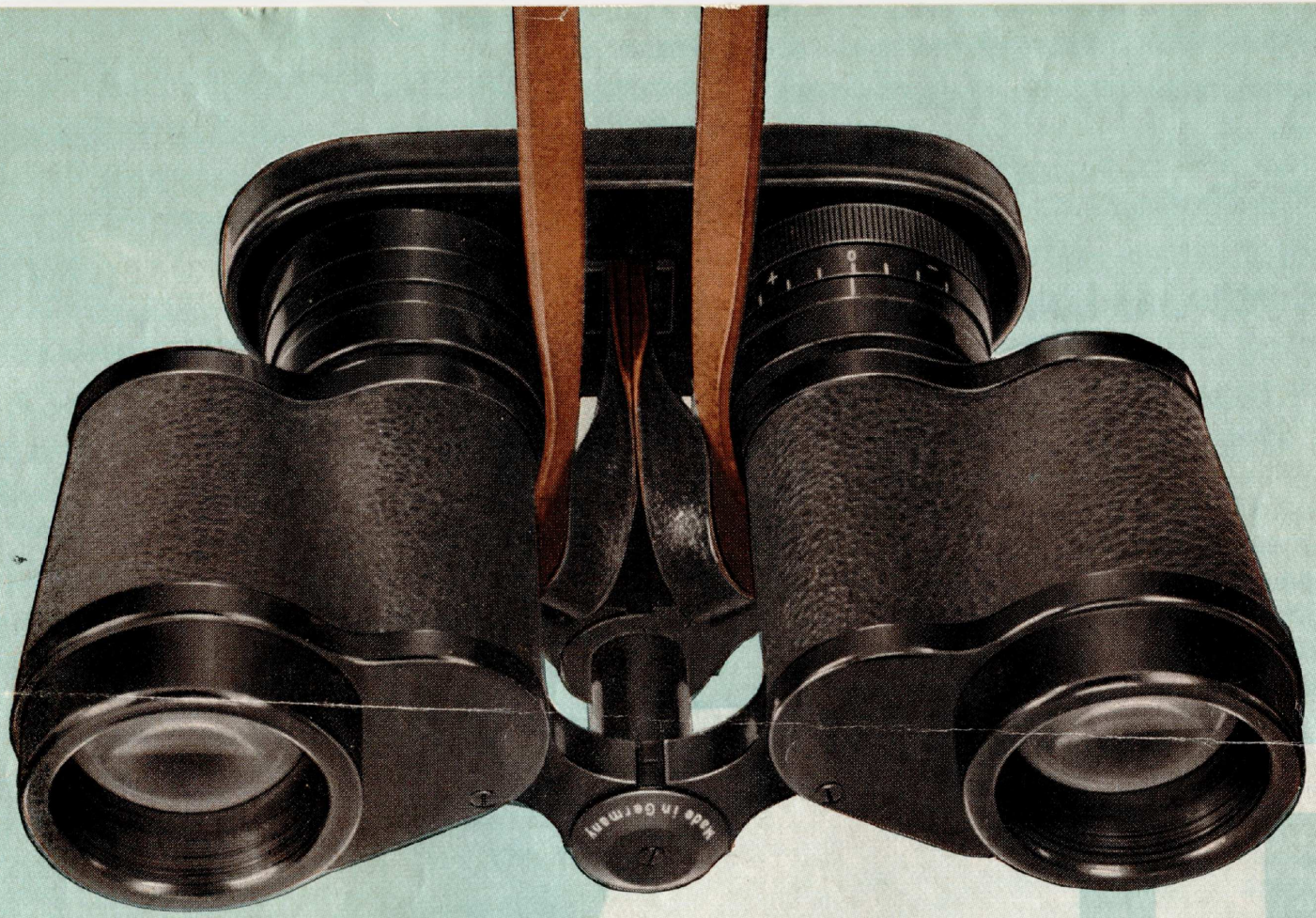


CARL ZEISS

MB

ZEISS

BINOCULARS

ZEISS

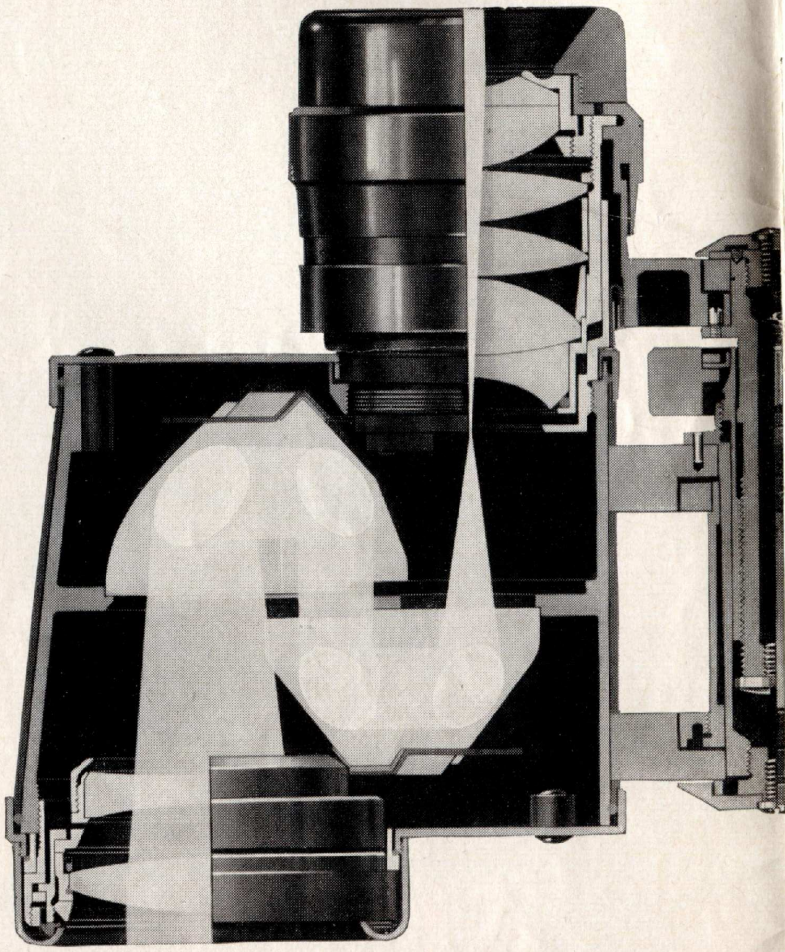
BINOCULARS

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 comes 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.



Important advantages offered by the new ZEISS binoculars:

Great marginal sharpness
achieved by newly computed oculars
(6-lens eyepieces in 8 x 30 model!)

Longer life
through the use of durable, corrosion-resistant metals and improved sealing of central-focusing models.
(cuff sealing)

Smaller, more compact form
through the use of tele objectives consisting of two air-spaced lenses.

Some of the most important binocular innovations introduced by ZEISS:

1894 ZEISS starts series manufacture of the prism binocular invented by Ernst Abbe. These binoculars had enlarged distance of objective lenses which greatly enhanced the plastic effect of the image.

1917 ZEISS introduces binoculars with wide-angle eyepieces.

1930 Brass and zinc are replaced by light-weight metals.

1936 ZEISS invents T-coating of optical parts for reducing reflection. This durable coating **improves the light transmission of the binocular by about 50 %.**

1954 ZEISS binoculars are, for the first time equipped with "tele objectives", consisting of two lenses separated by air, which reduce the length of the binocular and also result in a larger aperture ratio and improved image.

