

# GROUP test

## Binocular brilliance

Picking up a pair of 10x50 binoculars is an easy way to unlock the wonders of the night sky

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**F**ancy a quick look at the night sky without the hassle of setting up a telescope? Then pick up the next best thing – a pair of binoculars. As well as turning them skywards, they can be put to many daytime uses, such as birdwatching and getting closer to the action at sporting events.

We're testing perhaps the most popular size of binoculars on the market, the venerable 10x50s, and they've come a long way since the old heavy pairs of yesteryear. Now lighter and with multicoated lenses to improve light transmission, these binoculars can give sweeping views of the Milky Way, revealing many deep-sky objects.

Our selection includes Porro and roof prism optics. Roof prism binoculars are often used by bird and

nature watchers, since they're more compact and sleeker than Porro prism types. This is because of the more direct path light takes through them, as opposed to being twice bent through 180° in the porro types. Porro prism binoculars are traditionally what we astronomers would have to hand, with their quality BAK-4 glass (incidentally, one pair used an advanced type of material that the supplier calls +BAK-4). But we thought it was high time to try out some roof prism pairs to see how they performed on the night sky.

The six mid-range pairs were trained on deep-sky objects, stars and Jupiter to get a good flavour of their astronomical capabilities. Read on to discover if roof prism pairs are as good on the stars as they are on wildlife.



### How we tested

The six binoculars were tested using the same criteria: **build quality**, **ease of use**, **features**, **field of view** and **optics**. These were given a percentage rating and the average was taken to give an overall score. The features we looked at included:



#### Adjustment

There should be a smooth dioptre eyepiece adjustment on the right-hand eyepiece to compensate for each eye's different focus point. It should be easy to change the distance between the eyepieces to match the distance between your eyes.



#### Focusing

Fine focusing is important to get a sharp and clear view. The binoculars should have a central focusing wheel or knob, or individually adjustable eyepieces that aren't too stiff. To allow fine adjustment, they shouldn't have too much play.



#### Optics

We checked the optical surfaces to look for coatings that improve light transmission and reduce internal reflections. To test this we viewed a variety of subjects and also judged the sharpness of the stars across the field of view.



#### Outer casing

Binoculars usually have coated or rubberised outer surfaces to give a better grip and reduce dew formation. We also noted whether they had twist-up eyecups, which can increase the contrast of the view by blocking stray light.



#### Tripod adaptor

With prolonged use looking at the night sky, binoculars can start to feel heavy, so weight is as important as build quality. They should also be able to accept a screw-on tripod adaptor to give extra stability for long observing sessions.

## Opticron Imagic

### VITAL STATS

- Price £179
- Prism type Porro; BAK-4
- Field of view 5.3°
- Focus Centre focusing
- Weight 834g
- Supplier Opticron
- Tel 01582 726522
- www.opticron.co.uk

OPTICRON'S IMAGIC 10x50 binoculars are coated in black rubber, which gives a good grip. They come with a soft case, the sturdiest of the six. The two plastic front caps fitted well, but there was just one rear eyecap and to make it stay on you had to open up the binoculars – individual eyecaps would have been easier.

A nice feature of the eyepieces was the twist-up eyecups and there was good interpupillary adjustment, while the central focuser was smooth to use. The dioptre adjustment on the right-hand eyepiece had a click-stop wheel, which was

a little stiff but would loosen up with prolonged use.

The optical surfaces are fully multicoated but there was slight ghosting evident when we turned to the brightest stars – a common trait with all the binoculars on test. We used the bright star Altair to check the quality of the 5.3° field of view, and it was crisp over the central 60 per cent with slight distortion out to 75 per cent before trailing off towards the field edges – good overall.

Jupiter's four major moons were easily spotted and we also picked up Uranus and Neptune, the latter looking like a fainter blue 'star'. Our resolution test used the double star Albireo, which we could just split into the blue and gold components, while the much wider pair of Nu Draconis was clearly seen.

