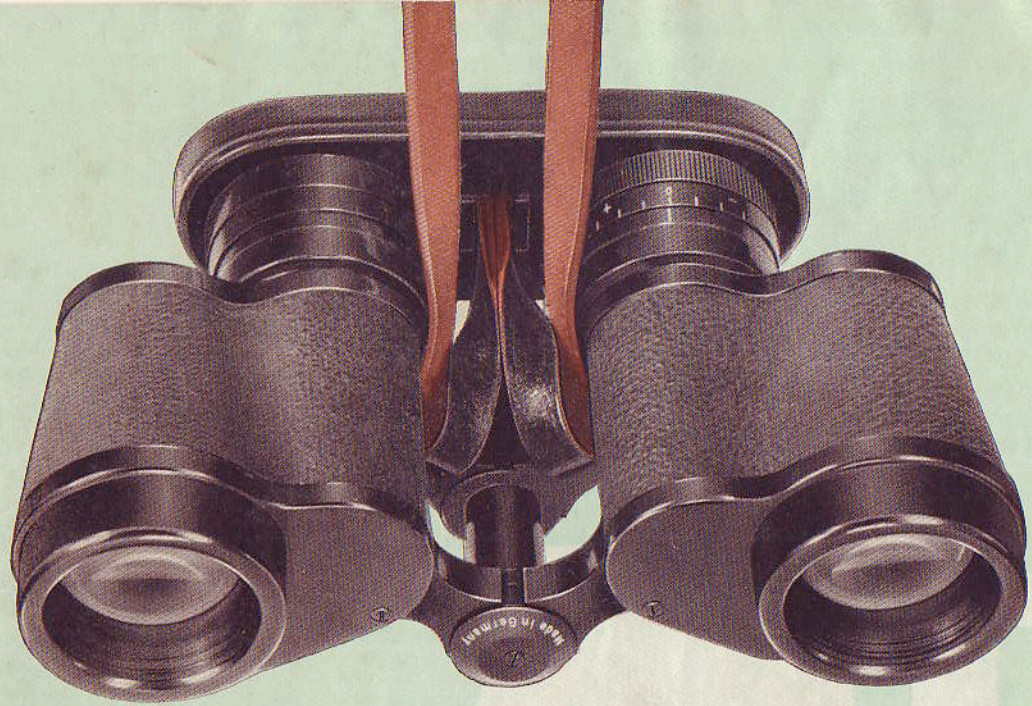
CARL ZEISS



ZEISS BINOCULARS

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A ZEISS binocular offers you a lifetime of reliable, outstanding service. And you will find it an inexhaustible source of enjoyment. Distant scenes and objects of interest that are lost to the naked eye can be observed close-up and in striking detail. It gives you a front-row seat at sporting events, adds immeasurably to the pleasure of touring, voyaging, nature study – and in hunting or navigating, its superior optical quality is of inestimable value.
The new models illustrated and described in this booklet embody exclusive improvements which increase optical efficiency and afford greater protection against dust and moisture penetration. Yet they are much smaller in size than former binoculars. They are the logical choice of those who want the latest and finest.

ZEISS Binoculars enjoy world-wide renown

In New York, London and Paris, in Stockholm and Capetown, in Tokyo and Sydney, you will find that discriminating users rely on a ZEISS binocular. This world-wide preference stems from the fact that the ZEISS works are noted for creating binoculars which are optically and mechanically the finest that modern science and technology can produce.

Some of the important innovations introduced by the ZEISS works in the field of binocular manufacturing:

1893 Prof. Ernst Abbe of the ZEISS works invents the modern prism binocular.

1917 ZEISS introduces **wide-angle eyepieces** in binocular manufacturing.

1930 Brass and zinc are replaced by light metal.

1936 The **reflection-reducing coating** is invented by the ZEISS works. This improvement, generally referred to as "coating", increases the light transmission of the binoculars by some 30 %.

