

# FRA600

## User's Manual

### WARNING!!

NEVER VIEW THE SUN THROUGH THE TELESCOPE. THIS WILL CAUSE INSTANT BLINDNESS TO THE EYE. PLEASE PURCHASE A SPECIAL SOLAR OBSERVATION FILTER FOR THE SAFEST OBSERVATION GUIDANCE. THROUGH THE FINDERSCOPE WILL ALSO CAUSE SERIOUS DAMAGE TO THE EYE. PLEASE KEEP CHILDREN AWAY FROM THE SCOPE DURING THE DAY.

www.askarlens.com

Mechanically, the FRA600 has a tube diameter of 120mm and a retractable dew-shield. With the dew-shield retracted, the total length is only 493mm, making it a great portable 4" astrograph.

A set of multifunctional red anodized tube rings that include mounting points on three sides, makes it easy to attach accessories such as guider scope for backyard viewing.

In addition to supporting wide field astrophotography, the FRA600 is also perfect for high quality observation, provides complete lack of chromatic aberration and create images with impressive contrast of realistic visual experience.

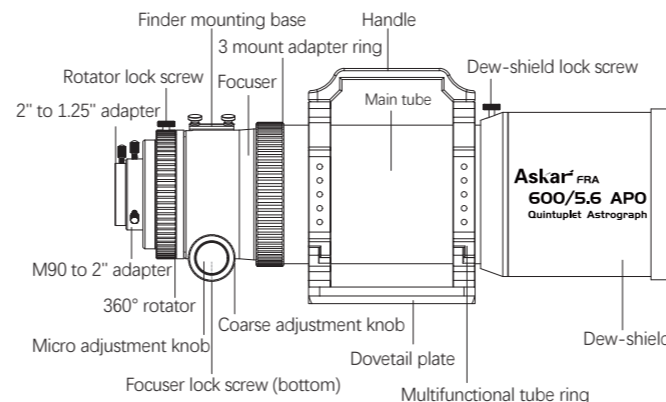
If the FRA600 is just a triplet APO refractor, then the price is reasonable, but the FRA600 is a 4.3" Quintuplet Super APO FRA600 Astrograph, its build and finish are unprecedented for an astrograph in this price range, moreover, the FRA600 offers cost-effective superb performance, is a pleasure to use.

### Specification

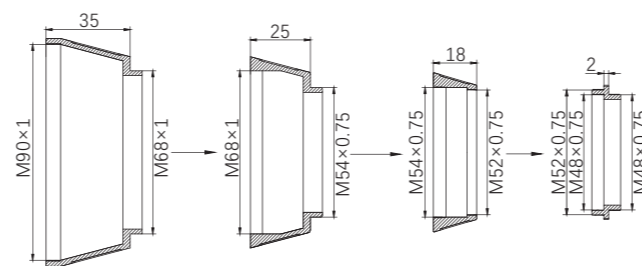
- Aperture: 108mm
- Focal length: 600mm
- Focal ratio: F5.6
- Objective type: Quintuplet flat-field APO (including two ED elements)
- Image circle: 66mm
- Back focus: 160mm (from the end of rotator M90x1 thread)
- Overall length: 493mm
- Tube weight: 6.5kg
- Standard packing weight: 7.8kg(not include Aluminum case)
- Back-end adapter: M108x1 male thread (no rotator), M90x1 male thread, 2" adapter/ 1.25" adapter
- Conical adapter: M90x1-M68x1-M54x0.75-M48x0.75

Accessories: a pair of tube rings, a handle, a dovetail plate, sectional conical tube adapter (with M54X0.75 and M48x0.75 male thread), an inspection list, a manual

### Product Parts Diagram



### Conical Adapter Diagram



English

### Instructions for use

Today Sharpstar announces the newest addition to its Askar FRA series, the Askar FRA600/5.6. Following the excellent optical performance of its first FRA400/5.6, the FRA600/5.6 is an evolution of the FRA series, an upgraded lens has a 108mm aperture and a 600mm focal length, the f/ratio is still f/5.6, and the image circle is 66mm surpass the full frame!

This FRA600 Quintuplet Refractor is also built on a Petzval design, offering a front triplet and rear doublet lens constructed of 5-element, includes two ED elements. This combination provides a high level of apochromatic performance for astroimaging.

