

Our OT series optic translators and OG series of optical gimbal mounts use our color coded SoftTouch™ knob caps in both the non-lockable and lockable versions. These knob caps are comfortable to use and provide quick axis location in low light conditions. 80-pitch screws are the basis for smooth, accurate positioning of all models from the smallest mount to the largest.

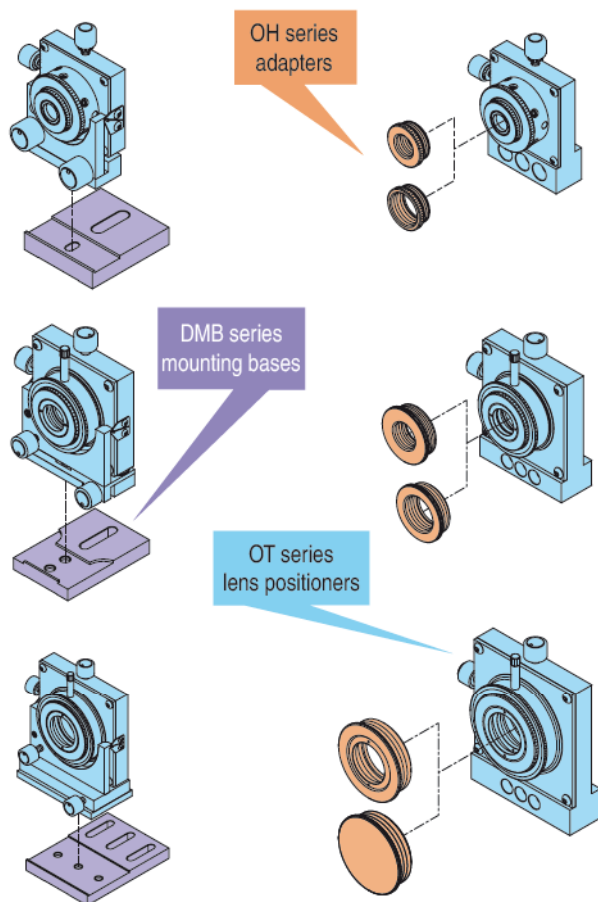
To meet the demands of many different applications we have XY, XYZ, and 5-axis OT series optic translators in three sizes. In the OG series of optical gimbal mounts we have 1.0-inch, 2.0-inch, 1.0-inch polarizer and cylindrical lens versions. For more robust OEM requirements these mounts are also available in lockable versions. Our locks securely hold the internal axis mechanism, an improvement over other mounts that only lock the adjustment screws. This feature ensures that the mount will stay in place even when shipped around the world. The entire OT series comes standard with Delrin® retaining rings and a separate optic adapter. Additional adapters include ones for microscope objectives or various standard apertures, as well as a solid version to be machined for your custom optic.

The new OTX series are an even more robust OEM version of our OT Translators. They are designed to absorb a 4G jolt without moving more than 5 microns. Locks on all axes make them perfect for applications where any misalignment during shipping can't be tolerated.

## Lens Positioners

<b>High Precision</b>	
0.5" to 0.8" Optic, 2 to 5 Axis	254
1.0" Optic, 2 to 5 Axis	256
2.0" Optic, 2 to 5 Axis	258
<b>Compact Design</b>	
0.5" to 0.8" Optic, 2 to 5 Axis	260
1.0" to 1.375" Optic, 2 to 5 Axis	262
2.0" to 2.25" Optic, 2 to 5 Axis	264
<b>Adapters</b>	
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1.0" Optic Adapters	263
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<b>Device Mounting Base</b>	<b>266</b>

### Applications

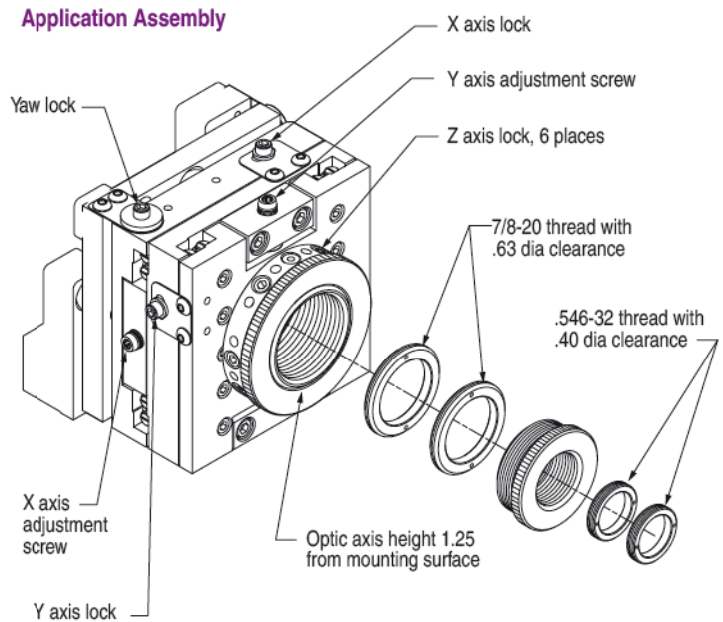


### 0.5–0.8-inch optic / OTX.5 Series

Note that dimensions in parentheses (mm) reflect metric assembly features



OTX.5 Series



Adjustment screws have 8-100 threads and fit either 5/64 or 2.0mm hex, typ.

Locks fit either 5/64 or 2.0mm hex, typ.

New

#### Product Features

- 100 pitch adjustment screws
- High precision crossed roller design
- All axes lockable
- 0.5-inch optic holder included

#### Performance Specifications

Travel	
X and Y axes	0.125 inch (3 mm)
Z axis	0.250 inch (6 mm)
Pitch and Yaw	5°
Minimum controllable motion	
X, Y, and Z axes	submicron
Pitch and Yaw	5 arc sec.

#### Related Products

OH.5 series optic holder	261
dovetail rails & carriers, DIR & DIC series	130

#### Order Information

optic translator, 0.5"–0.8" optic, 2-axis	OTX.5-2
optic translator, 0.5"–0.8" optic, 3-axis	OTX.5-3
optic translator, 0.5"–0.8" optic, 5-axis	OTX.5-5

**Metric Option** — for metric assembly features on this product, add '-M' after model number.

#### Optic Translators

The new OTX.5 series optical translators are a OEM version of our popular OT.5 series. These compact optical translators incorporate crossed roller bearings for zero crosstalk between X & Y axis adjustments. Precision rolled 100TPI adjustment screws enable submicron adjustment across the full travel of these axes. Foil locks on all axes have been tested to 4g's to ensure they won't come out of adjustment — even during shipping.

The Z-axis on the OTX.5-3 and OTX.5-5 uses an internal 80 pitch thread. The drive knob for the Z-axis has 6 locking screws and 6 capstan drive holes — you can adjust or lock at any orientation. Adjustment of the Z (focus) axis does not rotate the optical element when the dial is turned. The inner sleeve, in which the optical element is held, does not rotate — it moves like a camera lens. This keeps optical axis height constant, and polarization orientation is maintained.

The OTX.5-5 uses our patented spring-loaded (pat.# 6590723) pivot for the tip/tilt of the XYZ stage. Though the motion is not true gimbal, it rotates about the optical center. One clear benefit of this design is the location of the adjustment screws above the beam path. Like many of our mirror mounts, the OTX.5 series uses our *one wrench* design. This allows the user to adjust the optic position — and lock all axes — with one wrench.

The OTX.5 optical translators are compatible with our OH.5 series of optics holders, from a standard 0.25-inch optic to custom optic mountings.