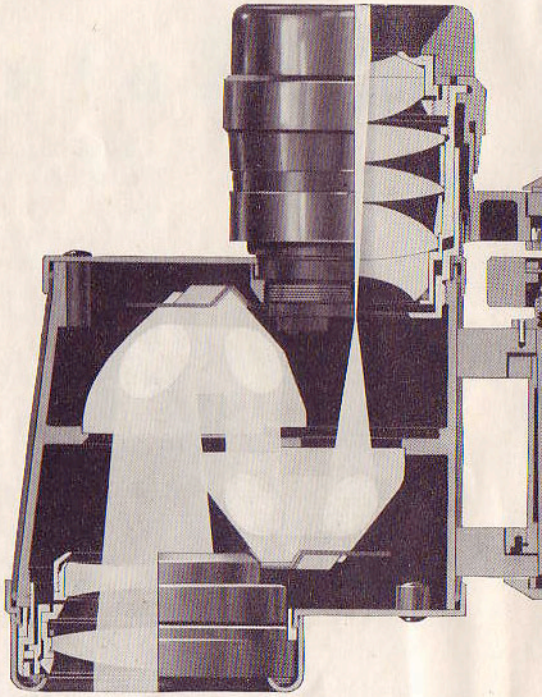
1954 For the first time ZEISS furnishes binoculars with **tele-objectives** which employ two lenses separated from each other by an air space. These new objectives improve the image and result in a wider aperture ratio. They also result in the **shorter constructional length** of the new ZEISS binoculars.

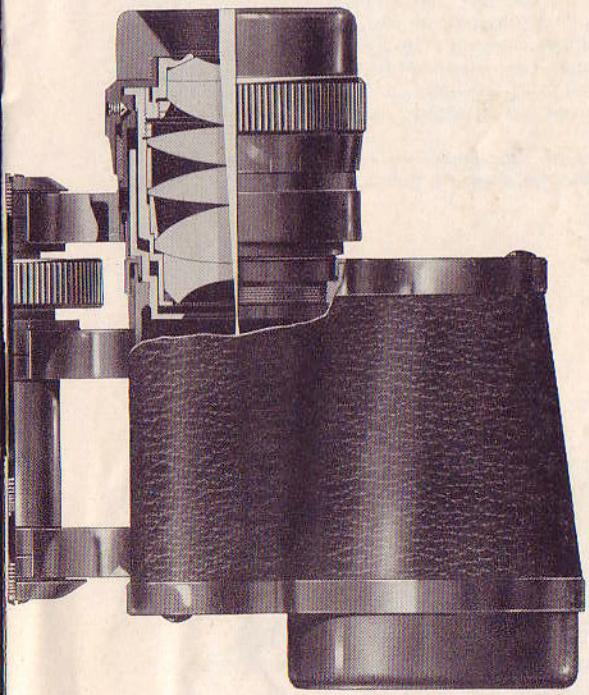
Eyepiece optics, based on new computations, result in maximum image quality to the very edge of the field of view.

A new method of sealing the binocular against dust and moisture penetration provides better protection for the interior of the glass. Hence ZEISS binoculars with central focusing adjustment may now be used where heretofore only binoculars with individual focusing could be used – for example, at sea and in the tropics under unfavorable atmospheric conditions.

Corrosion-resistant alloys used in modern ZEISS binoculars are impervious to sea water and tropical conditions.

The annoying swinging of the binocular when carried on the neck strap is reduced to a great extent because the binocular is now suspended **vertically** from the neck strap.





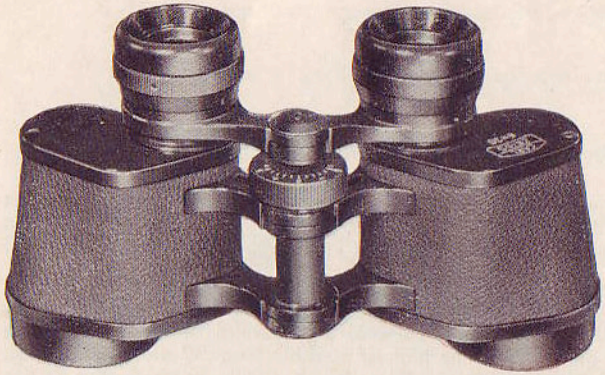
Choosing the proper model

The extent to which your vision is improved by a binocular is called its "telescopic performance"; it varies, depending upon whether you are observing in daylight, in twilight or at night.

