33.00	112-0450
1.50	38.1	2.00	50.8	\$ 39.00	112-0480
1.00	25.4	2.00	50.8	\$ 39.00	112-0468
1.00	25.4	1.18	30.0	\$ 35.00	112-0459
1.18	30.0	2.00	50.8	\$ 39.00	112-0470
0.75	19.1	1.18	30.0	\$ 35.00	112-0457
0.50	12.7	1.18	30.0	\$ 35.00	112-0455

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Mini-Beamsplitter Mounts

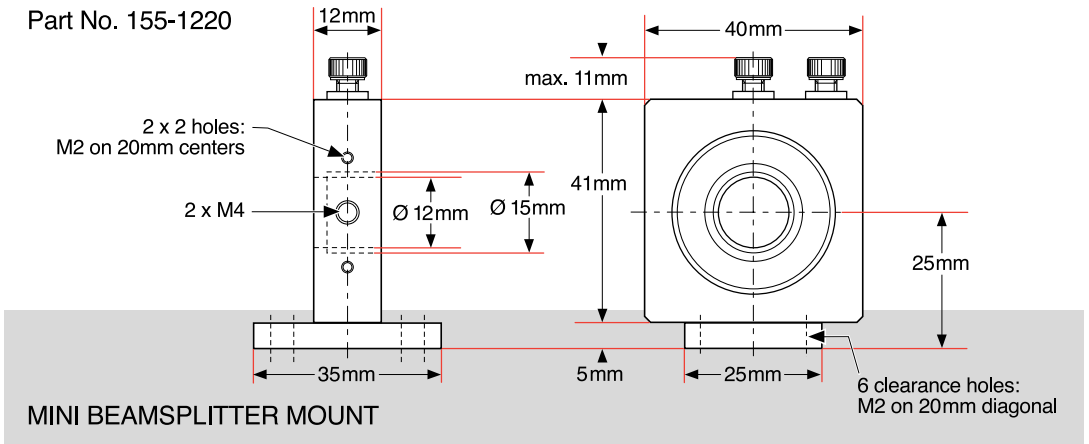
- True gimbal adjustment
- To hold 15mm beamsplitters



Mini-beamsplitter mounts are cut away from the component more than mirror mounts. They permit a 45 degree incident beam to pass unimpeded through the mount. For this reason they are slightly larger than the mini-mirror mounts. These mounts accommodate only 15mm diameter beamsplitters of thickness up to 2mm. This provides a 6mm diameter clear aperture at 45 degrees. They have two top-projecting screws to provide $\pm 2^\circ$ over two axes.

Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$ Rod length: 20mm
 Sensitivity: $0.3^\circ/\text{turn}$ Finish: Black anodized
 Optical centerline: 25mm Range: $\pm 2^\circ$
 Material: Aluminum



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Mini-Beamsplitter Mounts

To Hold Beamsplitter Diameter, D (inches) (mm)	Clear Aperture, A (mm)	Mounting	Price	PART NUMBER
0.59 15.0	6.0	Base	\$ 195.00	155-1220
0.59 15.0	6.0	Post	\$ 185.00	155-1222

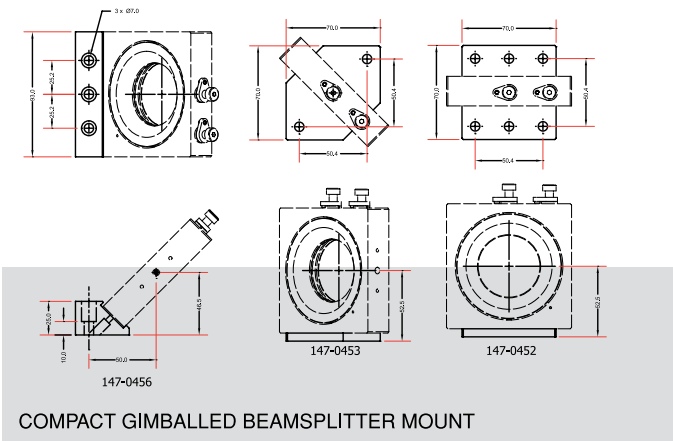


Compact Gimbaled Beamsplitter Mounts

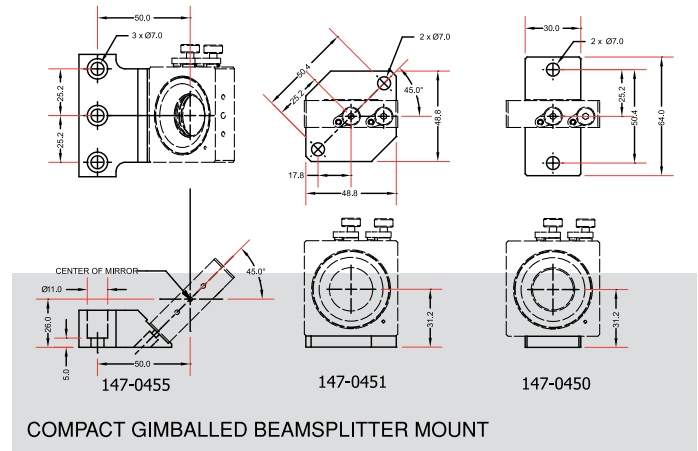
- Small footprint for use in systems where space is a premium
- Gimbaled mechanism reduces alignment time and complexity
- Vertical actuators and locks provide easy access in tight quarters
- Thin profile provides improved clearance for beamsplitter applications
- Optional baseplates available for mounting at 45 degrees