# Lens Positioners

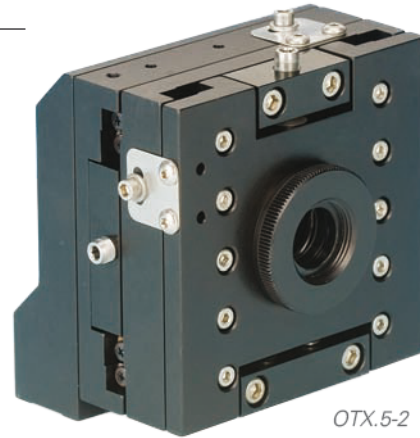
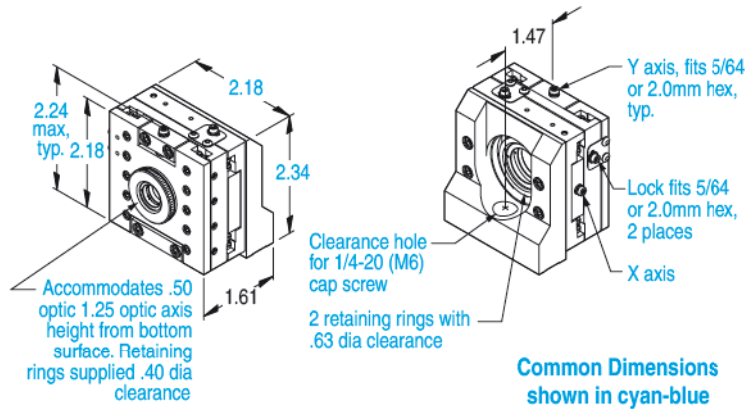
**eXtreme Grade**

**2- to 5-axis**

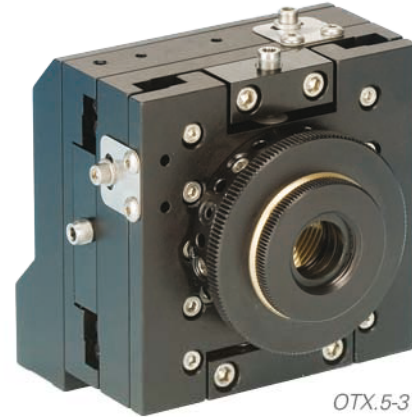
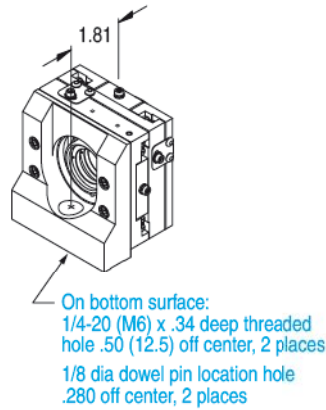
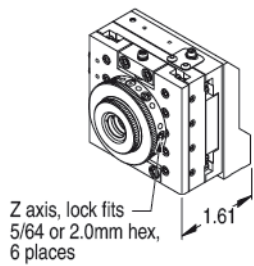


## 0.5–0.8-inch optic / OTX.5 Series

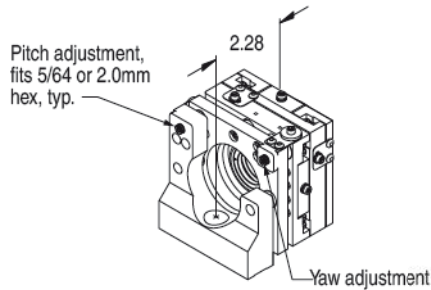
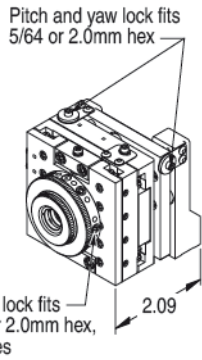
Note that dimensions in parentheses (mm) reflect metric assembly features



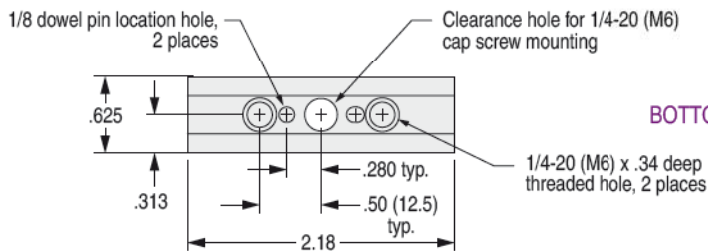
OTX.5-2



OTX.5-3



OTX.5-5



**BOTTOM VIEW of BASE**

New

Lens Positioners

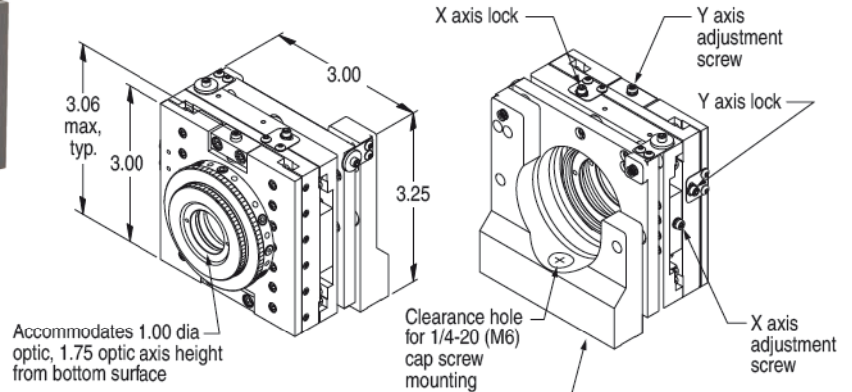
### 1.0-inch optic / OTX1.0 Series

Note that dimensions in parentheses (mm) reflect metric assembly features



OTX1.0 Series

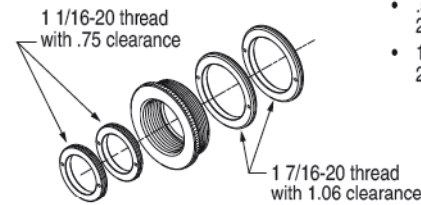
#### OTX1.0 Common Dimensions



Accommodates 1.00 dia optic, 1.75 optic axis height from bottom surface

On bottom surface:  
 1/4-20 (M6) x .34 deep threaded hole  
 • .50 (12.5) off center, 2 places  
 • 1.00 (25) off center, 2 places  
 1/8 dia dowel pin location hole .280 off center, 2 places

#### Retaining rings



**Adjustment screws** have 8-100 threads and fit either 5/64 or 2.0mm hex, typ.

**Locks** fit either 5/64 or 2.0mm hex, typ.

New

#### Product Features

- 100 pitch adjustment screws
- High precision crossed roller design
- All axes lockable
- 1.0-inch optic holder included

#### Performance Specifications

Travel	
X and Y axes	0.125 inch (3 mm)
Z axis	0.250 inch (6 mm)
Pitch and Yaw	5°
Minimum controllable motion	
X and Y axes	submicron
Z axis	10 μm
Pitch and Yaw	5 arc sec.

#### Related Products

OH1.0 series optic holder	263
dovetail rails & carriers, DTR & DTC series	130

#### Order Information

optic translator, 1.0" optic, 2-axis	OTX1.0-2
optic translator, 1.0" optic, 3-axis	OTX1.0-3
optic translator, 1.0" optic, 5-axis	OTX1.0-5

**Metric Option** — for metric assembly features on this product, add '-M' after model number.

#### Optic Translators

The new OTX1.0 series optical translators are an OEM version of our popular OT1.0 series. These compact optical translators incorporate crossed roller bearings for zero crosstalk between X & Y axis adjustments. Precision rolled 100TPI adjustment screws enable submicron adjustment across the full travel of these axes. Foil locks on all axes have been tested to 4g's to ensure they won't come out of adjustment — even during shipping.

The drive knob for the Z-axis has 6 locking screws and 6 capstan drive holes — you can adjust or lock at any orientation. Adjustment of the Z (focus) axis does not rotate the optical element when the dial is turned. The inner sleeve, in which the optical element is held, does not rotate — it moves like a camera lens. This keeps optical axis height constant, and polarization orientation is maintained.