1958 ZEISS introduces binoculars especially designed for spectacle wearers.

Choosing the proper model

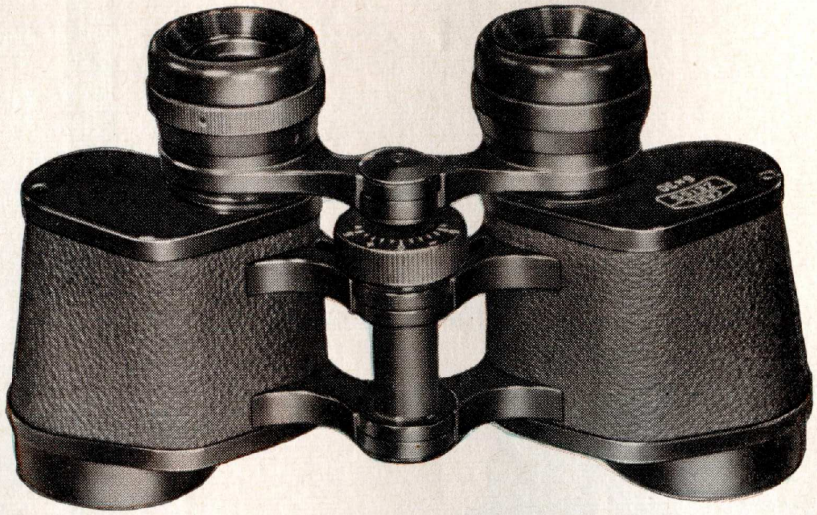
The extent to which your vision is improved by a binocular is called its "telescopic performance"; it varies, depending upon whether you are observing in daylight, in twilight or at night.

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 that does not exceed 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".

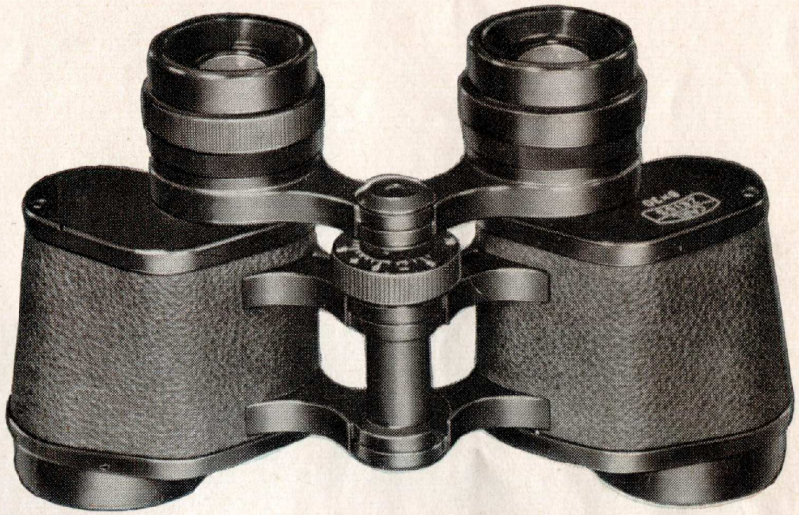
Magnification (M)	6 times
Objective diameter (D)	30 mm.
Exit pupil (P)	5.0 mm.
Twilight performance ($\sqrt{M \cdot D}$)	13.4
Field of view	150 yds. at 1,000 yds. 8° 30′
Weight	15 ½ ounces
overall length	3.7 inches