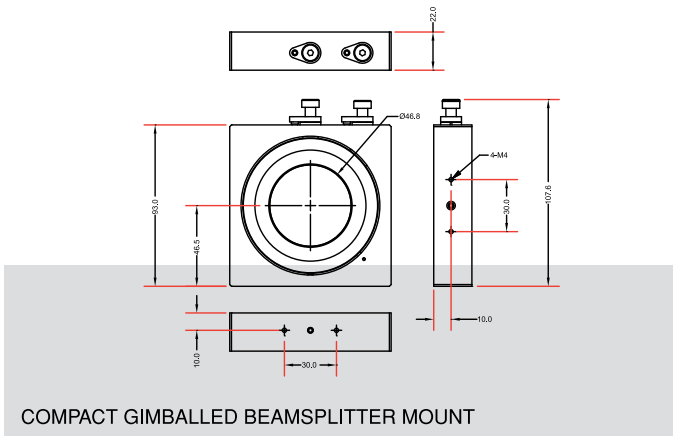
Part No. 147-0452/0453/0456



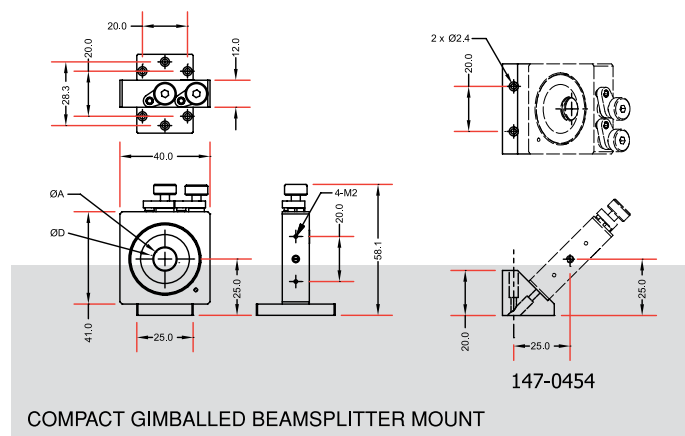
Part No. 147-0455/0451/0450



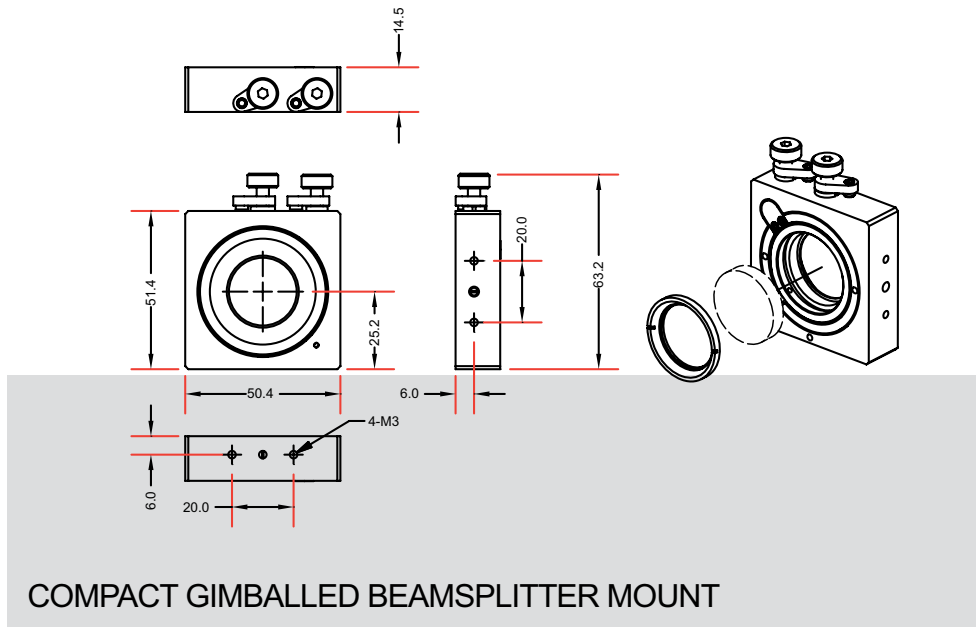
Part No. 112-8030/8040



Part No. 112-8010/8015



Part No. 112-8020



COMPACT GIMBALLED BEAMSPLITTER MOUNT

Compact Gimballed Beamsplitter Mounts

Optics Size		Travel		Resolution		Price	PART NUMBER
Diameter (mm)	Thickness (mm)	Elevation (°)	Azimuth (°)	Elevation (°)	Azimuth (°)		
12.7	1 - 3	±1.5	±1.2	0.27	0.27	\$ 195.00	112-8010
15.0	1 - 3	±1.5	±1.2	0.27	0.27	\$ 195.00	112-8015
25, 25.4	3 - 5	±1.2	±1.1	0.20	0.22	\$ 205.00	112-8020
50.0	5 - 8	±1.4	±1.5	0.16	0.20	\$ 290.00	112-8030
50.8	5 - 8	±1.4	±1.5	0.16	0.20	\$ 290.00	112-8040

Compact Gimballed Beamsplitter Bases

Base Type	Used with Mount Part Number	Price	PART NUMBER
0° incident angle	112-8020	\$ 35.00	147-0450
45° incident angle	112-8020	\$ 35.00	147-0451
0° incident angle	112-8040	\$ 35.00	147-0452
45° incident angle	112-8040	\$ 55.00	147-0453
45° holder incline	112-8010	\$ 55.00	147-0454
45° holder incline	112-8020	\$ 55.00	147-0455
45° holder incline	112-8040	\$ 55.00	147-0456

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TopMike™ Mirror Mounts

- Both tilt controls are top mounted for ease of use
- Alternate bases for all mounting configurations
- Fully anti-backlash preloaded adjustments
- Sensitivity <20arcsec



Mirror mounts often look good on paper - but turn out to be awkward to use. The controls are often hard to reach, in the way of adjacent equipment, and difficult to adjust. These mirror mounts have been designed to solve such problems.

Two precision micrometers are mounted vertically within the width of the mirror mount. They are easily reached from above without having your hand block the beam. The mirror can be adjusted in two axes of tilt. The micrometers facilitate extremely precise adjustment. Anti-backlash springs maintain the mirror in position and provide for repeatable settings.

The TopMike™ is normally supplied with a base which sets the mirror normal to the optical path. However, two other mounting options are available. A 45 degree mount enables the mount to be set at 45 degrees to the incident path. Alternatively, a small base with mounting holes to the rear enables clear and unimpeded access to the mirror surface and also has an M6 thread for post mounting.

If it is more convenient to have the micrometers protruding from either the right or left hand sides of the mount it is a simple matter to unscrew the base plate and reassemble it on its side. Threaded mounting holes are provided on all three edges of the mount for this purpose. Regardless of which base is used and whether the micrometers are to the top, or either side, the center height is always at a fixed height above the base.

The TopMike™ Mirror Mount is offered in three sizes to suit the most popular mirrors: 1 inch, 30mm and 2 inches. Note that the 1 inch and 2 inch mounts will also accept 25 and 50mm mirrors.

See the baseplate drawings for detailed hole patterns.