The OTX1.0-5 uses our patented spring-loaded (pat.# 6590723) pivot for the tip/tilt of the XYZ stage. Though the motion is not true gimbal, it rotates about the optical center. One clear benefit of this design is the location of the adjustment screws above the beam path. Like many of our mirror mounts, the OTX1.0 series uses our *one wrench* design. This allows the user to adjust the optic position, and lock all axes with one wrench.

The OTX1.0 optical translators are compatible with our OH1.0 series of optics holders, from a standard 0.50-inch optic to custom optic mountings.

# Lens Positioners

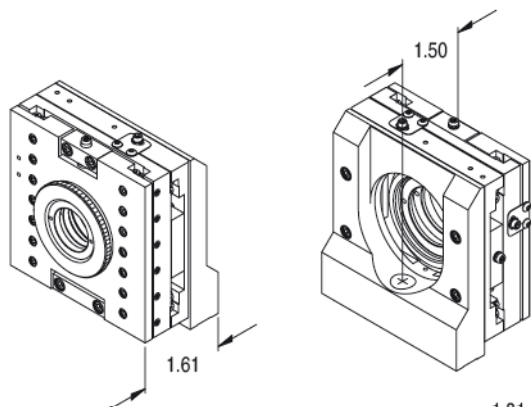
**eXtreme Grade**

**2- to 5-axis**

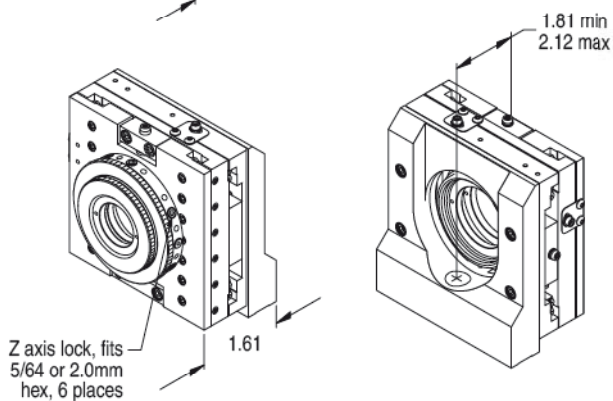


## 1.0-inch optic / OTX1.0 Series

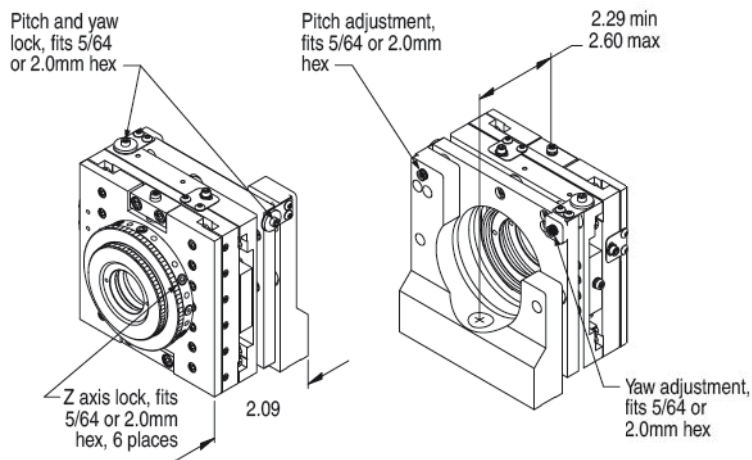
Note that dimensions in parentheses (mm) reflect metric assembly features



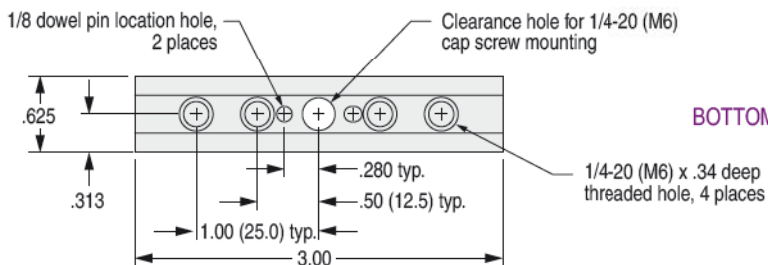
OTX1.0-2



OTX1.0-3



OTX1.0-5



**BOTTOM VIEW of BASE**

New

Lens Positioners

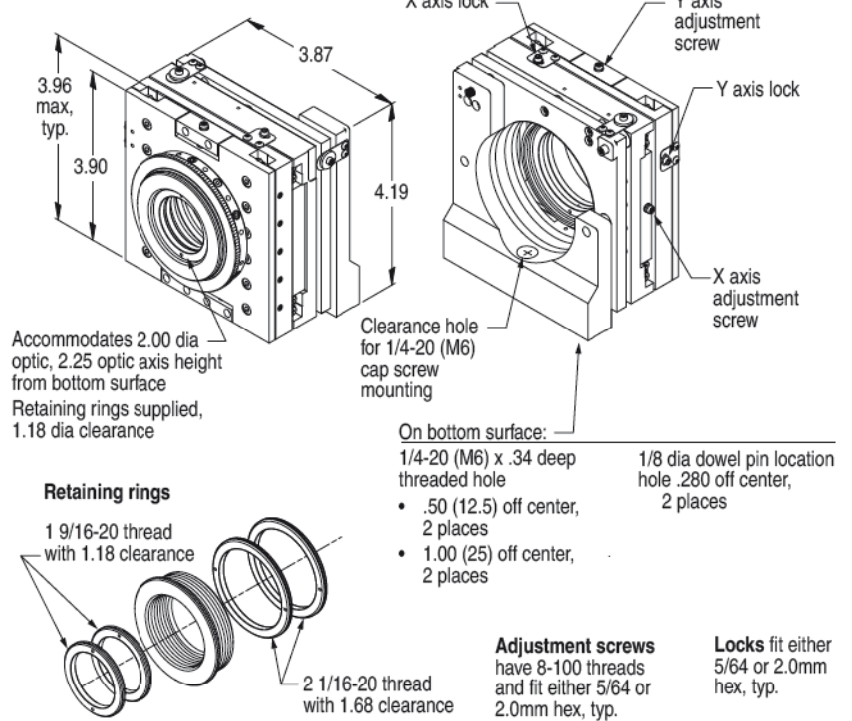
### 2.0-inch optic / OTX2.0 Series

Note that dimensions in parentheses (mm) reflect metric assembly features



OTX2.0 Series

#### OTX2.0 Common Dimensions



New

#### Product Features

- 100 pitch adjustment screws
- High precision crossed roller design
- All axes lockable
- 1.5-inch optic holder included

#### Performance Specifications

Travel	
X and Y axes	0.125 inch (3 mm)
Z axis	0.250 inch (6 mm)
Pitch and Yaw	5°
Minimum controllable motion	
X and Y axes	submicron
Z axis	10 μm
Pitch and Yaw	5 arc sec.

#### Related Products

OH2.0 series optic holder	265
dovetail rails & carriers, DTR & DTC series	130

#### Order Information

optic translator, 2.0" optic, 2-axis	OTX2.0-2
optic translator, 2.0" optic, 3-axis	OTX2.0-3
optic translator, 2.0" optic, 5-axis	OTX2.0-5

**Metric Option** — for metric assembly features on this product, add '-M' after model number.

#### Optic Translators

The new OTX2.0 series optical translators are an OEM version of our popular OT2.0 series. These compact optical translators incorporate small crossed roller bearings for zero crosstalk between X & Y axis adjustments. Precision rolled 100TPI adjustment screws enable submicron adjustment across the full travel of these axes. Foil locks on all axes have been tested to 4g's to ensure they won't come out of adjustment — even during shipping. The Z-axis on the OTX2.0-3 and OTX2.0-5 uses an internal 80 pitch thread.