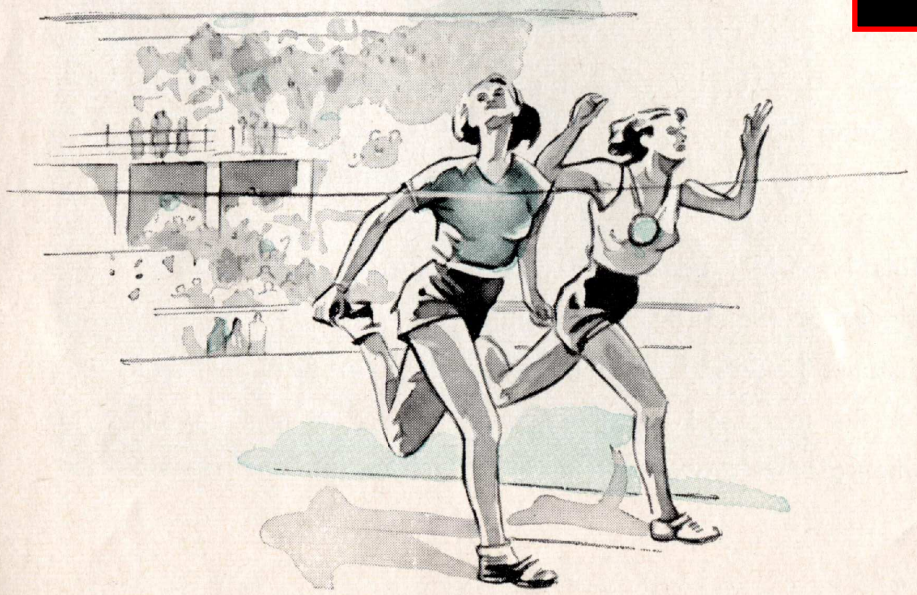
8 x 30

ZEISS binocular with central focusing

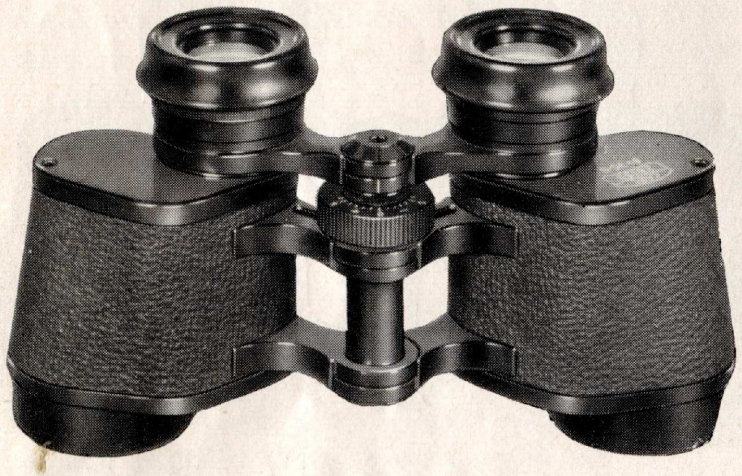
This binocular is the most favored type for universal use. With its 8 x magnification and its excellent daylight and twilight performance, it meets all requirements – when traveling, viewing sports or in observing nature. It is also a good glass for hunting. This new ZEISS 8 x 30 binocular is smaller and handier than the former 8 x 30 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° 30′
Weight	17 ½ ounces
overall length	3.8 inches



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	110 yds. at 1000 yds. 6° 18′
Weight	Approx. 17 ounces
overall length	3.5 inches

NEW – For sun and eyeglass wearers

8 x 30 B

ZEISS central-focusing binocular

This binocular affords the wearer of sun and eyeglasses a substantially larger field of view than he would obtain with an "ordinary" binocular.

