

Binocular Sky Review: Opticron Adventurer 10x50

Manufacturer's Specification

Weight (g)	846
Field of View (°)	6.6
Close Focus (m)	5
Eye Relief (mm)	19
IPD (mm)	57-72
Waterproof	No
Prism Type	Porro
UK Guarantee	2 year
Origin	China
Body Material	Aluminium Alloy
Armour Type	Partial
Nitrogen Gas Filled	No
Prism Material	BK7
Prism Coating	Single
Lens Coating	Fully coated
Eyecup Type	Fold



Price: £49.50

Available from: [First Light Optics](#)

Initial Impressions

The binocular is of Zeiss-type construction. The textured rubber armour, which covers the objective tubes and prism housings gives a secure grip. The centre-focus is initially slightly sticky if it hasn't been used for a while, but is otherwise smooth throughout its

range. The right eyepiece dioptre adjustment is similar and is easy to adjust. The hinge is smooth and sufficiently tight so as not to accidentally slip once it is adjusted. The fold-down eyecups are soft enough to be comfortable against the eyes sockets. There is some rocking of the eyepiece bridge under moderate pressure, although it did not change focus under normal use or when I held the binocular tight to my eye sockets or spectacles.

The single-layer coatings look evenly applied and reflect a small amount of light. There is no baffling inside the objective tubes and the prisms appear to be cemented in place. There is a very small opaque segment in each of the exit pupils, suggesting that the prisms are very slightly undersized, but not so much as to noticeably affect light throughput.

The soft, slightly padded case is sufficient to keep the binocular clean, but will only protect it against the lightest of knocks. The plug-in type objective covers are a reasonable fit and stay in when you take the binocular out of its case, as long as the tethering tags are on the inner side of the tubes

where they do not rub against the case. They can be attached to the strap (see image) when they are taken out, but can be knocked off. The eyepieces have a very nice two-cup cover which can be tethered to the strap on the either side. Its flexible nature means that it does not restrict the IPD. The strap is of good quality and is comfortable on a bare neck.



Testing the Specifications

As is common with binoculars in this price bracket, the aperture is internally stopped in order to increase sharpness, but it is minimal and the effective aperture is 47mm, much greater than in many equivalent-priced binoculars. Examination of reflections when a bright light is shone down the objective end confirms the fully coated spec. There are grey segments in the exit pupils, confirming that the prisms are of low-index (BK7) glass. The minimum interpupillary distance is 55.5 mm. The eye cups are 43.5 mm diameter, so there is 12 mm between them at their closest and 13.5 mm at the specified minimum IPD of 57mm; this should accommodate most noses. The objective lenses are recessed 14mm into their barrels, which offers some protection against accidentally touching them. The full field of view is visible when observing with spectacles with the eyecups down. With fully-corrected vision, the right eyepiece dioptre is set at zero, suggesting that it is properly adjusted. I measured close focus at 4.7 m, and there is a large amount of “beyond infinity” focus at the other extreme, so the binocular should be usable without spectacles by people with moderate to severe myopia. It weighs 844g “naked”, and 897g with caps and neck strap.

Under the Stars

Collimation was very good and easily within acceptable tolerances. The view is crisp over the central 75% of the field of view, with a central sweet spot of about 40%, and is tolerable to about 90%. Vignetting towards the edge was noticeable, but not obtrusive. Control of false colour (chromatic aberration) is good on axis, but is noticeable on bright objects (e.g. the lunar limb) immediately the object is off-axis; it was not noticeable on first magnitude stars except near the edge of the field of view. There is some pincushion distortion: it is unobtrusive, but is sufficient to eliminate the nauseating “rolling ball” effect that can occur without it. Stray light is very poorly controlled, probably due to the lack of baffling in the objective tubes: there was a large amount spurious light from the Moon when it was outside the field of view, but none was detectable from Vega.

“A stunningly good binocular for fifty quid!”

The Dumbbell Nebula shows shape, but not structure. The Andromeda Galaxy showed shape and good differentiation of the core; I could fleetingly distinguish a sharper cut-off in brightness from the dust lane at the nearer edge. This binocular comfortable to use and seems well-balanced for hand-holding. The rubberised eye-cups were comfortable in my eye sockets. It is also tripod-mountable, using a standard L-bracket.

Conclusions

This is a very good first binocular for someone on a budget who is starting out in binocular astronomy; you would need to spend perhaps three times as much to get a binocular that gives significantly better images. I was testing it in tandem with a fully multicoated binocular that costs more than four times as much; the Adventurer was about half a magnitude less bright. All binoculars at this price will have “issues” and the most noticeable drawback of this one is the poor control of stray light. However, this was only noticeable when the Moon was within about five degrees of the field of view and, unless you intend to use the binocular for observing lunar occultations, this is unlikely to adversely affect your observing. On reviewing the voice-recordings I made while testing, I became aware of how often I commented to the effect that “this is a stunningly good binocular for fifty quid”. It really is: it is noticeably better quality than many of the equivalent-priced binoculars I have encountered and was as bright on axis as my Strathspey Marine 10x50. The star images are surprisingly tight for a binocular of this price and demonstrates just how unjustly-maligned BK7 prisms are.

Binocular Sky Ratings (/10)	
Sharpness of Image	8
Size of usable field	7
Colour Correction	7
Control of stray light	4
Eye relief	10
IPD	8
Overall Optical Quality	7.3
Focus mechanism	8
Right eyepiece adjustment	8
Eye cups	8
Hinge	8
Armour	6
Weight and Balance	8
Overall Mechanical Quality	7.7
Case	4
Neck-strap	8
Objective caps	8
Eyepiece caps	10
Value for Money	9
Overall	7.9

[Click here](#) to see the **Opticron Adventurer 10x50** on [First Light Optics](#) website

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