For observation in daylight, the telescopic performance of a binocular is almost identical with its magnification. Hence, those who wish to observe only during the day, may choose a binocular of the highest possible magnification, irrespective of its objective diameter. However, if you are going to use the glasses without a stand or other support, a magnification of 8 times is best. Due to the unsteadiness of the average hand, a magnification of 10 times is the upper limit for observation without support.

At dusk and at dawn, the telescopic performance of a binocular depends on its magnification (M) **and** its objective diameter (D). You will find the figures for M x D on the binocular (e. g. 8 x 30). The performance at dusk and dawn of each model shown in this leaflet is indicated by the term **"twilight performance"** and is determined by the formula $\sqrt{M \times D}$ *. The greater the twilight performance, the greater the detail recognizable at dusk and at dawn.

Formerly it was customary to use the square of the diameter of the exit pupil, the so-called "geometric telescopic light-gathering power", to designate not only the brightness impression of the image, but also the twilight performance. However, as an index of twilight performance, this formula proved unsuitable.



6 x 30

ZEISS binocular with central focusing

The field of application of this 6 x 30 model is in general the same as that of the 8 x 30 glass described on the opposite page. Due to its lower magnification, its efficiency in daylight and twilight observation is not quite as high as that of the 8 x 30 glass. Its lower magnification, however, results in greater steadiness of the image – an important factor in compensating for any trembling of the hand, or when you are using the binocular on an unsteady base (on a vehicle, for example).

By means of supplementary close-up lenses, this binocular can be used as a magnifier for distances of 5" to 40".

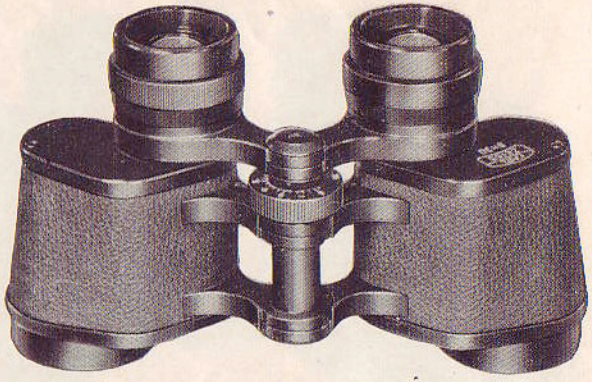
Magnification (M)	6 times
Objective diameter (D)	30 mm.
Exit pupil (P)	5.0 mm.
Twilight performance ($\sqrt{M \cdot D}$)	13.4
Field of view	150 yds. at 1,000 yds.
	8.5°
Weight	14½ ounces

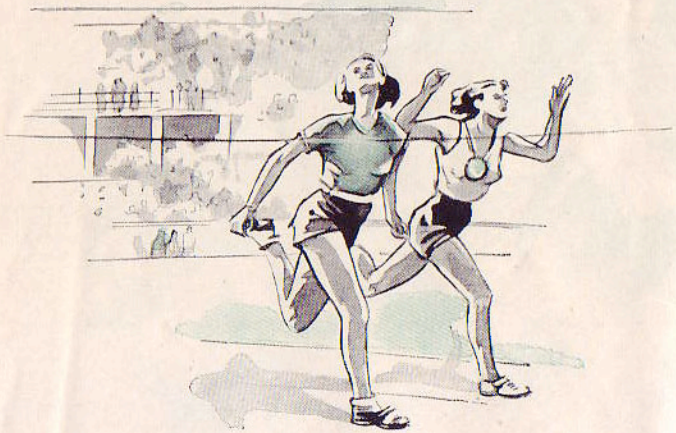


8 x 30

ZEISS binocular with central focusing

This binocular is the most favored type for universal use. With its 8x magnification and its excellent daylight and twilight performance, it meets all requirements – when traveling, viewing sports or in observing nature. It is also a good glass for hunting. This new ZEISS 8x30 binocular is smaller and handier than the former 8x30 model and may easily be carried in your coat pocket. Its modern 6-lens wide-angle eyepiece is extraordinarily efficient – permits full use of the wide field of view, sharp to the very edge!
By means of supplementary close-up lenses, this binocular can also be used as a magnifier for distances of 5″ to 40″.





