

Vixen®



SPORT OPTICS
MAGNIFIERS
Compasses



Vixen®

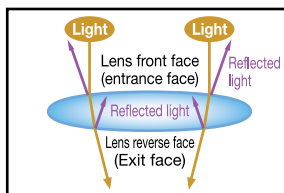
Share the Wonder



Coating

Lens and prisms are provided with a variety of coatings in order to reduce light loss and to deliver bright and sharp images. The optical performance is determined by the type of coating and where it is applied.

In general, the lens surface will reflect part of the light at the front lens and also at the back of the lens. This reduces the volume of



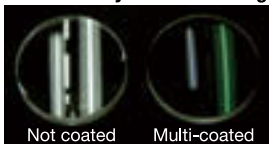
light transmission and results in darker images while the reflected light causes a negative influence on images with ghost or flares. Coatings are applied to reduce these effects.

Type of Lens Coatings



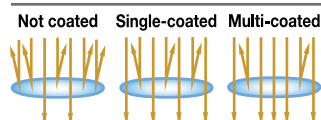
Lens coating is applied to the front and reverse sides of the lenses. Single-coating is a lens coated with one layer and multi coated lenses have more than 3 layers of coating. Multi-coating will reduce reflected light to a maximum by using many layers of coating. This is not removed as well in single coated lenses. Multi coated lenses enhance light transmission and realize a bright and high contrastive field of view.

Reflection by diverse coating



Multi-coating shows less reflection.

Reflection by diverse coating



Related Pictogram



Other types of coatings

Magenta-coated on objective and eyepieces lenses

Objective and eyepiece lenses are magenta-coated to reduce light loss for bright field of view.

Multi-coated on objective

Objective lens is multi-coated for a brighter and high contrast field of view.

Fully coated

All lens surfaces of objective and eyepiece lenses are coated to better reduce light loss from reflection.

Multi-coated on objective and eyepiece lenses

Objective lens is multi-coated for a brighter and high contrast field of view.

Type of Prism Coatings



Prism of some high class models is multi-coated to reduce flare or ghost for higher contrast and clear field of view.

The effect of the coating is shown on the pictures taken from eyepiece side.

Related Pictogram



Prism Phase Coatings



Without Phase Coatings

With Phase Coatings

Providing phase-coating on the prism of roof-prism binoculars reduces halation from bright objects for higher resolution and clear high contrast images.

Related Pictogram



ED (Extra-low Dispersion) Glass Lenses

The ED glass reduces chromatic aberration for extremely sharp image.

Related Pictogram



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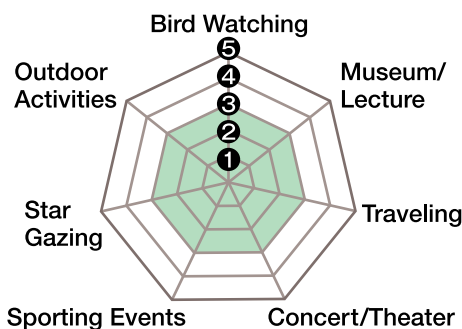
Radar Chart

Use this Radar Chart to find a product suitable for your specific needs.

Ranks by Number

- ⑤ Best
- ④ Suitable
- ③ Good
- ② Possible
- ① Less suitable

Example



Legend

Types of Binoculars

- Porro Prism** A combination of two right angle prisms is used. The binoculars feature sturdy designs providing outstanding performance for its price.
- Roof Prism** The optics are designed in a straight line which results in a compact binocular.

Other Features

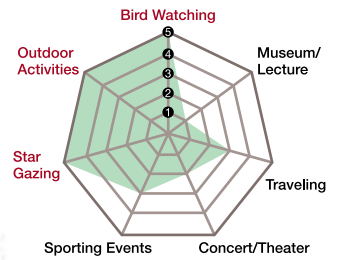
- ED Lens** Extra-low dispersion glass is used in the objective lens to eliminate chromatic aberration. It provides a high level of color correction and a clearer view.
- Long Eye-relief** The eyepiece has eye relief of 15mm or longer. It reduces eyestrain during long observing sessions and offers eyeglass wearers comfortable viewing.
- Zoom** Magnification can be changed depending on needs of your observation. The higher the magnification, the narrower and darker the field of view.
- Wide Field of View** An apparent field of view is 60 degrees or over. A wide field of view is desirable in situations where the object viewed is moving.
- Ultra Wide Field of View** An apparent field of view of 75 degrees or more. A large area can be viewed comfortably.
- Vibration-Canceler System** Fine movement by hands will be detected and electrically corrected to be a minimum for constantly stable field of view.
- Tripod Adaptable** A dedicated tripod adapter is required for certain binoculars.
- Water proof** The product is designed to prevent moisture or water from entering the binocular or spotting scope. These products are suitable for use outdoors.

Types of Spotting Scopes

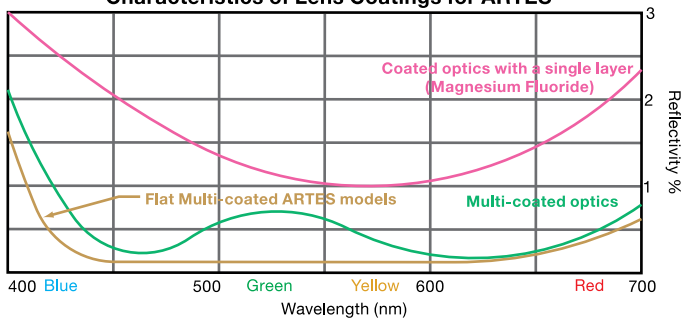
- Straight Viewing** The Straight Thru Eyepiece Design makes it easier to keep your target object centered in the scope's field of view.

Coatings

- Magenta Coated** One or more surfaces of the lens are coated with a single layer of anti-reflecting magnesium fluorite coating.
- Fully Coated** The coating is applied to all the surfaces of the lenses and it greatly reduces a loss of light.
- Multi-Coated** One or more surfaces of the lenses are coated with three layers or more to increase light transmission.
- Fully Multi-Coated** All air-to-glass surfaces are coated with multiple layers to achieve high contrast images.
- PFM Coated** The PFM stands for Perfect Multi-Coating that minimize the loss of light transmission resulting in bright and sharp images.
- FLAT Multi-Coated** Advanced seven layers of anti-reflection coatings are applied to the surfaces of the lenses to uniformly minimize light loss over the spectrum of visible light.
- Phase Coated** Special coatings are applied to correct the phase shift of roof prisms to enhance resolution and contrast for brighter and sharper images.
- High Reflectivity Coated** Dielectric coatings are applied to maximize the reflection of roof prisms to produce clearer and brighter views.
- Ultra High Reflectivity Dielectric Coated** Dielectric multilayered coating is applied on the surface of the sub roof prisms to achieve high reflectivity for extremely bright and clear image.
- Hydrophobic Coated** The coating facilitates cleaning of dirt or fingerprints on the outer lens surfaces for clear field of view.



Characteristics of Lens Coatings for ARTES



Magnesium Alloy Chassis

You will appreciate the sturdy yet light weight body made of magnesium alloy. Nitrogen filled waterproof construction keeps your view clear in any weather.

Open Bridge Design

Open bridge arms of the body are designed for firm gripping and smooth focusing anytime.

ED Objective Lens

With the use of extra low dispersion glass in the objective lens elements, the ARTES binoculars deliver outstandingly sharp images free of chromatic aberration.

SK15 Prisms

The finest SK15 prisms with the index of high refraction are used for the sub prisms resulting in brighter images throughout the edge of field of view.

Flat Multi-Coatings

The newest flat multi-coatings on the surfaces of the lenses achieve superb light transmission over all the visible rays of light.

Ultra High Reflectivity Dielectric Coating

State-of-the-art dielectric coatings are applied to the surface of the sub roof prisms to achieve extremely high reflectivity.

Phase Coated Prisms

The phase coatings correct phase shift of the light waves that occurs on the edge of roof prisms by reflection. It can achieve image quality of higher contrast levels and result in extremely bright and sharp images with maximum contrast.

Hydrophobic Coatings

This coating protects the outer lens surfaces from dirt. If the lens is marked with fingerprints or dust particles, the lens surface can easily be cleaned.



14531
ARTES ED 8.5×45 DCF
With soft binocular case and wide strap



- Magnification : 8.5X
- Objective lens diameter : 45mm (ED)
- Prism material : BaK4/SK15
- Angular field of view : 7.0°
- Apparent FOV : 59.5"
- FOV at 1000m : 122m
- Exit pupil : 5.3mm
- Brightness : 28.1
- Eye relief : 17.5mm
- Close focus : 2.2m
- Interpupillary distance : 56mm to 74mm
- Size : 15.6x13.4x5.9cm
- Weight : 885g / 31.2 oz



14532
ARTES ED 10.5×45 DCF
With soft binocular case and wide strap



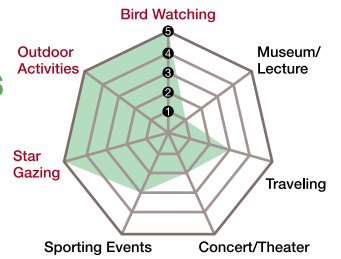
- Magnification : 10.5X
- Objective lens diameter : 45mm (ED)
- Prism material : BaK4/SK15
- Angular field of view : 6.0°
- Apparent FOV : 63.0"
- FOV at 1000m : 105m
- Exit pupil : 4.3mm
- Brightness : 18.5
- Eye relief : 15.0mm
- Close focus : 2.2m
- Interpupillary distance : 56mm to 74mm
- Size : 15.6x13.4x5.9cm
- Weight : 885g / 31.2 oz

ARTES J

ARTES J Series

Leading Models in Heritage of the Flagship ARTES-series of Made in Japan

Inheriting the high performance of the flag-ship ARTES series, the ARTES-J series realized an uncompromisingly excellent optical performance with the ergonomically designed handling comfort.



14491 ARTES J ED 8×42 DCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 42mm (ED)
- Prism material : BaK4
- Angular field of view : 7.0°
- Apparent FOV : 56.0°
- FOV at 1000m : 122m
- Exit pupil : 5.3mm
- Brightness : 28.1
- Eye relief : 19.0mm
- Close focus : 3.0m
- Interpupillary distance : 56mm to 75mm
- Size : 14.6x13.0x5.3cm
- Weight : 700g / 24.69 oz

14492 ARTES J ED 10×42 DCF

With soft binocular case and neck strap



- Magnification : 10X
- Objective lens diameter : 42mm (ED)
- Prism material : BaK4
- Angular field of view : 6.0°
- Apparent FOV : 60.0°
- FOV at 1000m : 105m
- Exit pupil : 4.2mm
- Brightness : 17.6
- Eye relief : 17.0mm
- Close focus : 3.0m
- Interpupillary distance : 56mm to 75mm
- Size : 14.6x13.0x5.3cm
- Weight : 700g / 24.69 oz

NEW APEX WATER PROOF

NEW APEX Series

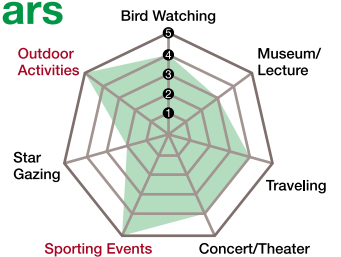
Compact and All-round Binoculars for Indoor and Outdoor Events

Extreme Compact Design

Extremely compact and lightweight foldable design offers great comfort in mobility and handling, well suited to any indoor or outdoor events.

Multilayered coating for bright view

The provided fully multi-coating realizes very bright viewing.



Waterproof construction

The inert nitrogen gas purged waterproof design ensures use in all weather conditions.



1645 NEW APEX 8×24 DCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 24mm
- Prism material : BaK4
- Angular field of view : 6.2°
- Apparent FOV : 49.6°
- FOV at 1000m : 108m
- Exit pupil : 3.0mm
- Brightness : 9.0
- Eye relief : 12.0mm
- Close focus : 5.0m
- Interpupillary distance : 35mm to 70mm
- Size : 9.5x6.7x4.3cm
- Weight : 220g / 7.76 oz

1646 NEW APEX 10×28 DCF

With soft binocular case and neck strap



- Magnification : 10X
- Objective lens diameter : 28mm
- Prism material : BaK4
- Angular field of view : 5.0°
- Apparent FOV : 50.4°
- FOV at 1000m : 87m
- Exit pupil : 2.8mm
- Brightness : 7.8
- Eye relief : 12.0mm
- Close focus : 4.0m
- Interpupillary distance : 35mm to 70mm
- Size : 10.7x6.7x4.3cm
- Weight : 245g / 8.64 oz

1647 NEW APEX 12×30 DCF

With soft binocular case and neck strap



- Magnification : 12X
- Objective lens diameter : 30mm
- Prism material : BaK4
- Angular field of view : 4.2°
- Apparent FOV : 50.4°
- FOV at 1000m : 73m
- Exit pupil : 2.5mm
- Brightness : 6.3
- Eye relief : 12.0mm
- Close focus : 5.0m
- Interpupillary distance : 35mm to 70mm
- Size : 12.3x6.7x4.3cm
- Weight : 270g / 9.52 oz

*The specifications are subject to change without notice.

High Grade

Select

Compact

Spotting Scope

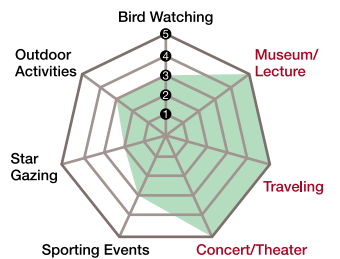
Magnifier

Compasses



The Binoculars incorporating Japan's Traditional Beauty, Focusing on Color, Shape and Materials

The SAQRAS Binoculars were originally designed for watching Japanese traditional cultural plays and arts, such as Kabuki, Noh, Kyogen or Bunraku. They are well suited for all theater or concert goers. The anodized aluminum body displays a gracious beauty with the color of mountain cherry blossoms. The two axis body has an easily adjustable interpupillary range of 30mm to 82mm. Easily accommodates to all users. Its compact size allows it to be stored in a purse or pocket. This sturdy binocular features fine soft rubber eye cups for eyeglass wearers.



