



my point of view



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Heine/Lenz/Zizka 12/05/ADX/B

Leica Sport Optics

Binoculars, rangefinders, and spotting scopes for observation in nature



Stellers Sea Eagle

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Bee-eater / Merops apiaster



www.leica-camera.com



> Leica R-System



> Leica M-System

For the other lines of Leica products too, man and his perception are the main consideration : Accordingly, high-grade Leica cameras and projectors provide a very special visual experience. Numerous cultural activities, photographic competitions and seminars as well as a competent technical customer service round out our program. More detailed information is available on the internet or from your authorized dealer.



> Leica Digital Cameras



> Leica Projectors



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Black-winged Stilt / Himantopus himantopus



See more It is our eyes that guide us through the world. They shape our perception of our surroundings and all we encounter. Leica has long since dedicated itself to the field of optical perception, developing instruments to heighten this sense and increase ones enjoyment of it. The famous cameras and lenses, as well as the high quality class of sport optics products, to which belong the high performance binoculars, spotting scopes, and laser rangefinders are all part of Leica's legacy in optics. They open new dimensions of optical performance and go beyond natural limitations, while at the same time ensuring unmistakable Leica quality. Our engineers and developers thrive on the challenge put forth by people with the highest standards and expectations in optical performance. As multi-faceted as their applications, so too are the methods used to create sport optics products that display images rich in contrast and with outstanding color rendition. Glass containing fluorite or those with corrected spectral dispersion, aspherical and achromatic lenses, as well as modern multi-layer coatings like HDC™ and HighLux-System HLS™ allow for unforgettable viewing experiences. Through our high standards, knowledge, and dedication we create optical masterpieces, which become the benchmark of their class.



Yellow Wagtail / Motacilla flava

Experience Nature Nature constantly challenges those wishing to brave it. These free spirits are out to enjoy the freedom of the outdoors and to find that unforgettable moment, which only nature can provide. Nature is their passion. They know best of all how difficult it can be to identify that rarest of birds under the most trying conditions. Our quest is to bring enthusiasts closer to nature, and coupled with our Leica expertise, make our optical instruments the ideal field companions. Even under the most grueling conditions, such as extreme temperature changes and constant physical abuse, our products exceed expectations. The reason for this being that Leica binoculars, spotting scopes, and laser rangefinders are the result of many years of experience, uncompromising quality standards and a continuing dedication to excellence. Leica's product development is driven by international "Innovation Teams" comprised of experts and users. This approach has resulted in numerous patents, e. g. the multifunction center drive of our full-size binoculars, the dual-focusing device of our spotting scopes and our unique laser ranging technology.

Observe and preserve We see it as our duty to protect the environment. Therefore, Leica only uses environmentally friendly materials and technology. As such, all glass is lead- and arsenic-free, and has been so for years. Leica is also active worldwide in protecting endangered species and conserving crucial habitat.

Spanish Imperial Eagle / Tringa totanus



Supporting young birders

Young birders everywhere are often isolated from their peers, watching and studying birds all by themselves. So how do you inspire and encourage students from across the continent to discover birding, to get out into the field and improve their birding proficiency and enjoyment, and at the same time connect with other young birders ?

The YBY contest was begun in 1997 with a firm commitment from the ABA Education Program to encourage more young people to become interested in birding and encourage young birders to enhance their entire birding experience, with an emphasis on the development of good field skills. Leica Camera Inc stepped up as the principal sponsor of this exciting new event, with superior optics prizes and a generous scholarship to a youth birding camp for the winners. The YBY has evolved from that first venture, and now consists of four individual modules : field notebook, writing, photography, and illustration. Participants can customize the contest to reflect their own ornithological interests and the aspects of birding that they find the most compelling by participating in just one or all four of the modules. To qualify for overall YBY, participants must complete the field notebook module and at least two of the others.

birding and ornithology, among them writing, painting, tour-leading, museum work, and conservation science.

Distinct from the Field Notebook Module is the Writing Module. Whereas the Field Notebook Module emphasizes on-the-ground, on-site descriptions of birds observed in the field, the Writing Module presents a venue for analysis, interpretation, and speculation. The primary genre here is the essay, but some

education skills. And as they scrutinize the proportion challenges when the birds change their position, they are also learning about the way birds move when they sing, eat, and go about their daily lives. Capturing a bird's particular attitude and beauty along with the successful handling of their chosen media is a charge that these young birders have met with aplomb. The act of putting pencil to paper has become an expression of these

One of the ways that the American Birding Association (ABA) has found to do just that was to create a contest, the ABA/Leica Young Birder of the Year (YBY), which would spark their imaginations as well as increase their desire to pursue and develop their own birding skills.

best : "As anyone who has tried bird photography can attest, it can be a difficult proposition to capture the essence of bird life on film (or digital memory cards), but these young birders pulled it off." The ABA/Leica Young Birder of the Year contest has had over 500 young people enter and fine-tune different facets of their birding. The flexibility of the contest allows participants to pursue and expand on the areas of birding that most fascinate them. As our young birders become adults and mentors for others, they will carry forward these learning experiences into their college studies and eventual careers. The ABA is proud to have Leica Camera Inc as the

Leica Camera Inc has been the principle sponsor of the ABA Young Birder of the Year program since its beginnings in 1997. Leica is also a proud supporter of the American Birding Association's Young Birder's Conventions and Youth Birding Camps. Leica supports these programs by providing high quality optics, by offering scholarships, and by deferring overall costs. This allows more of these talented young naturalists to attend these programs, and learn about their natural surroundings.

www.americanbirding.org/yb/yby



The Field Notebook Module is the primary piece for the YBY. Taking good field notes requires a commitment to time spent in the field, careful observation, attention to detail, and dedication to birds and birding. It is not a stretch to say that most of today's leading birders and ornithologists kept field notebooks when they were younger. The lessons learned – discipline, organization, clarity, rigor – are vital to so many different careers in

of our creative young birders venture into more imaginative media such as poetry. Being able to communicate well is the key to success in the modern professional world, and the Writing Module provides our young birders with excellent, in-depth exposure to the craft of writing.

The Illustration Module strengthens the participants' competence as birders as well as their artistry and creativity. As they distinguish the subtle colors of field marks, correct primary extension lengths, and overall bird proportions, they are also bolstering their birding and field identifi-

young birders' love and enthusiasm for their subjects.

The newest addition to the YBY contest was the Photography Module, introduced in 2003. This module gives young birders yet another avenue to explore birding while boosting their proficiency with their photography. Photographic equipment used by young birders has varied from simple point-and-shoot cameras to sophisticated SLR's. An impressive array of photographs has been produced in these first two years. One of the photography judges, Bill Schmoker, said it

primary sponsor for our young birder education programs.

Lori L. Fujimoto, Education Manager and Ted Floyd, Editor of Birding

Leica and ABA youth birding programs

Best places to search for them.

Observations made January 1, 1998 at Hill Deer Park, OHIO

At Killdeer Plains the long-ears seem to prefer one centrally located stand of pines where they can usually be easily found from December to March at their favorite roost sites. Up to 6 long-ears can be found in this stand of pines. They can be found during the day. Be carefully searching through the pines.

Glaring yellow eyes are outlined in blackish spectra eyes, whitish facial tufts. Facial disk is rusty almost an orangish color.

Stems to prefer tall, dense pine and fir perches high in dense cover usually near the trunk. Likes to stretch to become thinner when it feels threatened.

Usually does not call outside of nesting season.

owl pellets

Watching the skies It's a cool, crisp, early October morning and 100 people are standing together with their eyes fixed on the sky. "Peregrine Falcon over the bunker" shouts one of them as he simultaneously records the event on a hand-held tally counter. In unison, all eyes turn to bear witness to the fleeting moment, and a collective, almost imperceptible "ahh" is uttered.

Standing on the spacious hawk watch platform in Cape May Point State Park today, it's difficult to imagine the Cape May Hawk Watch of thirty years ago. Most noticeable, the crowds of birders were considerably smaller. Dozens during the week (perhaps) and scores on the weekends are nothing compared to the tens of thousands of people who now travel to Cape May each fall. In 1976, a rickety table that accommodated one person, is now a two-tiered, state-of-the-art observation deck seats more than 200 visitors. Back then, a single person did everything – bird counting, back yard ornithology, and Cape May Bird Observatory ambassador. Now, two official counters and two interpretive naturalists handle the flow of migrating hawks and questions from throngs of visiting hawk watchers.

In 1976, however, the importance of the data we were collecting to future raptor conservation efforts was clear, and this understanding has not changed thirty years later. For several decades before the start of the Cape May Hawk Watch, raptor populations were ravaged by the effects of DDT, a chemical used to control agricultural pests. Species like Peregrine Falcon and Bald Eagle declined precipitously. This debacle became the environmental community's rallying cry for greater controls on pesticide use. Thirty years of data have helped to document the recovery of Peregrine Falcon, Bald Eagle and other raptor species after the use of DDT was banned. The data also revealed more recent declines in other species like Sharp-shinned Hawk and American Kestrel, a diminutive falcon.

Established in 1897, New Jersey Audubon Society is a member supported not-for-profit organization that has been

at the forefront of environmental education, conservation and research for over 100 years. Initially, the Society was formed to combat wholesale market hunting of birds and to fight against the decimation of birds to supply feathers to the millinery industry. Our efforts, and those of other Audubon societies, were instrumental in the passage of the Migratory Bird Treaty Act in 1911, a regulation that still protects nearly all bird species occurring in the United States today.

The Cape May Bird Observatory, one of New Jersey Audubon Society's ten staffed centers, made its debut the same year that the Cape May Hawk Watch began. Thirty years later it is a world renowned



bird watching center and a regional leader in science-based bird conservation. The Observatory entertains thousands of visitors that come to Cape May to experience the migration phenomena. The scope of the Observatory's recent scientific work includes the study of shorebirds during spring migration

through Delaware Bay, which is a hemispherically important staging area for several species en route to the Arctic, breeding grassland birds, evaluating the impact of wind power development, and assessing population trends in migrating raptors and waterbirds.

But what makes Cape May so special when it comes to birds, especially those species that make annual migratory journeys. The business world mantra "location, location, location," applies here. While migration occurs all over the Northern (and much of the southern) Hemisphere, it is not evenly apportioned. If you look at southern New Jersey, trapped between Delaware Bay to the west and the Atlantic Ocean to the east,

the geography resembles a big funnel with Cape May Peninsula at the terminus. Prevailing northwesterly winds in fall push southbound migrants into the funnel's mouth.

Tens of thousands of hawks and millions of songbirds get "trapped" at the end of the funnel – squeezed onto

By sunset, the herald with the tally counter called out the name "Peregrine Falcon" 256 more times, and recorded the passing of another four thousand hawks, eagles and falcons during their southward transit over historic Cape May, New Jersey.

the peninsula where they back up before deciding to cross Delaware Bay. This often results in spectacular hawk flights and fallouts of migrants – much to the pleasure of birdwatchers.

Biologists also find these major concentrations useful because they put large portions of species' population in the same place at nearly the same time, which is an efficient way to assess their status. This is especially important for many raptor species, which are difficult to monitor during the breeding season. Data collected during the Cape May



Hawk Watch's 30 year tenure has been instrumental in understanding the population dynamics of several species.

Like most things in life, environmental education, conservation, and research can be an expensive business. The success of New Jersey Audubon Society and Cape May Bird Observatory is dependent in large part on the financial support of its members and cooperative agreements with government agencies. Another important means of support are partnerships with corporate entities that have clear natural resource conservation awareness and a connection with the bird watching and conservation community. Leica Sports Optics is one of these entities.

The history of birding is intrinsically linked with the history of optics. As optics improved, so too did birding's skill level, and popularity. Leica has been at the forefront of this birding revolution. The Trinovid binocular has been a stalwart of the birding community since its introduction. Leica continues to be a leader in optical equipment innovation, especially for bird watching applications. This is most evident in its state-of-the-art Televivid APO spotting scope and the recent development of the Ultravid binocular. This binocular features exceptional field of view, superior depth of field, and close, fast focus, making it the ideal instrument for flight identification of raptors and other bird species. This is why we feel strongly that Leica Sport Optics is the ideal partner for the Cape May Hawk Watch joint venture. If you visit Cape May between September 1 and November 30, you can see the fruits of this cooperative agreement – and more than a few birds.

David Mizrahi, Ph.D.
Vice-president for Research
New Jersey Audubon Society

Leica Supports Research in Cape May
Leica is the official sponsor of the Cape May Hawk Watch, and has supported other co-operative research efforts as well. In addition to providing funds for the Hawk Watch staff, Leica supplied world class optics for the project.

Leica binoculars and scopes are unrivaled for clarity and light gathering ability, making the job of spotting and identifying birds at a distance a breeze. This fact is not lost on the thousands of visitors that come to the Hawk Watch who are encouraged to use the exceptional optical equipment.

www.njaudubon.org/sites/HUCMBO.html



Leica Sport Optics supports the following projects and organizations :

American Birding Association (ABA), USA

www.americanbirding.org

The ABA represents a whole range of birding interests, from identification and education to listing and conservation. ABA actively promotes the economic and environmental values of birding, and we encourage the conservation of birds and their habitats.

New Jersey Audubon Society (NJAS), USA

www.audubon.org

The mission of the National Audubon Society is to conserve and restore natural ecosystems, focusing on birds and other wildlife for the benefit of humanity and the earth's biological diversity.

Naturschutzbund Deutschland (NABU) e. V., Germany

www.nabu.de

Among other things the NABU exerts itself for the conversation, creation and improvement of the life bases of the flora and fauna. Besides, the protection of birds finds special consideration.

The Katinger Watt NABU Nature Centre

www.nabu-katinger-watt.de

The NABU Nature Centre at Katinger Watt organizes guided tours and exhibitions and it also protects an 1100-hectares (7413 acres) nature preserve that serves as a resting area for migratory birds, making it a paradise for bird fanciers.

Crane Information Centre Gross Mohrdorf

www.kraniche.de

The Baltic coast, between the islands of Rügen, Bock and the Zinger Peninsula contains the largest crane resting places of Central Europe. The Information Centre takes care of the protection of the cranes and it looks after the numerous nature friends who come here to watch these majestic birds, especially during their spectacular autumn migration.

