



Sirius Optics
Unit 1
26 Darnick Street
Underwood, Qld 4119

Opening Hours
10am-5:30pm Mon-Fri
9am-2pm Sat

Phone: 07 3423 2355
www.sirius-optics.com.au

Astrodon 1.25" 5nm H-Alpha (Ha) 656.3nm Filter

AUD
\$799.00

Product Images



Short Description

Astrodon 5nm Narrowband Filters - H-alpha 5nm

H- α (hydrogen-alpha) at 656 nm (nanometers) is deep red in color and the most popular narrowband filter. Hydrogen is ubiquitous in the cosmos and is present in emission nebula (North American, Pelican), planetary nebula (Dumbbell, Ring), Wolf-Rayet objects (Crescent, Thor's Helmet) and supernova remnants (Veil).

Description

Many imagers like to present just a black-and-white H- α image of an object. It has a beauty all by itself, like an Ansel Adams photo. However, most imagers blend their H- α data into their red RGB data to enhance structural detail while maintaining a "natural" look. Therefore, the H- α filter should be your first narrowband addition to your LRGB filters. The basic imaging set of 5 filters becomes LRGBH- α .

Astrodon H- α filters have a center bandwidth of 656.3 nm

Astrodon Narrowband filters set a new bar of performance and durability for imaging and research. The narrow 5 and 3 nm bandwidths enhance contrast of emission targets by lowering your background signal. The guaranteed >90% transmittance at the emission wavelength provides you with the highest signal available.

This guaranty is expensive to manufacture for such spectrally narrow filters, but it assures you in writing on each filter box that you will get what you paid for. These two factors combine to provide you with the highest contrast available. Our latest narrowband filters are typically achieving >95-98% transmittance. Astrodon Narrowband filters are renowned for minimizing halos around bright stars, even for long exposures of 30-45 minutes typical of narrowband imaging in astrophotography. Lastly, Astrodon Narrowband filters are coated to the edge of the part and are edge blackened. This is critical to minimize stray light for a filter that blocks most light except for the narrow bandpass.

Astrodon Narrowband filters for imaging are all about contrast. What do we mean by this? Contrast brings out faint features by reducing the background - the narrower the filter, the better. The problem is keeping the signal (%T at the emission line) constant as the filter becomes spectrally narrower. This is why our >90%T guarantee is so important, even though it becomes very costly to manufacture. But, this assures you that you can take advantage of the improved contrast with our narrower filters compared to the much less expensive 7- 8.5 nm filters on the market.

You can see the increase in contrast in the sequence of equal-exposure images of the Crescent Nebula (NGC 6888) taken on the same system and on the same night. As the bandwidth becomes narrower, the nebula "pops" out of the background, as does the faint surrounding nebulosity. Actually, the >90%T is a legacy specification, since new production technologies employed over the past 3-4 years routinely produces 97-98%T at the emission wavelengths.

Additional Information

Specifications	N/A
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