Magnification (M)	8 times
Objective diameter (D)	30 mm.
Exit pupil (P)	3.75 mm.
Twilight performance ($\sqrt{M \cdot D}$)	15.5
Field of view	150 yds. at 1,000 yds. 8.5°
Weight	17 ounces



8 x 30

ZEISS Prism Monocular

This 8x30 monocular is appreciated by mountaineers because of its light weight and small size. It serves also as an observation and spotting scope and by means of supplementary close-up lenses it can be used as a magnifier for distances of 5″ to 40″.

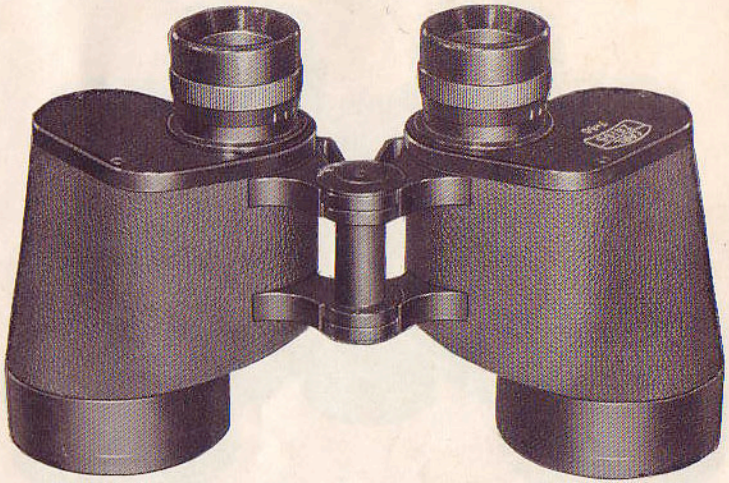


Magnification (M)	8 times
Objective diameter (D)	30 mm.
Exit pupil (P)	3.75 mm.
Twilight performance ($V\overline{M \cdot D}$)	15.5
Field of view	150 yds. at 1,000 yds.
	8.5°
Weight	7 ounces

7 x 50

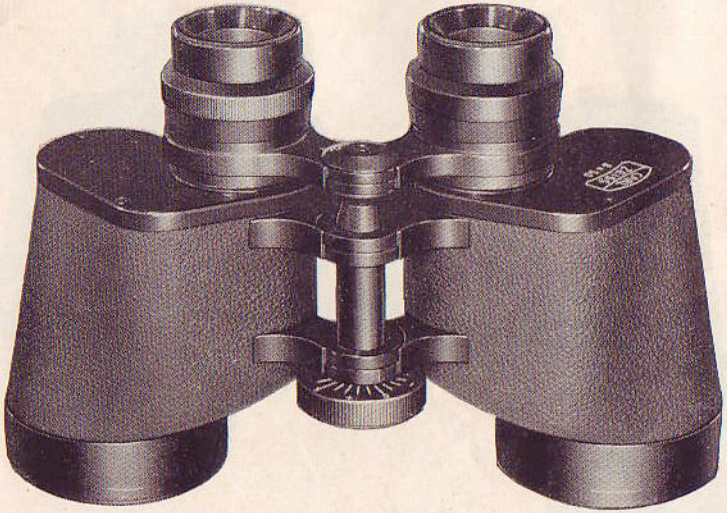
ZEISS binocular with individual eyepiece focusing

This model is a night glass with an extremely large exit pupil. It is the traditional marine binocular. Even when a ship is tossing or pitching in heavy seas, one has no difficulty in keeping the pupil of the eye lined up with the large exit pupil of this binocular. For this reason it is especially appreciated on smaller vessels, such as yachts, fishing and pilot boats as well as on larger craft.
If the binocular must stand extremely rough treatment, it may be effectively protected by its attachable rubber guards.





