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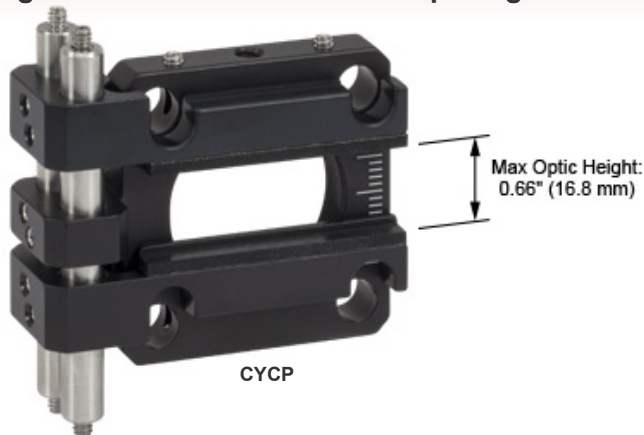
THORLABS

CYCP/M - October 7, 2022

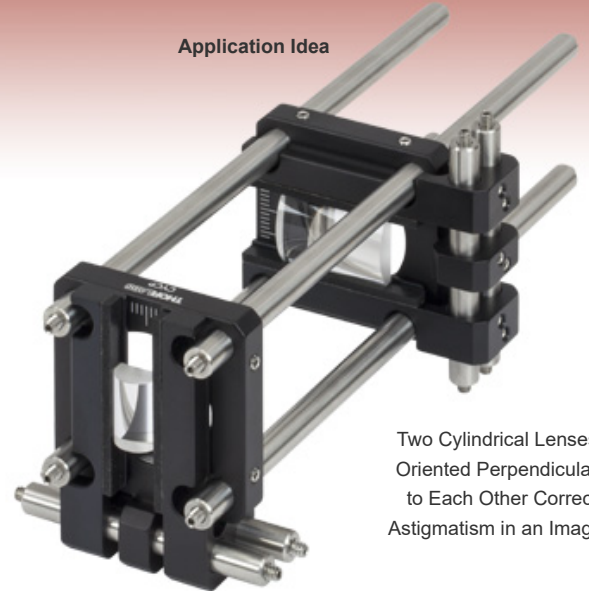
Item # CYCP/M was discontinued on October 7, 2022. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

CYLINDRICAL LENS MOUNT FOR 30 mm CAGE SYSTEMS

- ▶ Mount Cylindrical Lenses or Other Rectangular Optics in 30 mm Cage Systems
- ▶ Maximum Optic Height of 0.66" (16.8 mm)
- ▶ Engraved Graduations at 1 mm Spacings



Application Idea



OVERVIEW

Features

- Rectangular Optic Mount for 30 mm Cage Systems
- Two Manually Positioned Arms Hold Optics up to 0.66" (16.8 mm) Tall Within the Cage System
- Mounting Arms and Cage Plate can be Moved Independently (See Animation at Right)
- Graduations at 1 mm Intervals Help with Centration and Repeatability
- Internal SM1 (1.035"-40) Threads Compatible with Ø1" Lens Tubes
- One 8-32 (M4) Tapped Hole for Post Mounting

Thorlabs' Cylindrical Lens Mount for 30 mm Cage Systems is designed to orient a cylindrical lens or another rectangular optic horizontally or vertically within a 30 mm cage system. The lens is effectively clamped between the two sliding arms, each of which is lined with a 1.51" (38.3 mm) long rubber pad and has a lip for resting the plano side of the lens against, as shown by the photo at the top of the page. The manually positioned arms can hold optics from 0.16" to 0.66" tall (4.0 mm to 16.8 mm) before the arms begin to obscure the through holes for the cage system. As shown in the photo to the right, the included 2" long cage rods can be replaced with longer cage rods (sold separately) to accommodate taller optics, but the mount cannot be used within a cage system if the arms or the optic overlap with the through holes.

Each arm is secured to the side-mounted 2" long cage rods (Item # ER2) using two 4-40 setscrews that accept a 0.05" (1.3 mm) hex key. The cage plate is tightened to these cage rods by two additional 4-40 setscrews. The cage plate and arms can be moved and locked independently. Hence, by loosening the cage plate while keeping the arms tightened, the user may translate a lens parallel to the cage rods (i.e., in a transverse direction) without disturbing the rest of the cage system. The arms can also be relocated from the front of the cage plate to the back of the cage plate.



This animation depicts various mounting options of the CYCP Cylindrical Lens Mount.



Click for Details
 A rear view of the CYCP Cylindrical Lens Mount. The side-mounted cage rods have been replaced with 3" long versions (Item # ER3) to increase the maximum optic height.