National Park Schleswig-Holstein's Wadden Sea, Germany

www.wattenmeer-nationalpark.de

The national park's objective is to protect the wadden sea ecosystem's diversity by ensuring its undisturbed development.

British Butterfly Conservation, UK

www.butterfly-conservation.org

The British Butterfly Conservation Organization has prepared conservation programs for more than 60 threatened species of butterfly and moth.

Birdlife International, UK

www.birdlife.org

Birdlife International is involved in the protection of sea birds (actually mainly albatrosses and petrels).

Oriental Bird Club (OBC), UK

www.orientalbirdclub.org

OBC research projects for bird conservation in Asia.

In the actual issue of the magazine "Focus on Wildlife" you can read thrilling stories which experienced and renowned birdwatchers from all over the world made with their Leica Sport Optics products. You will find it at your Leica dealer or in the internet at www.leica-camera.com.

Black-chested Buzzard Eagle / *Geranoastur melanoleucus*



The Duovid class : Two binoculars in one

The LEICA DUOVID 8 + 12 x 42 and 10 + 15 x 50 are the only premium performance binoculars with two magnifications. No matter what the situation, whether it is over long distances or during critical low-light conditions, the Leica Duovid adapts to it perfectly. The lower magnification (8 x with the 42 Duovid or 10 x with the 50) allows for shake-free viewing and a large field of view. By switching to the higher magnification (12 x or 15 x respectively) one achieves greater detail recognition. In contrast to monocular add-on power boosters, a binocular booster is already integrated in the Duovid – lightweight, easy to operate and with a large field of view. Both models are well-balanced and feature an outstanding ergonomic design, thereby allowing for virtually shake-free viewing, even at high magnification. Other technical innovations, such as the Leica HighLux-System HLS™ and the Automatic Diopter Compensation ADC™ when switching between powers, make the Duovid a unique and versatile instrument.



American Bald Eagle / *Haliaeetus leucocephalus*

LEICA DUOVID 10 + 15 x 50



LEICA DUOVID 8 + 12 x 42

LEICA DUOVID 10 + 15 x 50 – the binocular-spotting scopes With its 15 x magnification, the Duovid with 50 mm objective lens bridges the gap between binocular and spotting scope.

— **LEICA DUOVID 10 + 15 x 50**

This Duovid is a high performance binocular that, with a flick of the wrist, becomes a binocular-spotting scope. The 10 x magnification allows for shake-free viewing and a larger field of view. By switching to 15 x one achieves a level of detail recognition previously found only in spotting scopes. Due to its high level of optical performance, the 50 mm Duovid is also well suited for astronomy – it comes delivered with a tripod adapter to provide added stability.

— The ergonomic design and the soft-touch rubber armoring (available in black or green) allow for a secure and shake-free handling of the binocular, even while wearing gloves.



LEICA DUOVID 8 + 12 x 42 – the most flexible 42 mm binoculars Unique 12 x magnification in a 42 mm glass, which allows for great detail recognition.

— **LEICA DUOVID 8 + 12 x 42**

The compact 42 Duovid offers 8 x magnification for a large field of view, as well as 12 x magnification for greater detail recognition. As with the 50 mm model, this Duovid features the sliding eyecups with two click stops, which ensure the ideal eye relief for every user.

— To switch between magnifications, one must adjust the ring on each tube accordingly. Due to the Automatic Diopter Compensation ADC™ your previously set diopter will automatically adjust itself to the new magnification.



The 15 x magnification is ideally suited for viewing over long distances. The 10 x magnification, on the other hand, gives you a good overview.



“The Duovid, with its variable magnification, cannot be compared to zoom binoculars. The optical performance and the Automatic Diopter Compensation ADC™ create a new reference class. The Duovid 8 + 12 x 42 need not shy away from comparing itself to high-end fixed-power binoculars.”
(Michael O'Brien, Birding Tour Leader and Author, USA)



“I use the Duovids for the extra flexibility they provide. I might want to watch dragon flies at one moment, and then a distant sea-eagle ; the rapid change of magnification makes that easy. I try to encourage my students too to scan a scene with 8 x magnification, and then switch to 12 x for the close view.”
(Dr. Wolfgang Dreyer, Germany)

Due to its extreme twilight performance, the Duovid achieves great detail recognition at 12 x and 15 x magnification, even under poor light conditions. However, with continued deteriorating light conditions, one should switch to 8 x or 10 x magnification, since the binoculars render brighter images at lower power settings.



The Duovid class : Two binoculars in one

Key features at a glance

Pezotettix giornae

Two magnifications

The flexible binocular class with both – high magnification and a large field of view – in one product. High magnification for long distances and minute details. Low magnification for image stabilization and a large field of view.

Extreme brilliance

Extremely high resolution and a color-fringe-free image due to the Leica HighLux-System HLST™, an innovative multi-layer lens coating with Leica HDC™ and a four-lens objective with an achromat.

Easy to use

Automatic Diopter Compensation ADC™ : when switching between magnifications the diopter automatically adjusts. Multifunction Center-drive : comfortable, smooth focusing and easy diopter setting.

Robust

Strong aluminum die-cast housing and soft-touch rubber armoring protect the binocular from damage, while at the same time ensuring secure handling of the product, even when wearing gloves. Functions perfectly under all environmental conditions from -25°C to +55°C, waterproof to 5 m, nitrogen-filled.



LEICA DUOVID 10 + 15 x 50 – the binocular-spotting scopes.

In black or green rubber armoring :

black **Order No. 40 420**

green **Order No. 40 421**



LEICA DUOVID 8 + 12 x 42 – the most flexible 42 mm binoculars.

In black or green rubber armoring :

black **Order No. 40 400**

green **Order No. 40 405**



The Ultravid class : Binoculars for extreme demands

Nothing demonstrates what is technically possible today quite as well as the flagship products of the Ultravid class. The housing and center-shaft of the 50 mm, 42 mm, and 32 mm models are made of ultra-light-weight, yet extremely durable, magnesium and titanium. Two light-weight exterior finishes are available : soft-touch rubber armoring or elegant leather. The use of these ultra-light materials, coupled with perfectly aligned components, guarantees long-term durability at minimal weight. The thumb rests of the 50 mm and 42 mm models and the sliding eyecups with two click stops of all Ultravid models ensure a comfortable viewing experience. Their soft, cushioning rubber element allows for a comfortable positioning of the eye, and due to the click stops they can be individually set for the perfect eye relief. The strength of the Ultravid class is due, in large part, to its high image quality. The Leica HighLux-System HLS™ makes that possible. This innovative system – comprised of a new highly reflective mirror coating on the prism surfaces and the optimized optical and mechanical design – further reduces stray-light and generates increase in light-transmission and contrast, thereby creating an unforgettable viewing experience. These and other technical advances make it obvious that the Ultravid class is the new reference class in binoculars.



Graylag Goose / Anser anser

LEICA ULTRAVID 8 x 20 BL



LEICA ULTRAVID 12 x 50 BR

LEICA ULTRAVID BR 50 mm – ready for any light conditions The 50 mm Ultravids achieve a richness in contrast and brilliance that, up until now, has been hard to achieve, even with a larger objective lens. All 50 mm models are available in black or green rubber armoring.

— **LEICA ULTRAVID 8 x 50 BR**

Fatigue-free viewing, even under poor light conditions. The 8 x magnification guarantees a steady, sharp image, without the need to constantly refocus.



— **LEICA ULTRAVID 10 x 50 BR**

The high light-transmission, top-of-the-class binocular. Thanks to the outstanding twilight performance, fine details can be viewed well into darkness.



— **LEICA ULTRAVID 12 x 50 BR**

The 12 x magnification allows for great detail recognition over long distances. Beyond that, this high-performance binocular features exceptional 3.2 m close focusing.

LEICA ULTRAVID BR 42 mm – the robust all-rounder They are almost as compact as a 32 mm and nearly as bright as a 50 mm. As far as the twilight factor is concerned, the 8 x 42 and the 8 x 50 are not even 10% apart. The BR models are equipped with a shock-absorbing rubber armoring in either green or black.

— **LEICA ULTRAVID 7 x 42 BR**

A large field of view with great edge-to-edge sharpness, combined with a bright and steady image, characterize this binocular.



— **LEICA ULTRAVID 8 x 42 BR**

The multi-talented binocular that delivers images rich in contrast both during the day and at twilight. The ratio of brightness and weight, of magnification and field of view, make this model perfect for any application.



— **LEICA ULTRAVID 10 x 42 BR**

The most powerful binocular in the 42 mm Ultravid class. The redesigned eyecups allow for a very comfortable positioning of the eye. This becomes very apparent with the improved image steadiness while viewing over great distances.



Even extreme cold does not stop the Ultravid from delivering impressive viewing experiences. Functioning down to temperatures of -25°C it reaches a performance level that almost no other binocular can match. Ultravid : the combination of precision and ruggedness.

The new ergonomics allow for a relaxed handling. The thumb rests of the 50 mm and 42 mm BR models allow for shake-free and slip-proof handling. The large center drive provides for a comfortable and natural hold.



LEICA ULTRAVID BL 42 mm – lightweight in a classic design The leather covered 42 mm BL models are particularly elegant, are reminiscent of the classic binoculars and cameras that made Leica famous. Due to the leather covering, they weigh less than 700 g.

— **LEICA ULTRAVID 8 x 42 BL**

A field of view of 130 m at an 8 x magnification. An image that is rich in contrast both during the day and at twilight.



— **LEICA ULTRAVID 10 x 42 BL**

The most powerful binocular in the 42 mm Ultravid class. The redesigned eyecups allow for a very comfortable positioning of the eye. This becomes very apparent with the improved image steadiness while viewing over great distances. This high-power binocular is, just as the 10 x 42 BR model, equipped with new eyepieces designed to comfortably accommodate eyeglass wearers.



LEICA ULTRAVID BR 32 mm – always with you The 32 mm models are a continuation of the previously established design, function, mechanical, and optical standards of the Ultravid class. They redefine 32 mm binoculars.

— **LEICA ULTRAVID 8 x 32 BR**

High-performance binocular with 32 mm objective lens diameter, 8 x magnification and a large field of view of 135 m allows for a great overview and steadiness of image. This binocular is the new reference class for those seeking minimal weight yet maximum optical performance.



— **LEICA ULTRAVID 10 x 32 BR**

The most powerful 32 mm model not only impresses over great distances, but also has an astonishing close focus of 2.1 m.



Magnesium and titanium are the strengths of the 50 mm, 42 mm, and 32 mm lightweight Ultravids. A housing constructed entirely out of magnesium and a center-shaft made of titanium guarantee the longevity and make the very low weight of the Ultravid models possible. Easy to use and nice to look at : The newly redesigned center drive is a feat of Leica engineering. The new ring-shaped window is easy to read and the focusing wheel is smooth and easy to operate. Because of the short focusing path of just over one turn, the optimal point of sharpness is easily found.

In terms of optical performance and handling, you might believe that you are holding a 42 mm binocular, when in fact it is a 32 mm binocular.



LEICA ULTRAVID BR 25 mm – the stars among the compacts

The 25 mm models combine ruggedness and brightness in a pocket-size dimension : The rubber armoring protects the binocular during tough outings, the HighLux-System HLS™ allows for fascinating images.



LEICA ULTRAVID 10 x 25 BR

Due to its high magnification, the lightweight, black rubber armored compact binocular displays distant objects with extreme sharpness and contrast.

LEICA ULTRAVID BL 25 mm – brilliant elegance These lightweight binoculars with a classic leather covering are the ideal companions for all those expecting a high level of optical performance, whether it is in nature or the city.



LEICA ULTRAVID 10 x 25 BL

The extremely minimal weight of 255 g and the elegant design allow one to always carry it along, even when at the opera or the open-air event.



The new 25 mm and 20 mm models continue the high standards of the Ultravid class : Due to an innovative curing process, the rubber armoring gets fused onto the binocular, making it extremely durable. It is waterproof to a depth of 5 m and nitrogen-filled to prevent internal fogging. It comes delivered with high-quality accessories. Objective lens covers, carrying strap and Cordura case (BR), leather case (BL).

Almost all Ultravid elements could be miniaturized to fit into this smallest model of the Ultravid class. Due to this fact, even these “minis” achieve the highest standards set forth by this reference class. Brighter, sharper, more compact and robust than any previous binoculars with these objective lens diameters.



LEICA ULTRAVID BR 20 mm – robust High-Tech-Minis The small Ultravid BR models are not only ultra-rugged and ultra-bright, but they are small premium-performance binoculars that one can always carry around.



LEICA ULTRAVID 8 x 20 BR

Impact protected, water-proof binocular with a field of view of 110 m and a close focus of 2.2 m. Shake-free viewing due to the 8 x magnification. The Leica HighLux-System HLS™ ensures a bright image. It only weighs 235 g.

LEICA ULTRAVID BL 20 mm – the greatest little ones With their black leather covering, the smallest Leica “power packages” are both elegant and powerful.



LEICA ULTRAVID 8 x 20 BL

They can easily be folded to save room when visiting the opera or a concert and only fall into light by their brilliant image.



Big optic in its smallest size. Not only are the 25 mm and 20 mm Ultravids ultra-rugged, but due to aspherical lenses, they are also ultra-bright. They achieve a large, color-fringe-free image with edge-to-edge sharpness previously unheard of in the compact class.

The newly developed diopter compensation with its “single-button-operation” and large focusing wheel make the smallest Ultravids easy to handle. Naturally, these smallest of binoculars are ideally suited for eyeglass wearers.



The Ultravid class : Binoculars for extreme demands

Key features at a glance

— Ultra-lightweight

Magnesium die-cast housing and a titanium center-hinge for lightweight stability and strength. Aspherical lenses allow for the lightweight in the 20 mm and 25 mm models.

— Ultra-bright

Extremely high resolution and a color-fringe-free image due to the Leica HighLux-System HLS™, an innovative multi-layer lens coating with Leica HDC™ and a four-lens objective with an achromat (aspherical lens technology in the 8 x 20 and 10 x 25 models).

— Ultra-ergonomic

Functional design with integrated thumb rests (50 mm and 42 mm BR models), natural placement of focusing mechanism and perfectly balanced for long, relaxed viewing. Multifunction center drive : comfortable, easy focusing and diopter setting.

