

FIRST LIGHT

See an interactive 360° model of these eyepieces at www.skyatnightmagazine.com/omegonpan2



Omegon Panorama II eyepieces

WORDS: STEVE RICHARDS

A smart set of lenses that open up the sky into glorious widescreen

VITAL STATS

- Price £199-£229
- Focal Length 5mm, 10mm, 15mm, 21mm
- Apparent field of view 100°
- Eye relief 13mm-20mm
- Optical elements 7mm-9mm
- Barrel size 1.25-inch (5mm and 10mm lenses), 2-inch (15mm and 21mm lenses)
- Supplier Astroshop.de
- www.astroshop.de
- Tel +49 8191 940491

For anyone used to using a typical Plössl eyepiece, the ultra-wide field of vision offered by these Omegon Panorama II eyepieces will open up a whole new observing experience. Rather than the feeling that you're observing through a tube, you'll be able to soak up the detail across a far wider expanse of sky.

Omegon's new eyepiece collection comprises oculars with focal lengths of 5mm, 10mm, 15mm and 21mm, giving them a wide range of uses. As with other eyepiece collections, the shorter focal lengths are most suitable for observing Solar System objects and galaxies while the longer focal lengths are more suited to open clusters and extended nebulae. However, that's not a rule written in stone and there's plenty of pleasure to be found in observing galaxies in their natural habitat in a wide-field context, just as there's always something magical about observing the whole of a quarter Moon isolated in space.

The collection is neatly divided into two styles of eyepiece: 2-inch barrels for the 21mm and 15mm versions and 1.25-inch barrels for the 10mm and

SKY SAYS...
Great lenses for taking in a wider expanse of the sky without sacrificing on viewing quality

5mm. This means that your telescope will need a 2-inch eyepiece holder and a 1.25-inch eyepiece adaptor to accommodate both versions. There are undercuts in both barrel types. As the true field of view increases, there comes a point where the field stop of a 1.25-inch eyepiece becomes the limiting factor in the width of view that is possible. A 2-inch eyepiece overcomes this limitation as the diameter of its field top is larger than that of a 1.25-inch eyepiece.

What's in the box?

The Omegon Panorama IIs are supplied in a substantial retail box and beautifully finished in gloss black with two red stripes looping them. Two rubber grips give handling confidence even when you're wearing gloves. Dust covers are included for both ends of each eyepiece and there's a microfibre cloth for cleaning the lenses. The dust caps for the eye lenses are tapered which made them a pain to pick up. Weighing from 322gm to 709gm, the eyepieces have a satisfying heft to them.

The 21mm and 15mm pair are parfocal as are the 10mm and 5mm pair, but you need to rack the ▶

Rubber grip

Great care needs to be exercised when handling eyepieces in the cold and dark, and heavier eyepieces increase the risk of an accident. Each of the Omegon eyepieces has two bands of 15mm-deep chunky rubber grip surrounding the widest parts of their bodies. The well-designed, raised surface provides a very non-slip grip.

Multi-coating

Multi-coating the individual lens elements increases light transmission through the eyepiece by reducing the reflections that would otherwise decrease the contrast in the view. The coatings were applied to an extremely high standard with no visible blemishes and displayed a classic green tinge with hints of purple deeper into the eyepiece body.



2-inch and 1.25-inch barrels

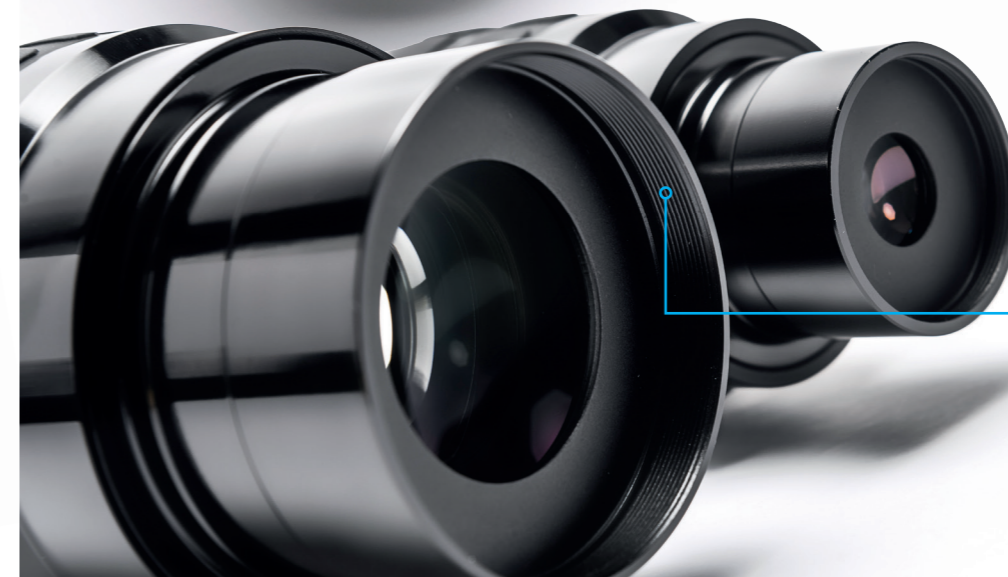
The 21mm and 15mm eyepieces have 2-inch barrels and the 10mm and 5mm have 1.25-inch barrels. The barrels are provided with undercuts to help protect them from slipping out of the eyepiece holder in the diagonal. The 2-inch undercuts were a good match for our compression rings but the 1.25-inch ones were too narrow to be effective.