Magnification (M)	7 times
Objective diameter (D)	50 mm.
Exit pupil (P)	7.1 mm.
Twilight performance ($\sqrt{M \cdot D}$)	18.7
Field of view	130 yds. at 1,000 yds.
	7.4°
Weight	32 ounces



8 x 50

ZEISS binocular with central focusing

This model represents a new type in the binocular manufacturing program of the ZEISS works. Latest scientific findings on the twilight and night performance of binoculars gave rise to its development. It is distinguished by extraordinary twilight performance and high optical efficiency, and is extremely compact. By means of a newly developed eyepiece, it was possible – in spite of its higher magnification – to give this glass the same field of view as that provided by the 7 x 50 model. It also surpasses the 7 x 50 model in twilight performance.

This new ZEISS 8 x 50 binocular is a pre-eminent glass for day and night use. It is recommended for many purposes of observation even when unfavorable light prevails; under such conditions it will be especially appreciated when navigating on the high seas or on inland waters.

Magnification (M)	8 times
Objective diameter (D)	50 mm.
Exit pupil (P)	6.25 mm.
Twilight performance ($\sqrt{M \cdot D}$)	20
Field of view	130 yds. at 1,000 yds. 7.4°
Weight	37 ounces

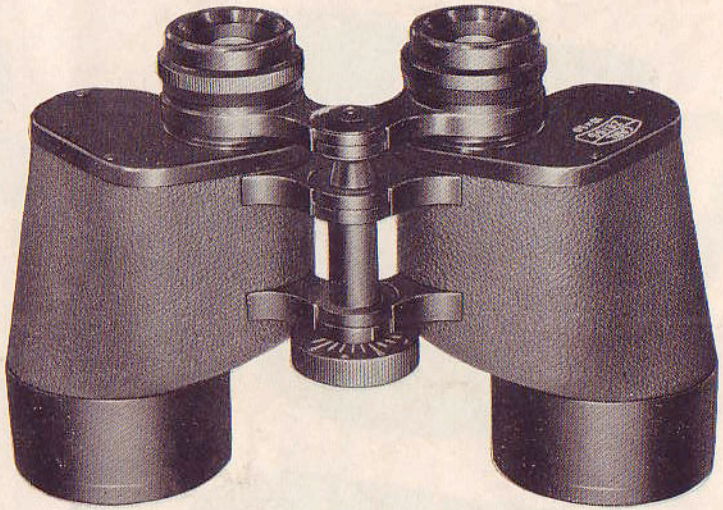


10 x 50

ZEISS binocular with central focusing

A high-efficiency glass for observation of objects that are difficult to recognize during the day or at dusk. A striking innovation used in this glass is its so-called semi-apochromatic objective. This remarkable objective provides extremely fine color correction which, with the high 10x magnification, creates an image quality never before achieved.

This ZEISS binocular is excellently suited for research work, ornithology, coast guard stations, aircraft safety service, mountain rescue work, checking high voltage lines, or wherever observation with high magnification, but without a steady support, is required.





Magnification (M)	10 times
Objective diameter (D)	50 mm.
Exit pupil (P)	5 mm.
Twilight performance ($\sqrt{M \cdot D}$)	22.4
Field of view	130 yds. at 1,000 yds. 7.4°
Weight	35 ounces



N



S

Accessories for your ZEISS binocular

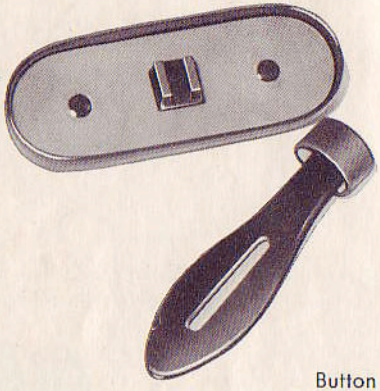
Standard case (model N)
for all ZEISS binoculars