Next, we viewed several summer nebulae. M16, M17 the Orion Nebula and M8 the Lagoon Nebula were reasonably bright, while the globular cluster M13 was



a lovely blob. Our test galaxies of M51 and M101 could be found with little trouble, so for its price this is a reasonable pair of binoculars that can give some good results.

### VERDICT

**FOR** Best twist-up eyecups  
**AGAINST** Dioptre adjustment a little stiff

BUILD QUALITY	89%
EASE OF USE	92%
FEATURES	90%
FIELD OF VIEW	80%
OPTICS	89%
OVERALL	88%

## Ostara Prophecy

### VITAL STATS

- Price £329.99
- Prism type Roof
- Field of view 5.8°
- Focus Focusing knob
- Weight 820g
- Supplier Optical Hardware
- Tel 01226 203275
- www.opticalhardware.co.uk

THE OSTARA PROPHECY roof prism binoculars come in the most useful soft carry case of them all, with an internal pocket for extras. They are the bigger and heavier of the two roof prism pairs on test and are rubber coated to give a good firm grip. The front caps are rubber and are attached to the barrels so that they can't be lost. The twist-up eyecups were smooth to operate, while the eyepiece caps were quite a snug fit. As the gap between the barrels is more restricted with roof prism binoculars, you'll need a different adaptor to attach them to a tripod.

The field of view test with Altair was good: the star was pin-sharp across the inner 75 per cent of the 5.8° view, dropping off with slight distortion towards the edges. However, this was over a slightly wider field of view than most of the others on test. We were pleased with the smooth dioptre adjustment, while the interpupillary range was also reasonable for roof prism binoculars.

Albireo was just about split in our resolution test and, turning to Jupiter, we could see all four Galilean moons clearly. Touring the Milky Way, we were able to pick out all our test objects, including the Veil Nebula in Cygnus and Messiers 16, 17 and 8. The open cluster M39 was crisp, as was the Double Cluster in Perseus. We did notice some ghosting on bright subjects such as the star Vega and Jupiter, but this did not seem to detract from most other, fainter objects. Galaxies M81 and 82 were



also well seen along with the nebula M27, so overall the Prophecy could deliver good views, albeit at the highest price in the test.

### VERDICT

**FOR** Useful for a range of astro subjects  
**AGAINST** Most expensive pair in the group

BUILD QUALITY	92%
EASE OF USE	92%
FEATURES	93%
FIELD OF VIEW	82%
OPTICS	87%
OVERALL	89%

## PCF WP11



### VITAL STATS

- Price £159
- Prism type Porro; BAK-4
- Field of view 5°
- Focus Centre focusing
- Weight 1.3kg
- Supplier Widescreen Centre
- Tel 0207 9352580
- www.widescreen-centre.co.uk

THE PENTAX PCF WP11 10x50s have a sleek appearance and exude quality even though they are the cheapest on test, while their rubber armour gives a good grip. They come in a soft carry case, which surprisingly was the only one not to have its own carry strap. The front lens caps are plastic and fit well, while the eyepieces are protected by a single plastic cover, which was a bit loose for our liking.

The eyecups are twist-up and are quite chunky, but stylish. We did notice a small amount of play in them when fully extended, however. The dioptre

adjustment was a click-stop system and we felt it was the best of the three of these in the test. When focusing, we found a nifty innovation that gained the PCF WP11 extra points: the centre focusing wheel has a lock that lets you preserve a particular focus when putting them away for later use; all binoculars should have this as standard. The fully multicoated optics did the job with only a small amount of ghosting on bright stars and planets. Altair was sharp across 75 per cent of the view before any significant distortion began to creep in. The 5° field meant that we could split Albireo a bit better than with most pairs on test.

All our test nebulae and galaxies showed good contrast. There were pleasing views of the nebulae M17 and M16 and the fuzzy nature of the globular cluster M13 was evident. The Andromeda Galaxy was also



a treat, with its large disc extending across the view. Despite being the heaviest on test, these were enjoyable to use.