16481

Saqras 6×16 DCF

Multi-Coated Roof Prism

- Magnification : 6X
- Objective lens diameter : 16mm
- Prism material : BK7
- Angular field of view : 8.3°
- Apparent FOV : 49.8°
- FOV at 1000m : 145m
- Exit pupil : 2.7mm
- Brightness : 7.3
- Eye relief : 14.0mm
- Close focus : 3.2m
- Interpupillary distance : 30mm to 82mm
- Size : 7.7x6.1x3.7cm
- Weight : 145g / 5.12 oz



Ideal for travelers observing nature, art or architecture.

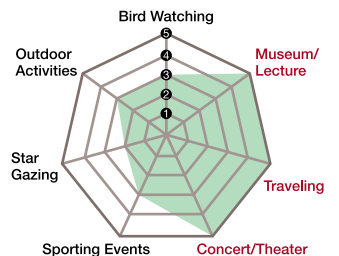
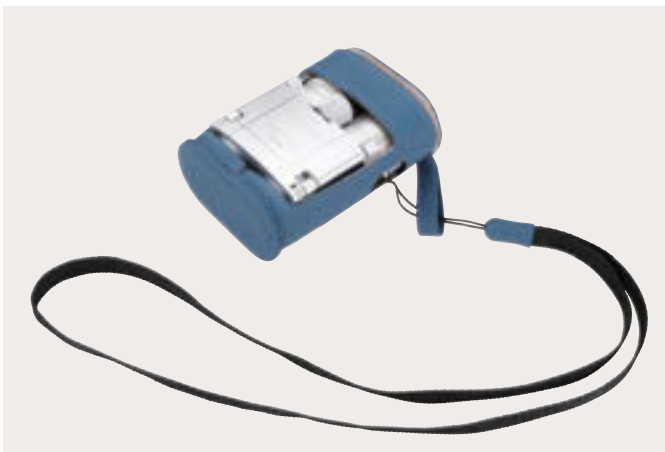
Stylish metal body created by fine anodized aluminum process in Japan.

Deluxe genuine leather used for hand-holding section delivers excellent grip comfort.

Specially designed soft case with same deluxe genuine leather for hand-holding section offers comfortable storage of the binoculars.

Two-axis body construction permits a wide range of interpupillary adjustment.

Soft rubber eye-cup allows a direct view while wearing glasses.



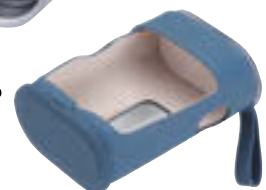
16485

MEGLASS 6X16 DCF

With genuine leather case and neck strap

Multi-Coated Roof Prism

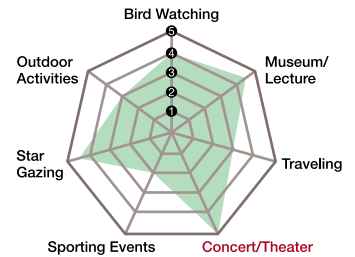
- Magnification : 6X
- Objective lens diameter : 16mm
- Prism material : BK7
- Angular field of view : 8.3°
- Apparent FOV : 49.8°
- FOV at 1000m : 145m
- Exit pupil : 2.7mm
- Brightness: 7.3
- Eye relief : 14.0mm
- Close focus : 3.2m
- Interpupillary distance : 30mm to 82mm
- Size : 7.7x6.1x3.7cm
- Weight : 140g / 4.94 oz



ATERA

Image Stabilized Binoculars and Monocular

ATERA Binoculars with Vibration-Canceller



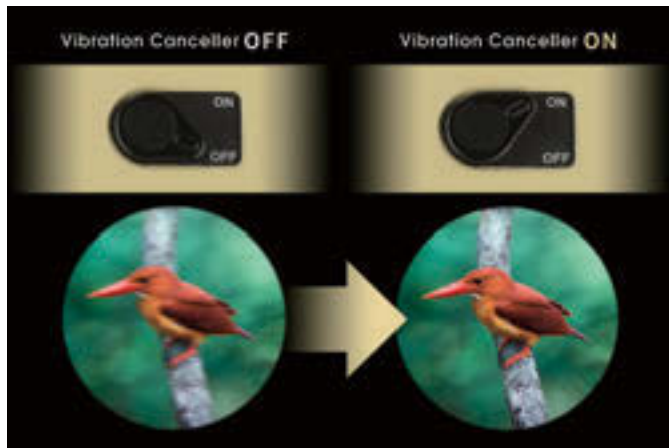
11493 Beige

ATERA H12x30 Binoculars

With soft case and neck strap, 2 AAA Batteries

Long Eye-relief **Fully** Multi-Coated **Phase** Coated **High** Reflectivity Coated **Vibration-Canceller** System **Roof** Prism

- Magnification : 12X
- Objective lens diameter : 30mm
- Prism material : BK7 / BaK4
- Angular field of view : 4.2°
- Apparent FOV : 50.4°
- FOV at 1000m : 73m
- Exit pupil : 2.5mm
- Brightness : 6.3
- Eye relief : 17.5mm
- Close focus : 2.5m
- Interpupillary distance : 55mm to 75mm
- Battery duration : Approx. 12 hours
- Size : 14.9x10.8x6.2cm
- Weight : 422g / 14.9 oz



All the lens surfaces are fully-multicoated to enhance light transmission for higher contrast images. The prism is phase-coated to dramatically improve resolution by reducing halation. The high reflectivity dielectric coating maximizes reflection to produce clearer and brighter views. The Vibration-Canceller performs extremely well not only in concerts and festivals, but also for stargazing without using tripod and for appreciation of fine details of arts and exhibits in museums.

Vibration-Canceller™ System

ATERA employs two vibration cancellation systems to reduce any vibration.

Ⓐ Prism is located at the gimbal rotating base which moves horizontally and vertically. Vibration is cancelled by inertia moment where the prism remains still when vibration arises.

Ⓑ Detecting a blurred image by the sensor, the prism adjusts direction to display a static image to absorb fine vibration and realize a stable field of view. The interaction of Ⓐ and Ⓑ produces a vibration compensation of about ±3° in both vertical and horizontal directions.

The Vibration-Canceller outperforms not only in concerts and festival, but also in stargazing without using tripod and appreciation of fine details of arts and exhibits in museums away from objects.



The ATERA is provided with a vibration canceller system which delivers constantly stable views by compensating fine movement by your hands over the entire magnification. The slide switch used for the power source eliminates the need to keep pushing the switch during use. For energy saving, the auto power-off function automatically switches off power after five minutes of no motion.



(Champagne Gold)

11492 Champagne Gold

ATERA H6-12x25 Zoom Monocular

With soft case and neck strap, 2 CR2 Batteries

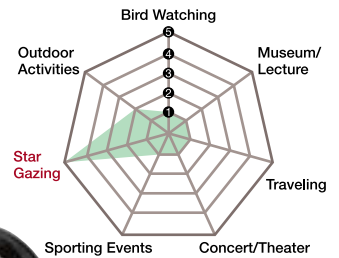
Zoom **Fully** Multi-Coated **Phase** Coated **High** Reflectivity Coated **Vibration-Canceller** System **Roof** Prism

- Magnification : 6X to 12X
- Objective lens diameter : 25mm
- Prism material : BK7 / BaK4
- Angular field of view : 5.6° to 4.0°
- Apparent FOV : 33.6° to 48.0°
- FOV at 1000m : 98m to 70m
- Exit pupil : 4.2mm to 2.1mm
- Brightness : 17.6-4.4
- Eye relief : 24mm to 17mm
- Close focus : 2.5m
- Battery duration : Approx. 30 hours
- Size : 14.0x7.0x4.5cm
- Weight : 310g / 10.93 oz

SG 2.1x42

"CONSTELLATION" BINOCULAR

Fun Star Gazing with Ultra Wide Field of View



Enjoy Star-Hopping with Ultra Wide-field SG 2.1x42

The SG 2.1x42 is a handy binocular with a bright 42mm aperture and low 2.1x magnification that is designed and developed for star gazing. Enjoy finding a row of stars in constellations and millions of stars in the Milky Way Galaxy with its ultra wide field of view. The sparkle of beautiful and mysterious stars will never fail to give us a sense of the vastness of the universe.

All Made in Japan



Every element from lens polishing to machining has been carried out to produce a truly unique binocular of exquisite quality.

19172

SG 2.1x42

With soft binocular case and neck strap

Fully Multi-Coated

- Magnification : 2.1x
- Objective lens diameter : 42mm, fully multicoated optics
- Eye relief : See below.
- Close focus : 2m
- Interpupillary distance : from 55mm to 74mm
- Size : 4.6cm x 12.8cm x 5.4cm
- Weight : 410 g / 1.44 oz
- With soft case and neck strap
- Individual focusing
- Corrected vision of 20/20 may be required to focus at infinity
- The whole field of view is not visible if wearing eyeglasses



Soft Case

Note:

The SG 2.1x42 binocular uses an optical design of a Galilean type telescope system. With the characteristics of this system, real field of view, apparent field of view and eye relief are not determined strictly. Although only the eye relief is described in the specifications of this product mainly, it is indicated as reference for the person who wears glasses.

<Reference specifications>

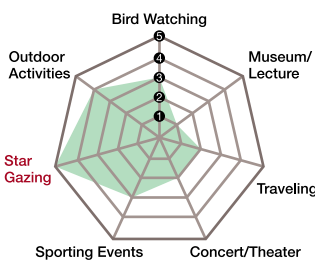
Actual field of view : 12.2 degrees Apparent field of view : 25.2 degrees Eye relief : 8.4mm*

* The values of the actual field of view and apparent field of view are measured based on an 8.4mm eye relief. If the distance of the eye relief decreases to 5.6mm, the apparent field of view will increase to 28 degrees (the actual field of view will be 13.6 degrees.) Therefore, these vary with your viewing position.

SG 6.5x32WP

ASTRONOMY BINOCULAR

Experience the Edge-to-Edge Sharp View



Ultimate Astronomy Binocular

The SG6.5x32WP is the next step up from the SG2.1x42. It was designed and developed at the request of star gazers, Using ED glass, high quality prisms and cutting edge coating technologies, this binocular is perfect for viewing at very low light conditions. No loss of light results when delivering extremely sharp and clear images.

Ten remarkable features of the SG 6.5x32WP

- ED glass is used to eliminate all hints of false color.
- Flat and high light transmission characteristics throughout the wavelength of star spectrums by means of seven layers special multi-coatings.
- High reflective silver and dielectric coatings on the sub roof prisms produce the maximum reflectivity.
- The sub roof prism is made of less light-absorption glass to keep high transmission of light for collecting subtle light from faint stars.
- The roof prisms are phase coated to reduce halation and increase resolution for clear and high contrast images.
- The travel of focusing becomes slower around infinity focus where you view celestial objects to allow for fine focus adjustments.
- The ergonomic gripping body makes you hold the binocular snug when you aim at upward.
- The knurled focus wheels are turned steadily with wearing gloves.
- The large aperture eyepiece offers your eyes a comfortable viewing position
- The light weight but solid binocular body is made of magnesium alloy and waterproof for serious outdoor use.



19173

SG 6.5x32WP

With soft binocular case and neck strap



- Magnification : 6.5X
- Objective lens diameter : 32mm
- Prism material : BK7
- Angular field of view : 9.0°
- Apparent FOV : 58.5°
- FOV at 1000m : 157m
- Exit pupil : 4.9mm
- Brightness : 24.0
- Eye relief : 20.0mm
- Close focus : 6.0m
- Interpupillary distance : 56mm to 76mm
- Size : 14.0x13.2x4.8cm
- Weight : 610g / 21.5 oz

*The specifications are subject to change without notice.

High Grade

Select

Compact

Spotting Scope

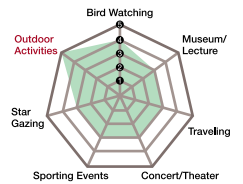
Magnifier

Compasses

ATREK II

ATREK II Series

The New Standard of Outdoor Roof Prism Binoculars



Comfortable 8x Magnification

Wide angle view suited for sporting events, concerts or bird watching.



14721

ATREK II 8×25 DCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 25mm
- Prism material : BaK4
- Angular field of view : 7.5°
- Apparent FOV : 60.0°
- FOV at 1000m : 131m
- Exit pupil : 3.1mm
- Brightness : 9.6
- Eye relief : 15.0mm
- Close focus : 1.2m (mono-view)
- Interpupillary distance : 57mm to 75mm
- Size : 10.9x11.9x4.0cm
- Weight : 360g / 12.69 oz

Compact 25mm Aperture

Lightweight compact design with a 25mm objective lens.



14722

ATREK II 10×25 DCF

With soft binocular case and neck strap



- Magnification : 10X
- Objective lens diameter : 25mm
- Prism material : BaK4
- Angular field of view : 6.0°
- Apparent FOV : 60.0°
- FOV at 1000m : 105m
- Exit pupil : 2.5mm
- Brightness : 6.3
- Eye relief : 15.0mm
- Close focus : 1.2m (mono-view)
- Interpupillary distance : 57mm to 75mm
- Size : 10.9x11.9x4.0cm
- Weight : 360g / 12.69 oz

Useful in Lowlight Situations

16.0 Brightness greatly helps in viewing at dawn and dusk.



14723

ATREK II 8×32 DCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 32mm
- Prism material : BaK4
- Angular field of view : 7.5°
- Apparent FOV : 60.0°
- FOV at 1000m : 131m
- Exit pupil : 4.0mm
- Brightness : 16.0
- Eye relief : 15.0mm
- Close focus : 1.2m (mono-view)
- Interpupillary distance : 57mm to 75mm
- Size : 10.9x11.9x4.3cm
- Weight : 390g / 13.40 oz

Bigger Magnification

Bigger objective lens for greater magnification.