The drive knob for the Z-axis has 6 locking screws and 6 capstan drive holes — you can adjust or lock at any orientation. Adjustment of the Z (focus) axis does not rotate the optical element when the dial is turned. The inner sleeve, in which the optical element is held, does not rotate — it moves like a camera lens. This keeps optical axis height constant, and polarization orientation is maintained.

The OTX2.0-5 uses our patented spring-loaded (pat.# 6590723) pivot for the tip/tilt of the XYZ stage. Though the motion is not true gimbal, it rotates about the optical center. One clear benefit of this design is the location of the adjustment screws above the beam path. Like many of our mirror mounts, the OTX2.0 series uses our *one wrench* design. This allows the user to adjust the optic position, and lock all axes with one wrench.

The OTX2.0 optical translators are compatible with our OH2.0 series of optics holders, from a standard 1.50-inch optic to custom optic mountings.

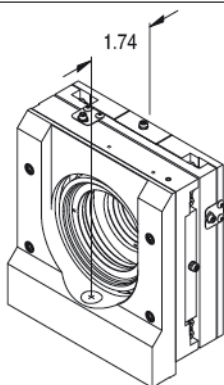
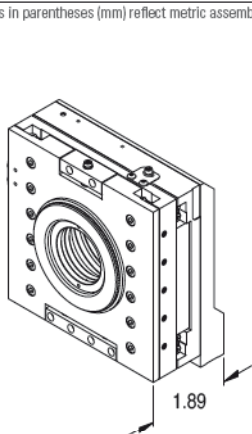
# Lens Positioners

**eXtreme Grade**

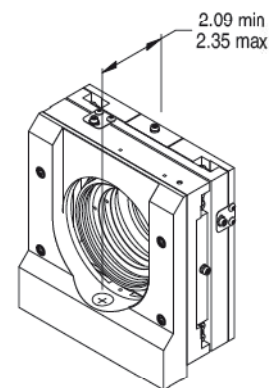
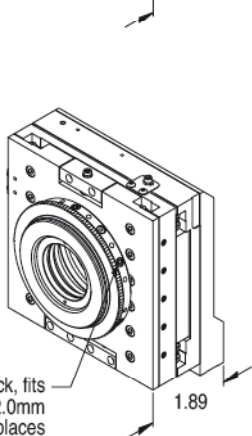
**2- to 5-axis**

## 2.0-inch optic / OTX2.0 Series

Note that dimensions in parentheses (mm) reflect metric assembly features

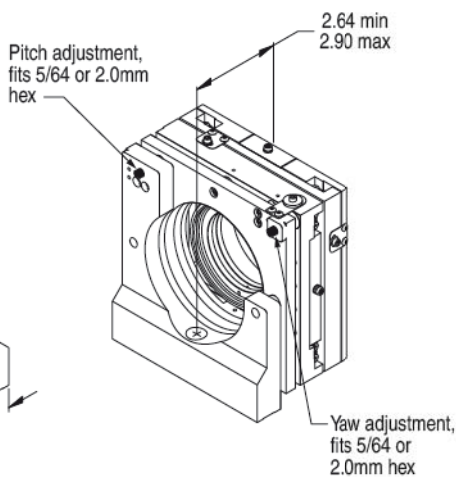
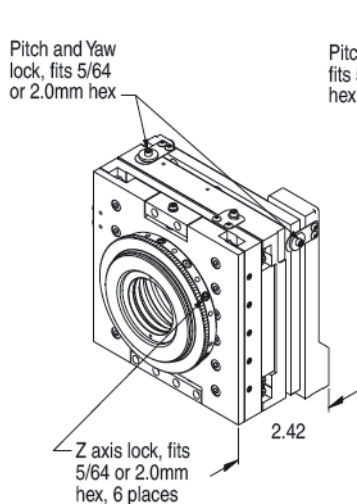


OTX2.0-2

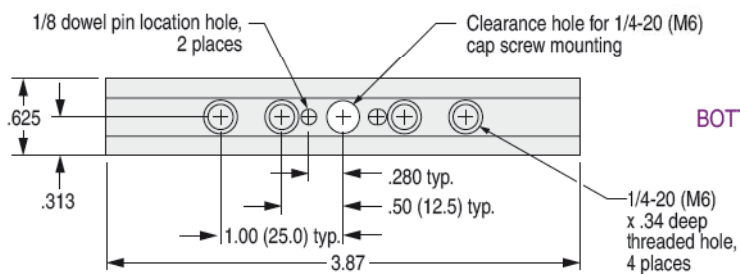


OTX2.0-3

New



OTX2.0-5



BOTTOM VIEW of BASE

Lens Pos

Distributor

where technologies meet solutions

info@amstechnologies.com  
www.amstechnologies-webshop.com

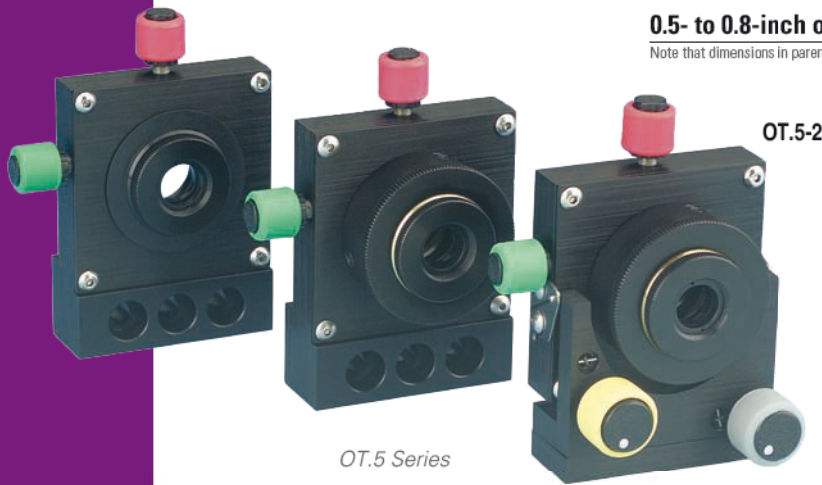
**Contact us**

# Lens Positioners

## Compact Design

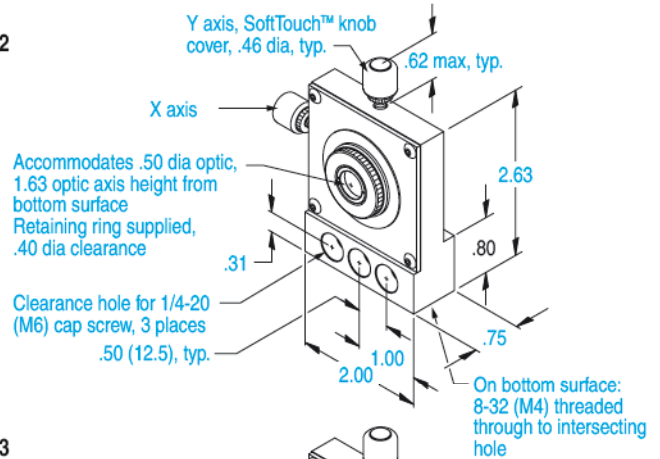
### 0.5- to 0.8-inch optics / OT.5 Series

Note that dimensions in parentheses (mm) reflect metric assembly features

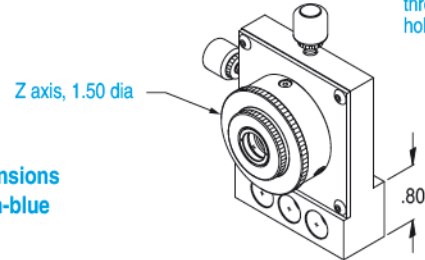


OT.5 Series

OT.5-2

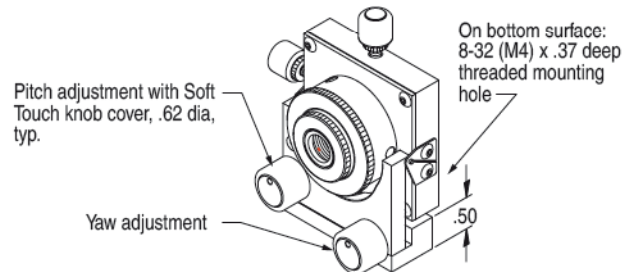


OT.5-3



Common Dimensions shown in cyan-blue

OT.5-5



#### Product Features

- 80 pitch adjustment screws
- 2-, 3-, and 5-axis versions
- 0.5-inch optic holder included
- Vacuum compatible versions available upon request

#### Performance Specifications

Travel	
X and Y axes	0.12 inch (3.1 mm)
Z axis	0.25 inch (6.3 mm)
Pitch and Yaw	5°
Minimum controllable motion	
X, Y, and Z axes	1 μm
Pitch and Yaw	5 arc sec.