— Ultra-rugged

Soft-touch rubber armoring protects the binocular and ensures a slip-proof handling, even when wearing gloves or wet. Functions perfectly under all environmental conditions from -25 °C to +55 °C, waterproof to 5 m, nitrogen-filled, impact resistant.



LEICA ULTRAVID BR 50 mm – ready for any light conditions.

In black or green rubber armoring :

black 8 x 50 **Order No. 40 275** / 10 x 50 **Order No. 40 276** / 12 x 50 **Order No. 40 277**

green 8 x 50 **Order No. 40 280** / 10 x 50 **Order No. 40 281** / 12 x 50 **Order No. 40 282**



LEICA ULTRAVID BR 42 mm – the robust all-rounder.

In black or green rubber armoring :

black 7 x 42 **Order No. 40 260** / 8 x 42 **Order No. 40 261** / 10 x 42 **Order No. 40 262**

green 7 x 42 **Order No. 40 265** / 8 x 42 **Order No. 40 266** / 10 x 42 **Order No. 40 267**



LEICA ULTRAVID BL 42 mm – lightweight in a classic design.

In elegant black leather covering :

8 x 42 **Order No. 40 271** / 10 x 42 **Order No. 40 272**





LEICA ULTRAVID BR 32 mm – always with you.
In black rubber armoring :
10 x 32 BR **Order No. 40 259** / 8 x 32 BR **Order No. 40 258**



LEICA ULTRAVID BR 25 mm – the stars among the compacts.
In black rubber armoring :
10 x 25 BR **Order No. 40 253**



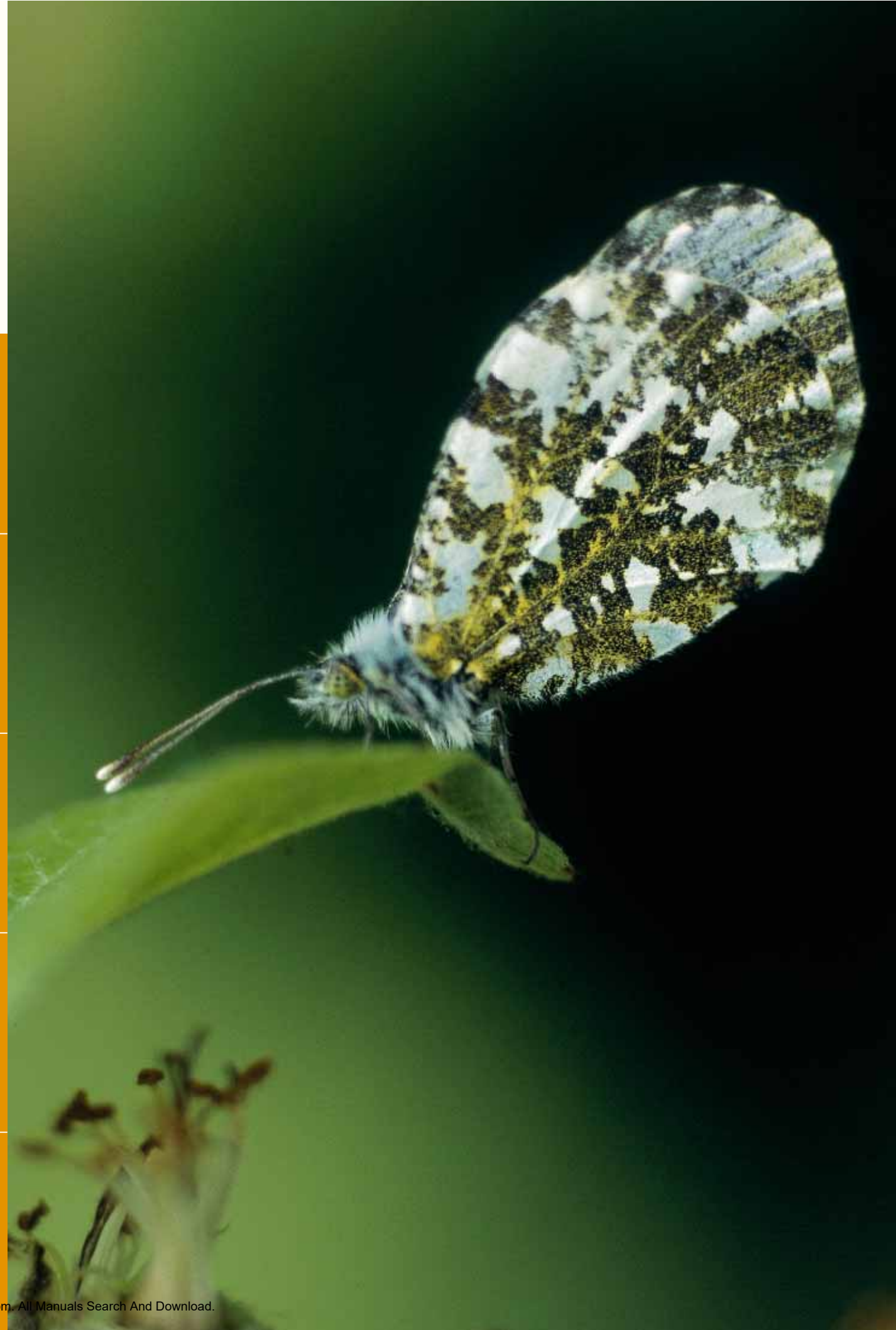
LEICA ULTRAVID BL 25 mm – brilliant elegance.
In elegant black leather covering :
10 x 25 BL **Order No. 40 257**



LEICA ULTRAVID BR 20 mm – robust High-Tech-Minis.
In black rubber armoring :
8 x 20 BR **Order No. 40 252**



LEICA ULTRAVID BL 20 mm – the greatest little ones.
In elegant black leather covering :
8 x 20 BL **Order No. 40 256**



The Trinovid class : Proven technology for the ambitious viewer Leica binoculars and spotting scopes have long since been synonymous with optical performance and mechanical quality. For years, LEICA TRINOVID BN binoculars have been proving themselves as trustworthy companions with excellent optical performance. In the future, they will continue to be the correct choice for nature lovers wanting to get started with high-performance optics. Top-notch optics coupled with robust and precision mechanics make every LEICA TRINOVID BN model the optimal companion for all outdoor activities. A nearly indestructible die-cast aluminum housing that withstands the most grueling temperatures, the patented multifunction center drive with integrated diopter compensation and the innovative Leica HDC™ multi-layer lens coating are just a few features that make the LEICA TRINOVID BN series stand out. The bright and sharp image, as well as the comfortable handling of the binocular, let you get as close to nature as possible, even under the worst conditions. And when proven technique becomes an issue, the Trinovid BCA binoculars are the answer, especially for those long hikes.



American Purple Gallinule / Porphyrio martinica



LEICA TRINOVID 8 x 20 BCA



LEICA TRINOVID 10 x 42 BN

LEICA TRINOVID BN 42 mm – proven multi-talents You are looking for a binocular whose applications are as multifaceted as nature? The 42 mm models are the universal binoculars with excellent light-gathering capabilities and compact dimensions. They are ideal for the ambitious birder.

— **LEICA TRINOVID 8 x 42 BN**

This multi-purpose binocular with a 130 m field of view offers a high level of performance both during the day and during twilight. The 8 x magnification provides a level of steadiness ideally suited for any situation.



— **LEICA TRINOVID 10 x 42 BN**

This powerful 42 mm glass is especially recommended for hobby-ornithologists and naturalists. With its high contrast and 10 x magnification, this binocular is ideally suited for viewing over great distances. It also has a very good close focus of 2.9 m.



LEICA TRINOVID BN 32 mm – the constant companions Excellent image quality make the 32 mm models the ideal companions for hiking, birding, or an African safari. The light way to get closer to nature.

— **LEICA TRINOVID 8 x 32 BN**

The ideal all-round binocular with 8 x magnification and a field of view of 135 m. A powerful lightweight binocular for all those spending time in the outdoors.



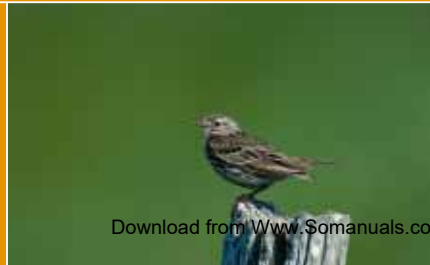
— **LEICA TRINOVID 10 x 32 BN**

This compact, high magnification, wide-angle binocular not only allows for excellent viewing over great distances, but also has a close focus of 2.1 m.



“As an ornithologist I prefer to use Leica binoculars. Their high resolution allows for detailed observation even under difficult light conditions. The rugged and compact construction has proven itself in the deserts of the Middle East, as well as in Antarctica. The brightness of the image allow for fatigue-free viewing.” (Hadoram Shirihai, Israel)

Whether you are in your own backyard or the tropical rainforest, the models of the 42 mm TRINOVID BN series are true multi-talents. Their great resolution coupled with the rugged construction will thrill all who want to get closer to nature.



Download from www.Somanuals.com. All Manuals Search And Download.

The LEICA TRINOVID BN 32 series is well suited for observing insects or glassing a distant mountainside. One can do all that without burdening oneself, because a heavier and larger binocular is not needed for daylight observation.



LEICA TRINOVID BCA 25 mm and 20 mm - distinguished compact

It's easy to recognize high-grade binoculars. For example, because they can be folded into a very convenient small size, and also because the independent German "Warentest" Foundation has judged them to be "Very Good".

LEICA TRINOVID 10 x 25 BCA

A compact binocular weighing only 255 g that renders sharp, contrasty images. Great detail recognition over long distances, thanks to its high magnification.



LEICA TRINOVID 8 x 20 BCA

A versatile binocular with a field of view of 110 m and a close focus of 3 m. A steady image due to the 8 x magnification. When folded, it is just 9 x 6 cm small.



The Trinovid class : Proven technology for the ambitious viewer

Key features at a glance

- **Proven**
Legendary binoculars with excellent optical and mechanical performance.
- **Bright**
Innovative multi-layer lens coating with Leica HDC™. A four-lens objective with an achromat, guarantees an image rich in contrast with great color rendition.
- **Easy to use**
Multifunction center drive : comfortable, smooth focusing and easy diopter setting. The diopter setting on the 25 mm and 20 mm models is easily done on the right objective.
- **Robust**
Strong aluminum die-cast housing and a soft-touch armoring protects the binocular and ensures a slip-proof handling, even when wearing gloves or wet. Functions perfectly under all environmental conditions from -25°C to +55°C, waterproof to 5 m, nitrogen-filled (BN models), impact resistant.



LEICA TRINOVID BN 42 mm – proven multi-talents.

In black rubber armoring :
8 x 42 BN Order No. 40 017
10 x 42 BN Order No. 40 019



"... best 10 x 25 of its class with greatest ease of handling."
(Stiftung Warentest)



"One of the very best in test, especially durable ..."
(Stiftung Warentest)

"Impossible to improve – the Leica dominates the competitors
in almost all categories ..."
(Outdoor-Magazin.com winner : Trinovid 8 x 20 BCA)



LEICA TRINOVID BN 32 mm – the constant companions.
In black rubber armoring :
8 x 32 BN Order No. 40 016 / 10 x 32 BN Order No. 40 015



LEICA TRINOVID BCA 25 mm – perfectly compact.
In black rubber armoring :
10 x 25 BCA Order No. 40 343



LEICA TRINOVID BCA 20 mm – the powerful little ones.
In black rubber armoring :
8 x 20 BCA Order No. 40 342



The Televid class : High-performance spotting scopes for professionals

To better understand wildlife one must get that up-close experience. The high-performance spotting scopes from Leica guarantee such an intense experience. The legendary 77 mm models, with their large objective lens, offer a bright image, rich in contrast, even under poor light conditions. The line has expanded to include the smaller, lighter 62 mm models. Available in six models, the 62 mm is easy to transport and handle, weighing about 1,000 g with a length of 300 mm. Their image quality sets new standards in this compact class. The APO versions heighten the viewing experience by utilizing glass containing fluorite. This feature results in a color-fringe-free image that more than satisfies the highest expectations. Both the 77 mm and 62 mm models feature the patented dual-focusing device and an ergonomic, waterproof construction. Due to a uniform bayonet mount, the wide array of wide-angled and variable eyepieces can be used on any Televid model. They are designed to offer the ideal magnification to brightness-relation for each model.



Plumage-detail of Pheasant / Phasianus colchicus



LEICA TELEVID 77



LEICA APO-TELEVID 62

LEICA TELEVID 77 mm – powerful spotting scopes for any light condition

Whether it is the straight or the angled version, the LEICA TELEVID 77 guarantees a high-power viewing experience with the highest degree of image quality, from dawn till dusk.



LEICA TELEVID 77

A spotting scope with excellent color rendition, rich in contrast and displays a bright image. A close focus of 3.9 m ensures a fantastic viewing experience also at a close distance. Five precision eyepieces with a large variety of magnifications are available.



LEICA APO-TELEVID 77 mm – true color rendition

Those searching for a premium-performance spotting scope for ornithology or astronomy have found it in the LEICA APO-TELEVID 77. Even the most minute details are displayed naturally and with the highest resolution.



LEICA APO-TELEVID 77

Premium-performance spotting scope for professionals. The glass containing fluorite delivers a color-fringe-free image with unmatched sharpness. Close focus of 3.9 m. The five precision eyepieces, offering many different magnifications, allow for a wide array of applications.



The LEICA TELEVID 77 ensures the viewer great detail recognition, even under the worst light conditions.

“The first thing you notice when you look through an APO-Televid is the purity of the colors across the entire field of view.”
(magazine “Sterne und Weltraum”, Germany)

“Leica optics are simply the best.”
(Bill Oddie, birdwatcher, England)

The LEICA APO-TELEVID 77 is made for experiencing nature in its purest form. Those who wish to capture these images via a photo- or digital adapter can do so.

LEICA TELEVID 62 mm – lightweight spotting scopes for any light conditions The compact, lightweight, high-performance LEICA TELEVID 62 is ideal for all those who wish more mobility when in the outdoors.

LEICA APO-TELEVID 62 mm – true color rendition in a compact form The APO version heightens the already unusually high image quality for a compact spotting scope. And with the large selection of standard, variable, and wide-angle eyepieces, the LEICA APO-TELEVID 62 can be used for a number of applications.