14724

ATREK II 10×32 DCF

With soft binocular case and neck strap



- Magnification : 10X
- Objective lens diameter : 32mm
- Prism material : BaK4
- Angular field of view : 6.0°
- Apparent FOV : 60.0°
- FOV at 1000m : 105m
- Exit pupil : 3.2mm
- Brightness : 10.2
- Eye relief : 15.0mm
- Close focus : 1.2m (mono-view)
- Interpupillary distance : 57mm to 75mm
- Size : 10.9x11.9x4.3cm
- Weight : 390g / 13.40 oz

Perfect Allround Outdoor Binoculars

Bright optics for all outdoor events.



14726

ATREK II 8×42 DCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 42mm
- Prism material : BaK4
- Angular field of view : 7.5°
- Apparent FOV : 60.0°
- FOV at 1000m : 131m
- Exit pupil : 5.3mm
- Brightness : 28.1
- Eye relief : 19mm
- Close focus : 1.3m (mono-view)
- Interpupillary distance : 57mm to 75mm
- Size : 13.5x12.9x5.2cm
- Weight : 690g / 24.34 oz

Bigger Magnification with Brighter Optics

Bigger objective for a brighter field of view.



14727

ATREK II 10×42 DCF

With soft binocular case and neck strap



- Magnification : 10X
- Objective lens diameter : 42mm
- Prism material : BaK4
- Angular field of view : 6.2°
- Apparent FOV : 62°
- FOV at 1000m : 108m
- Exit pupil : 4.2mm
- Brightness : 17.6
- Eye relief : 16mm
- Close focus : 1.3m (mono-view)
- Interpupillary distance : 57mm to 75mm
- Size : 13.5x12.9x5.2cm
- Weight : 700g / 24.69 oz

A new affordable compact roof-type binocular, yet in waterproof design.

Extremely lightweight design is suited for beginners in outdoor use.



14702

ATREK Light 8×21 DCF

With soft binocular case and neck strap

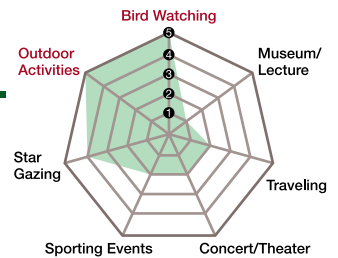


- Magnification : 8X
- Objective lens diameter : 21mm
- Prism material : BK7
- Angular field of view : 6.0°
- Apparent FOV : 48.0°
- Exit pupil : 2.6mm
- Eye relief : 11.0mm
- Close focus : 2.5m
- Interpupillary distance : 34mm to 70mm
- Size : 9.1x6.7x4.8cm
- Weight : 200g / 7.05 oz
- FOV at 1000m : 105m
- Brightness : 6.8

FORESTA II

FORESTA II Series

New Smart Design. Upscale Outdoor Binoculars.



- The ED objective lens deliver outstandingly sharp images free of chromatic aberration.
- The flat multi-coating on the lens surfaces achieve superb light transmission over all the visible rays of light.
- The stylish open bridge design for firm gripping and smooth focusing anytime.
- The wide apparent field of view from 64.8 to 70.0 degrees for viewing comfort.

Clear design and Smart.

Compact body 8x binoculars for viewing birds or wildlife.

NEW



14631

FORESTA II 8×32 ED DCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 32mm
- Prism material : BaK4
- Angular field of view : 8.1°
- Apparent FOV : 64.8°
- FOV at 1000m : 142m
- Exit pupil : 4.0mm
- Brightness : 16.0
- Eye relief : 16.5mm
- Close focus : 3.0m (mono-view)
- Interpupillary distance : 59mm to 78mm
- Size : 13.5x13.2x5.0cm
- Weight : 605g / 21.3 oz

Easy to use with a smart design.

Open bridge arms of the body are designed for firm gripping and smooth focusing.

NEW



14632

FORESTA II 10×32 ED DCF

With soft binocular case and neck strap



- Magnification : 10X
- Objective lens diameter : 32mm
- Prism material : BaK4
- Angular field of view : 6.5°
- Apparent FOV : 65.0°
- FOV at 1000m : 114m
- Exit pupil : 3.2mm
- Brightness : 10.2
- Eye relief : 15.0mm
- Close focus : 3.0m (mono-view)
- Interpupillary distance : 59mm to 78mm
- Size : 13.5x13.2x5.0cm
- Weight : 585g / 20.6 oz

42mm ED objective lens, brightness is 28.1.

Popular among bird watching for high contrast and bright field of view.

NEW



14633

FORESTA II 8×42 ED DCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 32mm
- Prism material : BaK4
- Angular field of view : 8.1°
- Apparent FOV : 64.8°
- FOV at 1000m : 142m
- Exit pupil : 5.3mm
- Brightness : 28.1
- Eye relief : 17.0mm
- Close focus : 3.0m (mono-view)
- Interpupillary distance : 57mm to 78mm
- Size : 15.1x13.2x5.2cm
- Weight : 730g / 25.7 oz

42mm ED objective lens, the magnification is 10x.

Full scale binocular using an extra low dispersion glass in the objective lens elements.

NEW



14634

FORESTA II 10×42 ED DCF

With soft binocular case and neck strap



- Magnification : 10X
- Objective lens diameter : 42mm
- Prism material : BaK4
- Angular field of view : 7.0°
- Apparent FOV : 70.0°
- FOV at 1000m : 122m
- Exit pupil : 4.2mm
- Brightness : 17.6
- Eye relief : 16.0mm
- Close focus : 3.0m (mono-view)
- Interpupillary distance : 57mm to 78mm
- Size : 14.8x13.2x5.2cm
- Weight : 690g / 24.3 oz

*The specifications are subject to change without notice.

High Grade

Select

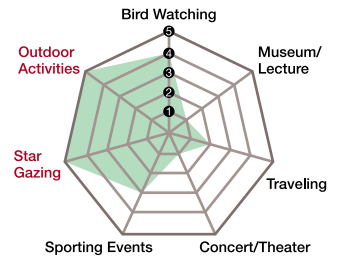
Compact

Spotting Scope

Magnifier

Compasses

- The ASCOT-series are provided with PFM coating which multi-coats all the surfaces of the lenses and prism to deliver ultimate sharpness and natural color fidelity
- Waterproof construction filled with nitrogen gas assures uses in all weather conditions.
- The high grade BaK4 prism reproduces sharp image from edge to edge



830g/1.8 lbs compact body
8x Wide angle binoculars for viewing birds or wildlife



1560

ASCOT 8X32 ZWCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 32mm
- Prism material : BaK4
- Angular field of view : 8.2°
- Apparent FOV : 65.6°
- FOV at 1000m : 143m
- Exit pupil : 4.0mm
- Brightness : 16.0
- Eye relief : 15.0mm
- Close focus : 4.5m
- Interpupillary distance : 59mm to 72mm
- Size : 11.3x17.7x5.8cm
- Weight : 830g / 29.27 oz

8x wide-angle binoculars for watching frequently moving birds and wildlife.



1561

ASCOT 8X42 ZWCF

With soft binocular case and neck strap



- Magnification : 8X
- Objective lens diameter : 42mm
- Prism material : BaK4
- Angular field of view : 8.2°
- Apparent FOV : 65.6°
- FOV at 1000m : 143m
- Exit pupil : 5.3mm
- Brightness : 28.1
- Eye relief : 18.0mm
- Close focus : 6.0m
- Interpupillary distance : 58mm to 71mm
- Size : 13.3x18.1x5.9cm
- Weight : 870g / 30.68 oz

Exceptionally 50.4 bright lenses for stargazing



1562

ASCOT 7X50 ZCF

With soft binocular case and neck strap



- Magnification : 7X
- Objective lens diameter : 50mm
- Prism material : BaK4
- Angular field of view : 6.4°
- Apparent FOV : 44.8°
- FOV at 1000m : 112m
- Exit pupil : 7.1mm
- Brightness : 50.4
- Eye relief : 17.0mm
- Close focus : 9.0m
- Interpupillary distance : 59mm to 72mm
- Size : 17.0x18.8x6.3cm
- Weight : 1015g / 35.8 oz

18.0mm extended eye-relief design for steady viewing



1563

ASCOT 10X50 ZWCF

With soft binocular case and neck strap



- Magnification : 10X
- Objective lens diameter : 50mm
- Prism material : BaK4
- Angular field of view : 6.5°
- Apparent FOV : 65.0°
- FOV at 1000m : 113m
- Exit pupil : 5.0mm
- Brightness : 25.0
- Eye relief : 18.0mm
- Close focus : 9.0m
- Interpupillary distance : 59mm to 72mm
- Size : 17.0x18.8x6.3cm
- Weight : 1040g / 36.68 oz

Max. 32x zoom for optimum viewing demand



1565

ASCOT 8-32X50 ZCF ZOOM

With soft binocular case and neck strap



- Magnification : 8X to 32X
- Objective lens diameter : 50mm
- Prism material : BaK4
- Angular field of view : 4.2° to 2.0°
- Apparent FOV : 33.6° to 64°
- FOV at 1000m : 73m to 35m
- Exit pupil : 6.3mm to 1.6mm
- Brightness : 39.7-2.6
- Eye relief : 14.0mm to 11.0mm
- Close focus : 19.5m
- Interpupillary distance : 58mm to 72mm
- Size : 19.4x18.8x6.3cm
- Weight : 1025g / 36.15 oz

Binocular Accessories

Unique Stay On Cases for Vixen Roof Prism Binoculars (Patented pending)

The Binoculars are Usable Quickly with its Case On

Uncovering the eyepiece side of the binocular case will allow you to look through with its case on.



The Case is Attachable to a Camera Tripod

The binocular is usable on a camera tripod with its case on.



Soft Binocular Case for Roof Prism Binoculars

It is a binocular protecting case serving both as a carrying case and a stay on case. The case has a UNC 1/4" socket for a camera tripod.



62501

Stay On Case S

Dimensions : 14.5cm x 13.5cm x 5cm
Weight : 91g / 3.2 oz

62502

Stay On Case M

Dimensions : 18.5cm x 15cm x 7cm
Weight : 125g / 4.4 oz



62503

Stay On Case L

Dimensions : 19.5cm x 16cm x 7.5cm
Weight : 137g / 4.8 oz



Sizes of Stay On Case and Binoculars Available		S	M	L
ARTES	ED 8.5 × 45 DCF			⊙
	ED 10.5 × 45 DCF			⊙
ARTES J	ED 8 × 42 DCF		⊙	
	ED 10 × 42 DCF		⊙	
APEX PRO (Discontinued)	8 × 25 DCF	⊙		
	10 × 25 DCF	⊙		
	8 × 42 DCF		⊙	
ATREK (Discontinued)	10 × 50 DCF			⊙
	8 × 25 DCF	⊙		
	10 × 25 DCF	⊙		
	8 × 32 DCF	⊙		
ATREK II	10 × 32 DCF	⊙		
	10 × 50 DCF			⊙
	8 × 25 DCF	⊙		
	10 × 25 DCF	⊙		
	8 × 32 DCF	⊙		
	10 × 32 DCF	⊙		
FORESTA II	8 × 42 DCF			⊙
	10 × 42 DCF			⊙
	8 × 32 DCF		⊙	
	10 × 32 DCF		⊙	
ALPINA (Discontinued)	8 × 42 DCF		⊙	⊙
	10 × 42 DCF		⊙	⊙
NEW APEX (Discontinued)	8 × 42 DCF		⊙	
	10 × 50 DCF			⊙

⊙ Suitables ○ Possible

Binocular Accessories for Tripods

Use the Tripod adapters to fix the binoculars on the camera tripod to stabilize the view at high magnification and for prolonged observation.



1835

Tripod Adapter H

• 1/4" thread

Constructed of Magnesium alloy for lightweight solid construction.



18441

Tripod Adapter MH

• 1/4" thread

Tripod Adapter		H	MH
ASCOT	8 × 32 ZWCF	⊙	⊙
	8 × 42 ZWCF	⊙	⊙
	7 × 50 ZCF	⊙	⊙
	10 × 50 ZWCF	⊙	⊙
	8-32 × 50 ZCF ZOOM	⊙	⊙
	10 × 50 ZCF SUPER WIDE	⊙	⊙
FORESTA (Discontinued)	8 × 32 CF	⊙	⊙
	8 × 42 CF	⊙	⊙
	10 × 42 CF	⊙	⊙
ULTIMA (Discontinued)	7 × 50 CF	⊙	⊙
	8 × 32 ZWCF	⊙	⊙
	7 × 50 ZCF	⊙	⊙
ARTES	9-22 × 50 ZCF ZOOM	⊙	⊙
	ED 8.5 × 45 DCF	×	⊙
ATREK II	ED 10.5 × 45 DCF	×	⊙
	8 × 42 DCF	⊙	⊙
SG	10 × 42 DCF	⊙	⊙
	SG 6.5 × 32WP	⊙	⊙

⊙ Suitable × Not usable

Optional Binoculars Accessories for Carry

Colorful Slim Pouch for Binocular



6228 Pink

6227 Blue

6230 Grey

6218 Green

6209 Moss Green

Non-woven Cloth Bag

• Size : 14x14x1cm

Ribbon Neck Strap with Quick Release



6219 Pink

6231 Blue

6232 Gray

Ribbon Neck Strap

• Length : 40cm

Usable on strap loops over 6mm in width

6225

Binocular Neck Strap

• 47.5cm long • Made of nylon and artificial leather

Usable on strap loops over 10mm in width

6244

Binocular Wide Neck Strap

• 64cm long
• Made of nylon, neoprene and artificial leather

Black strap embroidered with red and yellow stitches, with a brass Vixen logo plate

62504

LB-49BK Neck Strap

• 49cm long
• Comes as standard with the HR 6X21 ED Monocular

Binocular Suspender provides comfortable viewing with less neck strain.



6229

Binocular Suspender

Usable on binoculars with strap loops over 10mm in breadth

*The specifications are subject to change without notice.