#### Related Products

RTC-0.5 clamp	132
DMB.2 mounting plate	266
OH.5-B optic holder	261
OH.5-OB optic holder	261
OH.5-.50 optic holder	261
OH.5-.25 optic holder	261

#### Order Information

optic translator, 0.8" optic, 2-axis	OT.5-2
optic translator, 0.8" optic, 3-axis	OT.5-3
optic translator, 0.8" optic, 5-axis	OT.5-5

**Metric Option** — for metric assembly features on this product, add '-M' after model number.

## Optic Translators

The compact design of our OT.5 optical translators makes them ideal for crowded beam path applications. They use 80TPI adjustment screws for precise positioning in XY-, XYZ-, or 5-axis gimballed models.

The Z-axis is designed like focus on a camera lens — rotating the adjuster moves the lens in and out, but the optical center of the lens does not move / the optic does not rotate. Optical axis height is constant and polarization orientation is maintained. The Y-axis knob in all models uses a unique capture screw design to ensure no drift due to overloading in that axis.

All models use our SoftTouch™ color coded knob caps for easy axis identification in low light conditions.

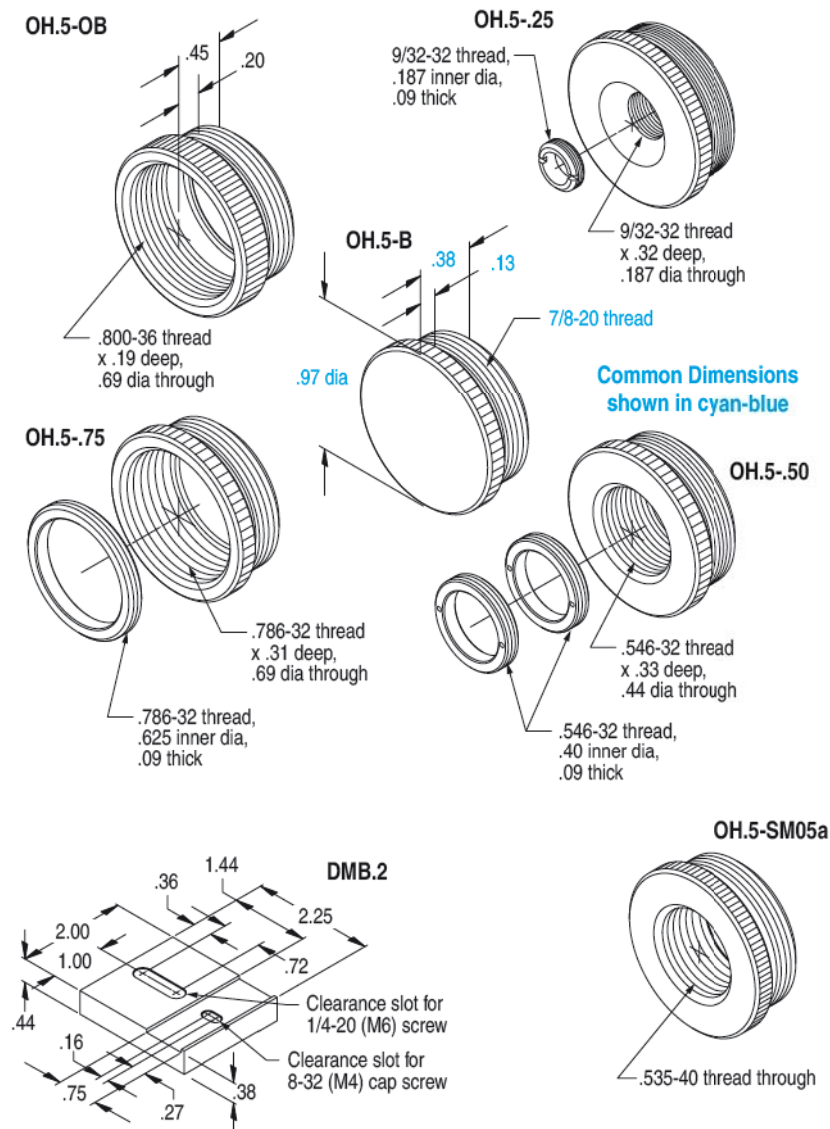
The OT.5 optical translators are compatible with our OH.5 series of optics holders, from a standard 0.25-inch optic to custom optic mountings.



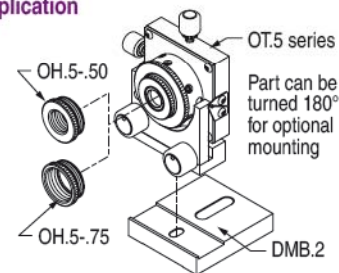
# Lens Positioners

## Adapters

### 0.25- to 0.75-inch optic / OH.5 Series and DMB.2



### Application



### Product Features

- Microscope objective version
- Solid version for customer modifications
- Delrin® retaining rings
- Vacuum compatible versions available upon request

### Related Products

OT.5 series optical translator 260

### Order Information

optic holder, 0.5", blank adapter	OH.5-B
optic holder, 0.5", microscope objective	OH.5-OB
optic holder, 0.5", 0.25" adapter	OH.5-25
optic holder, 0.5", 0.50" adapter	OH.5-50
optic holder, 0.5", 0.75" adapter	OH.5-75
0.5" tube adapter	OH.5-SM05a
mounting base for OT.5 series	DMB.2

## Optic Holders

The OH.5 series optic holders are compatible with our OT.5 optical translators. These solid aluminum optic holders screw into the center 7/8-20 thread of the OT.5 series. The outer edge of the holder is knurled to ensure non-slip insertion and removal. All versions are coated with a non-reflective black anodized coating.

The 0.25-, 0.50-, and 0.75-inch versions come with non-marring Delrin® retaining rings. The OH.5-B is a solid version for customer modification to fit custom optic requirements. We can also build OEM versions to fit your needs – please call for a price quote.

