Askar

FRA600

■使用说明书

User's Manual

WARNING!!

请不要通过本望远镜直接观察太阳,这样做可能导致瞬间失明。 请购买专用太阳观测滤镜或滤膜、来获得最安全的观测指导。通过 寻星镜,也可以造成眼睛的严重损害。请让孩子白天远离望远镜。

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

> 欢迎使用ASKAR FRA600 www.askarlens.com

一对多功能报箍预留多排连接孔位,使得用家在布置导星镜等相关附件 时非常灵活, 方便,

FRA600如同FRA400一样,除了完美支持平坦的大画幅天文拍摄之外 高质量观测也是其拿手的强项,提供极小色差以及高对比度的目视畅快 体验,让您身临其境,难忘于其高品质表现。

如果说FRA600只是一套三片式APO折射镜,相对于其价格也是合理的; 而FRA600 是拥有五片镜片的4.3英寸超级APO摄星镜,集高质量拍摄观 测于一体,其高性价比不言而喻。

规格

口径: 108mm 焦距: 600mm 焦比: F5.6

物镜类型: 五片式全分离APO(包含两片ED)

影像圈: 66mm

后截距: 160mm (从旋转器M90x1端面开始算起)

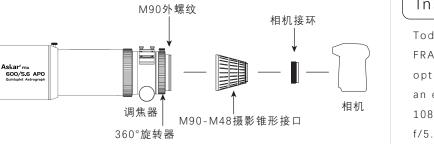
全长: 493mm 本体重量: 6.5kg

标准装重量: 7.8kg (不含铝箱)

末端接口: M108×1外螺纹(不含旋转器), M90×1外螺纹, 2英寸插

锥形接口: M90×1转M68×1, M68×1转M54×0.75, M54×0.75转 M48×0.75

标准附属品:抱箍一对,把手一个,鸠尾板一个,分段式锥形接口(含 M54X0.75以及M48x0.75外螺纹),质保书一份,说明书一份



相机连接示意图

600/5.6 APO 360°旋转器 微调旋钮 粗调旋钮 调焦器锁紧螺丝(底部)

Instructions for use

English

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.

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: M90×1-M68×1-M54x0.75-M48×0.75

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

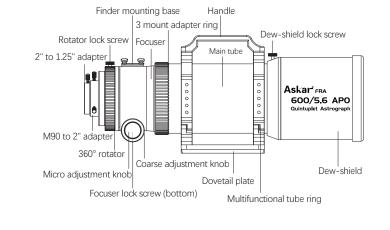
360° rotator

Connection Diagram of Camera

M90 male thread

Camera adapter ring

M90-M48 conical adapter



中文版 (简体)

使用产品前请仔细阅读本使用说明书。

Askar FRA600/5.6 (656) 是锐星光学旗下子品牌Askar FRA系列里的第 二款型号, 秉承第一款FRA400/5.6 (456)的优异性能, 口径升级为 108mm, F焦比仍然采用5.6, 焦距达到了600mm, 影像圈更是达到了

采用与FRA400类似的匹兹伐结构, 前三后二的镜片组合, 共五片镜片, 其中两片为ED玻璃,保证天体影像的高品质。

优秀的光学设计使得FRA600在66mm影像圈各个范围内星点均匀平整,

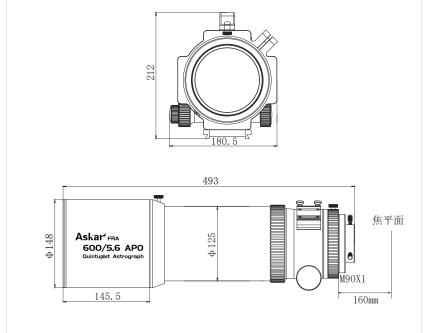
后群两枚镜片直径达到了80mm, 有效降低视场照明减光效应, 严苛的 镜片加工使得星点最大幅度的接近理论设计,给您带来清晰细腻的画面 感受。

4.2英寸超大型号有齿调焦器配备1:10微调手轮使得在精细调焦的同时, 载重量得以提升到专业级别,连接重型专业成像设备及附件能确保稳定 运作, 使得各设备快速进入最佳工作状态。

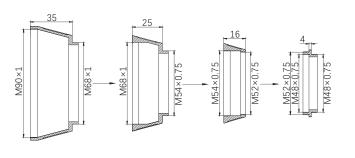
调焦器配备多种自带的连接螺纹、标准配备的附件:锥形拍摄延长管也 配备有m54x0.75以及m48x0.85的螺纹接口,方便连接各种相关设备。

主镜筒直径为120mm, 配备伸缩式遮光罩, 缩进状态全长仅为493mm 让高质量便携式4寸摄星镜成为了可能。

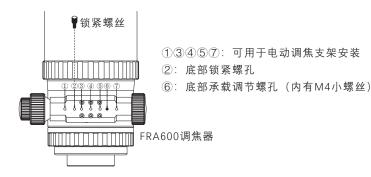
产品尺寸图



四段式锥形接口示意图



锁紧螺丝示意图





调焦器底部锁紧螺丝 抱箍扳手

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.

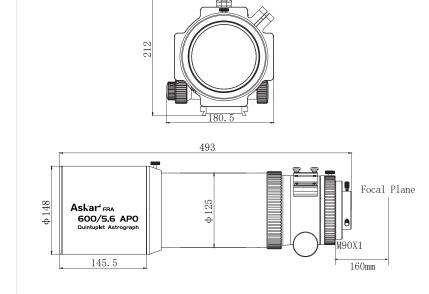
Mechanically, the FRA600 has a tube diameter of 120mm and a retractable dew-shield. With the dew-shield retracted, the total length is only 493mm, making it a great portable 4" astrograph.

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.

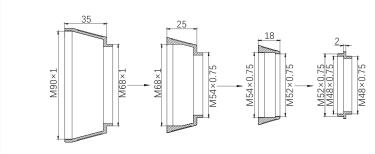
In addition to supporting wide field astrophotography, the FRA600 is also perfect for high quality observation, provides complete lack of chromatic aberration and create images with impressive contrast of realistic visual experience.

If the FRA600 is just a triplet APO refractor, then the price is reasonable, but the FRA600 is a 4.3" Quintuplet Super APO

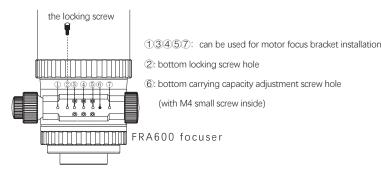
Product Size Diagram



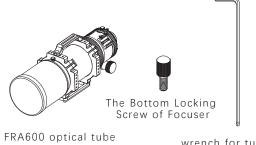
Conical Adapter Diagram



The Locking Screw Position Diagram



Items in FRA600 Packaging



wrench for tube rings

Instruction manua

FRA600