

SCL60C - July 29, 2024

Item # SCL60C was discontinued on July 29, 2024. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

SELF-CENTERING LENS MOUNT FOR 60 mm CAGE SYSTEMS

- ▶ **Compatible with 60 mm Cage Systems**
- ▶ **Non-Marring Delrin®* Fingers with Alignment Grooves that Firmly Grip the Edge of the Optic**
- ▶ **Self-Centering, Spring-Actuated Design**

Application Idea

SCL60C Holding an ACL4532 Ø45 mm Aspheric Condenser Lens in a 60 mm Cage System



SCL60C
60 mm Cage-Compatible
Self-Centering Lens Mount



OVERVIEW

Features

- Spring-Actuated Non-Marring Delrin®* Fingers Center an Optic Within the Mount
- Alignment Groove on Fingers Firmly Grip the Edge of the Optic
- Holds Optics from Ø0.15" (Ø3.8 mm) to Ø1.77" (Ø45.0 mm)
- Compatible with Thorlabs' 60 mm Cage System
- Designed for Easy Lens Insertion
- Provides Large, Clear Aperture

The three spring-loaded fingers of Thorlabs' 60 mm Cage-Compatible Self-Centering Lens Mount firmly grip optics ranging from Ø0.15" (Ø3.8 mm) to Ø1.77" (Ø45.0 mm) that are no heavier than 1.0 lb. The fingers are easily opened with one hand by pinching the actuator tabs between the thumb and forefinger. The lens is held between the mounting fingers as the actuator tabs are released. The nested ring design centers the optic within a 60 mm Cage System. The mount features four through-holes to accommodate our ER Series Cage Rods and eight 4-40 setscrews to lock them into place. A bottom-located 8-32 (M4) tapped hole also allows for direct fastening to our Ø1/2" Posts.

For post-mounting applications outside of a cage system, or if larger diameter optics up to Ø3.00" (Ø76 mm) need to be accommodated, Thorlabs offers Self-Centering Lens Mounts.

*Delrin is a registered trademark of DuPont Polymers, Inc.

CAGE OVERVIEW

Cage System Overview

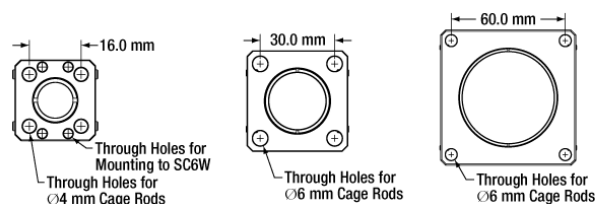
The Cage Assembly System provides a convenient way to construct large optomechanical systems with an established line of precision-machined building blocks designed for high flexibility and accurate alignment.

16 mm, 30 mm, and 60 mm Cage System Standards

Thorlabs offers three standards defined by the center-to-center spacing of the cage assembly rods (see image below). The 16 mm cage, 30 mm cage, and 60 mm cage standards are designed to accommodate $\varnothing 1/2"$, $\varnothing 1"$, and $\varnothing 2"$ optics, respectively. Specialized cage plates that allow smaller optics to be directly inserted into our larger cage systems are also available.

Standard Threads

The flexibility of our Cage Assembly System stems from well-defined mounting and thread standards designed to directly interface with a wide range of specialized products. The three most prevalent thread standards are our SM05 Series (0.535"-40 thread), SM1 Series (1.035"-40 thread), and SM2 Series (2.035"-40 thread), all of which were defined to house the industry's most common optic sizes. Essential building blocks, such as our popular lens tubes, directly interface to these standards.



An example of the standard cage plate measurements determining cage system compatibility.

Standard Cage System Measurements			
Cage System	16 mm	30 mm	60 mm
Thread Series	SM05	SM1	SM2
Rod to Rod Spacing	16 mm (0.63")	30 mm (1.18")	60 mm (2.36")
Total Length	25 mm (0.98")	41 mm (1.60")	71.1 mm (2.80")

Cage Components	
Cage Rods	16 mm
	30 mm
	60 mm
Cage Plates	16 mm
	30 mm
	60 mm
Optic Mounts	16 mm
	30 mm
	60 mm
Cage Cubes	16 mm
	30 mm
	60 mm
Replacement Setscrews	Replacement setscrews are offered for our 16 mm (SS4B013, SS4B025, and SS4B038) and 30 mm (SS4MS5 and SS4MS4) cage systems products.
Post and Breadboard Mounts and Adapters	Mounting options for cage systems can be found on our Cage System Construction pages. Cage Systems can be mounted either parallel or perpendicular to the table surface.
Size Adapters	Cage System Size Adapters can be used to integrate components from different cage system and threading standards.
Specialized	Thorlabs also produces specialized cage components, such as Filter Wheels, a HeNe Laser Mount, and a FiberPort Cage Plate Adapter,

Components

allowing a wide range of our products to be integrated into cage-mounted optical systems. Explore our Cage Systems Visual Navigation Guide to see the full range of Thorlabs' cage components.

Part Number	Description	Price	Availability
SCL60C/M	Customer Inspired! 60 mm Cage-Compatible Self-Centering Lens Mount, Ø0.15" (Ø3.8 mm) to Ø1.77" (Ø45.0 mm), M4 Tap	\$231.66	Today
SCL60C	Customer Inspired! 60 mm Cage-Compatible Self-Centering Lens Mount, Ø0.15" (Ø3.8 mm) to Ø1.77" (Ø45.0 mm), 8-32 Tap	\$231.66	Lead Time