

# Askar

# 140 APO

■ User's Manual

**WARNING!**

**DO NOT LOOK AT SUN THROUGH TELESCOPE.  
IT WILL CAUSE IRREVERSIBLE DAMAGE TO YOUR EYE.**

[www.sharpstar-optics.com](http://www.sharpstar-optics.com)

## Instructions for use

The Askar 140APO is an OTA with a 140mm aperture, 980mm focal length, and f/7 native focal ratio. The Askar 140APO adopts a triplet air-spaced APO lens design, including one piece of ED glass.

As a large aperture, long focal ratio telescope, the Askar 140APO was designed with portability in mind. The shortest overall length is only 735mm, the net weight is 9.2kg, and the gross weight is 10.9kg (including the handle, tube ring, and dovetail plate).

The entire lens tube of the Askar 140APO is crafted with high-quality CNC machining, anodizing, and surface spray paint treatment. Inside the main tube, it is coated with matting paint and equipped with an internal baffle.

The retractable design of the dew shield, along with the enlarged locking screw, prevents the dew shield from slipping.

The tube rings of the Askar 140APO have a light weight of 1.7kg. The handle is 220mm long and has a special slot design, making it able to attach other accessories that need a finder base. The CNC thumb screws on the tube rings enable easy opening and locking without other tools. The standard Losmandy dovetail plate, which is compatible with most equatorial or altitude-azimuth mounts on the market, has multiple holes designed for adjusting the position of the tube rings and the plate. The length of the plate reaches up to 300mm, making it more convenient for balancing on the equatorial mount.

The rear lens tube of the Askar 140APO has an integrated retractable design. We strengthen the overall stability and ensure that the optical axis will not be affected when the lens tube is stretched, thus guaranteeing the quality of the image. The retractable part also features a rudder-type locking ring that makes it easy to loosen or tighten.

When the lens tube is contracted, the Askar 140APO can be used with a binoviewer for visual observation. When the lens tube is stretched, the 140APO can be equipped with a specific reducer or specific flattener for imaging or a diagonal and eyepiece for visual observation.

In terms of the focuser, the Askar 140APO is equipped with a CNC-machined dual-speed R&P large 3.5-inch rigid focuser, which

can be compatible with most motorized focusers on the market. The focuser provides 100mm focusing travel and is equipped with a high-precision, big 360° rotator. It adopts laser-engraved scales in the length direction and the circumference direction, which is convenient for adjusting and recording. It is also equipped with an enlarged rotator locking screw, preventing image shifting during shooting. Inside the focuser tube, there is an anti-reflective internal design and matting paint, providing extra measures to eliminate stray light.

There are two finder bases on both sides of the focuser, which not only eliminates the need for disassembling when changing the position of the finder scope but also provides additional mounting positions for other astronomical accessories.

The Askar 140APO is an OTA that emphasizes the compatibility of observing equipment, with the rear of the focuser paired with a 1.25"/2" adapter for easy visualization. It can easily achieve focus when connected to 1.25" or 2" diagonals or various eyepieces.

Because of the retractable lens tube design, it can also be attached to a binoviewer for visual observation.

Aperture size:140mm

Focal length:980mm

Focal ratio:f/7

Objective lens: Triplet air-spaced APO(including one ED glass)

Total length:735mm(when the dew shield is contracted)

870mm(when the dew shield is stretched)

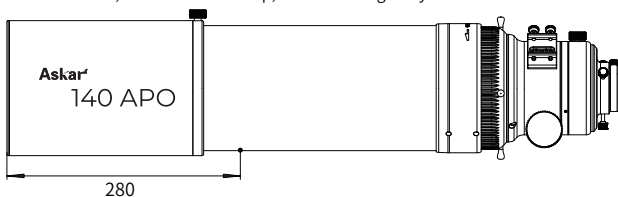
The length of the rear retractable lens tube: 125mm