JOYFUL

JOYFUL Series

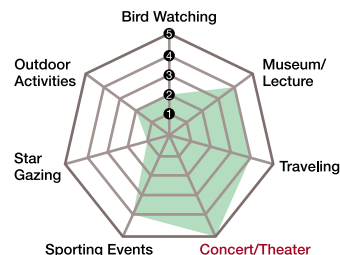
Very Handy for Travel,
Concerts and Sporting Events



12746
JOYFUL H6X18 DCF
With soft case and neck strap

Roof Prism

- Magnification : 6X
- Objective lens diameter : 18mm
- Magenta-coated on objectives and eyepieces
- Prism material : BK7
- Angular field of view : 8.0°
- Apparent FOV : 48.0°
- FOV at 1000m : 140m
- Exit pupil : 3.0mm
- Brightness : 9.0
- Eye relief : 10.0mm
- Close focus : 2.5m
- Interpupillary distance : 31mm to 72mm
- Size : 8.2x6.0x4.5cm
- Weight : 180g / 6.35 oz



Stylish color binocular for entry level.

NEW



13497 (Red)
JOYFUL MS8X21 CF
With soft case and neck strap

Porro Prism

- Magnification : 8X
- Objective lens diameter : 21mm
- Multi-coated on objectives & eyepiece
- Prism material : BK7
- Angular field of view : 7.0°
- Apparent FOV : 56.0°
- FOV at 1000m : 122m
- Exit pupil : 2.6mm
- Brightness : 6.8
- Eye relief : 10.0mm
- Close focus : 3.0m
- Interpupillary distance : 57mm to 72mm
- Size : 8.1x10.9x4.3cm
- Weight : 140g / 4.94 oz

Lightweight, compact and clean design.

NEW



13498 (Black)
JOYFUL MS10X21 CF
With soft case and neck strap

Porro Prism

- Magnification : 10X
- Objective lens diameter : 21mm
- Multi-coated on objectives & eyepiece
- Prism material : BK7
- Angular field of view : 6.0°
- Apparent FOV : 60.0°
- FOV at 1000m : 105m
- Exit pupil : 2.1mm
- Brightness : 4.4
- Eye relief : 7.0mm
- Close focus : 3.0m
- Interpupillary distance : 57mm to 72mm
- Size : 8.1x10.9x4.3cm
- Weight : 145g / 5.1 oz

Zoom Binoculars for Various Use



12742
JOYFUL M7-21X21 CF ZOOM
With soft case and neck strap

Zoom Porro Prism

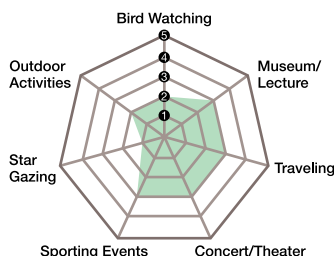
- Magnification : 7X to 21X
- Objective lens diameter : 21mm
- Multi-coated on objectives
- Prism material : BK7
- Angular field of view : 4.3° to 2.3°
- Apparent FOV : 30.1° to 48.3°
- FOV at 1000m : 75m to 40m
- Exit pupil : 3.0mm to 1.0mm
- Brightness : 9.0-1.0
- Eye relief : 12.0mm to 9.0mm
- Close focus : 3.5m
- Interpupillary distance : 56mm to 73mm
- Size : 9.2x10.8x4.8cm
- Weight : 265g / 9.34 oz

OPERA GLASS

Opera series

Ideal for present, with simple design.

- Opera Glass is a simple and lightweight binocular using optical principle without prism.
- The weight is only 60g. It does not become a burden even if you put it from the neck with the attached neck strap.
- It suited for watching sports, concert, and theater play.



12301 (Black)
12302 (White)
12303 (Silver)

Compact Opera 3X28
With neck strap

- Magnification : 3X
- Objective lens diameter : 28mm
- Interpupillary distance : 53mm to 70mm
- Size : 6.6x10.7x3.8cm
- Weight : 60g / 2.11 oz



(Black)



(White)



(Silver)

MONOCULARS

Monoculars Series

Take them everywhere to Minimize distance and Maximize Detail

Our top monocular, Japanese made with ED Glass. The cutting edge coatings and manufacturing materials deliver the ultimate high-definition and true-to-life images.



11485

ARTES HR 6X21 ED Monocular
With hard case and LB-49BK neck strap

ED Lens **Long Eye-relief** **FLAT Multi-Coated** **Phase Coated** **Ultra High Reflectivity Dielectric Coated** **Hydrophobic Coated** **Roof Prism**

- Magnification : 6X
- Objective lens diameter : 21mm
- Prism material : BaK4 / SK15
- Angular field of view : 8.7°
- Apparent FOV : 52.2°
- FOV at 1000m : 152m
- Exit pupil : 3.5mm
- Brightness : 12.3
- Eye relief : 17.5mm
- Close focus : 0.6m
- Size : 3.5x3.5x10.2cm
- Weight : 147g / 5.18 oz

Versatile zoom monocular with various magnifications to adjust for any views.

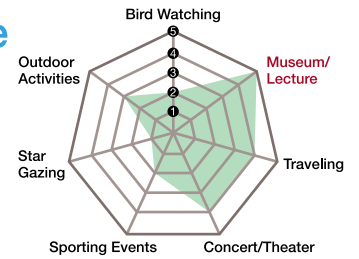


11483

JOYFUL H 7-21X21 Zoom Monocular
With soft case and neck strap

Zoom **Roof Prism**

- Magnification : 7X to 21X
- Objective lens diameter : 21mm
- Multi-coated on objective
- Prism material : BK7
- Angular field of view : 4.5° to 2.3°
- Apparent FOV : 31.5° to 48.3°
- FOV at 1000m : 79m to 40m
- Exit pupil : 3.0mm to 1.0mm
- Brightness : 9.0-1.0
- Eye relief : 11.0mm to 8.0mm
- Close focus : 4.5m
- Size : 10.6x3.9x3.3cm
- Weight : 77g / 2.71 oz



The extended 15mm long eye-relief for eyeglass wearer, allowing 20cm close focus

Close Focus 20cm



1105

MULTI MONOCULAR 4X12
With soft case and neck strap
Usable as 12X magnifier using optional Multi Monocular Microscope Stand

Long Eye-relief **Fully Multi-Coated** **Roof Prism**

- Magnification : 4X
- Objective lens diameter : 12mm
- Prism material : BK7
- Angular field of view : 11.5°
- Apparent FOV : 46.0°
- FOV at 1000m : 201m
- Exit pupil : 3.0mm
- Brightness : 9.0
- Eye relief : 15.0mm
- Close focus : 0.2m
- Size : 5.8x3.1x3.3cm
- Weight : 60g / 2.11 oz

The most versatile 6x magnification

Close Focus 25cm



1121

MULTI MONOCULAR 6X16
With soft case and neck strap
Usable as 18X magnifier using optional Multi Monocular Microscope Stand

Fully Multi-Coated **Roof Prism**

- Magnification : 6X
- Objective lens diameter : 16mm
- Prism material : BK7
- Angular field of view : 9.3°
- Apparent FOV : 55.8°
- FOV at 1000m : 163m
- Exit pupil : 2.7mm
- Brightness : 7.3
- Eye relief : 12.0mm
- Close focus : 0.25m
- Size : 7.0x3.1x3.5cm
- Weight : 65g / 2.29 oz

Biggest magnification with 25cm close focus

Close Focus 25cm



1122

MULTI MONOCULAR 8X20
With soft case and neck strap
Usable as 24X magnifier using optional Multi Monocular Microscope Stand

Fully Multi-Coated **Roof Prism**

- Magnification : 8X
- Objective lens diameter : 20mm
- Prism material : BK7
- Angular field of view : 6.8°
- Apparent FOV : 54.4°
- FOV at 1000m : 122m
- Exit pupil : 2.5mm
- Brightness : 6.3
- Eye relief : 11.0mm
- Close focus : 0.25m
- Size : 10.2x3.1x3.5cm
- Weight : 80g / 2.82 oz

Quickly convert your monocular to a microscope with this handy stand.

7106

Multi Monocular Microscope Stand

Attach the multi monocular for use as a handy microscope

Increases the original magnification of the Multi Monocular by 3 times

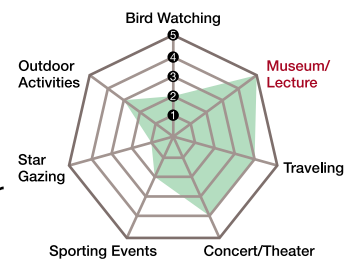


ARTSCOPE

Art Scope series

Ideal for art appreciation

In general, close access to real arts and crafts is often disturbed in gallery or museum. Monocular will greatly help in such appreciation.



11301 (Red)

ARTSCOPE 4X12 MONOCULAR
With case and neck strap

Long Eye-relief **Fully Multi-Coated** **Roof Prism**

- Magnification : 4X
- Objective lens diameter : 12mm
- Prism material : BK7
- Angular field of view : 11.5°
- Apparent FOV : 43.9°
- FOV at 1000m : 201m
- Exit pupil : 3.0mm
- Brightness : 9.0
- Eye relief : 15.0mm
- Close focus : 0.2m
- Size : 5.8x3.1x3.3cm
- Weight : 60g / 2.1 oz

Close Focus 20cm



NEW

11305 (Red)

ARTSCOPE 6X16 MONOCULAR
With case and neck strap

Fully Multi-Coated **Roof Prism**

- Magnification : 6X
- Objective lens diameter : 16mm
- Prism material : BK7
- Angular field of view : 9.3°
- Apparent FOV : 55.8°
- FOV at 1000m : 157m
- Exit pupil : 2.7mm
- Brightness : 7.3
- Eye relief : 12.0mm
- Close focus : 0.25m
- Size : 7.0x3.1x3.5cm
- Weight : 65g / 2.3 oz

Close Focus 25cm



NEW

Two models are available in 4x and 6x magnifications. Either for a wide field of view by 4x or in bigger magnification by 6x. Fully multi-coating on all lens surfaces in 3 layers realizes excellently bright and clear images with minimum light loss. High-grade anodized aluminium alloy body in fashionable red metallic color fits to gallery scene.

*The specifications are subject to change without notice.

High Grade

Select

Compact

Spotting Scope

Magnifier

Compasses

Binoculars / Monoculars Specifications

	Model	Magnification	Objective Lens	Prisms	Coatings	Angular field of view	Apparent FOV	
P 4	ARTES	ARTES ED 8.5×45 DCF	8.5X	45mm	BaK4 / SK15	Flat Multi-Coated, Phase-Coated, Ultra High Reflectivity Coated, Hydrophobic Coated	7.0°	59.5° (54.9°*)
		ARTES ED 10.5×45 DCF	10.5X	45mm	BaK4 / SK15	Flat Multi-Coated, Phase-Coated, Ultra High Reflectivity Coated, Hydrophobic Coated	6.0°	63.0° (57.6°*)
P 5	ARTES J	ARTES J ED 8×42 DCF	8X	42mm	BaK4	FLAT Multi-Coated, Phase-Coated, High Reflectivity Coated, Hydrophobic Coated	7.0°	56.0° (52.1°*)
		ARTES J ED 10×42 DCF	10X	42mm	BaK4	FLAT Multi-Coated, Phase-Coated, High Reflectivity Coated, Hydrophobic Coated	6.0°	60.0° (55.3°*)
P 5	NEW APEX 	NEW APEX 8×24 DCF	8X	24mm	BaK4	Fully Multi-Coated	6.2°	49.6° (46.9°*)
		NEW APEX 10×28 DCF	10X	28mm	BaK4	Fully Multi-Coated	5.0°	50.0° (47.2°*)
		NEW APEX 12×30 DCF	12X	30mm	BaK4	Fully Multi-Coated	4.2°	50.4° (47.5°*)
P 6	Saqras	Saqras 6×16 DCF	6X	16mm	BK7	Multi-Coated	8.3°	49.8° (47.1°*)
P 7	Meglass	Meglass 6×16 DCF	6X	16mm	BK7	Multi-Coated	8.3°	49.8° (47.1°*)
P 8	ATERA	ATERA H12×30 DCF	12X	30mm	BK7 / BaK4	Fully Multi-Coated, Phase Coated, High Reflectivity Coated	4.2°	50.4°(47.5°)
		ATERA H6-12×25 Zoom Monocular	6X to 12X	25mm	BK7 / BaK4	Fully Multi-Coated, Phase-Coated, High Reflectivity Coated	5.6° to 4.0°	33.6° to 48.0° (32.7° to 45.5°*)
P 9	Constellation Binoculars	SG 2.1×42	2.1X	42mm	————	Fully Multi-Coated	————	————
P 9	Astronomy Binoculars	SG 6.5×32WP	6.5X	32mm	BK7	Flat Multi-Coated, Phase-Coated, Ultra High Reflectivity Coated	9.0°	58.5° (54.2°*)
P 10	ATREK II 	ATREK II 8×25 DCF	8X	25mm	BaK4	PFM Coated	7.5°	60.0° (55.3°*)
		ATREK II 10×25 DCF	10X	25mm	BaK4	PFM Coated	6.0°	60.0° (55.3°*)
		ATREK II 8×32 DCF	8X	32mm	BaK4	PFM Coated	7.5°	60.0° (55.3°*)
		ATREK II 10×32 DCF	10X	32mm	BaK4	PFM Coated	6.0°	60.0° (55.3°*)
		ATREK II 8×42 DCF	8X	42mm	BaK4	PFM Coated	7.5°	60.0° (55.3°*)
		ATREK II 10×42 DCF	10X	42mm	BaK4	PFM Coated	6.2°	62.0° (56.9°*)
	ATREK Light	ATREK Light 8x21 DCF	8X	21mm	BK7	Fully Multi-Coated	6.0°	48.0° (45.5°*)
P 11	FORESTA II 	FORESTA II 8×32 ED DCF	8X	32mm	BaK4	FLAT Multi-Coated, Phase Coated, High Reflectivity Coated	8.1°	64.8° (59.1°*)
		FORESTA II 10×32 ED DCF	10X	32mm	BaK4	FLAT Multi-Coated, Phase Coated, High Reflectivity Coated	6.5°	65.0° (59.2°*)
		FORESTA II 8×42 ED DCF	8X	42mm	BaK4	FLAT Multi-Coated, Phase Coated, High Reflectivity Coated	8.1°	64.8° (59.1°*)
		FORESTA II 10×42 BCF	10X	42mm	BaK4	FLAT Multi-Coated, Phase Coated, High Reflectivity Coated	7.0°	70.0° (62.9°*)
P 12	ASCOT 	ASCOT 8×32 ZWCF	8X	32mm	BaK4	PFM Coated	8.2°	65.6° (59.7°*)
		ASCOT 8×42 ZWCF	8X	42mm	BaK4	PFM Coated	8.2°	65.6° (59.7°*)
		ASCOT 7×50 ZCF	7X	50mm	BaK4	PFM Coated	6.4°	44.8° (42.7°*)
		ASCOT 10×50 ZWCF	10X	50mm	BaK4	PFM Coated	6.5°	65.0° (59.2°*)
		ASCOT 8-32×50 ZCF ZOOM	8X to 32X	50mm	BaK4	PFM Coated	4.2° to 2.0°	33.6° to 64.0° (32.7° to 58.4°*)
P 14	JOYFUL 	JOYFUL H6×18 DCF	6X	18mm	BK7	Magenta-Coated (Objectives/Eyepieces)	8.0°	48.0° (45.5°*)
		JOYFUL MS8×21 CF	8X	21mm	BK7	Multi-Coated (Objectives)	7.0°	56.0° (52.1°*)
		JOYFUL MS10×21 CF	10X	21mm	BK7	Multi-Coated (Objectives)	6.0°	60.0° (59.2°*)
		JOYFUL M7-21×21 CF ZOOM	7X to 21X	21mm	BK7	Multi-Coated (Objectives)	4.3° to 2.3°	30.1° to 48.3° (29.4° to 45.7°*)
P 14	OPERA GLASS	COMPACT OPERA 3×28	3X	28 mm	————	————	————	
P 15	MONOCULAR 	ARTES HR 6×21 ED Monocular	6X	21mm	BaK4 / SK15	Flat Multi-Coated, Phase-Coated, Ultra High Reflectivity Coated, Hydrophobic Coated	8.7°	52.2° (49.1°*)
		H 7-21×21 Zoom Monocular	7X to 21X	21mm	BK7	Multi-Coated (Objectives)	4.5° to 2.3°	31.5° to 48.3° (30.7° to 45.7°*)
		MULTI MONOCULAR 4×12	4X	12mm	BK7	Fully Multi-Coated	11.5°	46.0° (43.9°*)
		MULTI MONOCULAR 6×16	6X	16mm	BK7	Fully Multi-Coated	9.3°	55.8° (52.0°*)
		MULTI MONOCULAR 8×20	8X	20mm	BK7	Fully Multi-Coated	6.8°	54.4° (50.8°*)
P 15	ARTSCOPE	ARTSCOPE 4×12 Monocular	4X	12mm	BK7	Fully Multi-coated	11.5°	43.9°
		ARTSCOPE 6×16 Monocular	6X	16mm	BK7	Fully Multi-coated	9.3°	55.8°