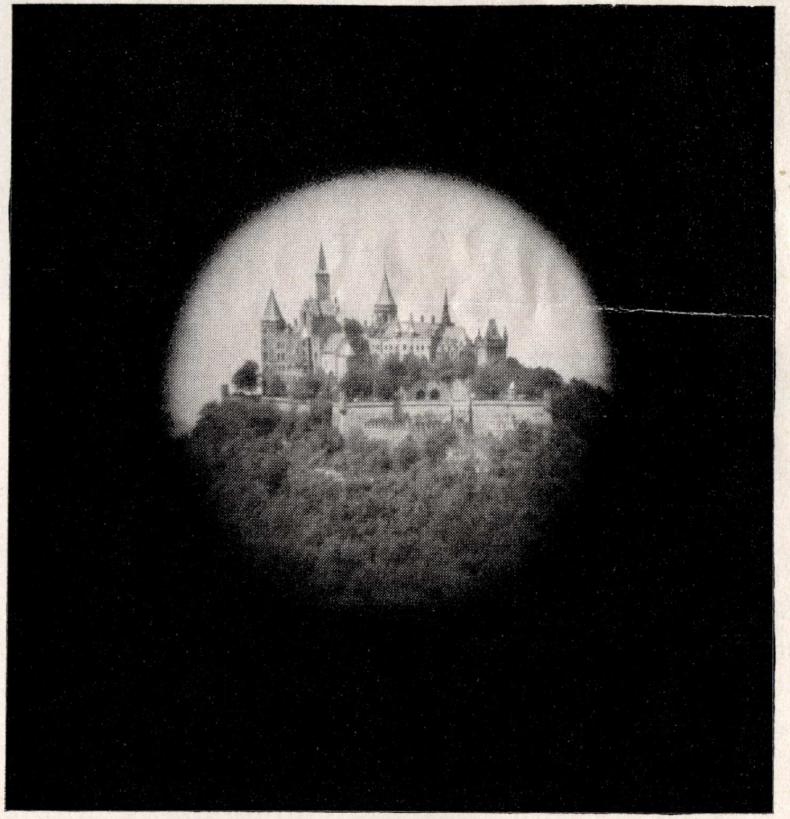
Formerly the wearer of sun and eyeglasses was at a disadvantage. If he **removed** his glasses while looking through the binocular, any astigmatism of his eyes marred the sharpness of view. If he **left his glasses on,** he could see only a very small portion of the binocular's field of view (see fig. 1). With the new model 8 x 30 B, he sees a greatly increased field, even while wearing his glasses (see fig. 2). And the view is bright and sharp to the very edge.

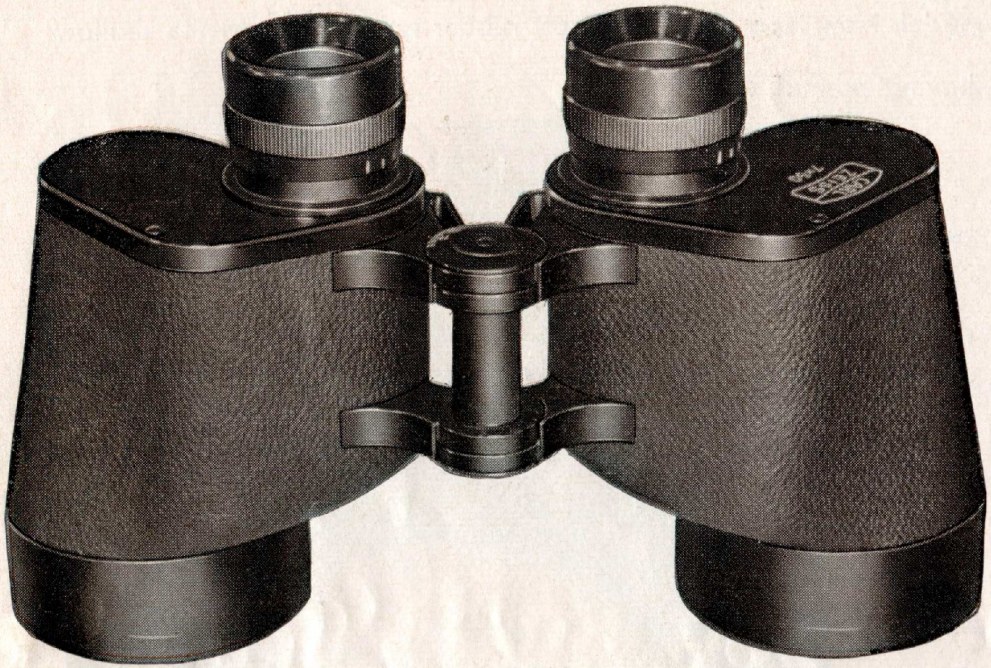
This important advantage was achieved by providing the eyepieces of the 8 x 30 B binocular with a lens system of greater distance between exit pupil and last lens vertex thus compensating for the increased distance between the eyes and the binocular when glasses are worn.