# Lens Positioners

## Compact Design

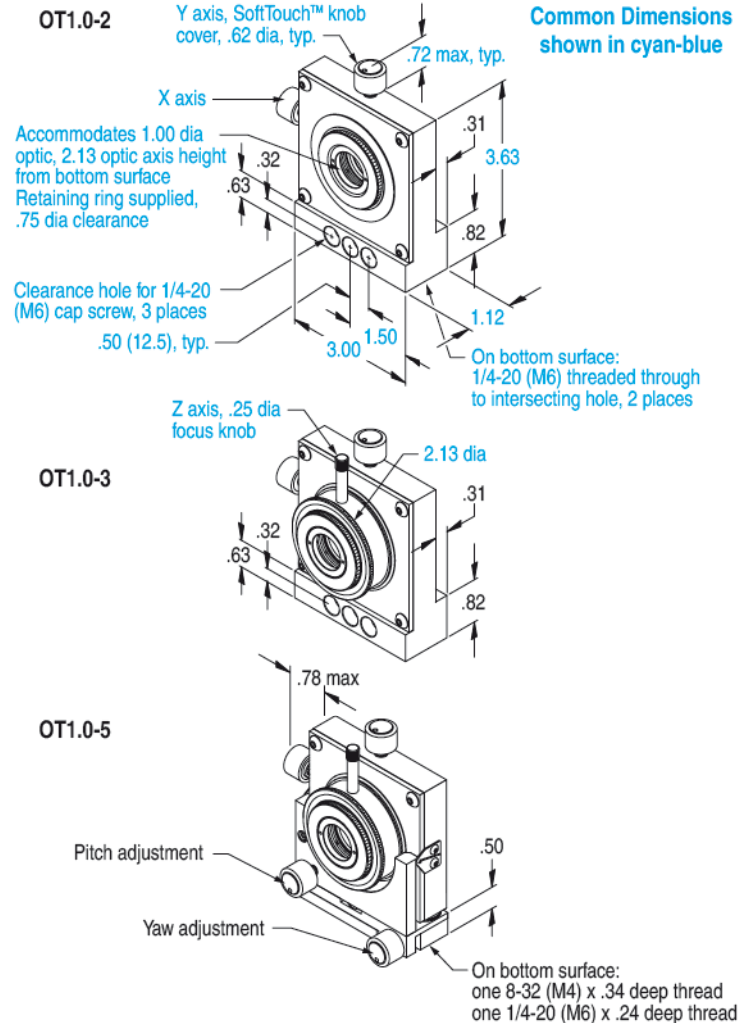
### 1.0- to 1.375-inch optics / OT1.0 Series

Note that dimensions in parentheses (mm) reflect metric assembly features



OT1.0 Series

Common Dimensions shown in cyan-blue



#### Product Features

- 80 pitch adjustment screws
- 2-, 3-, and 5-axis versions
- 1.0-inch optic holder included
- Vacuum compatible versions available upon request

#### Performance Specifications

Travel	
X and Y axes	0.187 inch (4.7 mm)
Z axis	0.25 inch (6.3 mm)
Pitch and Yaw	11°
Minimum controllable motion	
X and Y axes	1 μm
Z axis	10 μm
Pitch and Yaw	4 arc sec.

#### Related Products

DMB.1 mounting plate	266
OH1.0-1.0 optic holder	263
OH1.0-B optic holder	263
OH1.0 OB optic holder	263

#### Order Information

optic translator, 1.375" optic, 2-axis	OT1.0-2
optic translator, 1.375" optic, 3-axis	OT1.0-3
optic translator, 1.375" optic, 5-axis	OT1.0-5

**Metric Option** — for metric assembly features on this product, add '-M' after model number.

## Optic Translators

The thin design of our OT1.0 optical translators makes them ideal for crowded beam path applications. They use 80TPI adjustment screws for precise positioning in XY-, XYZ-, or 5-axis gimballed models.

The Z-axis is designed like focus on a camera lens — rotating the adjuster moves the lens in and out, but the optical center of the lens does not move / the optic does not rotate. Optical axis height is constant and polarization orientation is maintained. The Y-axis knob in all models uses a unique capture screw design to ensure no drift due to overloading in that axis.

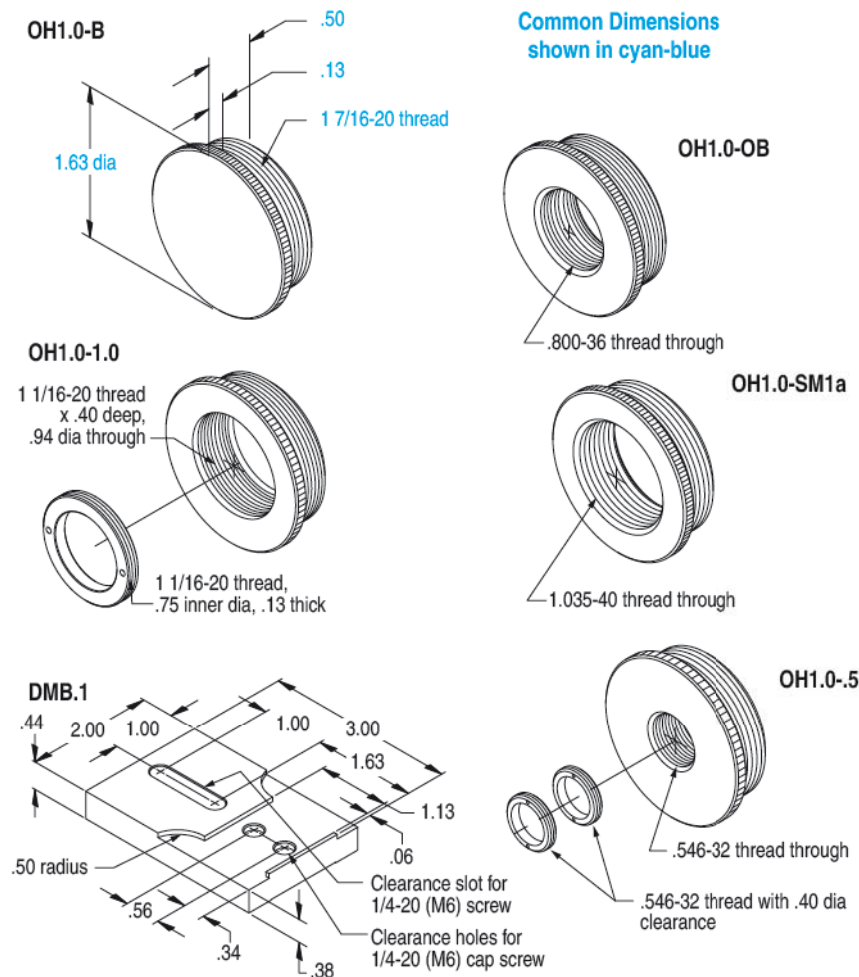
All models use our SoftTouch™ color coded knob caps for easy axis identification in low light conditions.

The OT1.0 optical translators are compatible with our OH1.0 series of optics holders, from a standard 0.50-inch optic to custom optic mountings.

# Lens Positioners

## Adapters

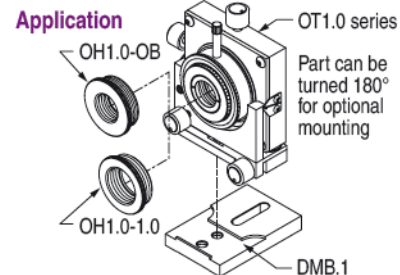
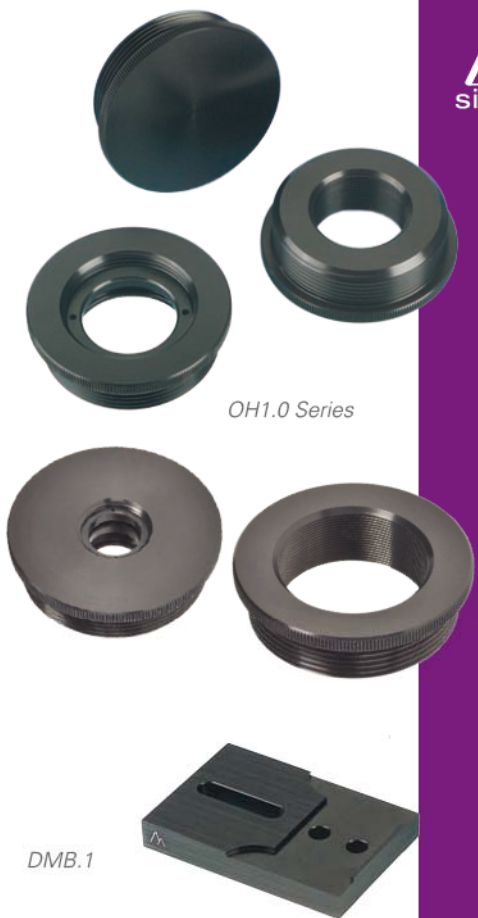
### 1.0-inch optic / OH1.0 Series and DMB.1



## Optic Holders

The OH1.0 series optic holders are compatible with our OT1.0 optical translators. These solid aluminum optic holders screw into the center 1 1/16-20 thread of the OT1.0 series. The outer edge of the holder is knurled to ensure non-slip insertion and removal. All versions are coated with a non-reflective black anodized coating.