Note : The SG 2.1×42 binocular uses an optical design of a Galilean type telescope system. With the

FOV at 1000m	Exit Pupil	Brightness	Eye Relief	Close Focus	Interpupillary Distance	Dimensions	Weight	Tripod Adaptability (1/4"-20 socket)	Other features
122m	5.3mm	28.1	17.5mm	2.2m	56mm to 74mm	15.6×13.4×5.9cm	885g / 31.2 oz	Available (MH) (L)	Waterproof
105m	4.3mm	18.5	15.0mm	2.2m	56mm to 74mm	15.6×13.4×5.9cm	885g / 31.2 oz	Available (MH) (L)	Waterproof
122m	5.3mm	28.1	19.0mm	3.0m	56mm to 75mm	14.6×13.0×5.3cm	700g / 24.69 oz	Available (M)	Waterproof
105m	4.2mm	17.6	17.0mm	3.0m	56mm to 75mm	14.6×13.0×5.3cm	700g / 24.69 oz	Available (M)	Waterproof
108m	3.0mm	9.0	12.0mm	5.0m	35mm to 70mm	9.5×6.7×4.3cm	220g / 7.76 oz	Not available	Waterproof
87m	2.8mm	7.8	12.0mm	4.0m	35mm to 70mm	10.7×6.7×4.3cm	245g / 8.64 oz	Not available	Waterproof
73m	2.5mm	6.3	12.0mm	5.0m	35mm to 70mm	12.3×6.7×4.3cm	270g / 9.52 oz	Not available	Waterproof
145m	2.7mm	7.3	14.0mm	3.2m	30mm to 82mm	7.7×6.1×3.7cm	145g / 5.12 oz	Not available	———
145m	2.7mm	7.3	14.0mm	3.2m	30mm to 82mm	7.7×6.1×3.7cm	140g / 4.94 oz	Not available	———
73m	2.5mm	6.3	17.5mm	2.5m	55mm to 75mm	14.9×10.8×6.2cm	422g / 14.9 oz	Not available	———
98m to 70m	4.2mm to 2.1mm	17.6 to 4.4	24.0mm to 17.0mm	2.5m	———	14.0×7.0×4.5cm	310g / 10.93 oz	Not available	Anti-Vibration
———	———	———	8.4mm (Note)	2.0m	55mm to 74mm	4.6×12.8×5.4cm	410g / 14.4 oz	Not available	———
157m	4.9mm	24.0	20.0mm	6.0m	56mm to 76mm	14.0×13.2×4.8cm	610g / 21.5 oz	Available (H-MH) (M)	Waterproof
131m	3.1mm	9.6	15.0mm	1.2m	57mm to 75mm	10.9×11.9×4.0cm	360g / 12.69 oz	Available (S)	Waterproof
105m	2.5mm	6.3	15.0mm	1.2m	57mm to 75mm	10.9×11.9×4.0cm	360g / 12.69 oz	Available (S)	Waterproof
131m	4.0mm	16.0	15.0mm	1.2m	57mm to 75mm	10.9×11.9×4.3cm	390g / 13.4 oz	Available (S)	Waterproof
105m	3.2mm	10.2	15.0mm	1.2m	57mm to 75mm	10.9×11.9×4.3cm	390g / 13.4 oz	Available (S)	Waterproof
131m	5.25mm	27.6	19.0mm	1.3m	57mm to 75mm	13.5×12.5×4.9cm	688g / 24.27 oz	Available (S)	Waterproof
109m	4.2mm	17.6	16.0mm	1.3m	57mm to 75mm	13.5×12.5×4.9cm	694g / 24.48 oz	Available (S)	Waterproof
105m	2.6mm	6.8	11.0mm	2.5m	34mm to 70mm	9.1×6.7×4.8cm	200g / 7.05 oz	Not available	———
142m	4.0mm	16.0	16.5mm	3.0m	59mm to 78mm	13.5×13.2×5.0cm	605g / 21.3 oz	Available (M)	Waterproof
114m	3.2mm	10.2	15.0mm	3.0m	59mm to 78mm	13.5×13.2×5.0cm	585g / 20.6 oz	Available (M)	Waterproof
142m	5.3mm	28.1	17.0mm	3.0m	57mm to 78mm	15.1×13.2×5.2cm	730g / 25.7 oz	Available (M)	Waterproof
122m	4.2mm	17.6	16.0mm	3.0m	57mm to 78mm	14.8×13.2×5.2cm	690g / 24.3 oz	Available (M)	Waterproof
143m	4.0mm	16.0	15.0mm	4.5m	59mm to 72mm	11.3×17.7×5.8cm	830g / 29.27 oz	Available (H-MH)	Waterproof, Wide field of view
143m	5.3mm	28.1	18.0mm	6.0m	58mm to 71mm	13.3×18.1×5.9cm	870g / 30.68 oz	Available (H-MH)	Waterproof, Wide field of view
112m	7.1mm	50.4	17.0mm	9.0m	59mm to 72mm	17.0×18.8×6.3cm	1015g / 35.8 oz	Available (H-MH)	Waterproof
113m	5.0mm	25.0	18.0mm	9.0m	59mm to 72mm	17.0×18.8×6.3cm	1040g / 36.68 oz	Available (H-MH)	Waterproof, Wide field of view
73m to 35m	6.3mm to 1.6mm	39.7 to 2.6	14.0mm to 11.0mm	19.5m	58mm to 72mm	19.4×18.8×6.3cm	1025g / 36.15 oz	Available (H-MH)	———
140m	3.0mm	9.0	10.0mm	2.5m	31mm to 72mm	8.2×6.0×4.5cm	180g / 6.35 oz	Not available	———
122m	2.6mm	6.8	10.0mm	1.6m	57mm to 71mm	8.2×10.8×4.1cm	178g / 6.27 oz	Not available	———
105m	2.1mm	4.4	7.0mm	3.0m	57mm to 72mm	8.1×10.9×4.3cm	145g / 5.1 oz	Not available	———
75m to 40m	3.0mm to 1.0mm	9.0 to 1.0	12.0mm to 9.0mm	3.5m	56mm to 73mm	9.2×10.8×4.8cm	265g / 9.34 oz	Not available	———
———	———	———	———	———	53mm to 70mm	6.6×10.7×3.8cm	60g / 2.1 oz	Not available	———
152m	3.5mm	12.3	17.5mm	0.6m	———	3.5×3.5×10.2cm	147g / 5.18 oz	Not available	———
79m to 40m	3.0mm to 1.0mm	9.0 to 1.0	11.0mm to 8.0mm	4.5m	———	10.6×3.9×3.3cm	77g / 2.71 oz	Not available	———
201m	3.0mm	9.0	15.0mm	20.0cm	———	5.8×3.1×3.3cm	60g / 2.11 oz	Not available	———
163m	2.7mm	7.3	12.0mm	25.0cm	———	7.0×3.1×3.5cm	65g / 2.29 oz	Not available	———
122m	2.5mm	6.3	11.0mm	25.0cm	———	10.2×3.1×3.5cm	80g / 2.82 oz	Not available	———
201m	3.2mm	9.0	15.0mm	0.2m	———	5.8×3.1×3.3cm	60g / 2.1 oz	Not available	———
157m	2.7mm	7.3	12.0mm	0.25m	———	7.0×3.1×3.5cm	65g / 2.3 oz	Not available	———

The value of Apparent FOV marked with * is calculated by formula $\tan \omega' = \tau \tan \omega$ (A FOV : $2\omega'$, AFV : 2ω , Magnification : τ) according to JIS B7157:2003. characteristics of this system, real field of view, apparent field of view and eye relief are not determined strictly. The eye-relief is described in this catalog for only reference purpose of glass-wearers.

*The specifications are subject to change without notice.

Spotting Scopes

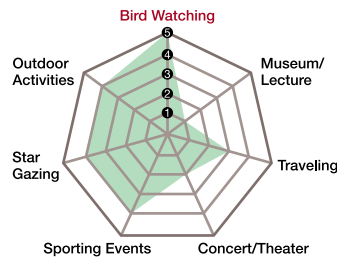
GEOMA II ED

GEOMA II ED 52-S

Premium Quality in Extremely Compact Body New Style of Compact Multi-Purpose Scope

A unique compact design with a special hand-holding case that allows you to use your scope in one hand anywhere you travel. Despite its compact design, the optics have multi-coated ED (Extra-low dispersion) lens that ensures extraordinary sharp and high contrast images. This scope can also be used as a telephoto lens when attached to a camera using an optional digital camera adapter.

The Finest Roof Prism Binoculars The Pinnacle of Performance in Sports Optics



Push the objective barrel close for carry and storage.



Pull out the objective barrel to use.



The ED objective lens provides clear and high contrast images free of chromatic aberration.



Using optional Universal Digital Camera Adapter II, it can be used as a super telephoto lens.



The scope is supplied with the wide-angle GLH20D eyepiece, but interchangeable with a variety of optional eyepieces for your desired magnifications.



For long time and stable viewing, it can be attached on a tripod, particularly at bigger magnification.

18052

GEOMA II ED 52-S

Image shows with optional GLH20D eyepiece. With hand-holding case (without eyepiece)

ED Lens Multi-Coated Straight Viewing

- Type : Straight viewing
- Objective lens diameter : 52mm
- Focal length : 278mm
- Height x length : 10.2cm x 17.7cm (the shortest) 10.2cm x 21.7mm (extended for use)
- Weight : 486g / 17.14 oz

18053

GEOMA II ED 52-S Set

Image shows with supplied GLH20D eyepiece. With GLH20D eyepiece and hand-holding case

ED Lens Multi-Coated Straight Viewing

- Main Body : Same as GEOMA II ED52-S
Specifications with GLH20D eyepiece:
- Magnification : 14x (GLH20D eyepiece)
 - Eye relief : 18.0mm
 - Angular field of view : 3.3°
 - Apparent FOV: 46.0°
 - FOV at 1000m : 58m
 - Exit pupil : 3.7mm
 - Brightness : 13.7
 - Close focus : 4.0m

Optional Accessories

③ Balance Plate, Universal Slide Bar, High Illumination Red Dot Finder, Fine Adjustment Unit



1811 Balance Plate

- With 1/4"-20 bolt
- Size : 15cm long
- Weight : 200g / 7.05 oz



2662 Universal Slide Bar

- With threaded 1/4"-20 and 3/8 inch sockets on the bottom
- Supplied with 1/4" and 3/8 inch screws
- Size : 23.0cm x 4.4cm x 2.0cm
- Weight : 310g / 10.93 oz

26501

High Illumination Red Dot Finder (Camouflage finish)

- Suitable for use in the daytime
- Different reticle patterns are available
- With a 1/4"-20 socket for a camera tripod
- CR2032 battery
- Size : 91mm x 36mm x 95mm (height)
- Weight : 165g / 5.82 oz



3562

Fine Adjustment Unit DX

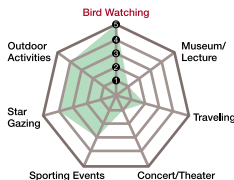
- Pan head with 1/4"-20 bolt and tangent screw slow motion controls
- Movable within +/- 10 degrees vertically and horizontally
- Weight : 340g / 12 oz



GEOMA II ED

GEOMA II ED Series

The Flagship of the GEOMA Spotting Scope Series incorporating "ED" Lens for Excellent Color Correction



18092

GEOMA II ED 67-S

Image shows with optional GLH20D eyepiece. With hand-holding case (without eyepiece)



- Type : Straight viewing
- Objective lens diameter : 67mm
- Focal length : 386mm
- Height x length : 12cm x 33cm
- Weight : 1010g / 36.62 oz

18093

GEOMA II ED 67-S Set

Image shows with supplied GLH20D eyepiece. With GLH20D eyepiece and hand-holding case

Main Body : Same as GEOMA II ED67-S

Specifications with GLH20D eyepiece :

- Magnification : 20x (GLH20D eyepiece)
- Eye relief : 18.0mm
- Angular field of view : 3.6°
- Apparent FOV : 72.0°
- FOV at 1000m : 54m
- Exit pupil : 3.4mm
- Brightness : 11.6
- Close focus : 4.0m

18072

GEOMA II ED 82-S

Image shows with optional GLH20D eyepiece. With case (without eyepiece)



- Type : Straight viewing
- Objective lens diameter : 82mm
- Focal length : 514mm
- Height x length : 11.8cm x 36.4cm
- Weight : 1330g / 46.91 oz

18073

GEOMA II ED 82-S Set

Image shows with supplied GLH20D eyepiece. With GLH20D eyepiece and case

Main Body : Same as GEOMA II ED 82-S

Specifications with GLH20D eyepiece :

- Magnification : 27x (GLH20D eyepiece)
- Eye relief : 18.0mm
- Angular field of view : 2.6°
- Apparent FOV : 70.2°
- FOV at 1000m : 45m
- Exit pupil : 3.0mm
- Brightness : 9.0
- Close focus : 10.0m

Digiscoping Photographic Accessories

A Basic Configuration of Digiscoping and Tips on Photography

4 Digital Camera Adapter

When you view your target object on the screen of a compact digital camera through a spotting scope, the optical axes of both the camera and spotting scope must be aligned. If they are not aligned, it will result in vignetting or image deterioration. The digital camera adapter allows you to set your camera in place. For details, refer to page 20.