LEICA TELEVID 62

A compact, straight or angled spotting scope, which displays high quality images. Well balanced for maximum stability. The weight begins at 910 g (depending on the model). Along with the partially rubber armored models, the straight version of the LEICA TELEVID 62 and LEICA APO-TELEVID 62 is also available in a rugged fully rubber armored model.

LEICA APO-TELEVID 62

A compact, premium-performance spotting scope with apochromatic color correction due to glass containing fluorite, produces a color-fringe-free image with unmatched sharpness. A highly durable housing that is partially rubber armored.



A good spotting scope only becomes a perfect observation tool when combined with the right eyepiece and accessories. Leica offers a wide selection of eyepieces, ideally suited for any application.

“The Televid 62 offers outstanding image sharpness at a reduced weight and a compact size. The waterproof, robust construction makes it the ideal companion for all those who travel in the outdoors.”
(Terry Moore, Sport Optics Division, Leica Camera Inc., USA)

“The Televid 77 has been much praised for its outstanding image quality, its precision dual focusing mechanism and its stylish housing. The Televid 62 is the perfect addition for those looking for a lightweight premium spotting scope, especially since all of the eyepieces of the Televid 77 can be used.”
(Scott Roederer, birder and author, USA)



The Televid class : High-performance spotting scopes for professionals

Key features at a glance

— Top optical performance

Unique in the class of premium-performance spotting scopes. Natural color rendition that is rich in contrast, especially when viewing minute details under poor light conditions.

— Easy to use

Patented dual focusing device for both fast and fine focusing.
Extendable objective cover to reduce glare.

— Very flexible

The close focus of 3.5 m (Televid 62) and 3.9 m (Televid 77) respectively allow the user to focus on each object individually. A large selection of eyepieces for a variety of observation applications is available.

— Robust

A strong aluminum die-cast housing protects the spotting scope.
The aluminum/carbon-fiber material of the Televid 62 guarantees both strength and minimal weight. Functions perfectly under all environmental conditions, from -25°C to +55°C, waterproof to a depth of 3 m, nitrogen-filled.



LEICA TELEVID 77 – powerful spotting scopes for any light condition.

Straight view **Order No. 40 103** / Angled view **Order No. 40 101**



LEICA APO-TELEVID 77 – true color rendition.

Straight view **Order No. 40 104** / Angled view **Order No. 40 102**



Five **eyepieces** are available for the 77 mm and the 62 mm spotting scopes. Due to the uniform bayonet mount, they are interchangeable between the spotting scopes. Since the focal length of the Televid 62 is 20% shorter than that of the Televid 77 the magnification is 20% less using the same eyepiece (e.g. a 20x WW eyepiece on the Televid 77 will be a 16x eyepiece on the Televid 62). This feature ensures the ideal magnification to brightness-relation for each spotting scope. The variable eyepiece gives you the largest selection of magnifications 20–60x / 16–48x. The 20x WW / 16x WW, 32x WW / 26x WW and 40x WW / 32x WW eyepieces deliver the largest wide-angle field of view. All eyepieces are labeled with two different sets of numbers, ensuring that you always know what magnification you are using.



20 x WW/16 x
Order No. 41 009



32 x WW/26 x WW
Order No. 41 011



40 x WW/32 x WW
Order No. 41 007



20–60 x/16–48 x
Order No. 41 012

LEICA TELEVID 62 – lightweight spotting scopes for any light condition.

Straight view, partially armored **Order No. 40 108** / Straight view, fully armored **Order No. 40 113**
Angled view **Order No. 40 109**



LEICA APO-TELEVID 62 – true color rendition in a compact form.

Straight view, partially armored **Order No. 40 106** / Straight view, fully armored **Order No. 40 114**
Angled view **Order No. 40 107**



Leica Digiscoping Capture close-up views of the fascinating spectacles of nature in pictures. To do so, simply combine a LEICA TELEVID Spotting Scope with a compact digital camera and you will have a photographic outfit with a super-telephoto lens ! Digiscoping will greatly expand your ability to observe the grandeur of nature.

Dalmatian Pelican / *Butorides striatus*

— LEICA DIGITAL ADAPTER 2

This is an especially compact and lightweight adapter for attaching a variety of compact digital cameras, such as the LEICA D-LUX 2 and camera phones, to the eyepieces of Leica Televid Spotting Scopes. The change from observation to picture-taking can be made easily and quickly without altering the settings on the camera.



— **Vertical or horizontal format – the choice is yours** Simply loosen the fastening of the eyepiece at the Digital Adapter 2 and rotate the adapter/camera combination and then decide for yourself whether the next picture would look better in a vertical or a horizontal composition. The LEICA DIGITAL ADAPTER 2 provides you with great freedom for creative picture composition.



Leica Digiscoping – Using a digital camera to take pictures through the eyepiece of a Televid 62 or 77 spotting scope gives you the fantastic ability to take extreme close-up photographs of distant subjects in nature without disturbing them. The new LEICA DIGITAL ADAPTER 2 makes it possible to combine a spotting scope and a digital camera into a super-telephoto camera outfit with focal lengths of more than 2.000 mm. Leica offers you everything you need from a single source for an optimal digiscoping experience, with all the components in perfect optical harmony. Because they contain fluorite lens elements, the high-performance LEICA APO-TELEVID 77 Spotting Scopes are especially well suited for perfect digiscoping photographs that are rich in details and free of color fringes. The new LEICA D-LUX 2 Digital Camera with Mega O.I.S. (Optical Image Stabilization) makes sure that your dream picture is not spoiled by camera shake, even in poor light and when extreme focal lengths are being used.

The photographs can later be refined on a computer by means of an image manipulation program. This software is supplied along with the LEICA D-LUX 2 camera. You can file your best pictures on your computer, you can print them out for your album, you can have them printed on high-grade photographic paper, you can incorporate them in your website, or you can submit them to photographic magazines – Digiscoping makes all these applications possible ! The pictures shown here are intended to offer you an overview of the quality of the images that you can achieve so conveniently with Leica Digiscoping.



The Rangefinder class : Pure precision – monocular as well as binocular For range finding expertise one must recommend the LEICA GEOVID BRF models as well as the monocular LEICA RANGEMASTER 1200 scan, LEICA RANGEMASTER 900 scan, and LEICA PINMASTER. Knowing the correct distance can be crucial – golfers and green keepers are interested in the distance to the bunker and architects to the next bridge pillar. Leica laser rangefinders tell them exactly how far away their target is. The innovative LEICA GEOVID BRF 56 and 42 series offers even more. They combine a premium-performance binocular and a laser rangefinder with a range of 1,200 m in one product. With their ease of handling, robust construction and soft-touch rubber armoring the LEICA GEOVID BRF models will withstand even the toughest challenges. The same high-performance laser technology is incorporated into the LEICA RANGEMASTER 1200 scan, 900 scan and the LEICA PINMASTER. These compact monocular laser rangefinders have ranges from 640 m (Pinmaster) to 1,097 m (1200 scan). Both Rangemasters, as well as the Pinmaster (a rangefinder specifically designed for golf) utilize a scan-mode that continually updates the readings when the release button is kept depressed. The scan-mode is particularly useful on small or moving targets over great distances. Each product features quality optics with bright images, 7 x magnification and integrated diopter compensation.



White Whale / Delphinapterus leucas

LEICA RANGEMASTER 900 scan



LEICA GEOVID 8x42 BRF

LEICA GEOVID 56 BRF – observing and rangefinding in poor light conditions Leica was the first optics specialist who succeeded in combining uncompromised high-performance optics with a laser rangefinder in an especially compact binocular with a front lens diameter of 56 mm.

— **LEICA GEOVID 8 x 56 BRF**

High-performance binocular with a 7 mm exit pupil, great image steadiness because of the 8x magnification, extremely high light transmission because of Leica HDC™ multi-coating and the 56 mm front lens diameter, plus accurate rangefinding. Only 182 mm (3 inches) tall and weighing a mere 1100 grams (38.8 ounces).



LEICA GEOVID BRF 42 Models - The compact orienteering specialists The models with the 42 mm front lens diameter not only combine the 'Observation' with the 'Rangefinding' functions to optical and electronic perfection – their handiness makes them eminently suitable for a great variety of applications.

— **LEICA GEOVID 8 x 42 BRF**

The 8 x magnification guarantees a steady image. The combination of a 125 m field of view and precision measurements make the 8 x 42 the compact all-round companion.



— **LEICA GEOVID 10 x 42 BRF**

The powerful Geovid is well suited for detail-oriented observations and precision measurements over great distances.



With the new LEICA GEOVID 8 x 56 BRF, Leica is expanding the line of Geovid binoculars with a model that is compact and optimized for twilight observation and that has no competition. Images with extremely rich contrast and neutral color rendition and with sharpness to their very edges create a new dimension in observation and in the resolution of the finest details – especially under poor light conditions.



A LEICA GEOVID BRF will go with you through thick and thin. This robust product features an aluminum-die-cast housing and is nitrogen-filled. Due to the precision engineering of Leica, the LEICA GEOVID BRF will withstand even the most grueling environmental conditions and is waterproof to a depth of 5 m. Thanks to the center hinge and ergonomic design the Geovid is a very compact and space saving product. The comfortable handling will ensure many years of enjoyment.

LEICA RANGEMASTER 1200 and 900 scan – the small big helpers

At the press of a button, these compact laser rangefinders will tell exactly how far away your target is, whether it's in yards or meters. The scan-mode ensures precision measurements, even on the most difficult of targets.

LEICA RANGEMASTER 900 scan

A monocular laser rangefinder with 7 x magnification and a range of 826 m. It features an LED-display, which automatically adjusts itself to surrounding light conditions, scan-mode and an integrated diopter compensation.



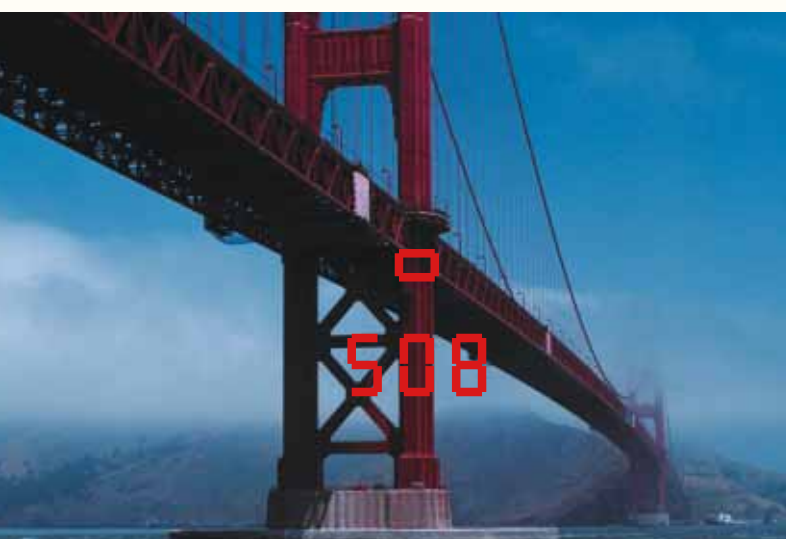
LEICA RANGEMASTER 1200 scan

With its higher power and longer range (1,097 m) this laser rangefinder gives you confidence in your measurements, even during poor environmental conditions. It features 7 x magnification, automatic LED-display, scan-mode and integrated diopter compensation.

LEICA PINMASTER – the golfers friend The LEICA PINMASTER is a rangefinder specifically designed for golf. Simply measure the distance to the pin and then make a confident swing.

LEICA PINMASTER

Precision help on the golf course with a laser rangefinder that features a 7 x magnification, integrated diopter compensation and a range of 640 m. The scan-mode coupled with "first-target" technology ensure exact measurements.



Uncompromising performance : The precision of the high-end laser technology based on the long experience of Leica in premium laser rangefinder. The extensive range of use up to 1,200 m offers a high flexibility, monocular or binocular. The handling is fast and simple. The built in scan mode enables the accurate ranging of smaller or moving targets.

One can gain a quick overview of the course, thanks to the safe laser of the Pinmaster. Distances to obstacles, such as bunkers and trees, as well as the pin can easily be measured. The "first-target" technology ensures that only the first target will be measured, regardless if other, more distant targets can be seen in the target reticle. All of these features allow you to choose the right club and improve your handicap.



The Rangefinder class : Pure precision – monocular as well as binocular

Key features at a glance

- **Bright**
Multi-layer lens coating with Leica HDC™ displays an image rich in contrast with excellent edge-to-edge sharpness. Best optical performance in the category of monocular laser rangefinders, the Geovid BRF offers excellent light transmission during twilight.
- **Easy to use**
Intuitive operation.
- **Integrated scan-mode**
Precision measurements of small and distant targets even under difficult conditions.
- **Bright LED-display**
Easy to read LED-Display thanks to automatic adjustment to surrounding light.