### VERDICT

**FOR** Good overall for deep-sky objects  
**AGAINST** Slightly loose eyecups when extended

BUILD QUALITY	95%
EASE OF USE	93%
FEATURES	90%
FIELD OF VIEW	84%
OPTICS	90%
OVERALL	90%

## Opticron SR.GA

### VITAL STATS

- Price £225
- Prism type Porro; +BAK-4
- Field of view 5°
- Focus Centre focusing
- Weight 820g
- Supplier Opticron
- Tel 01582 726522
- www.opticron.co.uk

WITH A TRADITIONAL look, the Opticron SR.GA binoculars are rubber armoured for better protection and grip. They have plastic front caps and both have individual caps and a single cover for the eyepieces. This pair was the only one to have soft rubber eyecups. Although they weren't an impediment, we would have preferred to see the twist-up variety, although spectacle wearers could still fold them down for a more comfortable view.

Overall they are the most compact of the Porro prism binoculars on test, and while the tripod bush allows for more

stable views when attached to a tripod, we found we were able to hold them for long periods of time with no discomfort. Interpupillary adjustment was a bit stiff but dioptre adjustment was smooth, with a graduated scale on the side. Centre focusing worked reasonably well but was a little coarse. The multicoatings reduced ghosting and it was only evident on the brightest stars.

Altair was sharp through the inner 65 per cent of the 5° view, with slight trailing out to 75 per cent before any significant distortion became apparent. Albireo could just be split and was a good sight when the binoculars were tripod mounted. Jupiter's Galilean moons also stood out well.

Our test galaxies also included M81 and M82 in Ursa Major and the edge-on smudge of M82 was unmistakable. Sweeping down the nebulae and clusters of the Milky Way was a treat with good views of M27, the Dumbbell Nebula and



the open cluster M11. All in all, we were impressed with the views of deep-space these bins delivered.

### VERDICT

**FOR** Most compact of the Porro binoculars  
**AGAINST** No twist-up eyecups

BUILD QUALITY	90%
EASE OF USE	91%
FEATURES	87%
FIELD OF VIEW	83%
OPTICS	90%
OVERALL	88%

# Viking Vistron

## VITAL STATS

- Price £196.79
- Prism type Roof
- Field of view 5.5°
- Focus Focusing knob
- Weight 735g
- Supplier Rother Valley Optics
- Tel 01909 774521
- www.rothervalleyoptics.co.uk

THE VIKING VISTRON binoculars are the second roof prism pair on test. They come in a nice soft carry case equipped with an internal pocket useful for storing a cleaning cloth. They are very compact at only 145mm long, and lightweight at just 735g. The front lens caps are rubber and are attached to the front of the barrels so they can't be lost. The Vistron has smooth twist-up eyecups with snug-fitting lens caps, while overall, the binoculars had a rubberized surface for a firm grip.

Employing roof prisms, this pair takes a different tripod adaptor to the type

used on the Porro prism binoculars. Interpupillary adjustment was a little stiff but manageable, as was the click-stop dioptre adjustment; there was some play in the latter too.

The multicoated optics kept ghosting on bright stars down, but we did notice that the stars were a little soft. This was a small effect though. When we checked the field of view with Altair it was okay across 65 per cent, degrading slightly out to 75 per cent and dropping off in quality for the remainder of the view.

Turning the binoculars skywards, we spotted our test galaxies, clusters and nebulae, but the contrast was not quite as good as the other models on test. The double star Albireo was just about split, but we got a good view of Nu Draconis. The Andromeda Galaxy's disc stretched across at least half of the 5.5° field of view and the starfields of the Milky Way were enjoyable.



Overall, despite some drawbacks, the Vistrons still delivered acceptable views of the night sky.