2 Eyepiece

Eyepieces with long eye relief are recommended to minimize image deterioration or vignetting around the edge of the screen of your digital camera. Eyepieces with a wide apparent field of view are also recommended for Digiscoping.



*Eye relief is distance that you can view the full field of view comfortably from the eye.



Vignetting

5 Compact Digital Camera

3 Balance Plate

Your spotting scope may be unbalanced when a digital camera is mounted on the digital camera adapter on the visual back of the spotting scope. Set the balance plate between the pan head and the spotting scope to shift the position of scope until balance is achieved.



6 Camera Tripod

It is recommended to use a sturdy camera tripod free from easy flexure to make your Digiscoping successful. Reasonably lightweight and compact is the second consideration. Refer to page 23.



1 Spotting Scope

Aperture plays an important roll in Digiscoping if you pursue brighter images. Vixen offers spotting scopes with 52mm, 67mm and 82mm of aperture. The larger the apertures, the brighter the images. The large 82mm aperture allows you to obtain higher magnification but sharp focus may be difficult to achieve. Spotting scopes with small 52mm aperture are easy to carry and you can take them to anywhere. ED glass models deliver flawless color fidelity. Choose a Digiscoping scope according to your style of observing.

Objective Lens

If you have photography in mind, it is recommended to choose a spotting scope with the ED objective glass for images of no false color.



GEOMA II ED67-S
Objective lens diameter : 67mm



GEOMA II ED52-S
Objective lens diameter : 52mm



GEOMA II ED82-S
Objective lens diameter : 82mm

*The specifications are subject to change without notice.

4 Digital Camera Adapters



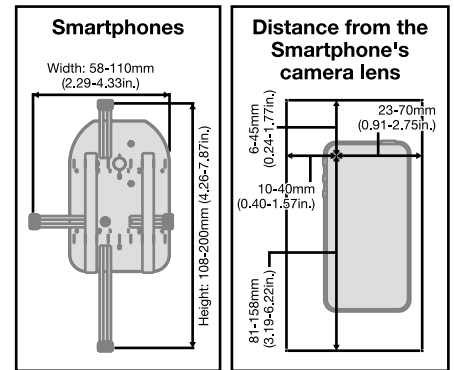
Suitable for smartphones with the following specifications

- 1) The size of smartphones is between 58mm and 110mm in width (minor axis length) and between 108mm and 200mm in height (major axis length). A thickness of less than 15mm.
- 2) The distance from the smartphone's camera lens to the left end of the smartphone is between 10mm and 40mm when you face the camera lens to the front.
- 3) The distance from the smartphone's camera lens to the right end of the smartphone is between 23mm and 70mm when you face the camera lens to the front.
- 4) The distance from the smartphone's camera lens to the upper end of the smartphone is between 6mm and 45mm when you face the camera lens to the front.
- 5) The distance from the smartphone's camera lens to the lower end of the smartphone is between 81mm and 158mm when you face the camera lens to the front.

39199

Smartphone Camera Adapter

- Designed to pinch the barrel of visual back or eyepiece having grip of 32mm to 53mm (between 1.26" and 2.08") in diameter. With supplementary pinch sleeves, having grip of 19mm to 43mm (between 0.75" and 1.69") in diameter.
- The eyepiece pinch posts hold an eyepiece simultaneously by turning the eyepiece clamp knob simply.
- The vertical and horizontal clamp arms with rubber claw hold a smartphone securely and they enable you to set the camera lens in line with the center of the eyepiece's field of view easily.
- Eyepieces with long eye relief are recommended to minimize vignetting of images.
- Loading capacity : 300 g / 10.5 oz
- Size : 149mm X 90mm X 56mm Weight : 178 g / 6.27 oz



Suitable for digital cameras with the following specifications

- 1) The height from the camera's bottom to the center of the camera's lens is between 25mm and 95mm (0.98 in. and 3.74 in.)
- 2) The distance from the camera's tripod socket to the camera's lens tip is between 30mm and 62mm (1.18 in. and 2.44 in.)
- 3) The 1/4" tripod socket is equipped within the distance of 50mm (2.09 in.) from the centerline of the camera's lens
- 4) Smart phones in width between 45mm and 65mm (1.88 in. and 2.71 in.) is available for the smart phone adapter

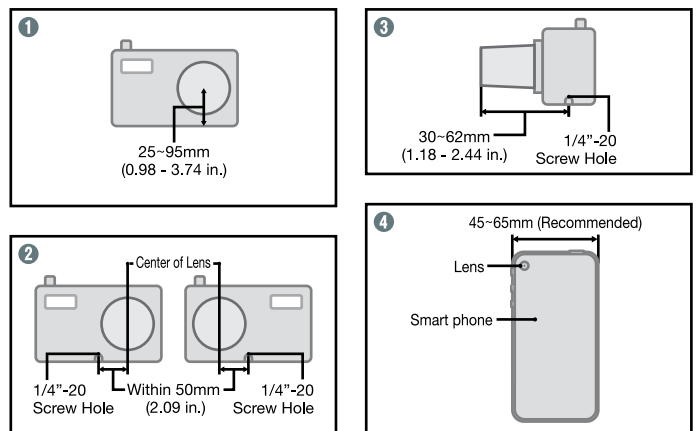


Smart phone adapter

39197

Universal Digital Camera Adapter

- Designed to pinch the barrel of visual back or eyepiece having 28mm to 45mm in diameter
- Equipped with vertical and horizontal slow motion screws
- Eyepieces with long eye relief are recommended to minimize vignetting of images
- Loading capacity 800g (28.2 oz)
- Weight : 370g / 13.05 oz



Eliminate vibration at shutter release

Suitable for compact digital cameras with the following specifications

- 1) The position of the camera's shutter is not over 32mm (1.133 in.) distant from the side of the bracket
- 2) The camera's height is lower than 80mm (3.34 in.) from the bottom of the bracket
- 3) The 1/4" tripod socket is equipped within the distance of 100mm (4.18 in.) from the side of the bracket

Size of a cable release head connectable

- 4) Longer than 12mm (0.5 in.)
- 5) Smaller than 7mm (0.29 in.) in diameter



39184

Cable Release 30AS

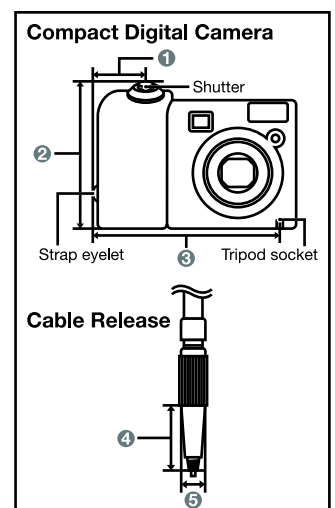
Size : 21mm dia. x 300mm long
Weight : 26 g / 0.91 oz



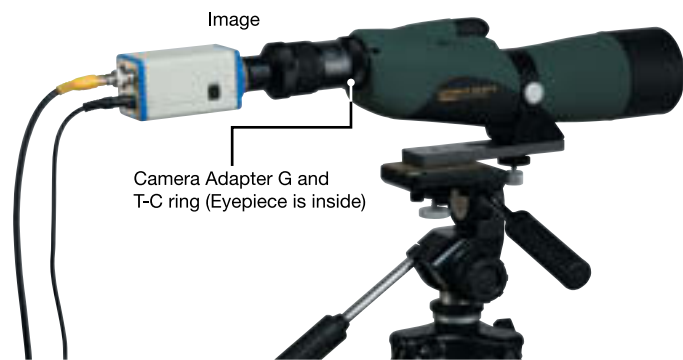
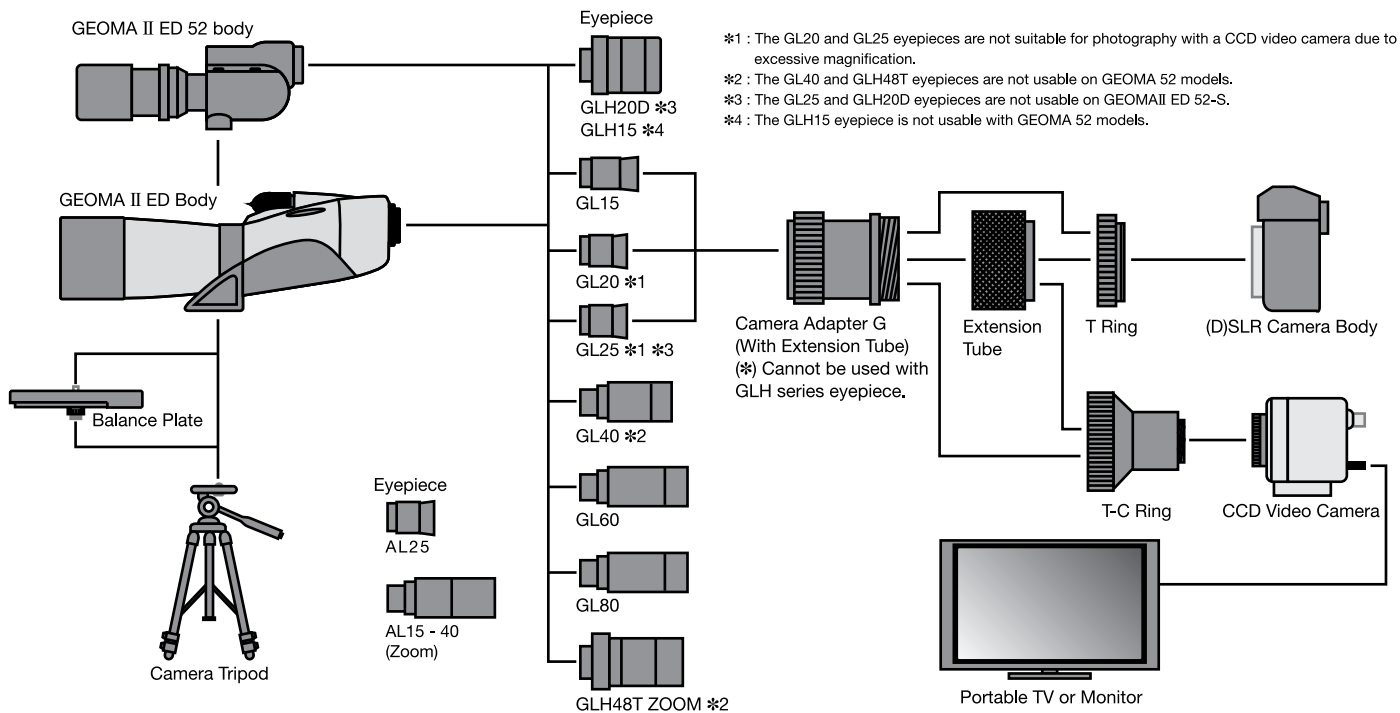
39183

Cable Release Bracket II

Size : 82mm (extendable to 114mm) x 134mm x 30mm
Weight : 80 g / 2.82 oz



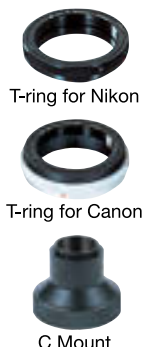
Photographic Accessory Chart



Note: The spotting scope may lose its balance on the tripod after you connect a camera to the camera adapter G. It is recommended to use an optional balance plate if this is the case.

1836
Camera Adapter G
 • With extension ring attached
 • 5cm of tube length
 Weight : 40g / 1.4 oz

T Ring
 Use with "Camera Adapter G."
 Please see the table below about the information regarding the adaptation of your camera.
 *GL15, GL20, or GL25 eyepiece is required for photography.