LEICA RANGEMASTER – works at the press of a button / LEICA PINMASTER – the golfers friend

- Premium-performance monocular laser rangefinders
Lightweight and compact rangefinders for a variety of distances and applications. Always precision measurements especially for golf-typical targets such as pins, bunkers, etc. achieved by specially designed “first-target” technology of the LEICA PINMASTER.
- Robust
Carbon-fiber-reinforced plastic and soft-touch rubber armoring protect the product at minimal weight. Non-submersible waterproof.
- Compact
The monocular companion that can find room anywhere.
- Ranges
LEICA RANGEMASTER 900 scan : ca. 15–825 m / LEICA RANGEMASTER 1200 scan : ca. 15–1,097 m
LEICA PINMASTER : ca. 10–640 m



LEICA RANGEMASTER 900 scan
green **Order No. 40 515**



LEICA RANGEMASTER 1200 scan
black **Order No. 40 525**



LEICA PINMASTER
grey **Order No. 40 530**

LEICA GEOVID BRF – next generation binocular with rangefinder

- Premium-performance binocular with integrated laser rangefinder. Saves time and weight versus using two separate products (binocular and rangefinder).
- Compact
Integration of all electrical components into a classic binocular body with center hinge and center focusing device.
- Robust
Strong aluminum die-cast housing and soft-touch rubber armoring protect the binocular from damage, while at the same time ensuring secure handling of the product, even when wearing gloves or wet. Functions perfectly under all environmental conditions, from - 15°C to + 55°C, waterproof to 5 m, nitrogen-filled, impact resistant.
- Range
10–1,200 m



LEICA GEOVID 56 BRF – Observing and rangefinding.
In black rubber armoring :
8 x 56 BRF **Order No. 40 031**



LEICA GEOVID 42 BRF – The compact orienteering specialists.
In black rubber armoring :
8 x 42 BRF, meter version **Order No. 40 026** / yard version **Order No. 40 028**
10 x 42 BRF, meter version **Order No. 40 027** / yard version **Order No. 40 029**



Technical Data

Grey Heron / Ardea cinerea



Binocular	LEICA DUOVID 10 + 15 x 50	LEICA DUOVID 8 + 12 x 42
Order No. product		
Rubber armored, black	40 420	40 400
Rubber armored, green	40 421	40 405
Delivery scope	Neoprene carrying strap, contoured, eyepiece cover, Nappa leather case, Tripod Adapter	Neoprene carrying strap, contoured, eyepiece cover, Nappa leather case
Magnification	10 x / 15 x	8 x / 12 x
Front lens diameter	50 mm	42 mm
Exit pupil	5.0 mm / 3.3 mm	5.1 mm / 3.5 mm
Twilight factor	22.4 / 27.4	18.33 / 22.5
Field of view at 1,000 m	92 m 70 m	118 m 90 m
Field of view at 1,000 yds	274 ft 208 ft	351 ft 268 ft
Eye-relief	14.5 mm	14.5 mm
Objective angle of view	5.3° / 4.0°	6.7° / 5.1°
Close focusing distance	approx. 3.7 m / 12.9 ft	approx. 3.5 m / 11.1 ft
Diopter compensation	± 3 diopters	± 3 diopters
Automatic diopter compensation ADC™	yes	yes
Eyepieces for eyeglass wearers	yes	yes
Adjustable interpupillary distance	59–74 mm	55 mm
Sliding Eyecups	yes, removable, with two click stops	yes, removable, with two click stops
Focusing	Internal focusing via central focusing device	Internal focusing via central focusing device
No. of lens elements (each side)	11, all with HDC™ coating	11, all with HDC™ coating
Prism system	Roof prism with phase correcting coating P40 and HighLux-System HLS™	Roof prism with phase correcting coating P40 and HighLux-System HLS™
Watertightness	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft
Housing	Die-cast aluminum, nitrogen-filled	Die-cast aluminum, nitrogen-filled
Dimensions (W x H x D)	approx. 125 x 192 x 78 mm 4 1/2 x 7 3/4 x 3 1/32 in	approx. 123 x 156 x 68 mm 4 3/4 x 6 3/16 x 2 7/8 in
Weight	approx. 1,270 g / 44 oz	approx. 1,045 g / 37 oz
Order No. Accessories		
Neoprene carrying strap, contoured	included	included
Floating carrying strap, orange	-	42 163
Tripod Adapter	included	42 220

Technical Data



Binocular	LEICA ULTRAVID 12 x 50 BR	LEICA ULTRAVID 10 x 50 BR	LEICA ULTRAVID 8 x 50 BR	LEICA ULTRAVID 10 x 42 BR/BL	LEICA ULTRAVID 8 x 42 BR/BL	LEICA ULTRAVID 7 x 42 BR
Order No. product						
Leather design, black	-	-	-	40 272	40 271	-
Rubber armored, black	40 277	40 276	40 275	40 262	40 261	40 260
Rubber armored, green	40 282	40 281	40 280	40 267	40 266	40 265
Delivery scope	Neoprene carrying strap, contoured, eyepiece cover, protective front lens cover, Cordura case	Neoprene carrying strap, contoured, eyepiece cover, protective front lens cover, Cordura case	Neoprene carrying strap, contoured, eyepiece cover, protective front lens cover, Cordura case	BR : Neoprene carrying strap, contoured, eyepiece cover, protective front lens cover, Cordura case BL : Leather carrying strap, contoured, eyepiece cover, deep-drawn leather case	BR : Neoprene carrying strap, contoured, eyepiece cover, protective front lens cover, Cordura case BL : Leather carrying strap, contoured, eyepiece cover, deep-drawn leather case	Neoprene carrying strap, contoured, eyepiece cover, protective front lens cover, Cordura case
Magnification	12 x	10 x	8 x	10 x	8 x	7 x
Front lens diameter	50 mm	50 mm	50 mm	42 mm	42 mm	42 mm
Exit pupil	4.2 mm	5 mm	6.2 mm	4.2 mm	5.2 mm	6 mm
Twilight factor	24.5	22.4	20	20.5	18.3	17.1
Field of view at 1,000 m	100 m	117 m	117 m	112 m	130 m	140 m
Field of view at 1,000 yds	299 ft	352 ft	352 ft	336 ft	389 ft	420 ft
Eye-relief	13.0 mm	15 mm	17 mm	16 mm	15.5 mm	17.0 mm
Objective angle of view	5.7°	6.7°	6.7°	6.4°	7.4°	8.0°
Close focusing distance	approx. 3.2 m / 10.5 ft	approx. 3.3 m / 10.8 ft	approx. 3.5 m / 11.5 ft	approx. 2.9 m / 9.5 ft	approx. 3 m / 9.8 ft	approx. 3.3 m / 10.8 ft
Diopter compensation	± 4 diopters	± 4 diopters	± 4 diopters	± 4 diopters	± 4 diopters	± 4 diopters
Automatic diopter compensation ADC™	yes	yes	yes	yes	yes	yes
Eyepieces for eyeglass wearers	yes, removable, with two click stops	yes, removable, with two click stops	yes, removable, with two click stops	yes, removable, with two click stops	yes, removable, with two click stops	yes, removable, with two click stops
Adjustable interpupillary distance	58–75 mm	58–74 mm	58–74 mm	55–75 mm	55–75 mm	55–75 mm
Focusing	Internal focusing via central focusing device	Internal focusing via central focusing device	Internal focusing via central focusing device	Internal focusing via central focusing device	Internal focusing via central focusing device	Internal focusing via central focusing device
No. of lens elements (each side)	11, all with HDC™ coating	9, all with HDC™ coating	8, all with HDC™ coating	9, all with HDC™ coating	9, all with HDC™ coating	8, all with HDC™ coating
Prism system	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40 and HighLux-System HLS™
Watertightness	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft
Housing	Die-cast magnesium, nitrogen-filled	Die-cast magnesium, nitrogen-filled	Die-cast magnesium, nitrogen-filled	Die-cast magnesium, nitrogen-filled	Die-cast magnesium, nitrogen-filled	Die-cast magnesium, nitrogen-filled
Dimensions (W x H x D)	120 x 182 x 78 mm 4 ¾ x 7 ½ x 2 ¾ in	125 x 178 x 70 mm 4 ⅞ x 7 x 2 ¾ in	120 x 182 x 68 mm 4 ¾ x 7 ½ x 2 ¾ in	BR : 120 x 147 x 68 mm 4 ¾ x 5 ¾ x 2 ¾ in BL : 120 x 146 x 62 mm 4 ¾ x 5 ¾ x 2 ½ in	BR : 121 x 142 x 67 mm 4 ¾ x 5 ⅝ x 2 ⅝ in BL : 121 x 141 x 63 mm 4 ¾ x 5 ⅝ x 2 ½ in	120 x 141 x 68 mm 4 ¾ x 5 ⅝ x 2 ⅝ in
Weight	approx. 1,040 g / 36.7 oz	approx. 1,000 g / 35.3 oz	approx. 1,000 g / 35.3 oz	BR : approx. 750 g / 26.5 oz BL : approx. 695 g / 24.7 oz	BR : approx. 790 g / 27.9 oz BL : approx. 710 g / 25 oz	approx. 770 g / 27.2 oz
Order No. Accessories						
Neoprene carrying strap, contoured	included	included	included	included (BR)	included (BR)	included
Floating carrying strap, orange	42 163	42 163	42 163	42 163	42 163	42 163
Tripod Adapter	42 220	42 220	42 220	42 220	42 220	42 220

Technical Data



Binocular	LEICA ULTRAVID 10 x 32 BR	LEICA ULTRAVID 8 x 32 BR	LEICA ULTRAVID 10 x 25 BR/BL	LEICA ULTRAVID 8 x 20 BR/BL	LEICA TRINOVID 10 x 42 BN	LEICA TRINOVID 8 x 42 BN
Order No. product						
Leather design, black	-	-	40 253	40 252	-	-
Rubber armored, black	40 259	40 258	40 257	40 256	-	-
Armored, black	-	-	-	-	40 019	40 017
Delivery scope	Neoprene carrying strap, contoured, eyepiece cover, protective front lens cover, Cordura case	Neoprene carrying strap, contoured, eyepiece cover, protective front lens cover, Cordura case	BR : Woven carrying strap, eyepiece cover, Cordura case with belt loop BL : Woven carrying strap, eyepiece cover, deep-drawn leather case	BR : Woven carrying strap, eyepiece cover, Cordura case with belt loop BL : Woven carrying strap, eyepiece cover, deep-drawn leather case	Neoprene carrying strap, eyepiece cover, Nappa leather case	Neoprene carrying strap, eyepiece cover, Nappa leather case
Magnification	10 x	8 x	10 x	8 x	10 x	8 x
Front lens diameter	32 mm	32 mm	25 mm	20 mm	42 mm	42 mm
Exit pupil	3.2 mm	4 mm	2.5 mm	2.5 mm	4.2 mm	5.2 mm
Twilight factor	17.9	16	15.8	12.7	20.5	18.3
Field of view at 1,000 m	118 m	135 m	90 m	113 m	111 m	130 m
Field of view at 1,000 yds	352 ft	404 ft	273 ft	341 ft	331 ft	389 ft
Eye-relief	13.2 mm	13.3 mm	15 mm	16 mm	15.5 mm	15.5 mm
Objective angle of view	6.7°	7.7°	5.2°	6.5°	6.3°	7.4°
Close focusing distance	2 m / 6.6 ft	2.1 m / 6.9 ft	3.2 m / 10.5 ft	1.8 m / 7.2 ft	approx. 2.8 m / 9.2 ft	approx. 3.1 m / 10.2 ft
Diopter compensation	± 4 diopters	± 4 diopters	± 3.5 diopters	± 3.5 diopters	± 4 diopters	± 4 diopters
Automatic diopter compensation ADC™	yes	yes	yes	yes	yes	yes
Eyepieces for eyeglass wearers	yes, removable, with two click stops	yes, removable, with two click stops	yes	yes	yes	yes
Adjustable interpupillary distance	52–74 mm	52–74 mm	34–74 mm	34–74 mm	53–76 mm	55–75 mm
Focusing	Internal focusing via central focusing device	Internal focusing via central focusing device	Internal focusing via central focusing knob	Internal focusing via central focusing knob	Internal focusing via central focusing device	Internal focusing via central focusing device
No. of lens elements (each side)	11, all with HDC™ coating	9, all with HDC™ coating	6, all with HDC™ coating	6, all with HDC™ coating	9, all with HDC™ coating	9, all with HDC™ coating
Prism system	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40 and HighLux-System HLS™	Roof prism with phase correcting coating P 40	Roof prism with phase correcting coating P 40
Watertightness	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft
Housing	Magnesium, nitrogen-filled	Magnesium, nitrogen-filled	Aluminum, nitrogen-filled	Aluminum, nitrogen-filled	Die-cast aluminum, nitrogen-filled	Die-cast aluminum, nitrogen-filled
Dimensions (W x H x D)	116 x 120 x 56 mm 4 5/8 x 4 3/4 x 2 1/4 in	116 x 116 x 56 mm 4 5/8 x 4 3/8 x 2 1/4 in	111 x 112 x 39 mm 4 3/8 x 4 3/8 x 1 1/2 in	111 x 93 x 39 mm 4 3/8 x 3 3/8 x 1 1/2 in	120 x 137 x 66 mm 4 3/4 x 5 3/8 x 2 5/8 in	119 x 141 x 66 mm 4 3/4 x 5 1/2 x 2 5/8 in
Weight	approx. 565 g / 19.9 oz	approx. 535 g / 18.9 oz	BR : approx. 265 g / 9.4 oz BL : approx. 255 g / 9.0 oz	BR : approx. 240 g / 8.5 oz BL : approx. 230 g / 8.1 oz	approx. 910 g / 32.1 oz	approx. 940 g / 33.2 oz
Order No. Accessories						
Neoprene carrying strap, contoured	included	included	-	-	included	included
Floating carrying strap, orange	42 163	42 163	-	-	42 163	42 163
Tripod Adapter	42 220	42 220	-	-	42 220	42 220

Technical Data



Binocular	LEICA TRINOVID 10 x 32 BN	LEICA TRINOVID 8 x 32 BN	LEICA TRINOVID 10 x 25 BCA	LEICA TRINOVID 8 x 20 BCA
Order No. product				
Rubber armored, black	-	-	40 343	40 354
Armored, black	40 015	40 016	-	-
Delivery scope	Carrying strap with non-slip pad, eyepiece cover, soft leather case	Carrying strap with non-slip pad, eyepiece cover, soft leather case	Carrying cord, Cordular case with belt loop	Carrying cord, Cordular case with belt loop
Magnification	10 x	8 x	10 x	8 x
Front lens diameter	32 mm	32 mm	25 mm	20 mm
Exit pupil	3.2 mm	4 mm	2.5 mm	2.5 mm
Twilight factor	17.9	16.0	15.8	12.65
Field of view at 1,000 m	117 m	135 m	90 m	113 m
Field of view at 1,000 yds	352 ft	404 ft	273 ft	341 ft
Eye-relief	13.5 mm	14.6 mm	14.6 mm	14 mm
Objective angle of view	6.7°	7.7°	5.2°	6.5°
Close focusing distance	approx. 2.1 m / 6.9 ft	approx. 2.1 m / 7.2 ft	approx. 5 m / 16.4 ft	approx. 3 m / 9.8 ft
Diopter compensation	± 4 diopters	± 4 diopters	± 3.5 diopters	± 3.5 diopters
Eyepieces for eyeglass wearers	yes	yes	yes	yes
Sliding Eyecups	extendable eyecups	extendable eyecups	extendable eyecups	extendable eyecups
Adjustable interpupillary distance	56–74 mm	57–74 mm	32–74 mm	32–74 mm
Focusing	Internal focusing via central focusing device	Internal focusing via central focusing device	Internal focusing via central focusing knob	Internal focusing via central focusing knob
No. of lens elements (each side)	11, all with HDC™ coating	9, all with HDC™ coating	6, all with HDC™ coating	6, all with HDC™ coating
Prism system	Roof prism with phase correcting coating P40	Roof prism with phase correcting coating P40	Roof prism with phase correcting coating P40	Roof prism with phase correcting coating P40
Watertightness	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Waterspray resistant	Waterspray resistant
Housing	Die-cast aluminum, nitrogen-filled	Die-cast aluminum, nitrogen-filled	Aluminum, nitrogen-filled	Aluminum, nitrogen-filled
Dimensions (W x H x D)	119 x 118 x 57 mm 4 3/4 x 4 5/8 x 2 1/4 in	119 x 116 x 57 mm 4 3/4 x 4 5/8 x 2 1/4 in	110 x 92 x 37 mm 4 3/8 x 3 5/8 x 1 1/2 in	96 x 92 x 37 mm 3 3/4 x 3 5/8 x 1 1/2 in
Weight	approx. 635 g / 22.4 oz	approx. 635 g / 22.4 oz	approx. 255 g / 9.0 oz	approx. 235 g / 8.3 oz
Order No. Accessories				
Neoprene carrying strap, contoured	included	42 146	-	-
Floating carrying strap, orange	42 163	42 163	-	-
Tripod Adapter	42 220	42 220	-	-