The new 8 x 30 B binocular is not larger than the standard 8 x 30 model. New type eyecups of soft rubber quickly convert the shallow cups for the eyeglass wearer to a height suitable for those having normal vision.

Fig. 1

Fig. 2





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° 24′
Weight	32 ounces
overall length	4.7 inches

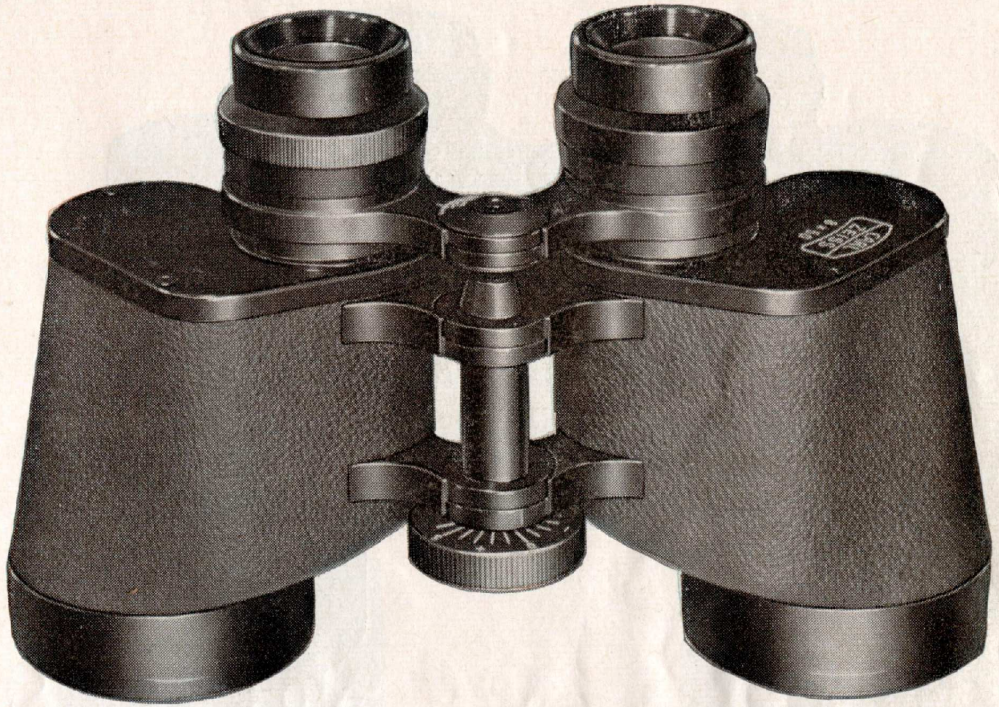
8 x 50

Zeiss central-focusing binocular

This new type binocular, introduced a few years ago, has become a great favorite of hunters. They especially appreciate its high twilight performance, a quality which we aimed at in perfecting this glass.