T-rings

Item No.	Find your Camera Brand	Weight
37301	Nikon, Fuji Film	22g / 0.78 oz
37303	Sony Alpha (Konica Minolta Alpha)	45g / 1.59 oz
37314	Sony E	113g / 3.98 oz
37304	Minolta (for manual focus)	30g / 1.06 oz
37305	Canon (for manual focus)	40g / 1.41 oz
37306	Canon EOS, EOS Rebel	52g / 1.83 oz
37302	FourThirds	58g / 2.04 oz
37313	Micro FourThirds	110g / 3.88 oz
3763	T-C Ring (for C mount)	52g / 1.83 oz
37307	Practica (Screw mount)	25g / 0.88 oz
37308	Vixen, Pentax K, Ricoh, Cosina	36g / 1.27 oz

Eyepieces for Spotting Scopes

		Objective Aperture	Magnification	Coatings	Eye Relief	Angular Field of View	Apparent Field of View
	1827 GL15	52mm	11x	Fully Multi-coated	17mm	3.2°	35°
		67mm	15x			2.9°	44°
		82mm	19x			2.3°	44°
	1828 GL20	52mm	14x	Fully Multi-coated	19mm	3.7°	53°
		67mm	20x			2.6°	53°
		82mm	27x			1.9°	51°
	1829 GL25 (Wide) (*1)	52mm	18x	Fully Multi-coated	13mm	3.2°	58°
		67mm	25x			2.6°	65°
		82mm	33x			2.0°	66°
	1830 GL40 (Wide) *For Aperture 67 and 82mm only	67mm	40x	Fully Multi-coated	15mm	1.6°	65°
		82mm	53x			1.2°	64°
	1831 GL60 (Wide)	52mm	43x	Fully Multi-coated	15mm	1.5°	65°
		67mm	60x			1.1°	65°
		82mm	79x			0.9°	71°
	1833 GL80	52mm	58x	Fully Multi-coated	16mm	1.0°	58°
		67mm	80x			0.7°	56°
		82mm	105x			0.5°	53°
	1859 GLH48T (Zoom) *For Aperture 67 and 82mm only	67mm	16 to 48x	Multi-coated	19mm	2.5 to 1.2°	40 to 58°
		82mm	21 to 63x			1.8 to 0.8°	38 to 50°
	1853 GLH15	52mm	10.5x	Fully Multi-coated	25mm	4.4°	46°
		67mm	15x			3.3°	50°
		82mm	19x			2.4°	46°
	19011 GLH20D (Wide)	52mm	14x	Fully Multi-coated	18mm	3.3°	46°
		67mm	20x			3.6°	72°
		82mm	27x			2.6°	70.2°
	1851 AL15~40 (Zoom)	52mm	15 to 40x	Multi-coated	10 to 13mm	2.3 to 1.4°	35 to 56°
	1850 AL25	52mm	25x	Multi-coated	12mm	2.1°	52.5°

The table shows specifications and performance installed on GEOMA II ED spotting scopes. The specifications and performance are subject to the effective aperture of spotting scopes.

PORTA II Mount

These are useful optional accessories for those who want a rigid cradle or mount with slow motion controls for long observation or surveillance.



39951 PORTA II Alt-azimuth Mount

Simple friction system allows you to easily move and point the spotting scope to your target.

- With aluminum tripod legs



38011 PORTA Multi-Plate

It can hold a spotting scope or a large binocular.



3942 Camera Tripod Adapter for PORTA

Use this to attach the Porta head to a large camera tripod with 1/4" screw.

Field of view at 1000m	Exit Pupil	Brightness	Close Focus (Close Focus is extended by 8m with photography with a DSLR camera)	Dimensions: Length x Width	Weight	Telephoto Effect (With 35mm format SLR camera)	
						Camera Adapter G only	Camera Adapter G and Extension Ring
56m	4.7mm	22.1	4.2m	52×33mm	44g (1.55 oz)	—	792mm (F15.2)
51m	4.5mm	20.3	8m			—	1100mm (F16.4)
40m	4.3mm	18.5	15m			—	1500mm (F18.3)
65m	3.7mm	13.7	3.6m	42×33mm	50g (1.76 oz)	720mm (F13.8)	1080mm (F20.8)
45m	3.4mm	11.6	5m			1000mm (F14.9)	1500mm (F22.4)
33m	3.0mm	9.0	12m			1400mm (F17.1)	2000mm (F24.4)
56m	2.9mm	8.4	3.2m	43×33mm	54g (1.90 oz)	1008mm (F19.4)	1440mm (F27.7)
45m	2.7mm	7.3	5m			1400mm (F20.9)	2000mm (F29.9)
35m	2.5mm	6.3	13m			1900mm (F23.2)	2680mm (F32.7)
28m	1.7mm	2.9	7m	76×33mm	75g (2.64 oz)	Unphotographable	
21m	1.5mm	2.3	15m				
26m	1.2mm	1.4	4.2m	88×33mm	88g (3.10 oz)		
19m	1.1mm	1.2	6m				
16m	1.0mm	1.0	18m				
22m	0.9mm	0.81	4.2m	90×33mm	84g (2.96 oz)		
12m	0.8mm	0.6	8m				
9m	0.8mm	0.6	15m				
43 to 21m	4.2 to 1.4mm	17.6 to 2.0	5m	91×50mm	205g (7.23 oz)		
31.4 to 14m	3.9 to 1.3mm	15.2 to 1.7	17m				
77m	4.9mm	24.0	3.5m	45×46mm	115g (4.05 oz)	Photography with compact digital camera (Digiscopy) is possible	
58m	4.5mm	20.2	4m				
42m	4.3mm	18.5	9.2m				
58m	3.7mm	13.7	4m	64×46mm	160g (5.64 oz)		
54m	3.4mm	11.6	4.5m				
45m	3.0mm	9.0	10m				
40.1 to 24.4m	3.5 to 1.3mm	12.2 to 1.7	3m	71×33mm	74g (2.61 oz)	Unphotographable	
36.6m	2.1mm	4.4	3m	29×33mm	34g (1.19 oz)		

Vignetting may occur in the field of view if the GL series eyepieces are used in combination with GEOMA II ED 52-S.

*1: The GL25 and GLH20D do not yield wide field of view over 60 degrees if combine with GEOMA II ED 52-S.

6 Camera Tripods



18122

PS-151 Tripod

- Extendable three-section legs
 - Adjustable from 53cm to 151cm in height
- Weight : 1200g / 42.33 oz

NEW



35523

M-155MA Tripod

- 4-section legs, adjustable from 470mm to 1550mm in height.
 - With center poll elevator 280mm long.
 - Minimum tripod length: 510mm.
 - Comes with a QHD-33 Ball head adapter.
- Weight : 1.7 kg / 3.74 lb



18451

M-169 Tripod

- Extendable three-section legs
 - Adjustable from 59cm to 169cm in height
- Weight : 2100g / 7.41 oz

*The specifications are subject to change without notice.

HANDHELD MAGNIFIERS

Reading magnifiers with grip

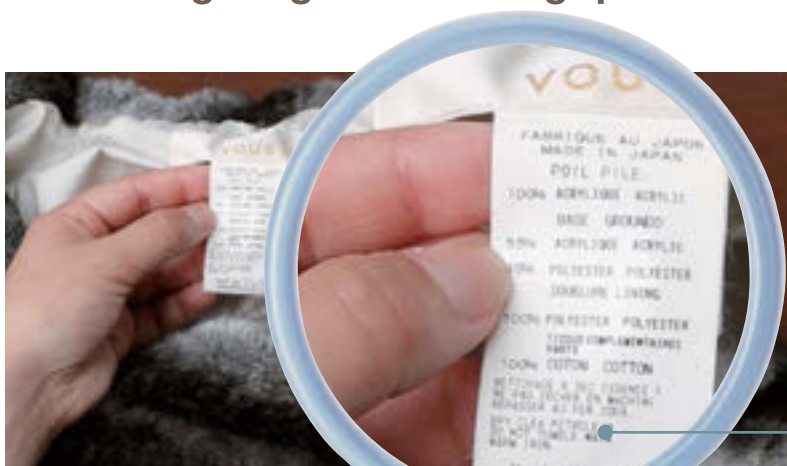


Image is for illustration purposes.

Feature 3

The elastomer resin is used for the part of the handle. This makes it easier to grip and possible to use the magnifier for a long time.

Feature 4

The grip handle goes lift while you put the magnifier on the desk so that it can be taken in hand easily.



Actual Size
(Claire Loupe PB60)



Aspherical Loupe

Power
3.5x

Aspheric

Hard-coated

42971

Aspherical 90

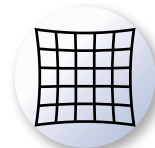
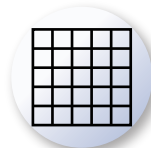
- Lens : Dia.90mm, made of acryl
- Supplied with lens cover
- Weight : 140g / 4.94 oz • Origin : Japan



Feature 1

With use of the aspherical lens, distortion is minimized and you see the image very clearly. The hard-coatings on the surfaces of the lens protect the lens surfaces from scratches.

No Distortion with Aspherical Lens practically.



The image distortion is minimized with aspherical lens.

The image distortion is apparent around the edge with spherical lens.

Sharp and bright image with Multi-coatings



Feature 2

Elegant color of pearl blue

Claire Loupe

Power
3x

Multi-coated

Aspheric

Hard-coated

42941

Claire Loupe PB60

- Lens : Dia. 60mm, made of acryl
- Weight : 44g / 1.55 oz
- Origin : Japan



Power
2.5x

Multi-coated

Aspheric

Hard-coated

42942

Claire Loupe PB70

- Lens : Dia. 70mm, made of acryl
- Weight : 57g / 2.01 oz
- Origin : Japan



Power
2x

Multi-coated

Aspheric

Hard-coated

42943

Claire Loupe PB80

- Lens : Dia. 80mm, made of acryl
- Weight : 67g / 2.36 oz
- Origin : Japan





Image is for illustration purposes.

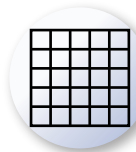
Actual Size
(Miracolo Loupe 60)



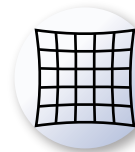
Feature 1

The Aspherical lens minimizes distortion and it shows you image very clearly.

No Distortion with Aspherical Lens practically.



The image distortion is minimized with aspherical lens.



The image distortion is apparent around the edge with spherical lens.

Feature 2

The elastomer resin is used for the part of the handle. This makes it easier to grip and possible to use the magnifier for a long time.

Feature 3

The grip handle goes lift while you put the magnifier on the desk so that it can be taken in hand easily.



Miracolo Loupe



Power 3x **Aspheric**

42946

Miracolo Loupe 60

- Lens : Dia. 60mm, made of acryl
- Weight : 44g / 1.55 oz
- Origin : Japan



Power 2.5x **Aspheric**

42947

Miracolo Loupe 70

- Lens : Dia. 70mm, made of acryl
- Weight : 57g / 2.01 oz
- Origin : Japan



Power 2x **Aspheric**

42948

Miracolo Loupe 80

- Lens : Dia. 80mm, made of acryl
- Weight : 67g / 2.36 oz
- Origin : Japan

*The specifications are subject to change without notice.

HANDHELD MAGNIFIERS ILLUMINATED

Reading magnifiers with grip and illumination



Image is for illustration purposes.

Feature 1

With the built-in LED light, you can magnify the object clearly even if you are in a dark place.

Feature 2

The handle is covered with Elastomer resin that fits in hand with no slippage.

Feature 3

It is very lightweight regardless of the including self-container battery for illumination.



Actual Size
(Luminor Loupe 65)



Luminor Loupe

Large Aperture Lens with White LED Illumination

Because this magnifier is equipped with a white LED light, it allows you to read what you want to magnify in low light conditions. The handle covered with Elastomer resin fits in hand well and prevents the magnifier from slipping off the hand. The surfaces of the lens are hard coated to make it stronger against scratching. Made in Japan.

Power
3x

White
LED

Hard-
coated

42954

Luminor Loupe 65

- Lens : Dia. 65mm, made of acryl
- Illumination : White LED
- Power source : One size AAA battery
- Weight : 55g / 1.94 oz without battery
- Origin : Japan



Power
2.5x

White
LED

Hard-
coated

42955

Luminor Loupe 75

- Lens : Dia. 75mm, made of acryl
- Illumination : White LED
- Power source : One size AAA battery
- Weight : 78g / 2.75 oz without battery
- Origin : Japan



Power
2x

White
LED

Hard-
coated

42956

Luminor Loupe 90

- Lens : Dia. 90mm, made of acryl
- Illumination : White LED
- Power source : One size AAA battery
- Weight : 99g / 3.49 oz without battery
- Origin : Japan



Power
2.5x

White
LED

42959

Flash Magnifier F80 LED

- Lens : Dia. 80mm, made of glass
- Illumination : White LED
- Power source : Two size C batteries
- Weight : 210g / 7.41 oz without battery
- Origin : Japan



Power
5x

White
LED

42958

Flash Magnifier F50 LED

- Lens : Dia. 50mm, Doublet, made of glass
- Scale : 0.5mm (Total 25mm) x 1/32 inch (Total 1inch)
- Illumination : White LED
- Power source : Two size C batteries
- Weight : 160g / 5.64 oz without battery
- Origin : Japan



The batteries included are for checking purpose only.