Specifications & Tolerances

Dimensions: ±0.2mm
 Material: Aluminum
 Finish: Black anodized

Angular adjustment:	Mirror diameter	1inch	30mm	2inch
Range		±2.8°	±2.8°	±1.8°
Angle per rotation		17arcmin	17arcmin	11arcmin
Sensitivity		20arcsec	20arcsec	13arcsec

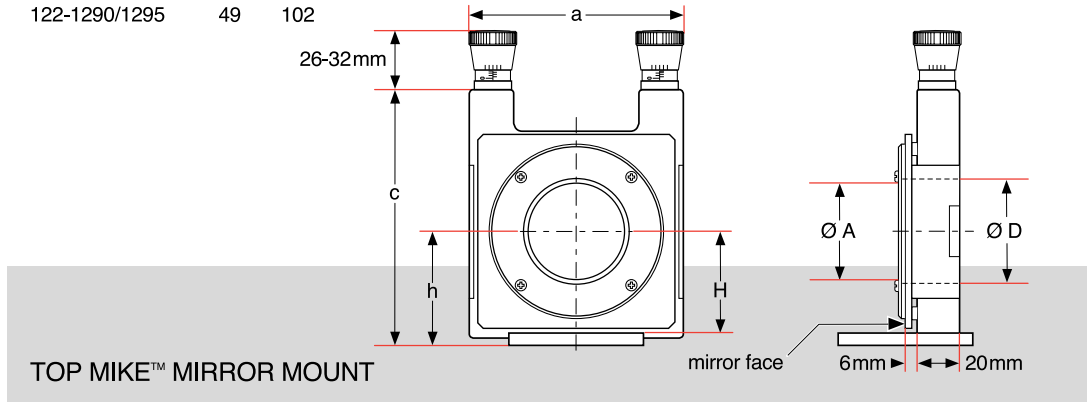
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Mirror Mounts

- Optic Holders
- Optical Baseplates
- Optical Rails and Carriers
- Bases
- Rod Mounting Systems
- Post, Post Holders, Clamps

Part No.	Dimensions (mm)	
	H	a
112-1222/1227	34	72
112-1224/1229	34	72
112-1230/1235	34	72
112-1260/1265	34	72
122-1290/1295	49	102



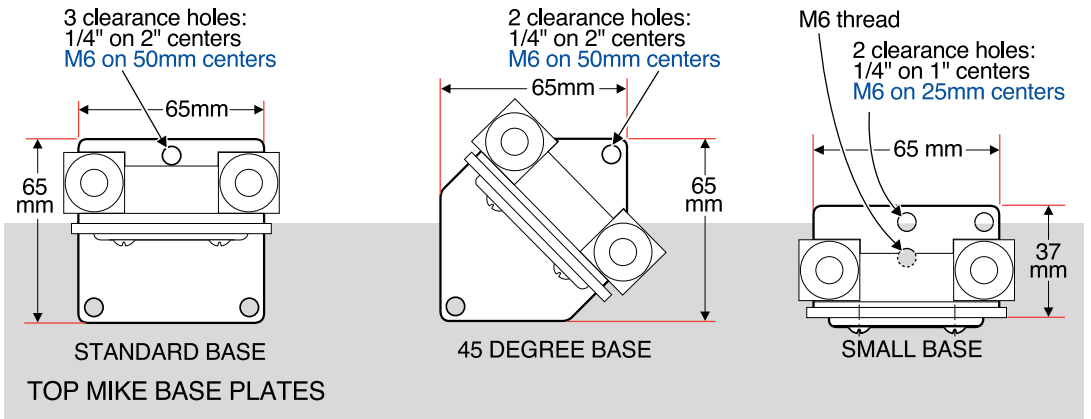
TopMike™ Mirror Mounts

To Hold Diameter, D (inches)	To Hold Diameter, D (mm)	Clear Aperture, A (mm)	Maximum Thickness (mm)	Center Height, h (mm)	Height, c (mm)	Price	PART NUMBER	
							INCH	METRIC

0.50	12.7	10	8	40	95	\$ 288.00	112-1222	112-1227
0.75	19.05	16	8	40	95	\$ 288.00	112-1224	112-1229
1.00	25.0 or 25.4	22	8	40	95	\$ 255.00	112-1230	112-1235
1.18	30.0	27	8	40	95	\$ 295.00	112-1260	112-1265
2.00	50.0 or 50.8	47	15	55	124	\$ 345.00	112-1290	112-1295

For **45 degree base** append **-45** to part number.
 For **small base with unrestricted access** to mirror append **-SB** to part number.

These new mounts are truly a pleasure to use. We list mounts with micrometer drives as standard, but we have a wide range of other drives (both more and less) precise - as well as other sizes.



TopMike™ Mirror Adapters

To Hold Mirror Diameter, d (inches)	To Hold Mirror Diameter, d (mm)	To Fit Mount Diameter, D (inches)	To Fit Mount Diameter, D (mm)	Price	PART NUMBER
0.50	12.7	1.00	25.4	\$ 33.00	112-0440
0.75	19.1	1.00	25.4	\$ 33.00	112-0450
0.39	10.0	1.18	30.0	\$ 35.00	112-0460
1.50	38.1	2.00	50.8	\$ 39.00	112-0480

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Close-proximity Mirror Mounts

- Right and left hand models facilitate close positioning of mirrors
- Controls are out of the optical path
- For one inch and 30mm mirrors
- Full 360 degree rotation
- Fine adjustment micrometers
- Sensitivity $\lt; 2\text{arcmin}$

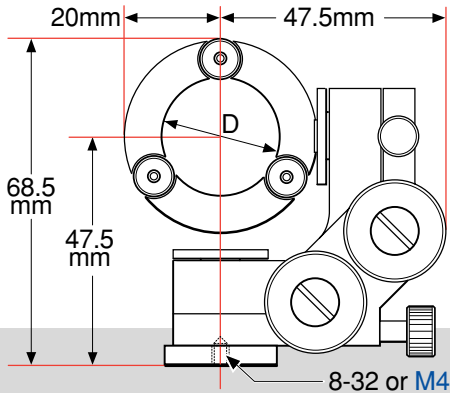
When it is necessary to mount two or more mirrors very close to each other these mounts provide the best solution. They are intended to be post or pedestal mounted so that the mirrors can be almost touching each other. The two adjusters are located to either side of the optical path where they do not interfere with the beam. Unclamped, the mirror can be rotated through a full 360 degrees about its surface. Once clamped fine movement is made by the micrometer adjusters over a range of ± 5 degrees. The mirrors are attached by means of small nylon clamp screws which hold them into a thin ring so that there is very little mount hardware in the region of the mirror. The base of the mount has an 8-32 or M4 threaded hole for attachment to a post or pedestal base.