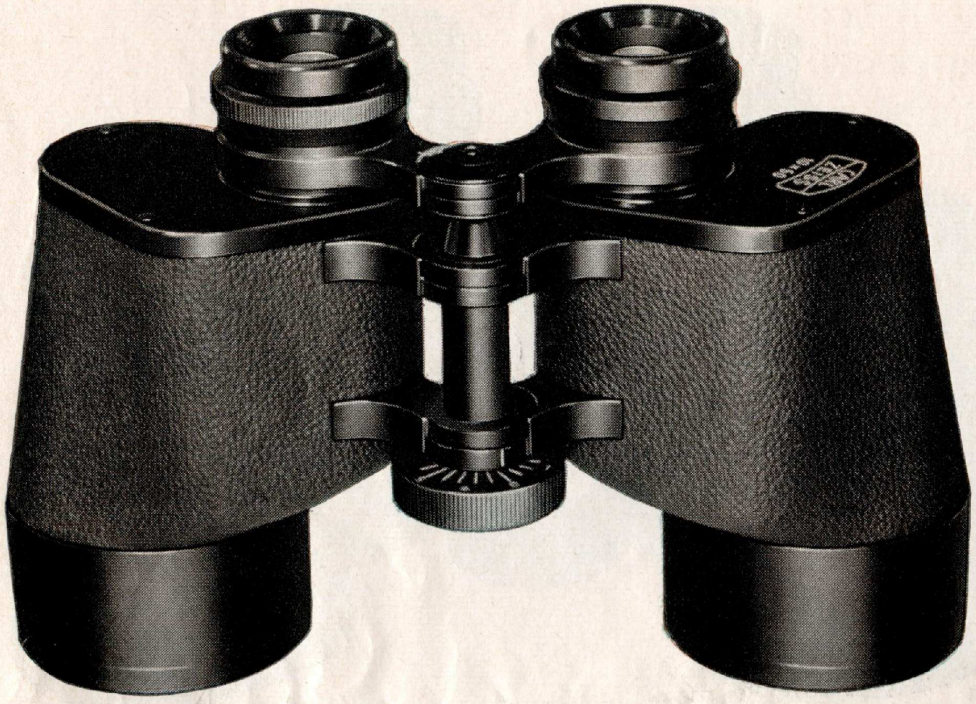
Despite its higher magnification, the newly designed eyepiece of this model provides the same field of view as the 7x50 model. The 8x50 exceeds the former in twilight performance.

If you desire a binocular permitting observation in twilight or at night, yet without the need of a support, then this 8x50 model is your logical choice.



MB

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° 24′
Weight	37 ounces
overall length	5 inches



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 10x50 model is the ideal binocular for the hunter who wishes to spot game from a great distance, for ornithology, aviation safety services, mountain rescue work – in short, for all uses that call for a high-power binocular that can still be used hand-held.

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° 24′
Weight	35 ounces
overall length	5 inches

15 x 60

ZEISS central-focusing binocular

The binocular with 15x magnification and a very high twilight performance. As objective a semi-apochromat is being used because of its remarkably good correction of the chromatic defect.

The needs filled by this glass are similar to those for which the 10x50 model is intended. In addition, its use is recommended for coast guard stations, for supervising bridge and dam construction, for checking high-tension lines, as well as for explorers and amateur astronomers. Because of its high magnification, the hands should be solidly supported while observing. An adapter which fits on any camera tripod is available as a useful accessory.

MB

Magnification (M)	15 times
Objective diameter (D)	60 mm.
Exit pupil (P)	4.0 mm.
Twilight performance ($\sqrt{M \cdot D}$)	30.0
Field of view	80 yds. at 1,000 yds. 4° 30′
Weight	44 ½ ounces
overall length	7 inches

8 x 30

ZEISS Prism Monocular

This 8 x 30 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 ($\sqrt{M \cdot D}$)	15.5
Field of view	150 yds. at 1,000 yds. 8° 30′
Weight	7 ounces
overall length	3.8 inches

The model **8 x 30 B** as well can be delivered as monocular glass (technical data same as 8 x 30 B with central focusing) and so be used as Telesystem for the Contaflex. Please ask for our special folder.

Accessories for your ZEISS binocular

Standard case (model N)
for all ZEISS binoculars

Sports case (model S)
for all ZEISS binoculars (except 15 x 60)

