

**PL15RMS - September 6, 2017**

Item # PL15RMS was discontinued on September 6, 2017. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

**PARFOCAL LENGTH EXTENDERS FOR MICROSCOPE OBJECTIVES**

- ▶ Add 15 mm to the Parfocal Length of an Objective
- ▶ Versions Available with RMS or M25 Threads
- ▶ Stackable for Compatibility with Industry-Standard Parfocal Lengths



**PL15M25**  
 Internal and External  
 M25 x 0.75 Threading



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**PL15RMS**  
 Internal and External  
 RMS (0.800"-36) Threading



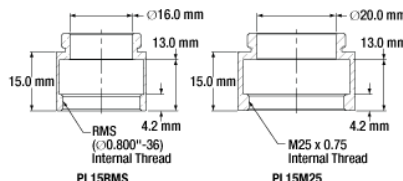
**Application Idea**  
 Objective with 45 mm Parfocal Length  
 Using PL15M25 Extender to Match  
 60 mm Parfocal Length Objective  
 (Shown Mounted on CSN1301 Nosepiece)

[Hide Overview](#)

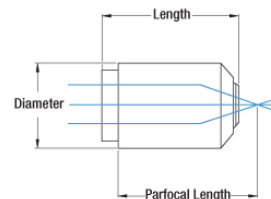
**OVERVIEW**

**Features**

- Increase an Objective's Parfocal Length by 15 mm per Extender
- Stackable Design Matches Multiple Industry-Standard Parfocal Lengths
- Versions Available with Either RMS (0.800"-36) or M25 x 0.75 Threads
- Anti-Reflective Interior Coating Minimizes Stray Reflections
- Solid Brass Construction



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 Cross-Sectional Schematics



As shown here, the parfocal length is the distance from the shoulder of the objective to the focal point.

Thorlabs' parfocal length extenders increase the parfocal length of an infinity-corrected objective by 15 mm per extender. Many applications in microscopy and imaging require the user to change objectives in the middle of a measurement. However, when changing objectives with different parfocal lengths, the user must refocus the system onto the sample. This not only costs time, but it can also make automation more difficult. Unfortunately, parfocal length is not the same from manufacturer to manufacturer or even within the same manufacturer. For instance, many Olympus and Zeiss objectives have a parfocal length of 45 mm whereas the standard for Nikon and Leica objectives is 60 mm. Furthermore, all these manufacturers also offer oversized objectives with a 75 mm parfocal length.

These extenders allow objectives to match the parfocal lengths of any of the industry standards. The PL15RMS features internal RMS (0.800"-36) threading on one end and external RMS threading on the other, while the PL15M25 features internal M25 x 0.75 threading on one end and external M25 x 0.75 threading on the other. Either adapter will extend a 45 mm parfocal length to 60 mm or a 60 mm parfocal length to 75 mm. By stacking two matched adapters together, the user can extend an objective with a parfocal length of 45 mm to one with a parfocal length of 75 mm. For objectives or objective holders with different threading, we offer a wide selection of thread adapters.

Thorlabs also offers the OT1 Objective Lens Turret, which is RMS-threaded and enables easy manual switching between four objectives. The PL15RMS extender is directly compatible with the turret, while the PL15M25 extender requires the use of an RMSA2 thread adapter.

[Hide Part Numbers](#)

Part Number	Description	Price	Availability
PL15RMS	15 mm Parfocal Length Extender for Microscope Objectives, RMS Threading	\$73.50	Lead Time
PL15M25	Customer Inspired!15 mm Parfocal Length Extender for Microscope Objectives, M25 x 0.75 Threading	\$73.50	3-5 Days