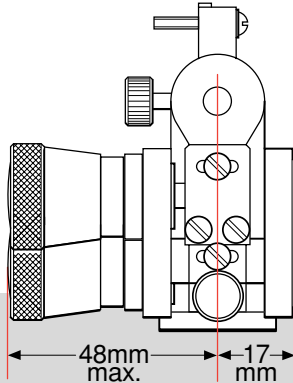
Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$
 Material: Aluminum
 Finish: Black anodized
 Angular adjustment:

	Standard	Differential
Elevation Range	$\pm 8^\circ$	$\pm 8^\circ$
Azimuth Range	$\pm 5.5^\circ$	$\pm 5.5^\circ$
Per rotation	40arcmin	8.6arcmin
Sensitivity (1/2 div)	0.4arcmin	0.08arcmin



CLOSE-PROXIMITY MIRROR MOUNT (LEFT)



Close-proximity Mirror Mounts

INCH METRIC

To Hold Mirror Diameter (inches)	To Hold Mirror Diameter (mm)	Mirror to:	Price	PART NUMBER	PART NUMBER
Standard Micrometer Version					
1.00	25.4	Right	\$ 290.00	112-5560	112-5565
1.00	25.4	Left	\$ 290.00	112-5550	112-5555
1.18	30.0	Right	\$ 310.00	112-5580	112-5585
1.18	30.0	Left	\$ 310.00	112-5570	112-5575
Differential Micrometer Version					
1.00	25.4	Right	\$ 395.00	112-5591	112-5596
1.00	25.4	Left	\$ 395.00	112-5590	112-5595
1.18	30.0	Right	\$ 415.00	112-5593	112-5598
1.18	30.0	Left	\$ 415.00	112-5592	112-5597

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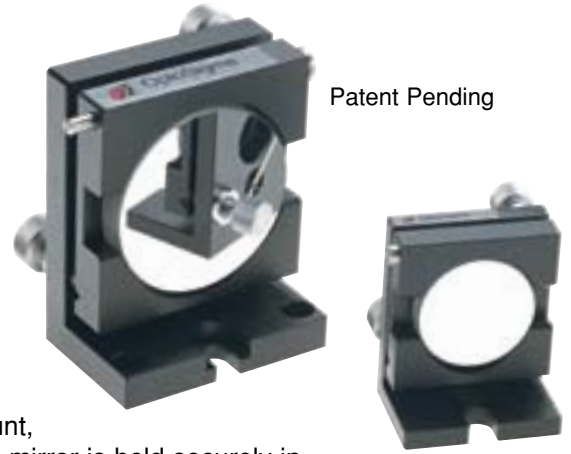


Mirror Mounts

- Optic Holders
- Optical Baseplates
- Optical Rails and Carriers
- Bases
- Rod Mounting Systems
- Post, Post Holders, Clamps

OneTouch™ Mirror Mounts

- Just press a button to remove or insert a mirror or filter
- Designed to prevent accidental touching of the front surface
- Sensitivity <math><2\text{arcmin}</math>



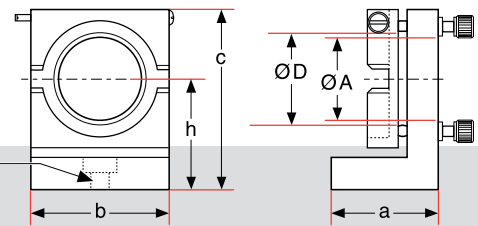
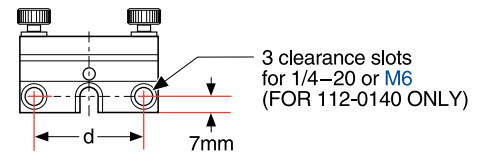
The OneTouch™ mirror mount is one of the simplest and most convenient mirror mounts ever made. Simply touch the spring-loaded button on the side of the mount, insert the mirror, release the button and the mirror is held securely in an adjustable mount. To remove the mirror, reverse the procedure. Cut-outs in the side of the mirror mount make it possible to avoid touching the mirror surface. A slight non-circularity in the mounting aperture ensures that the mirror is always kinematically seated and allows for a variation in diameter to accommodate both inch and metric diameters. The mirror surface is normally located above the slotted mounting hole. (This is useful if you need to rotate the mirror mount as the mirror surface will not move away from the beam during rotation.) Two additional 1/4 inch clearance mounting holes provide for permanent mounting when necessary. Fine pitch 100TPI (0.25mm) screws provide stable and controllable adjustment in two perpendicular axes of tilt.

Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$
 Material: Aluminum
 Finish: Black Anodized

Angular adjustment:	Mirror diameter	20mm	1inch	30mm	2inch
Range		$\pm 3.5^\circ$	$\pm 2.4^\circ$	$\pm 2.4^\circ$	$\pm 1.4^\circ$
Angular adjustment per rotation		43arcmin	29arcmin	29arcmin	17arcmin
Sensitivity		1.5arcmin	1arcmin	1arcmin	30arcsec

Part No.	Dimensions (mm)						
	a	b	c	d	h	A	D
112-0110	30.0	30.0	40.0	20.0	25.0	10.0	20.0
112-0120	30.0	35.0	48.0	25.0	30.0	14.0	25.4
112-0130	28.0	40.0	50.0	30.0	30.0	16.0	30.0
112-0140	40.0	60.0	77.0	50.8	45.0	36.0	50.8



ONE TOUCH MIRROR MOUNT

OneTouch™ Mirror Mounts

To Hold Mirror Diameter, D (inches)	To Hold Mirror Diameter, D (mm)	Clear Aperture, A (mm)	Maximum Thickness (mm)	Center Height, h (mm)	Price	PART NUMBER
0.79	20.0	10.0	5.0	25.0	\$ 95.00	112-0110
1.00	25.0 or 25.4	14.0	5.0	30.0	\$ 99.00	112-0120
1.18	30.0	16.0	5.0	30.0	\$ 105.00	112-0130
2.00	50.0 or 50.8	36.0	8.0	45.0	\$ 110.00	112-0140

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Kinematic Mirror Mounts

- Stable, firm, accurate alignment of mirrors
- Precision 100 TPI fine adjustment screws
- Sapphire seats
- Available in 12.7 to 50.8mm apertures
- Post and base mountable
- Adapters provide mounting of various optics
- Includes locking adjusters