Spotting scope	LEICA TELEVID 77	LEICA APO-TELEVID 77
Order No. Spotting scope		
Straight viewing	40 103	40 104
Angled viewing (45°)	40 101	40 102
Delivery Scope	Front and rear caps	Front and rear caps
Front lens diameter	77 mm	77 mm
Focal length of the lens	440 mm	440 mm
Close focusing distance	approx. 3.9 m / 12.8 ft	approx. 3.9 m / 12.8 ft
Exit pupil, twilight factor and field of view	See eyepiece chart page 79	See eyepiece chart page 79
Focusing	Internal focusing with patented dual focusing device	Internal focusing with patented dual focusing device
No. of lens elements (excluding the eyepiece)	2, all multi-coated	3 (fluorite), all multi-coated
Prism system	Porro prism system	Porro prism system
Watertightness	Watertight to a depth of 3 m / 10 ft	Watertight to a depth of 3 m / 10 ft
Housing	Die-cast aluminum, nitrogen-filled	Die-cast aluminum, nitrogen-filled
Eyepiece connection	Rapid-change bayonet	Rapid-change bayonet
Tripod base	1/4", rotating with locking screw	1/4", rotating with locking screw
Lens hood	Sliding lens hood with sighting aid	Sliding lens hood with sighting aid
Filter thread	E 77	E 77
Dimensions (W x H x D)	390 x 105 x 93 mm / 15 3/8 x 4 1/8 x 3 5/8 in	410 x 105 x 93 mm / 16 1/8 x 4 1/8 x 3 5/8 in
Weight	1.495 g / 52.7 oz	1.695 g / 59.8 oz
Order No. Accessories		
Eyepiece 20 x WW	41 009	41 009
Eyepiece 32 x WW	41 011	41 011
Eyepiece 40 x WW	41 007	41 007
Zoom eyepiece 20–60 x	41 012	41 012
Photo Adapter		
1:10.4/800 mm	42 300	42 300
1:13.0/1.000 mm	42 301	42 301
T2 Adapter for Leica R system	42 305	42 305
UVa filter	13 337	13 337
Cordura ever-ready case		
for straight viewing scope	42 315	42 315
for angled viewing scope	42 310	42 310
Carrying case	42 316	42 316

Technical Data



Spotting scope	LEICA TELEVID 62	LEICA APO-TELEVID 62
Order No. Spotting scope		
Straight viewing		
partially armored, black	40 108	40 106
fully armored, grey	40 113	40 114
Angled viewing (45°)	40 109	40 107
Delivery Scope	Front and rear caps	Front and rear caps
Front lens diameter	62 mm	62 mm
Focal length of the lens	352 mm	352 mm
Close focusing distance	approx. 3.5 m / 11.5 ft	approx. 3.5 m / 11.5 ft
Exit pupil, twilight factor and field of view	See eyepiece chart page 79	See eyepiece chart page 79
Focusing	Internal focusing with patented dual focusing device	Internal focusing with patented dual focusing device
No. of lens elements (excluding the eyepiece)	2, all multi-coated	3 (fluorite), all multi-coated
Prism system	Porro prism system	Porro prism system
Watertightness	Watertight to a depth of 3 m / 10 ft	Watertight to a depth of 3 m / 10 ft
Housing	Die-cast aluminum and fiberglass-reinforced plastic material, nitrogen-filled	Die-cast aluminum and fiberglass-reinforced plastic material, nitrogen-filled
Eyepiece connection	Rapid-change bayonet	Rapid-change bayonet
Tripod base		
for straight viewing scope	¼"	¼"
for angled viewing scope	¼", rotating with locking screw	¼", rotating with locking screw
Lens hood	Sliding lens hood with sighting aid	Sliding lens hood with sighting aid
Filter thread	E 62	E 62
Dimensions (W x H x D)		
partially armored, angular	295 x 95 x 87 mm / 11 5/8 x 3 3/4 x 3 3/8 in	95 x 295 x 87 mm / 11 5/8 x 3 3/4 x 3 3/8 in
partially armored, straight	305 x 94 x 87 mm / 12 x 3 3/4 x 3 3/8 in	94 x 305 x 87 mm / 12 x 3 3/4 x 3 3/8 in
fully armored, straight	94 x 305 x 89 mm / 12 x 3 3/4 x 3 1/2 in	94 x 305 x 89 mm / 12 x 3 3/4 x 3 1/2 in
Weight		
partially armored, angular	980 g / 34.6 oz	1,070 g / 37.7 oz
partially armored, straight	910 g / 32.1 oz	990 g / 34.9 oz
fully armored, straight	980 g / 34.6 oz	1,070 g / 34.4 oz
Order No. Accessories		
Eyepiece 16 x	41 009	41 009
Eyepiece 26 x WW	41 011	41 011
Eyepiece 32 x WW	41 007	41 007
Zoom eyepiece 16-48 x	41 012	41 012
Photo Adapter (1:12.9/800mm)	42 301	42 301
T2 Adapter for Leica R system	42 305	42 305
Cordura ever-ready case		
for straight viewing scope	42 319	42 319
for angled viewing scope	42 318	42 318

Eyepiece for LEICA TELEVID 77	20 x WW	32 x WW	40 x WW	20-60 x (Vario)
Order No. Eyepiece	41 009	41 011	41 007	41 012
No. of lens elements	6 elements	7 elements	6 elements	7 elements
Magnification	20 x	32 x	40 x	20-60 x
Focal length	22 mm	14 mm	11 mm	22-7.4 mm
Exit pupil	3.9 mm	2.4 mm	1.9 mm	3.8 - 1.3 mm
Angle of view	3.4°	2.3°	1.8°	2.0°-1.2°
Field of view at 1,000 m	60 m	40 m	32 m	34-20 m
Field of view at 1,000 yds	179 ft	121 ft	95 ft	105-63 ft
Eye-relief	20 mm	19 mm	16.5 mm	22 - 16 mm
Length	67 mm	70 mm	71 mm	78 mm
Diameter	53 mm	53 mm	50 mm	53 mm
Weight	246 g / 8.6 oz	285 g / 10 oz	230 g / 8 oz	280 g / 9.8 oz



Eyepiece for LEICA TELEVID 62	16 x	26 x WW	32 x WW	16-48 x (Vario)
Order No. Eyepiece	41 009	41 011	41 007	41 012
No. of lens elements	6 elements	7 elements	6 elements	7 elements
Magnification	16 x (with reduced field of view)	26 x	32 x	16-48 x
Focal length	22 mm	14 mm	11 mm	22-7.3 mm
Exit pupil	3.8 mm	2.4 mm	1.9 mm	3.8 - 1.3 mm
Angle of view	3.1°	2.9°	2.3°	2.5°-1.4°
Field of view at 1,000 m	54 m	50 m	40 m	44-24 m
Field of view at 1,000 yds	163 ft	152 ft	121 ft	131-74 ft
Eye-relief	20.4 mm	19 mm	16.3 mm	22-16 mm
Length	67 mm	70 mm	71 mm	78 mm
Diameter	53 mm	53 mm	50 mm	53 mm
Weight	246 g / 8.6 oz	285 g / 10 oz	230 g / 8 oz	280 g / 9.8 oz

Photo Adapter	1:10.4 / 800 (Televid 77)	1:13,0 / 1.000 (Televid 77) 1:12,9 / 800 (Televid 62)
Order No.	42 300	42 301
Focal length		
with LEICA TELEVID 77	800 mm	1,000 mm
with LEICA TELEVID 62	640 mm (with reduced field of view)	800 mm
Speed		
with LEICA TELEVID 77	1:10.4	1:13.0
with LEICA TELEVID 62	1:10.6	1:12.9

Technical Data



Binocular	LEICA GEOVID 8 x 56 BRF	LEICA GEOVID 10 x 42 BRF	LEICA GEOVID 8 x 42 BRF
Order No. product	40 031	40 027 (Meter-Version) 40 029 (Yard-Version)	40 026 (Meter-Version) 40 028 (Yard-Version)
Delivery Scope	Neoprene carrying strap, eyepiece cover, protective front lens cover, battery, Cordura case	Neoprene carrying strap, eyepiece cover, protective front lens cover, battery, Cordura case	Neoprene carrying strap, eyepiece cover, protective front lens cover, battery, Cordura case
Magnification	8 x	10 x	8 x
Front lens diameter	56 mm	42 mm	42 mm
Exit pupil	7 mm	4.2 mm	5.3 mm
Twilight factor	21.2	20.5	18.3
Field of view at 1,000 m	118 m	110 m	125 m
Field of view at 1,000 yds	357 ft	331 ft	368 ft
Eye-relief	18.5 mm	15.6 mm	18 mm
Objective angle of view	6.8°	6.3°	7°
Close focusing distance	approx. 5.6 m / 18.4 ft	approx. 5.6 m / 18.4 ft	approx. 5.6 m / 18.4 ft
Diopter compensation	± 3.5 diopters	± 3.5 diopters	± 3.5 diopters
Distance measurement			
Range	10 m to approx. 1,200 m / 10 yds to approx. 1,300 yds	10 m to approx. 1,200 m / 10 yds to approx. 1,300 yds	10 m up to approx. 1,200 m / 10 yds to approx. 1,300 yds
Accuracy	± 1 m/yd up to 350 m / 380 yds ± 2 m/yds up to 700 m / 763 yds ± 0.5% beyond 700 m / 763 yds	± 1 m/yd up to 350 m / 380 yds ± 2 m/yds up to 700 m / 763 yds ± 0.5% beyond 700 m / 763 yds	± 1 m/yd up to 350 m / 380 yds ± 2 m/yds up to 700 m / 763 yds ± 0.5% beyond 700 m / 763 yds
Read-outs	LED display with four digits, easily legible in any light	LED display with four digits, easily legible in any light	LED display with four digits, easily legible in any light
Eyepieces for eyeglass wearers	yes	yes	yes
Sliding eyecups	yes, removable, with two click stops	yes, removable, with two click stops	yes, removable, with two click stops
Adjustable interpupillary distance	56–74 mm	56–74 mm	56–74 mm
Focusing	Internal focusing via central focusing device	Internal focusing via central focusing device	Internal focusing via central focusing device
No. of lens elements (each side)	7, all with HDC™ coating	7, all with HDC™ coating	7, all with HDC™ coating
Prism system	Roof prism with phase correction coating P 40	Roof prism with phase correction coating P 40	Roof prism with phase correction coating P 40
Watertightness	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft	Watertight to a depth of 5 m / 16.5 ft
Housing	Die-cast aluminium, nitrogen-filled	Die-cast aluminium, nitrogen-filled	Die-cast aluminium, nitrogen-filled
Dimensions (W x H x D)	135 x 182 x 68 mm / 5 ¼ x 7 ⅛ x 2 ⅝ in	125 x 168 x 70 mm / 4 7/8 x 6 5/8 x 2 ¾ in	125 x 173 x 70 mm / 4 7/8 x 6 ¾ x 2 ¾ in
Weight	approx. 1,100 g / 38.8 oz incl. batteries	approx. 945 g / 33.3 oz incl. batteries	approx. 950 g / 33.5 oz incl. batteries
Meter / Yard selector	no	no	no
Laser	Eye-safe invisible laser according to EN and FDA class 1	Eye-safe invisible laser according to EN and FDA class 1	Eye-safe invisible laser according to EN and FDA class 1
Laser beam divergence	2.5 x 0.5 mrad	2.5 x 0.5 mrad	2.5 x 0.5 mrad
Measuring time	max. approx. 1.4 s	max. approx. 1.4 s	max. approx. 1.4 s
Measuring mode	Scanning mode	Scanning mode	Scanning mode
Power supply	1 x 3V/Lithium-type C2R	1 x 3V/Lithium-type C2R	1 x 3V/Lithium-type C2R
Battery lifetime	approx. 1,000 measurements at 68°F	approx. 1,000 measurements at 68°F	approx. 2,000 measurements at 68°F
Order No. Accessories			
Neopren carrying strap, contoured	included	included	included
Floating carrying strap, orange	42 163	42 163	42 163
Tripod adapter	42 220	42 220	42 220

