



A GuideScope with a Twist: William Optics 50mm GuideScope with 1.25" ROTO Lock Review

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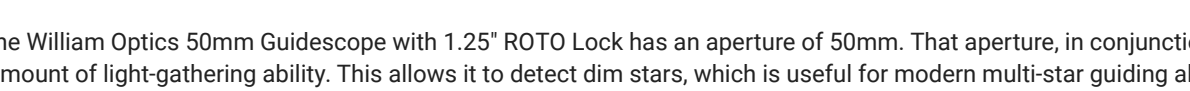
By Lee Pullen Published: Dec 03, 2022



William Optics 50mm GuideScope with 1.25" ROTO Lock plus optional William Optics Vixen-style Finder Mounting Bracket. Credit: Lee Pullen.

Guiding is vital to successful astrophotography. There are plenty of guidescopes available on the market. The **William Optics 50mm GuideScope with 1.25" ROTO Lock (MSRP \$141)** reviewed here is a good one to consider.

Vital statistics



As its name suggests, the William Optics 50mm GuideScope with 1.25" ROTO Lock has an aperture of 50mm. That aperture, in conjunction with its 1/4 focal ratio, affords it a good amount of light-gathering ability. This allows it to detect dim stars, which is useful for modern multi-star guiding algorithms such as those used in PHD2 and the **ZWO ASI AIR** range series of controllers (e.g. the **ASI AIR Plus MSRP \$299, reviewed here**).



The GuideScope comes with an extender that helps some cameras achieve focus. Credit: Lee Pullen.

The 200mm focal length makes it a good choice for main telescopes with mid-range focal lengths. I've been using it with my **Asker PHQ130 Flatfield Astrograph (MSRP \$3499, review coming soon)**, which has a focal length of 1000mm. If your imaging telescope is a wide-field rig, say, a focal length of 600mm or less, then the William Optics 50mm GuideScope with 1.25" ROTO Lock may be too long. You might be better off with something like the **William Optics 32mm Slide-base Uniguide Scope (MSRP \$109, reviewed here)**. If your telescope is at the other end of the spectrum and has a very long focal length, then an Off-Axis Guider may give you better results.

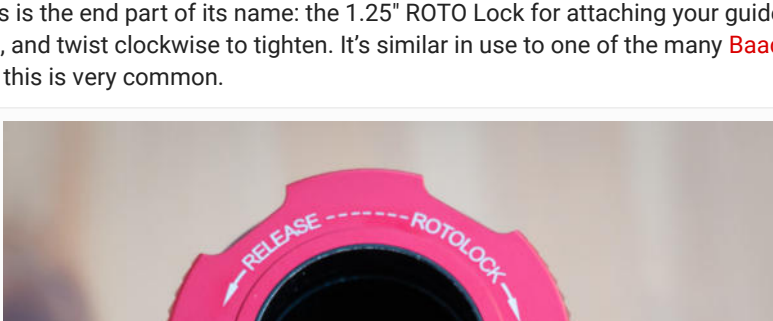
Build quality is good, as you'd expect with a William Optics product. It weighs 1.14lbs (0.52kg), which gives it some heft but isn't overly heavy. Front to back measures 10.4 inches (26.5cm). Its white powder-paint finish looks classy, although I noticed a few black patches around the end of the dew shield where the paint hadn't reached.



A few flecks of paint were missing. Credit: Lee Pullen.

ROTO Lock

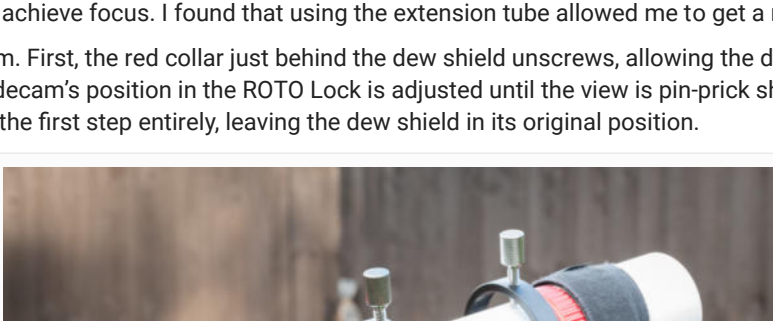
What sets this guidescope apart from others is the end part of its name: the 1.25" ROTO Lock for attaching your guider. It's simple to use; twist counter clockwise to loosen it, insert your guider, and twist clockwise to tighten. It's similar in use to the many **Baader Clicklock** accessories. The system does rely on your guider having a 1.25" fit, but this is very common.