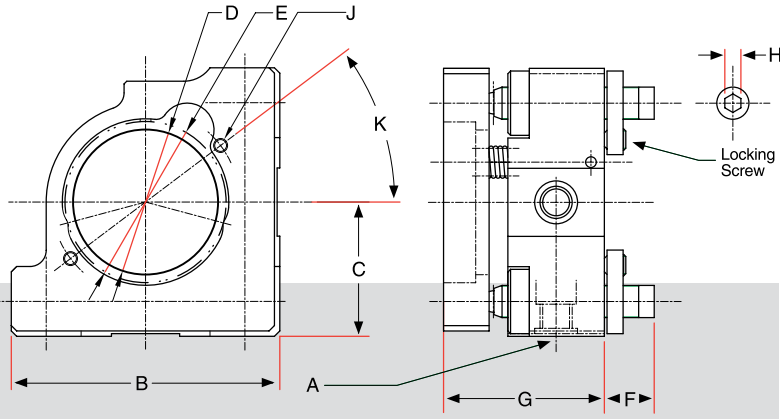
- Mirror Mounts
- Optic Holders
- Optical Baseplates
- Optical Rails and Carriers
- Bases
- Rod Mounting Systems
- Post, Post Holders, Clamps

Kinematic mounts provide economical precision mounting of mirrors. The 100 TPI fine adjustment screws and sapphire seats insure smooth, accurate and stable adjustment over the angular range.

OptoSigma offers a complete family of kinematic mounts. Mounts are available in versions that mount 12.7, 25, 25.4, 30, 50 and 50.8 diameter optics. The design of these mounts allows the user to configure their system as post or base mounted.

We will be happy to assist you in selection of the most suitable stock or custom components for your application.

Part No.	Dimensions (mm)										
	A	B	C	D(ϕ)	E(ϕ)	F	G	H	I	J(ϕ)	K($^\circ$)
112-7400	8-32	25.4	12.7	10	12.7	14	18.7	2.5	—	—	14
112-7405	M4										
112-7420	8-32	50	25	22	25.4	9.3	30	3	M2.6	32	135
112-7425	M4										
112-7430	8-32	50	25	27	30	9.3	30	3	M2.6	35	37
112-7435	M4										
112-7450	8-32	70	35	47	50.8	9.3	30	3	M4	59	38
112-7455	M4										



KINEMATIC MIRROR HOLDER

Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$
 Material: Aluminum
 Finish: Black anodized

Kinematic Mirror Mounts

				INCH	METRIC	
To Hold Optic Size (inches)	Optic Size (mm)	Optic Thickness (mm)	Angular Adjustment (\pm deg)	Price	PART NUMBER	PART NUMBER
0.50	12.7	3-5	3	\$ 105.00	112-7400	112-7405
1.00	25, 25.4	3-5	3	\$ 110.00	112-7420	112-7425
1.18	30.0	3-5	3	\$ 120.00	112-7430	112-7435
2.00	50, 50.8	5-8	2	\$ 145.00	112-7450	112-7455

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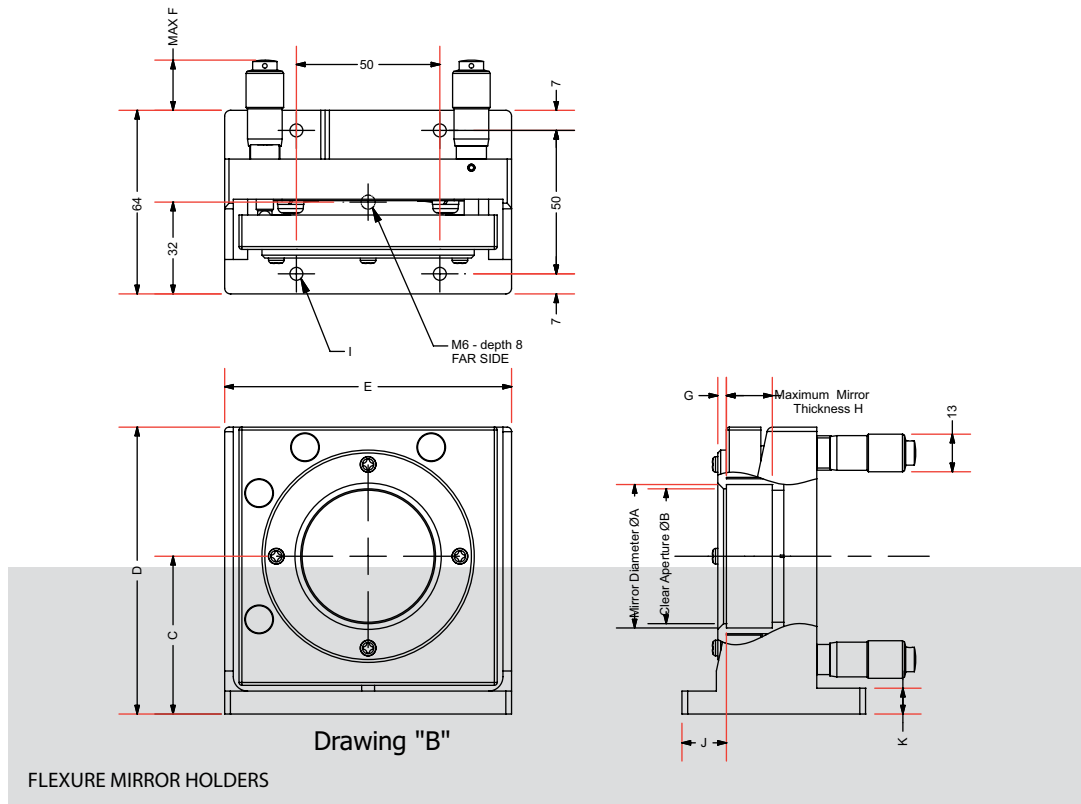
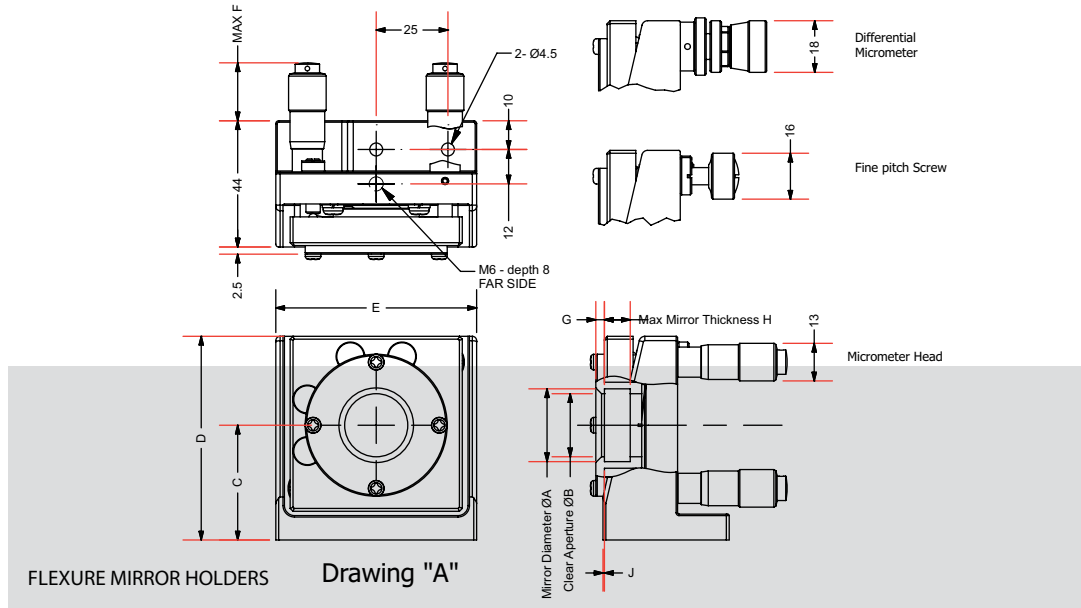