## VERDICT

**FOR** Most compact of the whole group  
**AGAINST** Slightly soft stars

BUILD QUALITY	90%
EASE OF USE	91%
FEATURES	90%
FIELD OF VIEW	79%
OPTICS	84%
<b>OVERALL</b>	<b>87%</b>

# Ostara Elinor



## VITAL STATS

- Price £199.99
- Prism type Porro; BAK-4
- Field of view 6°
- Focus Centre focusing
- Weight 950g
- Supplier Optical Hardware
- Tel 01226 203275
- www.opticalhardware.co.uk

THE OSTARA ELINOR binoculars come with a smart protective soft case, rubber protective caps front and rear, twist-up eyecups and a standard tripod bush at the front. The binoculars are also rubber coated to give a good grip. There is a good range to the interpupillary adjustment and the right eyepiece's dioptre adjustment is a serrated wheel, which allows for quite a smooth operation.

Although the optical surfaces are fully multicoated, we did notice a slight flaring when turned on the brightest stars. They are the second heaviest pair on test but we

barely noticed the weight and could spend a long time holding them for a lengthy tour of the sky.

The field of view test on Altair gave crisp views across 75 per cent of the 6° wide view, while the distortion over the last 25 per cent to the field edges was less than the others on test. Galaxies such as M51 and M101 were well seen, M51 even having a slight bulge that hinted at its smaller companion. M8 and M17 were a delight to view, as were star clusters such as M39 and M11.

The Andromeda Galaxy was also a great sight with its disc stretching across at least half the view. Turning to doubles, we could just split the colourful double Albireo, while Nu Draconis was well separated. We easily spotted Jupiter's four main moons as well.

Overall, the Elinor binoculars did a great job on a wide variety of objects, were



easy to use and, despite a slight flaring on the brightest stars, gave the best contrast on all the deep-sky objects we toured.

## VERDICT

**FOR** Gave the clearest deep-sky views  
**AGAINST** Slight flaring on brightest stars

BUILD QUALITY	93%
EASE OF USE	93%
FEATURES	90%
FIELD OF VIEW	89%
OPTICS	92%
<b>OVERALL</b>	<b>91%</b>

# OVERALL WINNER Ostara Elinor



OUR TESTS SHOWED how close the binoculars were overall and how difficult it was to come to a conclusion as to the winner. Small variations came into play to affect each pair's scores.

If you want something to use by day and night, the Viking Vistron was generally okay on the night sky, and certainly its daytime use was good. It's also worth noting that this pair had the closest focus of all on test, taking in objects just 1.5m away.

The two Opticron pairs also did well in both day and night usage, but subtle things such as slightly stiff adjustments nudged the scoring down slightly. The Prophecy roof prisms were excellent under daytime use and could give good views of the night sky. They demonstrated that roof prism binoculars have come a long way and that they can certainly perform on a par with the astronomer's traditional favourite: Porro prism binoculars.

Our final two pairs just had the edge on resolution and contrast. If we were going by looks, then for our money the Pentax would win, but it's performance that matters here. That is why, after hours of gazing through and examining the six, we finally settled on the Ostara Elinor. It was the quality of the deep-sky views the pair gave, which, after all, is what you turn binoculars on the night sky for. The Elinor is this month's worthy winner. 🏆

At-a-glance guide						
MANUFACTURER	Opticron	Ostara	Pentax	Opticron	Viking	Ostara
MODEL	Imagic	Prophecy	PCF WP II	SR.GA	Vistron	Elinor
PRICE	£179	£329.99	£159	£225	£196.79	£199.99
PRISMS	Porro; BAK-4	Roof	Porro; BAK-4	Porro; +BAK-4	Roof	Porro; BAK-4
FIELD OF VIEW	5.3°	5.8°	5°	5°	5.5°	6°
FOCUSING	Centre focusing	Focusing knob	Centre focusing	Centre focusing	Focusing knob	Centre focusing
WEIGHT	834g	820g	1.3kg	820g	735g	950g
SUPPLIER	Opticron	Optical Hardware	Widescreen Centre	Opticron	Rother Valley Optics	Optical Hardware
SCORE	88%	89%	90%	88%	87%	91% WINNER