FOLDING POCKET MAGNIFIERS

Compact and lightweight

Les Couleurs Series

Actual Size
(Les Couleurs - Apricot Orange)

Color options:

- (Rose red)
- (Apricot orange)
- (Cosmos pink)
- (Lavender purple)
- (Lemon yellow)
- (Olive gray)
- (Iris blue)
- (Lime green)
- (Coconut beige)

Product codes and colors:

- 42960** Rose red
- 42961** Apricot orange
- 42962** Cosmos pink
- 42963** Lavender purple
- 42964** Lemon yellow
- 42965** Olive gray
- 42967** Iris blue
- 42968** Lime green
- 42969** Coconut beige

Les Couleurs-series magnifiers

- Lens : Dia. 44mm, made of glass
- Case : Felt
- Weight : 34g / 1.20 oz
- Origin : Japan

Power ①
3.5x

Power ①+②
6x

Power ①+②+③
8.6x

4172
Folding pocket magnifier
P23N

- Lens : Dia. 23mm, made of acryl
- Case : Plastic
- 3-lens type
- Weight : 14g / 0.49 oz
- Origin : Japan

Power
3.5x

4134
Folding pocket magnifier
P44

- Lens : Dia. 44mm, made of glass
- Case : Artificial leather
- Weight : 34g / 1.20 oz
- Origin : Japan

Power
3.5x

41361
Folding pocket magnifier
P45N

- Lens : Dia. 45mm, made of glass
- Case : Vinyl
- Weight : 30g / 1.06 oz
- Origin : Japan

Power
3.5x

4630
Folding pocket magnifier
P50

- Lens : Dia. 50mm, made of glass
- Case : Artificial leather
- Weight : 45g / 1.59 oz
- Origin : Japan

FOLDING POCKET MAGNIFIERS Compact and lightweight

Power **3.5x** White **LED**

42994 LED Pocket 35

- Lens : Dia. 35mm, made of acryl
- Illumination : White LED
- Power source : Two CR2016 batteries
- Weight : 38g / 1.35 oz without battery and case
- Origin : China



DESK MAGNIFIERS

Power **2x**

4158 Bar Loupe BA150

- Lens : 150x25mm, made of Acryl
- Case : Fabrics
- Weight : 44g / 1.55 oz (48g / 1.69 oz with case)
- Origin : Japan



Power **5x**

4179 Desk Magnifier SW50

- Lens : Dia. 50mm, made of glass
- With rubber knurling grip
- Weight : 71g / 2.50 oz • Origin : Japan



8926 Fresnel Magnifier L

- Lens : 126x71mm, made of PVC
- Case : Vinyl
- Weight : 7g / 0.25 oz (18g / 0.63 oz with case)
- Origin : Japan

Power **2x**



4198 Fresnel Magnifier S

- Lens : 42x77mm, made of PVC
- Case : Vinyl
- Weight : 2g / 0.07 oz (8g / 0.28 oz with case)
- Origin : Japan

Power **3.5x**

HAND-FREE MAGNIFIERS Useful for long time use



Power **2.3x** Power **5x (small)**

4160 Hand-free Magnifier LL100

- Lens : Dia. 100mm, made of acryl
- Arm : 5 to 35mm extendable
- Weight : 137g / 4.83 oz
- Origin : Japan



42974 Wide Fresnel Stand Magnifier

- Lens : 193x140mm, made of Acryl
- Weight : 360g / 12.7 oz • Origin : Japan

Power **1.8x**



4621 Stand Magnifier SR130PS

- Lens : Dia. 130mm, made of Acryl
- Arm : 25cm, flexible
- Weight : 680g / 23.99 oz • Origin : Japan

Power **2x**

FLEXIBLE MAGNIFIER Convenient clip for attachment



Power **2x** White **LED**

4227 Stand Magnifier RX128ML

- Lens : Dia. 128mm, made of glass
- Illumination : White LED
- Power source : AC Adapter (100V source)
- Arm : 28cm, flexible
- Weight : 1,700g / 59.97 oz without AC Adapter
- Origin : Japan



Power **2x** Power **4x (small)** Hard-coated

42993 Flexible Magnifier RH100

- Lens : Dia. 100mm, made of acryl
- Arm : 24cm, flexible
- Weight : 196g / 6.91 oz
- Origin : Japan

EYEGLOSS MAGNIFIERS

NEW



42912 Eyeglass Magnifier 1.6X

- Lens : 45x45mm, made of acryl
- Working distance : About 22 to 35cm
- Case : Fabrics
- Weight : 32g / 1.1 oz
- Origin : Japan

Power **1.6x** Hard-coated

NEW



42914 Eyeglass Magnifier 2.3X

- Lens : 64m(Diagonal) (One side 45x45mm) made of polycarbonate
- Working distance : About 13.0 to 20.0cm
- Case : Fabrics
- Weight : 26g / 0.9 oz
- Origin : Taiwan

Power **2.3x** Hard-coated

NEW



42913 Eyeglass Magnifier

- 64mm (Diagonal) (One side 45x45mm) made of polycarbonate
- Working distance : at 1.6x: about 220 - 350mm at 2.0x: about 120 - 170mm (from eye to object / a difference among individuals eyesight)
- Case : Fabrics
- Weight : 32g / 1.1 oz
- Origin : Japan

Power **1.6x** Power **2x** Hard-coated

BINOCULAR HEAD-WORN MAGNIFIERS

For comfortable hand-free precision work



4446

Binocular Head-worn Magnifier with LED

- Lens : 37x28mm, interchangeable, made of acryl
- Operating head range : 52 to 61cm
- Working distance :
About 10 to 20cm (1.5x),
7 to 13cm (2.5x), 5 to 7cm (3.5x)
- Illumination : White LED
- Power source : Two CR1220 batteries
- Weight : 50g / 1.76 oz without battery
- Origin : Japan

Power 1.5x
Power 2.5x
Power 3.5x
White LED



4445

Binocular Head-worn Magnifier

- Lens : 37x28mm, interchangeable, made of acryl
- Operating head range : 52 to 61cm
- Working distance :
About 10 to 20cm (1.5x),
7 to 13cm (2.5x), 5 to 7cm (3.5x)
- Weight : 35g / 1.24 oz
- Origin : Japan

Power 1.5x
Power 2.5x
Power 3.5x

METAL HOLDER MAGNIFIERS

For high power application



Power ① 3x
Power ② 4x
Power ③ 5x
Power ①+② 6.5x
Power ①+③ 9x
Power ②+③ 11x
Power ①+②+③ 15x

4109 Metal Holder MT19

- Lens : Dia. 19mm, 3-lens type, made of glass
- Case : Metal • Weight : 38g / 1.34 oz • Origin : Japan



Power 10x

4305 Metal Holder M12N

- Lens : Dia. 12mm, Doublet, made of glass
- Case : Metal
- Weight : 22g / 0.78 oz
- Origin : Japan



Power 10x

Power 20x

4144 Metal Holder M13

- Lens : Dia. 12mm, 7mm, 2-lens type, made of glass
- Case : Metal
- Weight : 35g / 1.24 oz
- Origin : Japan



Power 20x
Achromatic Triplet

4306 Metal Holder M14N

- Lens : Dia. 14mm, Triplet, made of glass
- Case : Metal • Weight : 28g / 0.99 oz
- Origin : Japan



Power 10x

4307 Metal Holder M16N

- Lens : Dia. 16mm, Doublet, made of glass
- Case : Metal
- Weight : 34g / 1.20 oz
- Origin : Japan



Power 10x
Achromatic Triplet

4308 Metal Holder M17N

- Lens : Dia. 17mm, Triplet, made of glass
- Case : Metal • Weight : 36g / 1.27 oz
- Origin : Japan



Power 10x

4309 Metal Holder M20S

- Lens : Dia. 20mm, Doublet, made of glass
- Case : Metal • Weight : 39g / 1.38 oz
- Origin : Japan

PROFESSIONAL MAGNIFIERS



Power 7x

4161 Linen Tester T20

- Lens : Dia. 20mm, made of glass
- Inner scale (one side) : 3/4 inch, 19.1mm
- Scale unit : 1/8 inch, 1mm
- Weight : 24g / 0.85 oz
- Origin : Japan



Power 6x

4162 Linen Tester T28

- Lens : Dia. 28mm, made of glass
- Inner scale (one side) : 1 inch, 25.4mm
- Scale unit : 1/8 inch, 1mm
- Weight : 42g / 1.48 oz • Origin : Japan



Power 6x

4164 Linen Tester TW25

- Lens : Dia. 25mm, Doublet, made of glass
- Bottom size : 1 inch, 25.4mm
- Scale unit : 1/8 inch, 1mm
- Weight : 64g / 2.26 oz • Origin : Japan



Power 10x
Achromatic

4168 Desk Magnifier HA10

- Lens : Dia. 26mm, Doublet, made of glass
- Case : Vinyl, hard
- With rubber knurling grip
- Weight : 68g / 2.40 oz
- Origin : Japan



Power 15x
Achromatic

4169 Desk Magnifier HA15

- Lens : Dia. 20mm, Doublet, made of glass
- Case : Vinyl, hard
- With rubber knurling grip
- Weight : 49g / 1.73 oz
- Origin : Japan



Power 30x
Achromatic

4170 Desk Magnifier HA30

- Lens : Dia. 7.5mm, Doublet, made of glass
- Case : Vinyl, hard
- With rubber knurling grip
- Weight : 46g / 1.62 oz
- Origin : Japan



Power 5x

4151 Eye Loupe E22

- Lens : Dia. 22mm, made of glass
- Weight : 8g / 0.28 oz
- Origin : Japan

*The specifications are subject to change without notice.

High Grade

Select

Compact

Spotting Scope

Magnifier

Compasses

Compasses

Liquid Filled Type Compasses

LED Compass

A transparent dial makes the pointer visible from the underside. Pressing the button on the side of the compass will illuminate the dial with red LED light to ensure you maintain your dark adaptability.



- 43023** Green
- 43024** Blue

LED Compass

- Liquid filled compass
- Diameter : 44mm
- Weight : 30g / 1.05 oz
- Illuminated compass dial
- Power source : Lithium metal battery CR2016

Military Type

This compass is built to be durable with a variety of practical features in aluminum die-cast body.



4677

Military C20-50E

- Liquid filled compass
- Diameter : 50mm
- Weight : 120g / 4.23 oz
- Made of aluminum die-cast

Clip Type

Possible to clip this compass to cloth, map or handbook. Waterproof. It is suitable for Outdoor.



42028

Clip Oil Compass

- Liquid filled compass
- Diameter : 26mm
- Strength of Clip : 0-2kgs
- Clippable Thickness : 0-3mm
- Weight : 11g / 0.38 oz

Metal Type

A new type list compass which used metal (aluminum) for the case part. It is also suitable for diving. (100m water resistant)



- 42031** Red
- 42032** Blue
- 42033** Silver

Metallic Compass

- Liquid filled compass
- Diameter : 25mm
- Weight : 5.5g / 0.19 oz
- It can be attached to a watch band of width 20mm x thickness 3mm or less.

Standard Type



42027

Wood Oil Compass

- Liquid filled compass
- Diameter : 36mm
- Weight : 39g / 1.37 oz
- With neck strap
- Made of Wooden (Japanese Zelkova)



4217

C6N-33E

- Liquid filled compass
- Diameter : 33mm
- Weight : 15g / 0.52 oz



42026

Handy Oil Compass

- Liquid filled compass
- Diameter : 38mm
- Weight : 23g / 0.81oz



42024

Metal Pocket Compass

- Liquid filled compass
- Diameter : 46mm
- Weight : 40g / 1.41 oz
- Brass made
- Arrow to point the target direction

Diver Type



42043

Diver Compass SQ (Square type)

- Liquid filled compass
- Diameter : 25mm
- Weight : 5g / 0.17 oz
- It can be attached to a watch band of width 21mm x thickness 2.5mm or less.

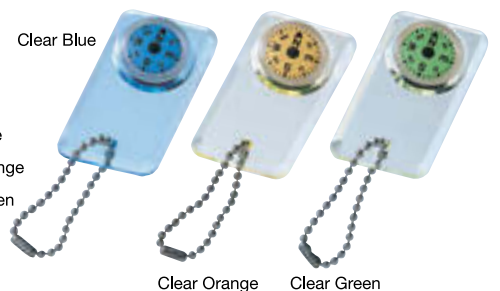


42042

Diver Compass L (Large round type)

- Liquid filled compass
- Diameter : 30mm
- Weight : 8g / 0.28 oz
- It can be attached to a watch band of width 22mm x thickness 3mm or less.

Key Holder Type



4670 Clear Blue

4671 Clear Orange

4672 Clear Green

C15-24

- Liquid filled compass
- Diameter : 24mm
- Weight : 12g / 0.42 oz

* Compass cannot indicate accurate bearing if there is strong magnetism or electronic equipment nearby. Also, if you keep Compass in such an environment, it may direct the North and South reversed. Please handle with care.

* Air bubbles may be generated inside of Oil filled Compass due to long-term use and storage, or lower pressure.

Liquid Filled Type Compasses

Clear Type



42025

Loupe Compass

- Liquid filled compass
- Diameter : 48mm
- Weight : 16g / 0.56 oz
- With strap
- The bottom of the compass body is 5x magnifier.



42029

Orienteering Compass II

- Liquid filled compass
- Size : 105x54x10mm
- Rotational type of Dial
- With 3.5x magnifier
- Unit : mm, with scale at 1/25,000 and 1/15,000
- Sharp moving of needle by Strong Magnet
- For orienteering
- Weight : 30g / 1.05 oz
- Clear type



4675

C18-47J

- Liquid filled compass
- Diameter : 45mm
- Weight : 20g / 0.70 oz
- Clear type

Dry Type Compasses

Standard Type



42051

C1-34

- Dry type compass
- Diameter : 34mm
- Weight : 10g / 0.35 oz



4202

C2-45

- Dry type compass
- Diameter : 45mm
- Weight : 18g / 0.63 oz
- With stopper



4203

C3-45

- Dry type compass
- Diameter : 45mm
- Weight : 24g / 0.84 oz
- With stopper



4205

C5-45

- Dry type compass
- Diameter : 45mm
- Weight : 33g / 1.16 oz
- With stopper

Japanese • Feng Shui Type Compasses

42022

Gold Dry Compass

- Dry type compass
- Diameter : 45mm
- Weight : 20g / 0.70 oz
- Brass made
- With stopper



4230

C10-55

- Dry type compass
- Size : 55x55mm
- Weight : 36g / 1.26 oz



Altimeter

About Altimeter ...

Altimeter means a device to measure altitude and it is mainly used at climbing or airplane. The two main types of Altimeter are "Atmospheric Pressure Altimeter" and "Radio wave Altimeter". We adopt "Atmospheric Pressure Altimeter" which is essential tool for Hiking, Climbing, Skydiving to know the change of Altitude or Atmospheric Pressure.



46811

Altimeter AL

- With case
- Weight : 50g / 1.76oz



How to use Altimeter



Rotating ring

Turn the "Rotating Ring" of the altimeter body and set the altitude of the departure point.

Altitude indication

Then check the altimeter at the place you want to investigate. Always keep showing "altitude" for each place.

Pressure indication

On the inside of display, you can also check the state of "Atmospheric Pressure". By checking changes in atmospheric pressure at the same spot, it will be useful for weather forecasting etc.

*The specifications are subject to change without notice.



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