Mirror Mounts

- Optic Holders
- Optical Baseplates
- Optical Rails and Carriers
- Bases
- Rod Mounting Systems
- Post, Post Holders, Clamps

Flexure Mirror Holders

- Versions to hold optic sizes from 25mm to 100mm
- Available with micrometer, differential micrometer and fine pitch screw drives
- Provides superior positional stability
- Offered with base or post mounted options



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Flexure Mirror Holder Drawings

PART NUMBER	Draw-ing	ØA (mm)	ØB (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	Type
112-0305	A	25, 25.4	22	40	71	70	23	3	10	-	(0.5)	9	Micrometer
112-0307	A	25, 25.4	22	40	71	70	11	3	10	-	(0.5)	9	Screw
112-0308	A	25, 25.4	22	40	71	70	23	3	10	-	(0.5)	9	Differential
112-0309	A	30	27	40	71	70	23	3	10	-	(0.5)	9	Micrometer
112-0311	A	30	27	40	71	70	11	3	10	-	(0.5)	9	Screw
112-0312	A	30	27	40	71	70	23	3	10	-	(0.5)	9	Differential
112-0313	B	40	37	55	95	90	23	3	12	3-Ø4.5	(16.5)	9	Micrometer
112-0315	B	40	37	55	95	90	23	3	12	3-Ø4.5	(16.5)	9	Screw
112-0317	B	50	47	55	100	100	22	3	17	4-Ø4.5	(15.5)	9.5	Micrometer
112-0319	B	50	47	55	100	100	11	3	17	4-Ø4.5	(15.5)	9.5	Screw
112-0321	B	50.8	47	55	100	100	22	3	15	4-Ø4.5	(15.5)	9.5	Micrometer
112-0323	B	50.8	47	55	100	100	12	3	15	4-Ø4.5	(15.5)	9.5	Screw
112-0325	B	60	56	60	110	106	27	3	17	4-Ø4.5	(19.5)	10	Micrometer
112-0327	B	60	56	60	110	106	16	3	17	4-Ø4.5	(19.5)	10	Screw
112-0329	B	80	77	70	130	126	26	4	19	4-Ø4.5	(19.0)	10	Micrometer
112-0331	B	80	77	70	130	126	15	4	19	4-Ø4.5	(19.0)	10	Screw
112-0333	B	100	96	80	149	152	26	4	18	4-Ø4.5	(12.5)	10	Micrometer
112-0335	B	100	96	80	149	152	14	4	18	4-Ø4.5	(12.5)	10	Screw

Mirror Mounts

Optic Holders

Optical Baseplates

Optical Rails and Carriers

Bases

Rod Mounting Systems

Post, Post Holders, Clamps

Flexure Mirror Holders

Optic Size		Travel		Resolution		Type	Price	PART NUMBER
Diameter (mm)	Thickness MAX (mm)	Elevation (°)	Azimuth (°)	Elevation (°/Rotation)	Azimuth (°/Rotation)			
25, 25.4	10.0	±4.3	±4.3	0.62	0.62	Micrometer	\$ 335.00	112-0305
25, 25.4	10.0	±4.3	±4.3	0.62	0.62	Screw	\$ 305.00	112-0307
25, 25.4	10.0	±4.3	±4.3	0.62	0.62	Differential	\$ 450.00	112-0308
30.0	10.0	±4.3	±4.3	0.62	0.62	Micrometer	\$ 335.00	112-0309
30.0	10.0	±4.3	±4.3	0.62	0.62	Screw	\$ 305.00	112-0311
30.0	10.0	±4.3	±4.3	0.62	0.62	Differential	\$ 450.00	112-0312
40.0	12.0	±3.7	±3.7	0.40	0.40	Micrometer	\$ 390.00	112-0313
40.0	12.0	±3.7	±3.7	0.40	0.40	Screw	\$ 355.00	112-0315
50.0	17.0	±2.4	±2.4	0.40	0.40	Micrometer	\$ 395.00	112-0317
50.0	17.0	±2.4	±2.4	0.40	0.40	Screw	\$ 360.00	112-0319
50.8	17.0	±2.4	±2.4	0.40	0.40	Micrometer	\$ 395.00	112-0321
50.8	17.0	±2.4	±2.4	0.40	0.40	Screw	\$ 360.00	112-0323
60.0	17.0	±2.8	±2.8	0.35	0.35	Micrometer	\$ 425.00	112-0325
60.0	17.0	±2.8	±2.8	0.35	0.35	Screw	\$ 380.00	112-0327
80.0	19.0	±2.3	±2.3	0.29	0.29	Micrometer	\$ 495.00	112-0329
80.0	19.0	±2.3	±2.3	0.29	0.29	Screw	\$ 450.00	112-0331
100.0	18.0	±1.9	±1.9	0.24	0.24	Micrometer	\$ 590.00	112-0333
100.0	18.0	±1.9	±1.9	0.24	0.24	Screw	\$ 545.00	112-0335

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Mirror Mounts

- Optic Holders
- Optical Baseplates
- Optical Rails and Carriers
- Bases
- Rod Mounting Systems
- Post, Post Holders, Clamps

Rod Mounted Mirror Mounts

- Damped stainless steel rods for greater stability
- Compatible with existing 1.5 inch systems
- Precision adjustable mounts

These 1.5 inch diameter damped steel rods provide a very stable and vibration free method of mounting mirrors. The tilt mount is made to accept a range of replaceable OneTouch™ mirror holders.