The 1.0-inch version comes with non-marring Delrin® retaining rings. The OH1.0-B is a solid version for customer modification to fit custom optic requirements. We can also build OEM versions to fit your needs – please call for a price quote.



### Product Features

- Microscope objective version
- Solid version for customer modifications
- Delrin® retaining rings
- Vacuum compatible versions available upon request

### Related Products

OT1.0 series optic translator	262
OTX1.0 series optic translator	256

### Order Information

optic holder, 1.0", blank adapter	OH1.0-B
optic holder, 1.0", microscope objective	OH1.0-OB
optic holder, 1.0", 1.0" adapter	OH1.0-1.0
optic holder, 0.5", mounts in OT1.0 and OTX1.0 series	OH1.0-5
lens tube adapter, 1.0" adapter	OH1.0-SM1a
device mounting base, 2.00" x 3.00"	DMB.1



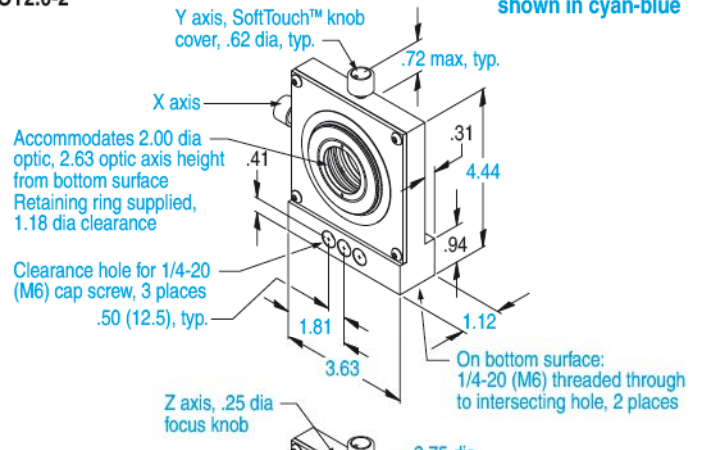
OT2.0 Series

### 2.0- to 2.25-inch optics / OT2.0 Series

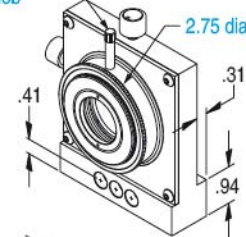
Note that dimensions in parentheses (mm) reflect metric assembly features

#### Common Dimensions shown in cyan-blue

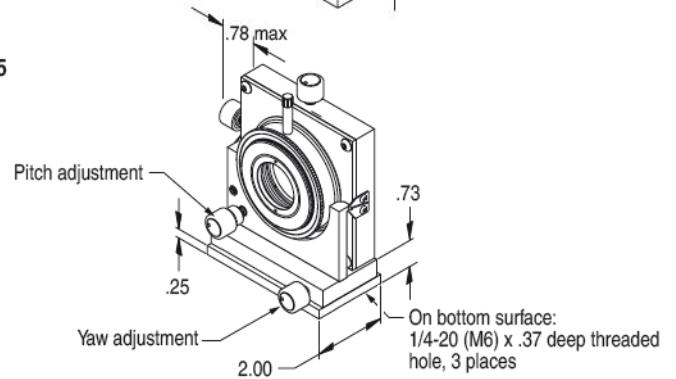
#### OT2.0-2



#### OT2.0-3



#### OT2.0-5



#### Product Features

- 80 pitch adjustment screws
- 2-, 3-, and 5-axis versions
- 1.5-inch optic holder included
- Vacuum compatible versions available upon request

#### Performance Specifications

Travel	
X and Y axes	0.187 inch (4.7 mm)
Z axis	0.25 inch (6.3 mm)
Pitch and Yaw	10°
Minimum controllable motion	
X and Y axes	1 μm
Z axis	10 μm
Pitch and Yaw	3 arc sec.

#### Related Products

DMB.3 mounting plate	266
OH2.0-1.5 optic holder	265
OH2.0 B optic holder	265

#### Order Information

optic translator, 2.0" optic, 2-axis	OT2.0-2
optic translator, 2.0" optic, 3-axis	OT2.0-3
optic translator, 2.0" optic, 5-axis	OT2.0-5

**Metric Option** — for metric assembly features on this product, add '-M' after model number.

### Optic Translators

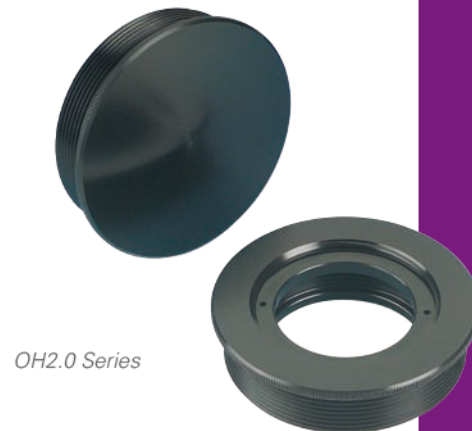
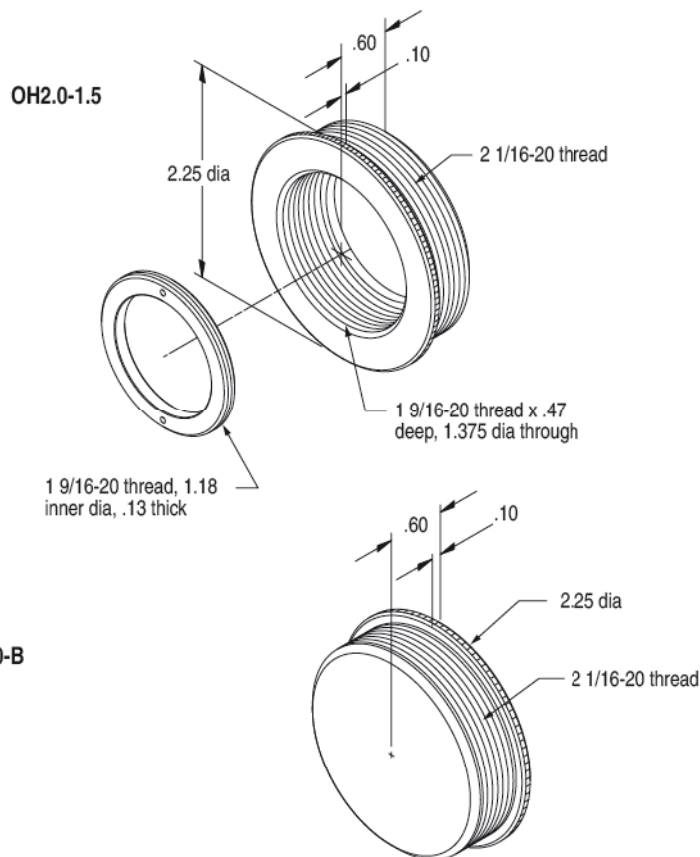
The compact design of our OT2.0 optical translators makes them ideal for crowded beam path applications. These compact optical translators use 80TPI adjustment screws for precise positioning in XY-, XYZ-, or 5-axis gimbaled models.

The Z-axis is designed like focus on a camera lens — rotating the adjuster moves the lens in and out, but the optical center of the lens does not move / the optic does not rotate. Optical axis height is constant and polarization orientation is maintained. The Y-axis knob in all models uses a unique capture screw design to ensure no drift due to overloading in that axis.