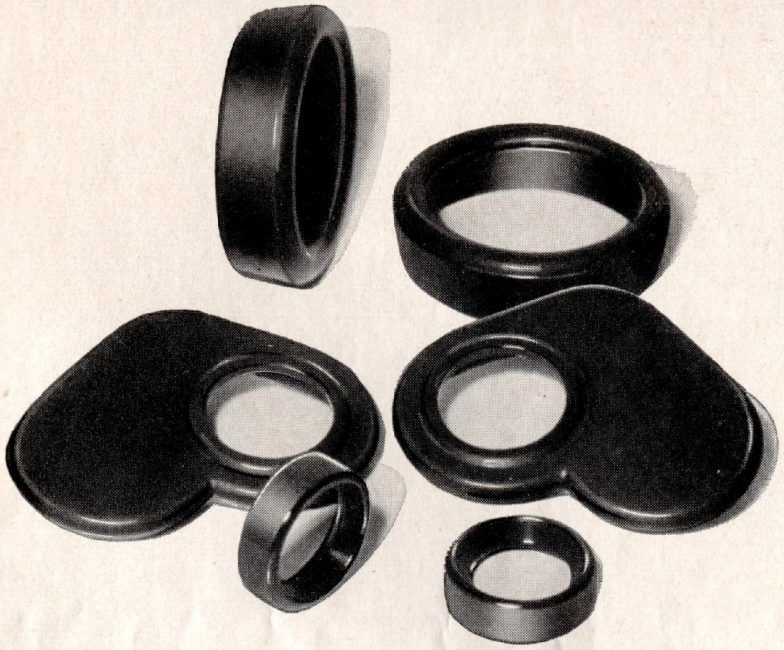
Flat case (model F)
for ZEISS binoculars 6 x 30 and 8 x 30

Case for ZEISS Prism Monocular
8 x 30 and 8 x 30 B (without fig.)

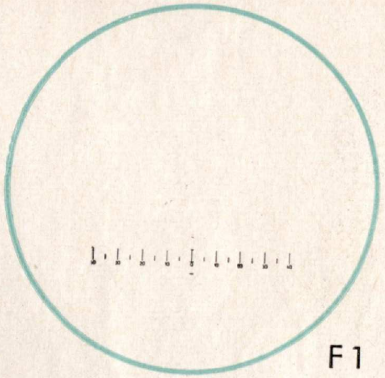
N

F

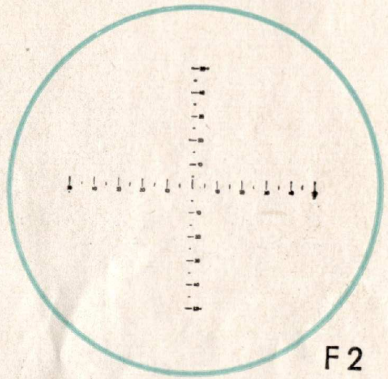
S



Rubber guards for the 7 x 50 binocular

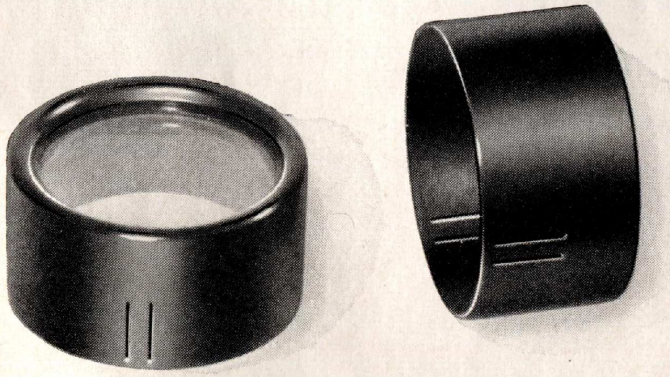


F 1

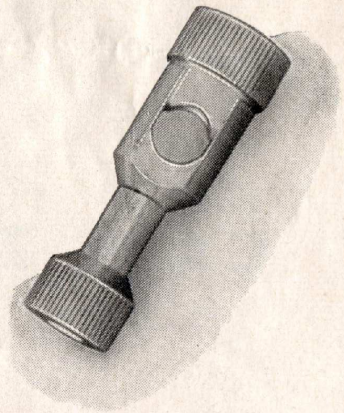


F 2

Graticules for measuring purposes available for all models shown in this booklet except 8 x 30 B. (Installed on special order.)



Close-up lenses in slip-on mounts for the 8 x 30 and 8 x 30 B monoculars and the 6 x 30 and 8 x 30 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.

CARL ZEISS · Oberkochen/Württ.

West Germany

52–053–e

Author: W. Bertz · Printed in Germany

Scho. IV/59 UTooo