Specifications & Tolerances

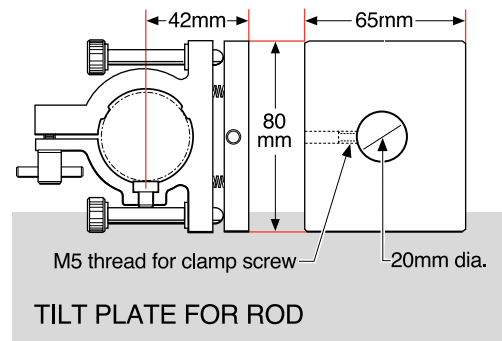
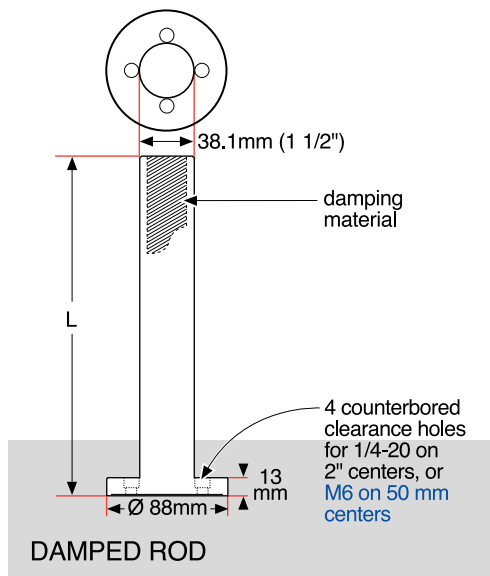
Dimensions: ±0.2mm
 Material: Rods, Stainless Steel
 Mounts, Aluminum

Rod Mounted Mirror Mounts

Item	Length, L		Price	INCH	METRIC
	(inches)	(mm)		PART NUMBER	PART NUMBER
Damped Rod	7.0	177.8	\$ 145.00	148-3310	148-3315
Damped Rod	14.0	355.6	\$ 195.00	148-3320	148-3325
Tilt Mount	-	-	\$ 235.00	112-5630	112-5630

OneTouch™ Mirror Adapters for Tilt Mount

Mirror Diameter	Price	PART NUMBER	
(inches)	(mm)		
1.0	25.4	\$ 35.00	112-5631
1.5	38.1	\$ 45.00	112-5632
2.0	50.8	\$ 55.00	112-5633



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Small Mirror Mounts

- Ideal for OEM and laboratory use
- Simple mounts for steering mirrors
- Fine pitch screws for precise adjustment
- Versatile plugs accommodate different size mirrors
- Sensitivity <math><2\text{arcmin}</math>

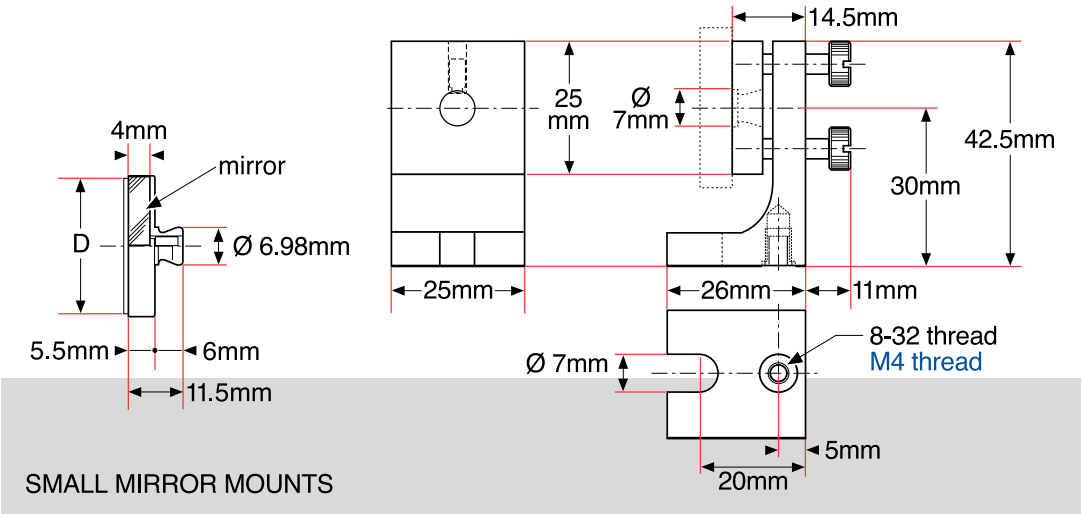


The simplest form of mirror mount is often all that is needed. For most beam steering applications these kinematic mounts are ideal. The mounting surface is adjusted by means of two fine pitched, 100TPI (0.25mm) screws which push from the rear surface against a spring. A recess on the front plate accepts mirror plugs which will hold standard diameter mirrors. The mirrors are pushed into the plugs where they are held securely. To remove the mirror there is a delerin tipped removal screw which will push the mirror out of the plug.

Specifications & Tolerances

Dimensions: $\pm 0.2\text{mm}$
 Material: Aluminum
 Finish: Black anodized

Angular adjustment: Range $\pm 5^\circ$
 Per rotation 1°
 Sensitivity 2arcmin



Small Mirror Mounts

Item	To Hold Mirror Diameter, D		Price	INCH	METRIC
	(inches)	(mm)		PART NUMBER	PART NUMBER
Mirror Mount	-	-	\$ 46.00	112-0250	112-0255
Mirror Holder	0.50	12.7	\$ 10.50	112-0261	112-0261
Mirror Holder	0.75	19.1	\$ 10.50	112-0267	112-0267
Mirror Holder	0.98	25.0	\$ 10.50	112-0263	112-0263
Mirror Holder	1.00	25.4	\$ 10.50	112-0264	112-0264
Mirror Holder	1.18	30.0	\$ 10.50	112-0266	112-0266

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Mini-Mirror Mounts

- Kinematic tip/tilt adjustment
- For use with 10mm, 12.7mm and 15mm mirrors

Mini-mirror mounts are offered to hold mirrors of 10, 12.7 or 15mm diameter in thicknesses from 3 to 6mm. The mirrors are seated in an oval hole so that they are kinematically located. They are secured by means of a nylon screw which is tightened against the top edge of the mirror. Two axes of tilt adjustment, over a range of ± 2.5 degrees, are provided by means of adjusting screws protruding from the top of the mount. Two types of support are available: a fixed base or a 15mm long rod. If the base mount is used the mounting screws, which fit the standard 10mm pattern, are in line with the entrance and exit beams for 45 degree use.