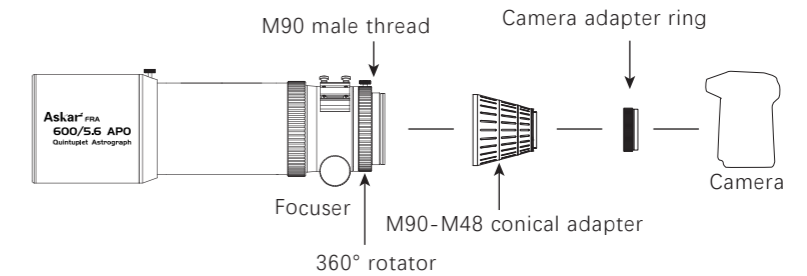
With wonderful optics design, the FRA600 telescope provides a 66mm image circle to ensure excellent star shape across the entire flat field whilst controlling chromatic aberration, minimizing the distortion.

The two lens in the rear group have a 80mm diameter, effectively reduces the occurrence of decreased field illumination. With the precision lens manufacturing, it obtains theoretical optimal pinpoint stars, bringing you beautifully round stars and clean detail image.

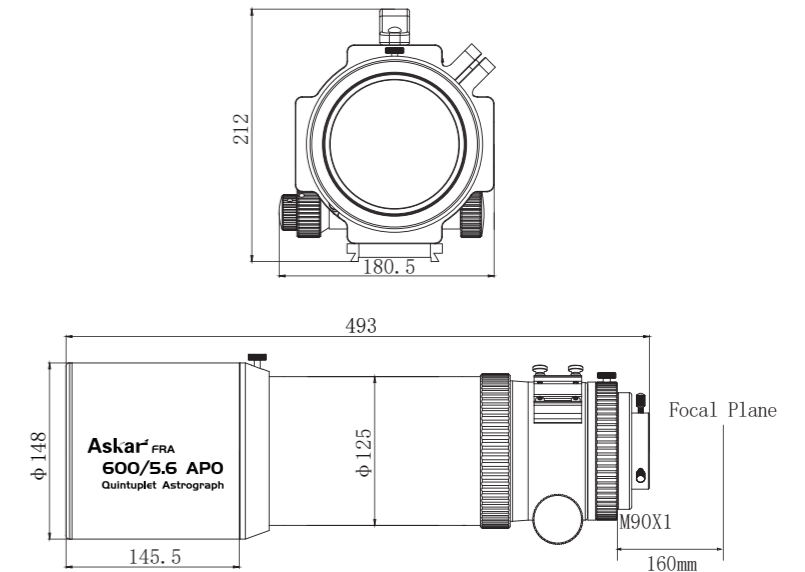
The FRA600 comes fitted with a large 4.2" rack and pinion focuser and includes the standard 1:10 micro-adjustment knob, the focuser lift the payload to a pro level, offers smoothly operation when heavy imaging equipment and accessories are attached, without slipping, becomes a performance upgrade.

The focuser allows multiple connection thread. Askar offers a standard conical extension tube with M54x0.75 and M48x0.85 thread to connect various photography equipments.

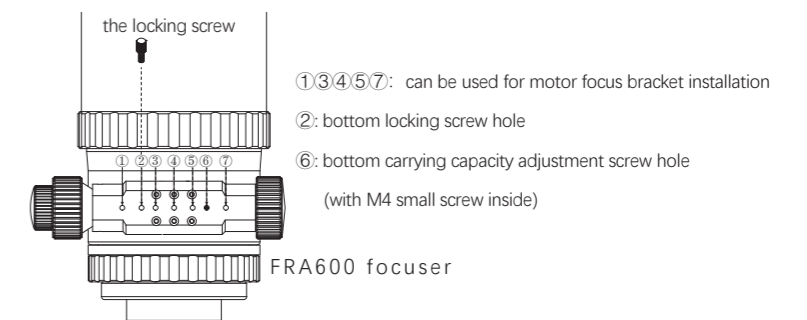
### Connection Diagram of Camera



### Product Size Diagram



### The Locking Screw Position Diagram



### Items in FRA600 Packaging