The ROTO Lock system works well, holding a 1.25" guider securely. Credit: Lee Pullen.

The ROTO Lock system fit my **ZWO ASI120MM Mini (MSRP \$149, reviewed here)** perfectly. The guidescope comes with an optional extension tube that screws into the back, which some cameras need to achieve focus. I found that using the extension tube allowed me to get a more secure fit.

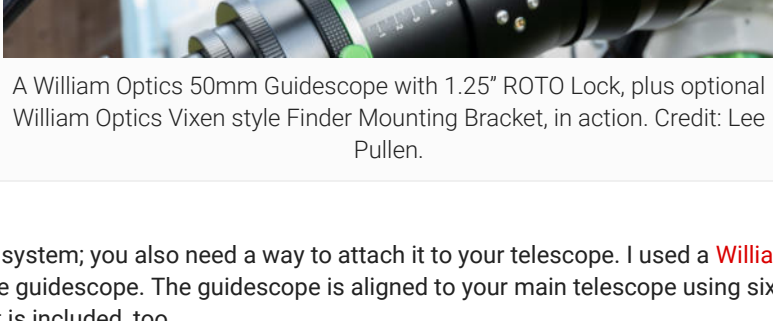
There are two steps to focusing a guider. First, the red collar just behind the dew shield unscrews, allowing the dew shield to be extended; the collar is then tightened to secure it in place. Then the guider's position in the ROTO Lock is adjusted until the view is pin-point sharp. When focusing my ZWO ASI120MM Mini, I found that I was actually able to skip the first step entirely, leaving the dew shield in its original position.



A William Optics 50mm GuideScope with 1.25" ROTO Lock, plus optional William Optics Vixen style Finder Mounting Bracket, in action. Credit: Lee Pullen.

Finder Mounting Bracket

The guidescope itself is just one part of the system; you also need a way to attach it to your telescope. I used a **William Optics Vixen style Finder Mounting Bracket (MSRP \$64)**. It's as well made as the guidescope. The guidescope is aligned to your main telescope using six thumbscrews that have plastic tips to avoid scratching paintwork. A finder bracket is included, too.



Package contents for the William Optics Vixen style Finder Mounting Bracket. Credit: Lee Pullen.



The thumbscrews have plastic tips to avoid scratching a guidescope. Credit: Lee Pullen.

The William Optics 50mm GuideScope with 1.25" ROTO Lock is also available in a version with an **integrated Uniguide Slidebase (MSRP \$163)**. This is good if your guidescope can fit flush against your main telescope tube, but you lose the fine adjustments afforded by the thumbscrews.

Under the stars

In use, I've found the William Optics 50mm GuideScope with 1.25" ROTO Lock to be very effective. In conjunction with my **Sky-Watcher EQ6R-Pro mount (MSRP \$2025)**, I routinely achieve a guiding RMS in the 0.3" to 0.6" range, with my all-time best of 0.29" being achieved on the second night testing the guidescope. Of course, a guidescope is just one part of an effective guiding system, but the William Optics 50mm GuideScope with 1.25" RotoLock is a strong component.



A guiding personal best! Credit: Lee Pullen.

Plus:

- * Good build quality
- * ROTO Lock works well
- * Version with Uniguide Slidebase available

Minus:

- * No discounted bundle for guidescope and finder mounting bracket.

MSRP: \$141

Website: www.williamoptics.com



About Lee Pullen



<http://urbanastrophotography.com>

Lee Pullen is a science writer and communicator from the city of Bristol, UK. He has a degree in Astronomy and a master's in Science Communication. He began his career writing for organisations including the Hubble European Space Agency Information Centre and the European Southern Observatory, as well as becoming Staff Writer for the International Year of Astronomy 2009, the world's largest ever science outreach initiative. Lee runs the website UrbanAstrophotography.com

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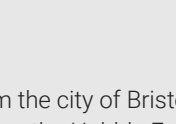
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