Net weight:9.2kg

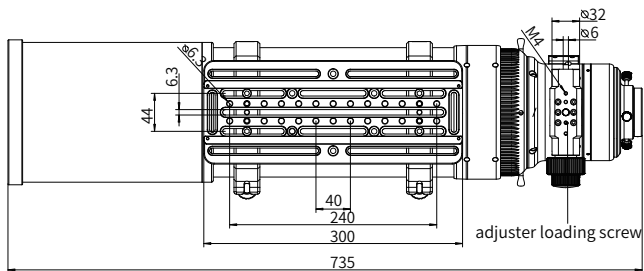
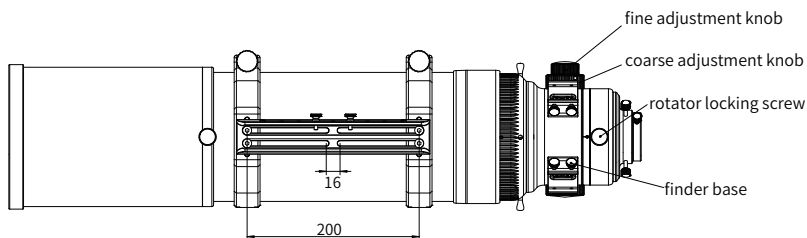
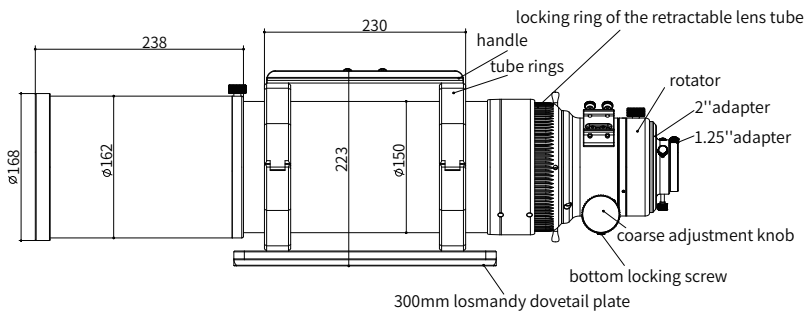
Gross weight:10.9kg

Rear-end adapter:2"adapter,1.25"adapter

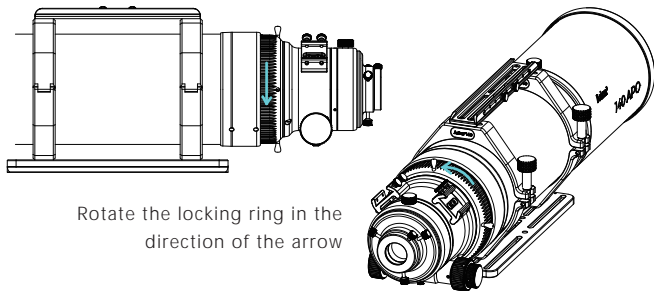
With all tubes contracted, remove the lens cap, the center of gravity is about 280mm from the front end.



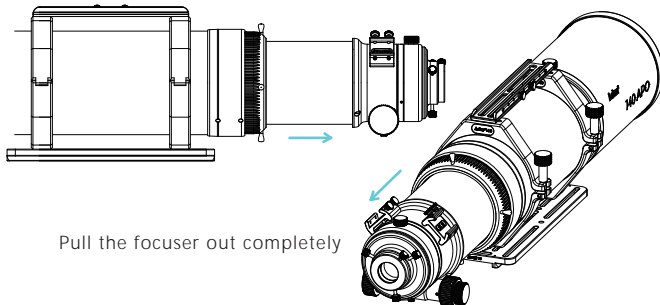
# Product Parts and the Size Diagram



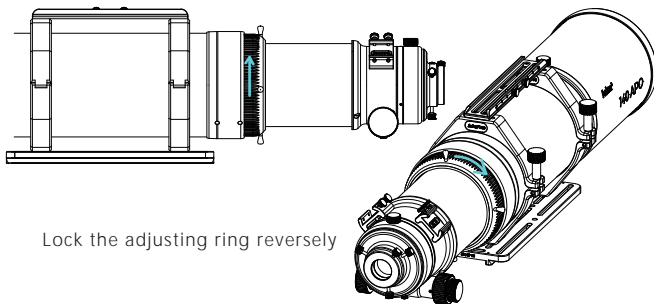
## Steps for using the retractable lens tube



Rotate the locking ring in the direction of the arrow

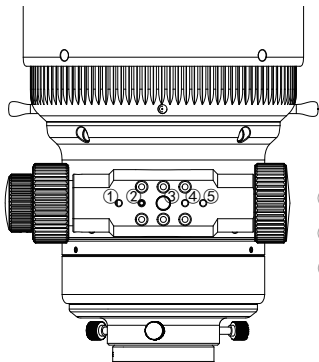


Pull the focuser out completely



Lock the adjusting ring reversely

## The Locking Screw Position Diagram

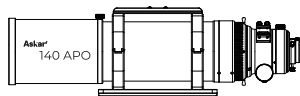


② Bottom Load Adjustment Screw

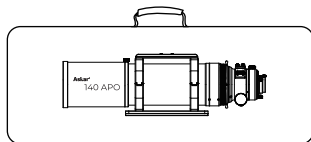
③ Bottom Locking Screw

①③④⑤ can be used for electric focusing bracket installation

## Items in 140APO Packaging



an 140APO OTA, a pair of tube rings, a handle, an Askar 300mm Losmandy dovetail plate



A transportation bag



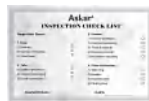
Instruction manual



Warranty card



Qualified certificate



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