

Kinematic Mirror Mounts



- Stable, firm, accurate alignment of mirrors
- Precision 100 TPI fine adjustment screws
- Available in 12.7 to 100.6mm apertures
- Post and base mountable
- Adapters provide mounting of various optics

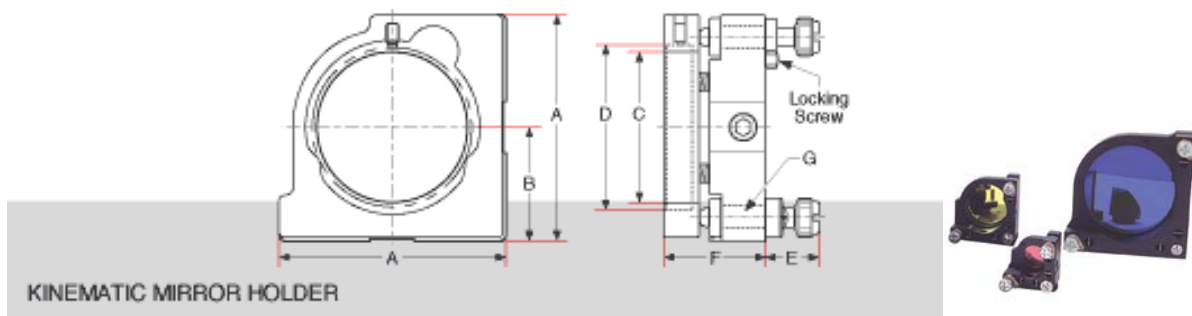
Kinematic mounts provide economical precision mounting of mirrors. The 100 TPI fine adjustment screws insure smooth accurate adjustment over the angular range. The firm spring design of the mount insures long stable mounting of optical components in your system.

OptoSigma offers a complete family of kinematic mounts and adapters. When assembled together meet the precision requirements of many optical systems. Mounts are available in versions that mount 12.7, 25, 25.4, 30, 50, 50.8, 100 and 101.6mm diameter optics. The design of these mounts allows the user to configure their system as post or base mounted.

The product line includes adapters for mounting additional diameter optics, prisms and cube beamsplitters. A simple rod adapter converts the kinematic mirror mount into a horizontal tip tilt stage. Using the tip tilt configuration the user can insert the 45 degree mirror mount and the prism and cube beamsplitter mounts for beam steering applications. This flexibility of the kinematic mirror mount family is extremely convenient in meeting the variety of laboratory and industrial requirements.

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	E	F	G
112-7100	25.4	12.7	10.0	12.7	12.8	18.7	8-32 [M4]
112-7110	50.4	25.4	22.0	25.4	17.3	30.0	1/4-20 [M8]
112-7130	50.0	25.0	27.0	30.0	17.3	30.0	1/4-20 [M8]
112-7150	70.0	35.0	47.0	50.8	20.0	33.0	1/4-20 [M8]
112-7190	130.0	65.0	96.0	101.6	21.3	43.0	1/4-20 [M8]



Specifications & Tolerances Dimensions: $\pm 0.2\text{mm}$
Material: Aluminium Finish black anodized

To Hold Optic Size (mm)	Optic Thickness	Angular Adjustment (+ deg)	PART NUMBER
12.7	3-5	3	112-7105
25, 25.4	3-5	3	112-7125
30	3-5	3	112-7135
50, 50.8	5-8	2	112-7155
100, 101.6	10-15	2	112-7185

Kinematic Adapters and Bases

Post Mounted Kinematic Mirror Mount

The kinematic mirror mounts can be mounted using a simple base and appropriate screw or post mounted as shown in this configuration. When the user has attached the mount to a post he will be able to elevate the mirror to the application level. The post mounted mirror shown has an adjustable post holder to allow the user to select the height and rotate to the proper angle of use.



Rod Adapter

The Rod adapter allows the user to convert a kinematic mirror mount to be used as a tip tilt stage. The kinematic mirror mount is mounted horizontal with the use of the rod adapter as shown. In this configuration several products can be inserted into the location where a mirror is normally mounted. The 45 degree mirror mount, prism holder and prism platform are easily assembled into the mount. This allows the user the flexibility to convert the mount to fit the application.



45 Degree Mirror Mount

For most beam steering applications the kinematic mirror mount configured with the 45 degree adapter is ideal. The 100TPI adjustment screws provide precise movement with tip tilt angle adjustment of ± 3 degrees. These 45 degree mirror mount adapters are offered in sizes to hold 25.4 and 30.0mm round mirrors.



Prism Holder

The prisms holder provides the user to convert the kinematic mirror mount to a precise prism and cube beamsplitter holder. The prisms and cube beamsplitters are placed in holder and are secured by means of the top clamp. There are available to hold 10-12.7mm and 15.0-20.0mm prisms or cube beamsplitters.



Prism Table and Clamp

Prisms and cube beamsplitters need to be mounted to allow the entrance and exit beams to pass unimpeded. The prisms and cube beamsplitters are placed on top of the table and are secured by means of the top clamp. The prism table can hold 15.0 to 20.0mm prisms or cube beamsplitters. When the prism table is configured with the kinematic mirror mount it provides the precise tip tilt adjustment necessary for many applications.



Mirror Mount Adapters

Item	To Hold Optic Size (mm)	Optic Thickness (mm)	Used with Holder	PART NUMBER
45 degree mount	25.4	3-5	112-7120/7125	112-7550
45 degree mount	30.0	3-5	112-7130/7135	112-7560
Prism Holder	10.0-12.7	-	112-7120/7125	112-7500
Prism Holder Metric	10.0-12.7	-	112-7130/7135	112-7510
Prism Holder	15.0-20.0	-	112-7130/7135	112-7520
Prism Platform, lamp	15.0-20.0	-	112-7120/7125	112-7530
Prism Platform, lamp	15.0-20.0	-	112-7130/7135	112-7540
Optics Adapter	20.0	3-5	112-7130/7135	112-7650
Optics Adapter	40.0	4-6	112-7150/7155	112-7660
Rod Adapter	-	-	112-7120/7130	112-7580
Rod Adapter-Metric	-	-	112-7125/7135	112-7585
Adapter, table	-	-	112-7120/7125	112-7610
Adapter, table	-	-	112-7130/7135	112-7620
Item	Width x Depth (mm x mm)		Used with Holder	PART NUMBER
Base Plate	22.0 x 26.7		112-7100/7105	112-7305
Base Plate	22.0 x 42.0		112-7120/7125	112-7325
Base Plate	22.0 x 42.0		112-7130/7135	112-7325
Base Plate	22.0 x 45.0		112-7150/7155	112-7345
Base Plate	60.0 x 55.0		112-7180/7185	112-7385
Base Plate-Post	22.0 x 28.7		112-7100/7105	112-7315
Base Plate-Post	22.0 x 42.0		112-7120/7125	112-7335
Base Plate-Post	22.0 x 42.0		112-7130/7135	112-7335
Base Plate-Post	22.0 x 45.0		112-7150/7155	112-7355
Base Plate-Post	60.0 x 59.0		112-7180/7185	112-7395