Technical Data



Product	LEICA RANGEMASTER 1200 scan	LEICA RANGEMASTER 900 scan	LEICA PINMASTER
Order No. Product	40 525 (black)	40 515 (green)	40 530 (grey)
Delivery Scope	Carrying cord, battery, Cordura case	Carrying cord, battery, Cordura case	Carrying cord, battery, Cordura case
Magnification	7 x	7 x	7 x
Front lens diameter	21 mm	21 mm	21 mm
Exit pupil	3 mm	3 mm	3 mm
Twilight factor	12.1	12.1	12.1
Field of view at 1,000 m	112 m	112 m	112 m
Field of view at 1,000 yds	336 ft	336 ft	336 ft
Eye-relief	14 mm	14 mm	14 mm
Objective angle of view	6.4°	6.4°	6.4°
Diopter compensation	increased to ±4 diopters	increased to ±4 diopters	increased to ±4 diopters
Distance measurement			
Range	15 m to approx. 1,100 m 16.4 to 1,200 yds	15 m to approx. 825 m 16.4 to 900 yds	10 m/yds to 640 m/700 yds
Accuracy	± 1 m to 366 m/400 yds, ± 2 m to 732 m/800 yds, ± 0,5% over 732 m/800 yds	± 1 m to 183 m/200 yds, ± 2 m to 549 m/600 yds, ± 0,5% over 549 m/600 yds	± 1 m to 183 m/200 yds, ± 2 m to 549 m/600 yds, ± 0,5% over 549 m/600 yds
Read-outs	LED display with four digits, easily legible in any light	LED display with four digits, easily legible in any light	LED display with four digits, easily legible in any light
Eyepieces for eyeglass wearers	yes	yes	yes
Eyecups	turn down rubber eyecups	turn down rubber eyecups	turn down rubber eyecups
Prism system	Roof prism with phase correction coating P40	Roof prism with phase correction coating P40	Roof prism with phase correction coating P40
Watertightness	Water spray resistant	Water spray resistant	Water spray resistant
Housing	Carbon fiber-reinforced plastic material	Carbon fiber-reinforced plastic material	Carbon fiber-reinforced plastic material
Dimensions (W x H x D)	105 x 120 x 40 mm 4 1/8 x 4 3/4 x 1 5/8 in	105 x 120 x 40 mm 4 1/8 x 4 3/4 x 1 5/8 in	105 x 120 x 40 mm 4 1/8 x 4 3/4 x 1 5/8 in
Weight	incl. battery 320 g/11.3 oz	incl. battery 320 g/11.3 oz	incl. battery 320 g/11.3 oz
Meter/Yard Selector	yes	yes	yes
Laser	Eye-safe invisible laser according to EN and FDA class 1	Eye-safe invisible laser according to EN and FDA class 1	Eye-safe invisible laser according to EN and FDA class 1
Laser beam divergence	approx. 0.5 x 2.5 mrad	approx. 0.5 x 2.5 mrad	approx. 0.5 x 2.4 mrad
Measuring time	maximum approx. 0.85 s	maximum approx. 0.9 s	maximum approx. 0.85 s
Measuring mode	Scanning mode	Scanning mode	Scanning mode
Power supply	Battery 9 V/alkaline manganese E block (6LR 61)	Battery 9 V/alkaline manganese E block (6LR 61)	Battery 9 V/alkaline manganese E block (6LR 61)
Battery lifetime	approx. 1,000 measurements at 68°F	approx. 1,000 measurements at 68°F	approx. 1,000 measurements at 68°F

Very useful binocular equipment

Practical accessories for more convenient observation of the nature

Included in the delivery scope and available as a replacement



Nappa leather case
for Duovid 42 and 50,
Trinovid BN 32, 42
and 50



Cordura case for rangefinder
for Rangemaster
900 scan, 1200 scan,
Pinmaster



Cordura case
for Ultravid BR 32, 42
and 50, Geovid BRF 42



Deep-drawn leather case
for Ultravid BL 42



Deep-drawn leather case with belt loop
for Ultravid BL 20 and 25



Cordura case with belt loop
for Ultravid BR 20 and 25,
Trinovid BCA 20 and 25



Leather carrying strap, contoured for Ultravid BL 42



Neoprene carrying strap, contoured
for Duovid 42 and 50, Ultravid BR 32, 42 and 50, Trinovid 42 and 50,
Geovid BRF 42

Cordura case with belt loop
for Trinovid BN 32

Carrying cord
for Trinovid BCA 20 and 25

Woven carrying strap for Ultravid
BR 20 and 25, Ultravid BL 20 and 25

Front caps for all Ultravids, Geovids

Protective front lens cover for all Televids and APO-Televids

Eyepiece cover for all Duovids, Ultravids, Trinovids, Geovids

Rear caps for Televids and APO-Televids

You can complete your products with the following accessories :



Floating carrying strap, orange
for Duovid 42, Ultravid BR 32, Ultravid BR / BL 42, Ultravid BR 50,
Trinovid BN 32, 42 and 50, Geovid BRF 42
Order No. 42 163



Neoprene carrying strap, contoured
for Duovid 42 and 50, Ultravid BR 32 and 50, Ultravid BR / BL 42,
Trinovid BN 32, 42 and 50, Geovid BRF 42
Order No. 42 146



Tripod adapter for binoculars

for Duovid 42, Ultravid BR 32 and 50, Ultravid BR / BL 42, Trinovid BN 32, 42 and 50, Geovid BRF 42

Order No. 42 220



Carrying case for Televid 77

for Televid and APO-Televid 77 straight view

Order No. 42 316



Ever-ready-case for Televid 77

Straight view for Televid and APO-Televid 77 straight view

Order No. 42 315



Ever-ready-case for Televid 77 Angled view

for Televid and APO-Televid 77 angled view

Order No. 42 310

Ever-ready-case for Televid 62 angled view

for Televid and APO-Televid 62 angled view

Order No. 42 318

Ever-ready-case for Televid 62 straight view

for Televid 62 and APO Televid 62 straight view

Order No. 42 319



Photo Adapter for 77er spotting scopes, 1:10.4/800 mm

for Televid and APO-Televid 77

Order No. 42 300

Photo Adapter for 77er spotting scopes 1:13.0/1,000 mm – Photo Adapter for 62er spotting scopes 1:12.9/800 mm

for all Televids **Order No. 42301**

T2 Adapter for the Leica R system for all Televids **Order No. 42 305**

Uva Filter for Televid and APO-Televid 77 **Order No. 13 337**



Glossary We hope that the following glossary of main terms and quality criteria for the evaluation of binoculars and spotting scopes will be helpful to you in making a purchasing decision. In addition, here are authorized Leica dealers and representatives around the world who will be pleased to assist you. They have a large selection of products and they will gladly present you your favorite model.

Great Grey Owl / Strix nebulosa

Technical binocular terms

Magnification Every binocular is specified by two numbers, of which the first one always indicates the magnification. Magnification tells us how much closer an object appears to the observer when viewed through the binocular. For example : At 8 x magnification, a bird that is 328 feet/100 m away appears to be only 41 feet/12.5 m (328 ft : 8 = 41 ft) away.

Front lens diameter The second characteristic number of a binocular is the front lens diameter (the entry pupil of the binocular) stated in millimeters. A binocular with the designation 10 x 50 has a front lens diameter of 50 mm. The larger the front lens diameter, the more light can be gathered by the binocular. If observation is to be conducted at twilight or at night, the ideal choice is a front lens diameter of 42 or 50 mm. Binoculars with a front lens diameter of 20 to 32 mm are suited primarily for observation in daylight.



Exit pupil The two bright circular areas that can be seen when one looks at the eyepiece of a binocular from a distance of approximately 12 inches/30 cm. (Exit pupil = front lens diameter in mm : magnification factor). An indication of quality is that these areas should be exactly circular and that they should have sharp edges. The pupil of the eye changes its diameter in accordance with the light intensity (small in bright light, large in the dark). For example, a 40-year old observer typically has a maximal pupil diameter of 6 mm. A rule of thumb for comfortable observation is that the exit pupil of a binocular should be at least as large as the pupil of the eye at its largest diameter. The exit- and entry pupils are not, however, the only decisive quality characteristics for the evaluation of image brightness : Factors such as contrast, resolving power and light transmission of a binocular or spotting scope are just as important.

Twilight factor The twilight factor is a computed number that describes the theoretical performance capability of a binocular at twilight. It is computed by taking the square root of the product of the magnification factor and the front lens diameter. The twilight factor is a purely mathematical value that says nothing about the optical quality of a binocular, such as contrast, neutral color rendition, resolving power, etc.

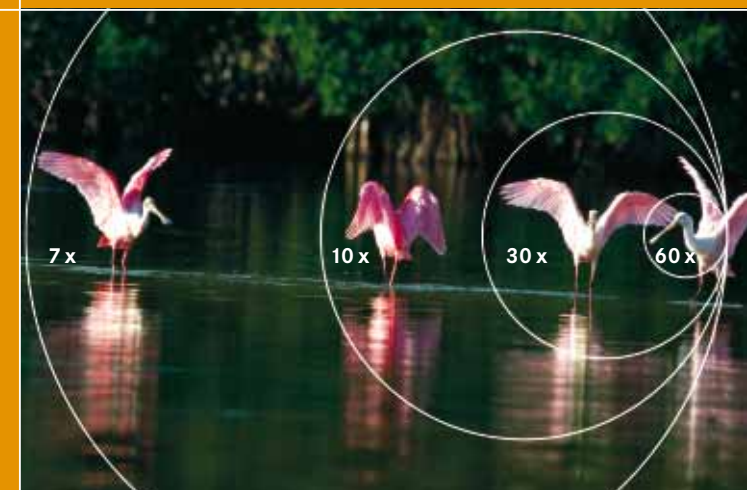
Example LEICA TRINOVID 10 x 42 BN

Magnification = 10 x, front lens diameter = 42 mm

$$\text{Exit pupil} = \frac{\text{front lens diameter}}{\text{magnification}} = 4.2 \text{ mm}$$

$$\text{Twilight factor} = \sqrt{\text{front lens diameter} \times \text{magnification factor}} = 20.5$$

Objective field of view This value defines the width of the field of view at a distance of 1000 meters. Usually, the greater the magnification, the smaller the field of view. Binoculars with a large field of view enable the observer to cover a large area and to follow moving subjects, such as a flock of birds, conveniently. A significant quality criterion of Leica binoculars is an image that is a field of view that is crisp and sharp to its very edges and that is rich in contrast.



Glossary For illustration purposes, the pictorial examples show strongly exaggerated effects of the various types of imaging errors or aberrations.

Optical quality



Contrast and resolving power **Contrast** is defined as the difference in brightness between light and dark areas of the image. The greater this difference, the higher the contrast. An image that is rich with contrast is subjectively perceived to be sharper and more brilliant. **Resolving power** is the extent to which an optical system is capable of reproducing the finest structures. The greater the resolving power, the better are the finest details rendered, even under difficult light conditions. Pictorial examples : In optimally rendered images (left), both contrast and resolution are high. If the contrast is too low, the image is flat (center). If the resolution is too low, the image is unsharp, one can no longer discern details in the feathers (right).

Reflections and flare When light rays are reflected by lens surfaces and/or structural components or scattered by lens mounts, they arrive at a location in the image that is different from the one where they are intended to arrive. Undesired reflections and light areas that can degrade the image significantly and that can impair the visual impression occur especially when the sun shines directly into the front lens. To prevent reflections and flare caused by stray light rays, Leica takes numerous dedicated steps. To begin with, the shapes of lens surfaces, mounting components and light traps are already optimized during the design stage so that no extremely disturbing effects are to be expected. Furthermore, a significant reduction in reflections and stray light components is achieved by means of special coatings of lens elements (vapor deposition of special reflection-reducing layers) and by the matte black finish of internal mechanical components.



Depth of field Depth of field is the distance between the nearest and the furthest away objects that can still be perceived as being sharp at a given focus setting without the need for refocusing. The depth of field is dependent upon the magnification of a binocular or spotting scope. The lower the magnification, the greater the depth of field. Therefore, if one wishes to see several objects at different distances but with the same sharpness (as illustrated on the left), one would give preference to a binocular with a 7 x or 8 x magnification, which would also have great advantages for observation at twilight or in poor light conditions, because one would not have to keep refocusing to maintain a sharp image. The greater the magnification, the smaller the depth of field. Greater magnifications are advantageous when one wishes to discern more details or smaller objects, as illustrated on the right.



Imaging errors (aberrations) In order for a sharp image to be created, light from a point on the subject must re-converge as a point in the picture. As a rule, a single lens element is not adequate for this purpose, because it has inherent deviations (imaging errors or aberrations), that are described as follows : By selecting appropriate types of optical glass and lens coatings, and by combining the right lens elements and by converting the computed lens design into reality as accurately as possible, Leica succeeds in keeping all the residual aberrations at a very low level. To that end all phases, from optical design to fabrication, are optimized for the always highest possible imaging quality.

Aperture errors – spherical aberration The closer to the edge light rays pass through a lens, the more they will tend to arrive away from the actual picture point. Because this effect becomes stronger as the front lens diameter increases, it is referred to as aperture error, also called spherical aberration. Aperture error causes a loss of sharpness and contrast in the image. In extreme cases, flare becomes noticeable – halos are formed around point sources of light, as illustrated in the pictorial example above.



Coma When coma is present, light rays will deviate to one side of their intended picture point. The picture point will gain a tail like a comet. This effect occurs more towards the edges of the picture and not in its center. Strong coma leads to a loss in sharpness and contrast, in extreme cases the coma tail becomes noticeable in point sources of light, as illustrated in the enlarged section of a picture of a star. This section was cropped from the left upper corner of the moon picture.



Glossary

Astigmatism Because of the naturally curved shape of a lens, not all light rays converge on the same plane. While the center of the picture is sharp, the edge of the picture appears to be out of focus. One can cause objects in one or the other plane to be rendered sharply by refocusing. In addition, astigmatism causes the sharpness of an object detail to be influenced by its orientation. This effect becomes stronger towards the edges of the image. For example, if we look at the corner of a picture of a chain link fence, it will be noticeable (if astigmatism is present) that the wires that point towards the center of the image are reproduced with a different degree of sharpness than those that are oriented at a right angle to them. By refocusing, one or the other wire direction can be rendered sharply, but not both of them at the same time. This effect can be reduced by appropriate optical design measures, but it cannot be eliminated completely. Astigmatism leads to a significant impairment of the image quality.



Color errors (chromatic aberrations) Every image-forming component made of glass – such a lens elements – refracts light rays of different colors at different angles. This results in the fact that not all the light rays that emanate from a multi-colored point on the object are re-united at a single point in the image. This results in color errors for the observer. Color errors become particularly evident to the observer as color fringes when high magnifications and long focal lengths are being used, as they are in spotting scopes. Pictorial examples : Color errors appear primarily as color fringes around dark objects in front of bright backgrounds, as illustrated by the example on the left with the red-fringed feather dress. With APO correction of Leica (right illustration) such color effects are no longer discernible.