All models use our SoftTouch™ color coded knob caps for easy axis identification in low light conditions. The OT2.0 optical translators are compatible with our OH2.0 series of optics holders, from a standard 1.50-inch optic to custom optic mountings.

## Adapters

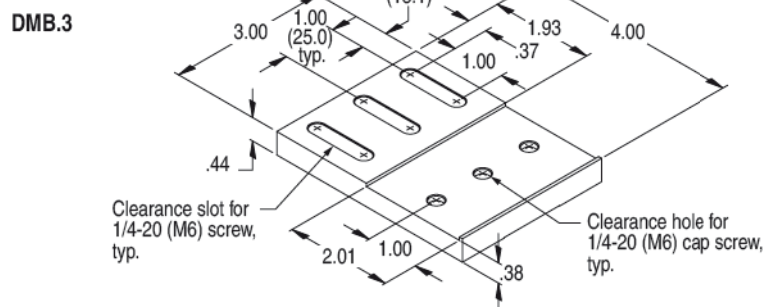
### 1.5-inch optic / OH2.0 Series and DMB.3



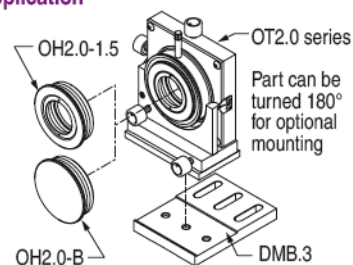
OH2.0 Series



DMB.3



### Application



## Optic Holders

The OH2.0 series optic holders are compatible with our OT2.0 optical translators. These solid aluminum optic holders screw into the center 2 1/16-20 thread of the OT2.0 series. The outer edge of the holder is knurled to ensure non-slip insertion and removal. All versions are coated with a non-reflective black anodized coating.

The 1.5-inch version comes with non-marring Delrin® retaining rings. The OH.5-B is a solid version for customer modification to fit custom optic requirements. We can also build OEM versions to fit your needs – please call for a price quote.

### Product Features

- Delrin® retaining rings
- Solid version for customer modifications
- Anodized aluminum construction
- Vacuum compatible versions available upon request

### Related Products

OT2.0 series optic translator	264
OTX2.0 series optic translator	258

### Order Information

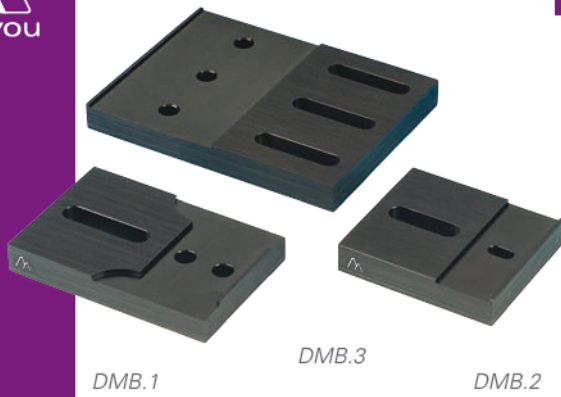
optic holder, 2.0", 1.5 inch adapter	OH2.0-1.5
optic holder, 2.0", blank adapter	OH2.0-B
device mounting base, 3.00" x 4.00"	DMB.3

# Lens Positioners

## Device Mounting Base

### 2"x3", 2"x2.25" and 3"x4" / DMB Series

Note that dimensions in parentheses (mm) reflect metric assembly features

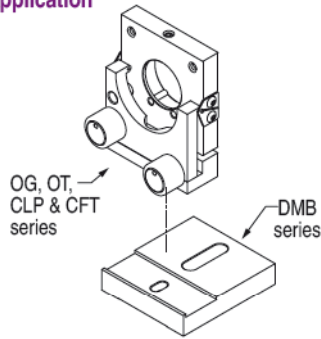


DMB.1

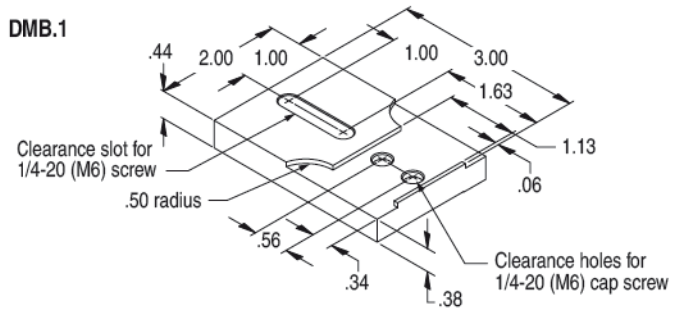
DMB.3

DMB.2

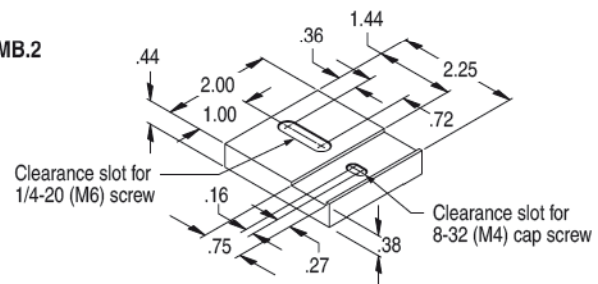
#### Application



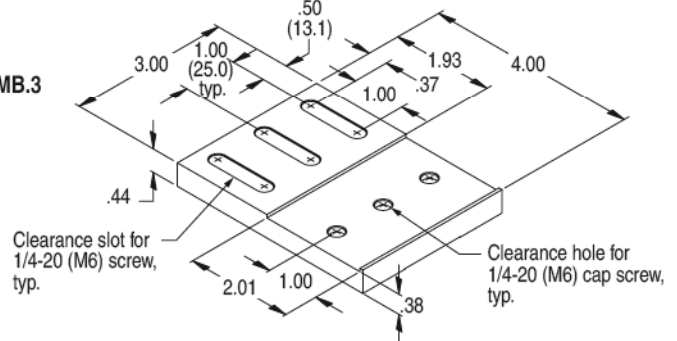
#### DMB.1



#### DMB.2



#### DMB.3



#### Product Features

- Compatible with OT, OG, and CLP series mounts
- 1/4-20 and M6 table mounting
- Solid aluminum construction
- Vacuum compatible versions available upon request

#### Related Products

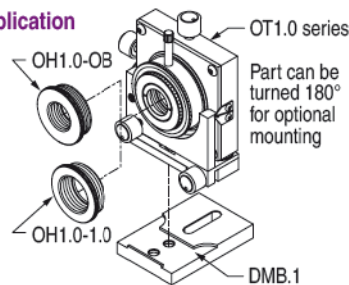
PR precision rods	132
OT series optic translator	beginning 260
CLP3 series cylindrical lens positioner	274
CFT series fiber translator	286
OG series gimbal mount	beginning 268
cross reference table	302

#### Order Information

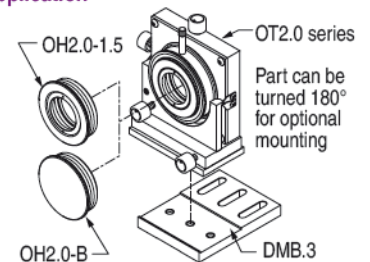
device mounting base, 2.00"x3.00"	DMB.1
device mounting base, 2.00"x2.25"	DMB.2
device mounting base, 3.00"x4.00"	DMB.3

**Metric Option** — for metric assembly features on this product, add '-M' after model number.

#### Application



#### Application



## Device Mounting Bases

Our DMB series of device mounting bases facilitates axial and non-axial mounting on platforms and isolation tables. These low profile device mounting bases are ideal in instances where it is necessary to mount our optical translators (pages 254–264) directly to an isolation table or platform. The DMB series adds minimally to the height of the device and the cost. These devices are securely mounted to the appropriate base with 8-32 or 1/4-20 hardware. Mounting to a platform or isolation table is done with our TS series thumb screws.