Sports case (model S)
for all ZEISS binoculars

Flat case (model F)
for ZEISS binoculars 6×30 and 8×30

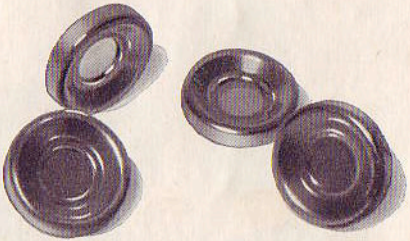


F



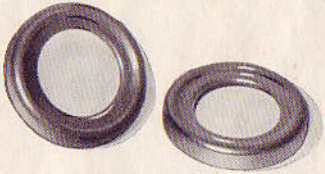
Rain guard

Button anchor strap

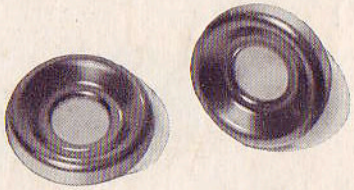


Anti-glare lenses in slip–on mounts (Used in extremely brilliant light)

Solar observation lenses in slip-on mounts



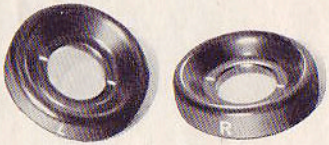
Flat rubber eyecups for wearers of eyeglasses.



Umbral lenses in slip-on mounts.



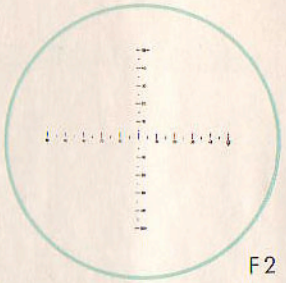
Rubber guards
for the 7x50 binocular.



Eye-correction lenses in
slip-on mounts
(made on prescription).

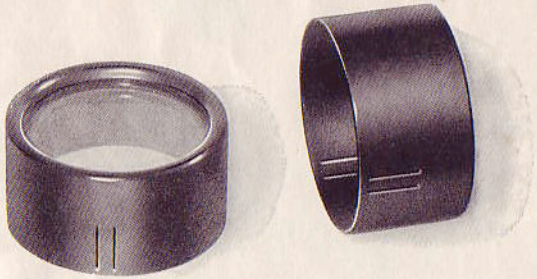


F1

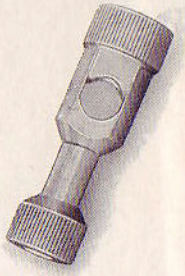


F2

Graticules for measuring purposes available for all models shown in this booklet. (Installed on special order.)



Close-up lenses in slip-on mounts for the 8x30 monocular and the 6x30 and 8x30 binoculars. For binoculars, lens is used on only one objective. Available for distances of 5, 8, 13, 20 and 40 inches.



Tripod adapter for
mounting the binoculars
on a camera tripod.

Comparitive specifications of the new ZEISS BINOCULARS

Model	6 x 30 Central Focusing	8 x 30 Central Focusing	8 x 30 Monocular	7 x 50 Individual Focusing	8 x 50 Central Focusing	10 x 50 Central Focusing
Magnification (M)	6 times	8 times	8 times	7 times	8 times	10 times
Objective diameter (D)	30 mm.	30 mm.	30 mm.	50 mm.	50 mm.	50 mm.
Exit pupil (P)	5.0 mm.	3.75 mm.	3.75 mm.	7.1 mm.	6.25 mm.	5.0 mm.
Twilight performance ($\sqrt{M \cdot D}$)	13.4	15.5	15.5	18.7	20	22.4
Field of view	150 yds. at 1000 yds.	150 yds. at 1000 yds.	150 yds. at 1000 yds.	130 yds. at 1000 yds.	130 yds. at 1000 yds.	130 yds. at 1000 yds.
	8.5°	8.5°	8.5°	7.4°	7.4°	7.4°
Weight	14½ oz.	17 oz.	7 oz.	32 oz.	37 oz.	35 oz.



CARL ZEISS · Oberkochen/Württ.

West Germany

52-051-1-e

Author: W. Bertz · Printed in Germany

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