Optical glasses with anomalous partial dispersion

Light rays of different colors are refracted at different angles through the lens elements. This effect is called dispersion and in different types of glass it is present at different levels of strength. Most types of glass have typical, “normal” characteristics. Special glasses with “anomalous partial dispersion”, on the other hand, have characteristics that are different in certain ranges of colors, and this makes a special color error correction possible that cannot be achieved with normal types of optical glass. Glasses with anomalous partial dispersion are used for the enhancement of image quality, and they are used in all Leica binoculars and spotting scopes.

APO color error correction APO stands for apochromatic color error correction. It is only beneficial for lenses with long focal lengths and for high magnifications, like in spotting scopes. Apochromatic color correction is achieved by the use of special types of optical glass with anomalous partial dispersion and with glasses that contain fluorite. Such correction results in images with enhanced sharpness, increased contrast and an extremely natural color rendition.

Distortion The term distortion is used to describe the effect that causes the image of an object to be rendered with a non-uniform reproduction ratio. For binocular observation, unlike in photography, this effect is applied quite deliberately to reduce the so-called “globe effect” caused by perspective observation and by swinging the binocular. To the observer, the image created in this manner appears straightened out. There are two kinds of distortion : pincushion distortion (illustrated on the top), and barrel distortion (as shown on the bottom). Observation through a binocular that does not have deliberately implemented judicious distortion is quite unpleasant.



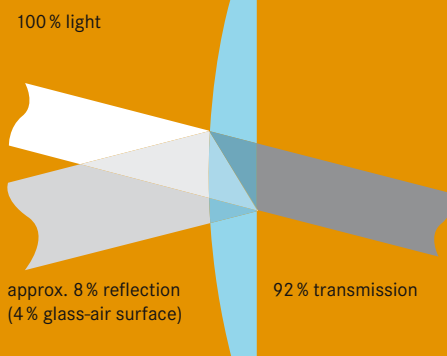
High refraction glasses Lens elements made of high refraction glasses bend light rays more strongly than lenses with the same shape that are made of standard glasses. Therefore the use of a lens element made of high refraction glass can achieve strong effect without the need for lenses with excessively strong surface curvatures. This helps to prevent imaging errors, thus leading to greater imaging performance. High refraction optical glasses are used in all Leica binoculars and spotting scopes in order to make their short construction possible.

ASPH. ASPH. is an abbreviation that denotes the use of at least one aspherical lens surface in an optical system. Unlike regular spherical lens surfaces, aspherical lenses have a curvature near their edges that is different from the curvature in the center of the lens. That makes it possible to influence light rays passing through the edges of the lens differently from light rays passing through the center portion of the lens. It also makes it possible to achieve several correction goals simultaneously with only one lens element. Furthermore it helps to reduce the weight and the physical size of an optical system and it makes certain imaging characteristics possible to begin with. Such surfaces help to increase the image quality or to influence the distortion. The fabrication and the handling of aspherical lens elements is significantly more costly, however, than that of conventional spherical lenses. In order to assure the extremely high image quality in all models of Ultravid binoculars, aspherical lenses are used effectively in the 25 mm and 20 mm BR / BL models. In the remaining models the high image quality is achieved by means of complex optical systems that consist of several lens elements.

Glossary

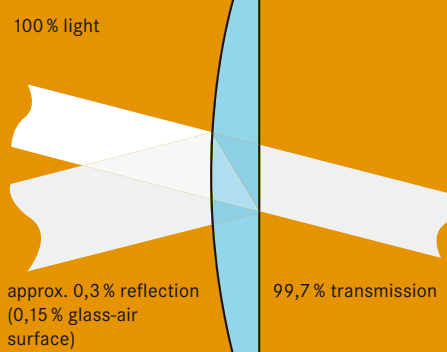
Light transmission, the degree of same When light rays strike on glass surface, only some of them penetrate the glass, the others are reflected. The more light penetrates a lens element or an optical system, the higher is their transmission. As a rule, there is an approximate 4 % light reflection at every glass-/air surface of an uncoated lens. This effect increases exponentially the more lens elements there are in an optical system (in Leica binoculars there are up to 11 optical elements = 22 glass-/air surfaces).

Lens without coating

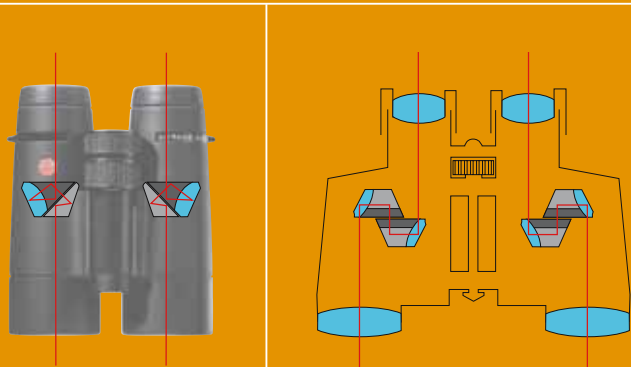


Coatings In order to minimize the reflection of light rays, complex procedures are employed, involving the vapor deposition in high vacuum of numerous layers of exceedingly thin layers of approximately 0.000125 millimeters, which corresponds to 1/500 of the thickness of a human hair. At Leica, high-performance broadband coatings are applied that are tailored specifically to the types of glass that are being used. Not only do they have the task of elevating the transmission of an optical system to a close as possible to 100 %, they also have the important task whenever possible to protect the particularly exposed external lens surfaces from environmental influences and from damages such as scratches. These two requirements – high transmission and high environmental- and scratch resistance – are combined in the innovative multi-layer coating LEICA HDC™.

Lens with Leica HDC™ multi layer coating



Prism systems Prisms have the task of bringing inverted and laterally reversed images of an object back into the right position (which is why they are also called reversing systems). The prisms used in such systems have a decisive influence on the construction and the compactness of a binocular. There are two several types of prism systems, such as roof (left) and porro (right).



Phase correction coating P40 The P40 layer on roof prisms has the task of increasing the sharpness of the image and reducing disturbing reflections and stray light. Without a P40 coating on the prisms, light sources are rendered with radiating star effects. With a P40 coating they are reproduced very naturally. In this regard and in direct comparison, the qualitative differences of different optical brands become obvious very quickly.

Mechanical quality

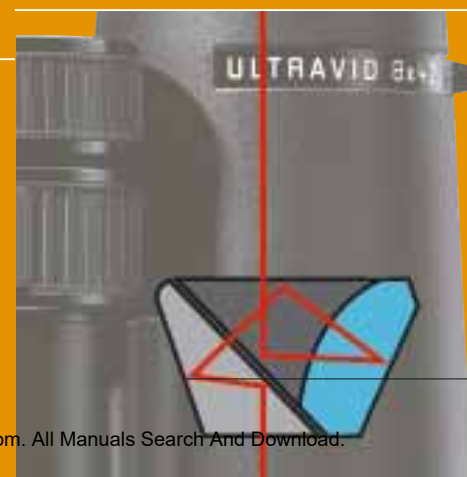
For the requirements of intensive use in nature, high-performance binoculars and spotting scopes must be able to withstand extreme mechanical demands over long periods of time. To that end, the optical and mechanical components are mounted in the body of a Leica binocular or spotting scope in such a way that they cannot shift. The tolerances for the mechanisms used for moving lens groups are set at a very minimum and they are strictly enforced. An important parameter in the selection of the right materials is their extreme longevity, and they must also safeguard the highest degree of precision. Leica meets these requirements with proven and durable materials such aluminum die-castings and steel. In order to achieve a significant reduction in weight - for instance in the Ultravid models - Leica also employs special high-tech materials such as magnesium and titanium. In the planning of all these aspects, the longevity of the products and the benefits for the customers are always in the forefront.

Focusing In order to focus the binocular or spotting scope on an object, optical groups within them have to be shifted with respect to one another. When focusing is accomplished by moving a lens group inside the instrument, this is referred to as internal focusing. This enclosed construction and the additional nitrogen filling make it possible to design watertight binoculars and spotting scopes that guarantee a uniformly high imaging performance that lasts for the entire life of the instrument, even under the most adverse climatic conditions. The particularly short focusing travel from near to infinity on Leica binoculars (on the Ultravid models it amounts to slightly more than a single turn) the observer can always keep the subject in sharp view very quickly.

Leica innovations and patents

The proficiency for innovations at Leica is demonstrated not least by the countless patented problem solutions that are valued by customers and that evolved in close cooperation and coordination with international innovation teams composed of users in a great variety of fields.

Leica HDC™ (High Durable Coating) HDC™ is the proprietary designation of a rub-proof and transmission-enhancing multi-layer coating process developed by Leica that consists of 7 to 10 exceedingly thin layers, depending on the type of glass to which they are applied. HDC™ signifies high light transmission combined with high resistance to scratches and environmental effects, which translates into brilliant images and durability, even in intensive outdoor use.



Leica HighLux-System HLS™ The HighLux-System HLS™ combines extensive mechanical steps for the reduction of stray light (such as light traps, matte black lacquer, etc.) and an especially developed mirror layer for prisms into an optimally tailored system. The HighLux-System HLS™ is used in Duovid and Ultravid binoculars. The highly reflective dielectrical mirror layer consists of 42 extremely thin individual layers that produce a degree of reflection of more than 99.5 %. This system makes it possible to increase transmission, contrast and sharpness significantly – the observer gains an extremely bright, natural pictorial impression with neutral color rendition.

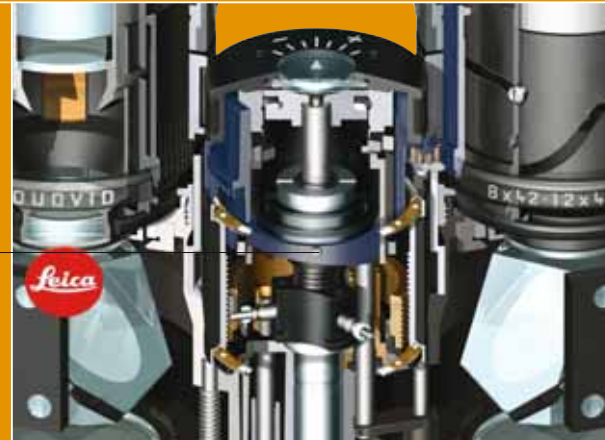
Mirror layer of Leica HighLux-System HLS™

Glossary



Multifunction center drive The combination knob for the Leica center drive feature performs two important functions : diopter compensation and focusing. Because of its size, it is always easy to use as a focusing wheel and it provides ergonomic handling and a steady observation. The large diopter scale allows quick and convenient setting of your personal diopter value.

ADC™ (Automatic Diopter Compensation) ADC™ (Automatic Diopter Compensation) is the eminent innovation in Duovid binoculars. ADC™ maintains the original diopter setting when you change the magnification (from 8 x to 12 x, or from 10 x to 15 x as the case may be).



Automatic Diopter Compensation ADC™



quick initial focusing

fine focusing

Televid dual focusing The dual focusing device patented by Leica is incorporated in Leica spotting scopes. Two separate focusing drums enable the observer to perform a quick initial focusing followed by an accurate fine focusing to obtain an image that is always perfectly sharp.

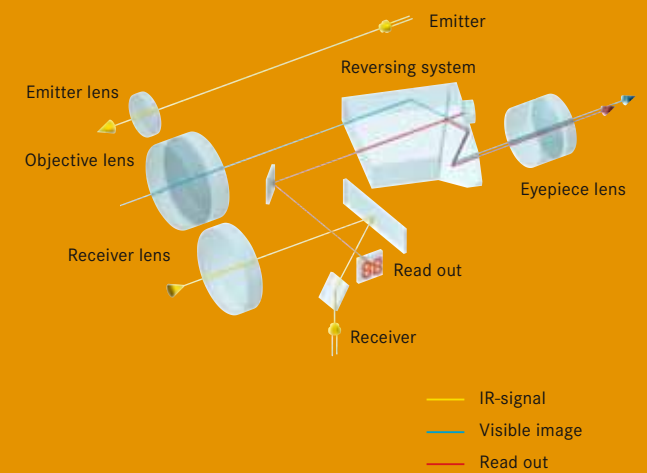
Removable, sliding eyecups with two click stops A newly designed rotating sliding eyecup is used on binocular models Duovid 50 and 42, Ultravid 50, 42 and 32 and Geovid. It can easily be removed for cleaning at any time and it has two click stops with which different eye relief distances (AP positions) can be set individually (with eyeglasses = retracted ; without eyeglasses = pulled out). With its gently cushioning rubber element it guarantees long, relaxed observation and for eyeglass wearers it provides secure positioning without damaging the eyeglasses. The remaining Leica binoculars are equipped with sliding eyecups that guarantee an optimal eye relief.



LED displays in rangefinders The actively glowing LED displays in Rangemaster-, Pinmaster- and Geovid models employ a sensor that automatically tailors their intensity to the prevailing ambient light at all times. This feature assures perfect legibility in all light conditions and it especially prevents eye glare during nighttime observation.

Leica rangefinder technology – with a press of the button

Leica rangefinders distinguish themselves primarily by the fact that they can be operated intuitively, by the excellent legibility of their LED displays and by their bright optics. Pressing the measuring button just once switches the instrument on, the target sight appears in the display and the object can now be addressed. Pressing the button a second time displays the measured distance. By keeping the button pressed, the instrument automatically switches to a scan mode, which is indicated by a blinking display. The instrument now provides continually updated measurement values. The scan mode is especially helpful for the perfect measurement of distances to small or rapidly moving targets.



The measurement of distances is based on an eye-safe light pulse that is reflected by the object that is being sighted. A microprocessor uses the time elapsed until the light pulse has returned to compute the distance and then indicates it in the instrument's display.

Pinmaster primary target logic A software solution that has been developed especially for the sport of golf has been integrated in the **LEICA PINMASTER**. It always evaluates the reflection of the light pulse that arrived first ("nearest echo" principle). For example : you sight a flag pin with woods in its background. The first echo logic only evaluates the signal reflected by the flag pin, not the signal reflected by the woods. This provides optimal results for golfing purposes, for example for checking the improvement of one's handicap during training, or for the groundskeeper to conduct a new survey of the greens. On the other hand, **LEICA RANGEMASTER** models always evaluate the strongest signal reflection ("strongest echo" principle). In the example cited above, they would indicate the distance to the woods. This prevents unwanted false measurements caused by shrubs and saplings during intensive use in the field.



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