Eyes even wider open

Two important attributes determine your choice of eyepiece for a particular observation: the focal length and the apparent field of view (AFOV) in degrees (°). The focal length determines the magnification of a particular telescope (magnification = focal length of telescope/focal length of eyepiece) and the AFOV determines the true field of view observed depending on the magnification (true field of view = AFOV/magnification).

A standard Plössl eyepiece, like those often bundled with new telescopes, comprises four lens elements and produces an AFOV of around 52°. The Omegon Panorama IIs have between seven and nine lens elements with a large eye lens allowing for some clever optical manipulation to nearly double that AFOV to 100°. As a result, they produce a really wide true field of view.

As well as allowing you to see more of a large object through the telescope, a really wide field of view provides a wonderfully immersive experience giving you the feeling of being part of the view you're observing.



Filter thread

The Omegon eyepiece barrels are threaded to take 2-inch or 1.25-inch filters as appropriate. Many celestial objects respond well to the use of special filters – such as narrowband Oxygen III (OIII) and ultra high contrast (UHC) for deep-sky or #80A blue filter for the Moon and planets – as these can increase the contrast in the view.

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► focus in by an extra 10mm when moving from the 2-inch to 1.25-inch eyepieces.

We tested the eyepieces in two of our refractors, a Williams Optics FLT 98 and a Megrez 72FD observing a range of objects. Even with the rubber eye cups folded up we found eye placement a little tricky at first but soon got into the swing of it and with close scrutiny we were able to see the whole field of view, although the field stop was not particularly distinct. With the generous eye relief of the 10mm, 15mm and 21mm lenses we could just see the field edge when wearing spectacles with the rubber eye cup in the folded-down position but struggled to do the same with the 5mm eyepiece.

We enjoyed some wonderful views of the Moon and one clear night coincided with the appearance of the Lunar X and Lunar V that stood out stunningly using all four eyepieces. Our most memorable lunar observations were the sublime views that we achieved using the 5mm eyepiece to take in the Montes Apenninus followed by Huygen's Sword (Rupes Recta).

We trained the 21mm and 15mm eyepieces on the Pleiades star cluster and were rewarded with a sparkling, sharp view through both. Moving to M42, we used the 5mm eyepiece to look deep into the Trapezium region and also enjoyed some wonderful views of the tendrils of nebulosity that surround this area using the 10mm eyepiece.

On 23 February, the Moon was close to Aldebaran

Fold-up rubber eye cup

Each eyepiece is equipped with a soft rubber fold-up eye cup that is used to obtain the best views from any eyepiece by helping to keep stray external light at bay. These cups provide a comfortable resting point for positioning your eye accurately over the exit pupil or spectacle wearers can fold them down.



and this allowed us to star-test the eyepieces under harsh observing conditions. We found that good star shapes extended to at least 90 per cent of the field of view and extraneous light from the close-by Moon was barely apparent.

We really enjoyed using these eyepieces and heartily recommend them to intermediate and more experienced observers. **S**

Verdict

Build and design	★★★★★
Ease of use	★★★★★
Extras	★★★★★
Eye relief	★★★★★
Optics	★★★★★
OVERALL	★★★★★

SKY SAYS... Now add these:

1. Omegon 5-in-1 optics cleaning set
2. UHC 1.25-inch filter
3. Omegon Pro 1.25-inch LRGB filter set