As shown by the photo to the right, the cage plate is engraved with tick marks. Both sides of the plate are engraved. The major ticks occur every 5 mm, the minor ticks occur every 1 mm, and the pattern spans a total length of 20 mm. To help center the mounted optic, a major tick is placed at the center line of the plate. It is easiest to center the cylindrical lens when the cylindrical axis is parallel to the arms, as demonstrated in the Application Idea at the top of the page.

Four 4-40 setscrews that accept a 0.05" (1.3 mm) hex key secure the cage plate within a 30 mm cage system. The central bore is internally SM1 threaded (1.035"-40), as shown in the photo to the right, making it compatible with our Ø1" lens tubes and SM1-mounted optics. The plate also contains an 8-32 (M4) tapped hole for mounting on a Ø1/2" post. Please note that an attached post can mechanically clash with the bottom arm if the arm has been moved down too far. By pairing this mount with our CPU1 Rotating Cage Segment Plate, a cylindrical lens can be rotated within a 30 mm cage system (see the *Application Idea* tab for details).

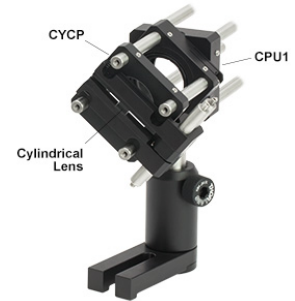
Thorlabs also manufactures Kinematic Mirror Mounts for Rectangular Optics, which offer tip and tilt adjustments, and a Cylindrical Lens Mount for 60 mm Cage Systems that directly supports optics as tall as 1.84" (46.8 mm).

APPLICATION IDEA

Application Idea

By pairing the CYCP Cage Mount with our CPU1(M) Rotating Cage Segment Plate, it is possible to rotate a cylindrical lens about the optical axis defined by a 30 mm cage system (see image below). The following tables correspond to either the imperial or metric list of items used in this assembly.

| Item # | Qty | Description |
|---|-----|---|
| Imperial Product List | | |
| LJ1918L1-A | 1 | f = 5.79 mm, H = 4.00 mm, L = 6.0 mm, N-BK7 Plano-Convex Cylindrical Lens, Antireflection Coating: 350-700 nm |
| CYCP | 1 | 30 mm Cage Mount for Cylindrical Lenses, 8-32 Tap |
| ER2-P4 | 1 | Cage Assembly Rod, 2" Long, Ø6 mm, 4 Pack |
| CPU1 | 1 | 30 mm Rotating Cage Segment Plate, Two SM1RR Retaining Rings Included, Imperial |
| ER4-P4 | 1 | Cage Assembly Rod, 4" Long, Ø6 mm, 4 Pack |
| TR2 | 1 | Ø1/2" Optical Post, SS, 8-32 Setscrew, 1/4"-20 Tap, L = 2" |
| UPH2 | 1 | Ø1/2" Universal Post Holder, Spring Loaded Locking Thumbscrew, L = 2" |
| <input type="button" value="Add To Cart"/> <input type="button" value="Export"/> <input type="button" value="Forward"/> | | |
| Item # | Qty | Description |
| Metric Product List | | |
| LJ1918L1-A | 1 | f = 5.79 mm, H = 4.00 mm, L = 6.0 mm, N-BK7 Plano-Convex Cylindrical Lens, Antireflection Coating: 350-700 nm |
| CYCPA/M | 1 | 30 mm Cage Mount for Cylindrical Lenses, M4 Tap |
| ER2-P4 | 1 | Cage Assembly Rod, 2" Long, Ø6 mm, 4 Pack |
| CPU1/M | 1 | 30 mm Rotating Cage Segment Plate, Two SM1RR Retaining Rings Included, Metric |
| ER4-P4 | 1 | Cage Assembly Rod, 4" Long, Ø6 mm, 4 Pack |
| TR50/M | 1 | Ø12.7 mm Optical Post, SS, M4 Setscrew, M6 Tap, L = 50 mm |
| UPH50/M | 1 | Ø12.7 mm Universal Post Holder, Spring-Loaded Locking Thumbscrew, L = 50 mm |
| <input type="button" value="Add To Cart"/> <input type="button" value="Export"/> <input type="button" value="Forward"/> | | |



Click to Enlarge

| Part Number | Description | Price | Availability |
|-------------|---|---------|--------------|
| CYCP/M | 30 mm Cage Mount for Cylindrical Lenses, M4 Tap | \$99.75 | 7-10 Days |
| CYCP | 30 mm Cage Mount for Cylindrical Lenses, 8-32 Tap | \$99.75 | Today |