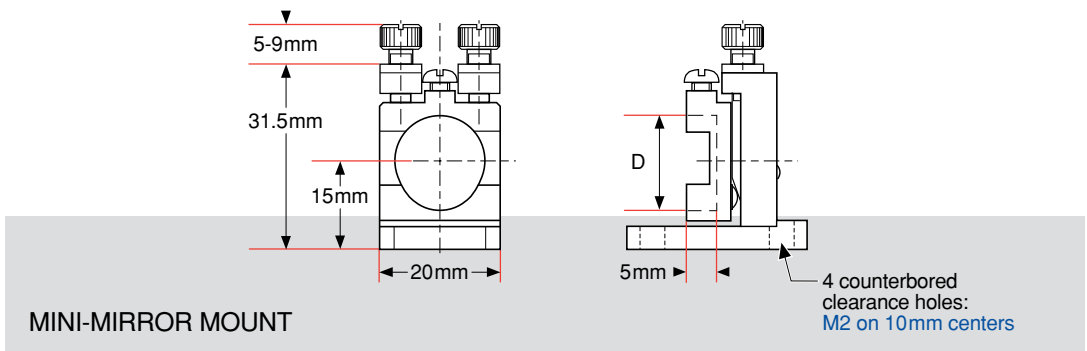


Specifications & Tolerances

Dimensions: ± 0.2 mm
 Material: Aluminum
 Range: $\pm 2.5^\circ$

Rod length: 15mm
 Optical centerline: 15mm
 Finish: Black anodized

Part No. 155-1110/1122/1130



MINI-MIRROR MOUNT

4 counterbored clearance holes:
 M2 on 10mm centers

Mini-Mirror Mounts

	To Hold Mirror Diameter, D		Mounting	Price	PART NUMBER
	(Inches)	(mm)			
	0.39	10.0	Base	\$ 95.00	155-1110
	0.39	10.0	Post	\$ 85.00	155-1120
	0.50	12.7	Base	\$ 100.00	155-1122
	0.50	12.7	Post	\$ 90.00	155-1124
	0.59	15.0	Base	\$ 105.00	155-1130
	0.59	15.0	Post	\$ 95.00	155-1140

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Flexure and Pin Mirror Mounts

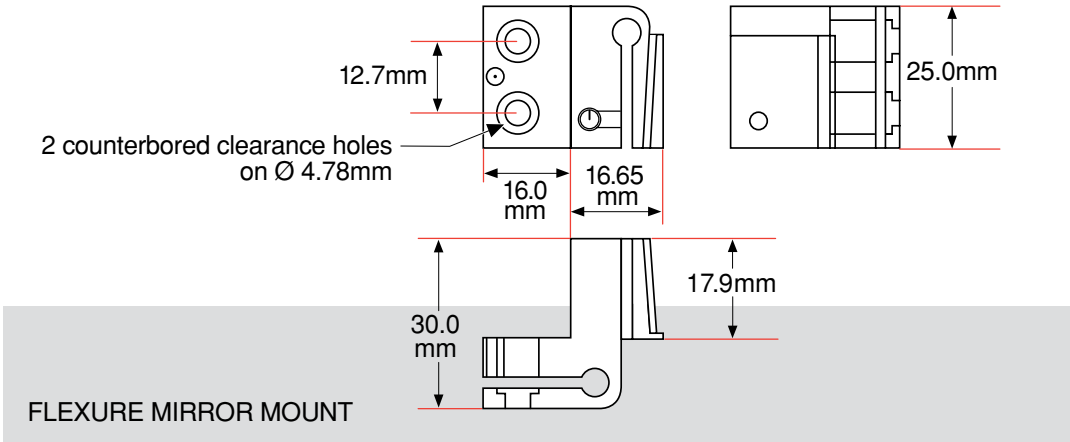
- Two axis fine adjustment
- Simple mechanism
- Ideal for OEM use



Specifications & Tolerances

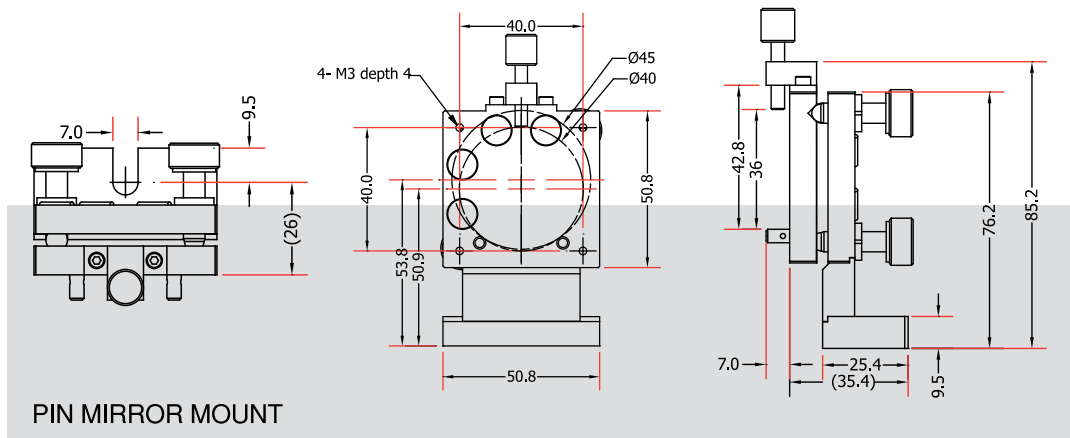
Dimensions: $\pm 0.2\text{mm}$
 Finish: Black anodized

Material: Aluminum
 Angular Adjustment: Range ± 3 degrees
 Sensitivity < 1.5 arcmin



Flexure Mirror Mounts

To accept maximum mirror side, s (mm)	Center Height, h (mm)	Price	PART NUMBER
25.4	20.0	\$ 42.00	112-0290



Pin Mirror Mounts

Optics Size (mm)	Mounting Type	Travel		Resolution		Price	PART NUMBER
		Elevation (°)	Azimuth (°)	Elevation (°)	Azimuth (°)		
50.8 x 50.8	Base	± 4	± 5	0.38	0.38	\$ 195.00	112-0270
50.8 x 50.8	12 x 60mm Post	± 4	± 5	0.38	0.38	\$ 195.00	112-0271

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