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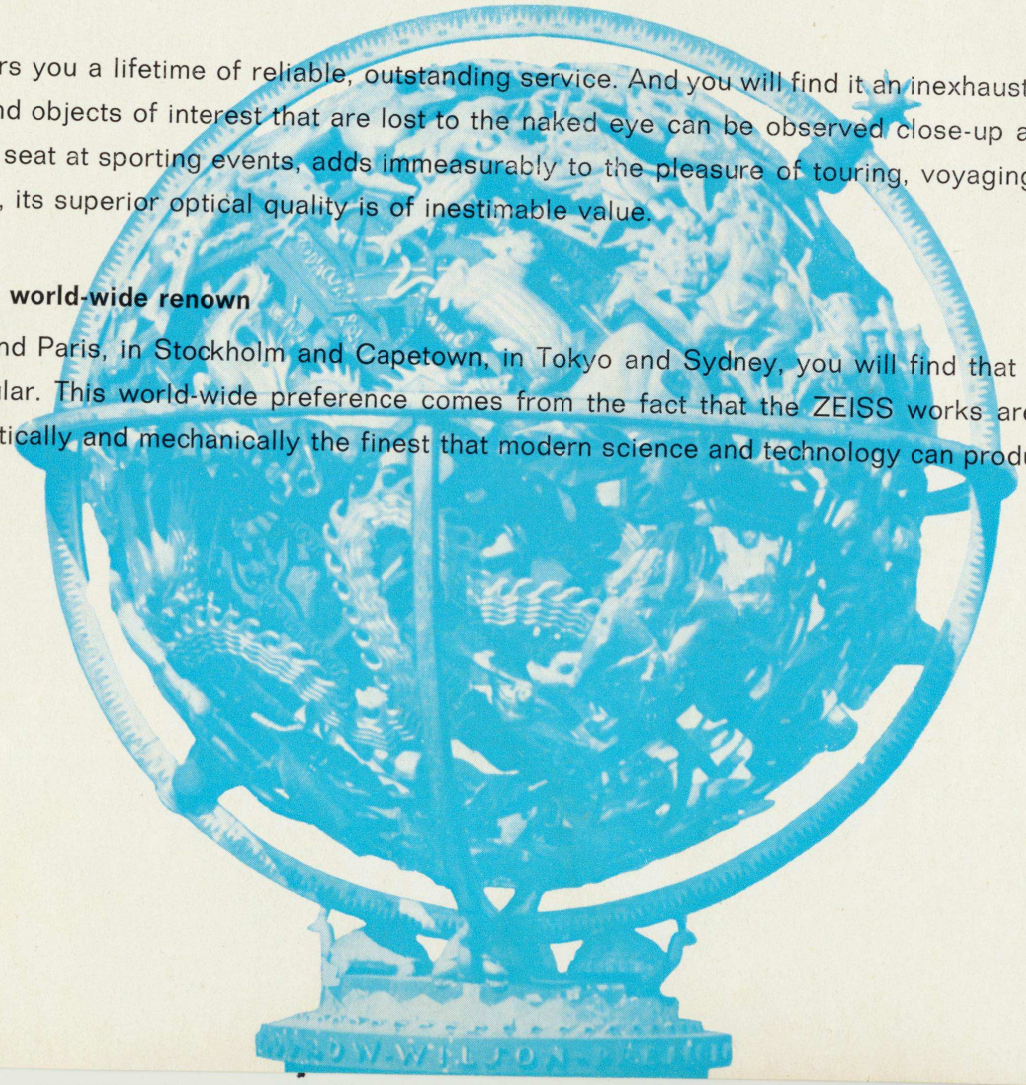
A ZEISS binocular offers you a lifetime of reliable, outstanding service. And you will find it an inexhaustible source of enjoyment. Distant scenes and objects of interest that are lost to the naked eye can be observed close-up and in striking detail. It gives you a front-row seat at sporting events, adds immeasurably to the pleasure of touring, voyaging, nature study – and in hunting or navigating, its superior optical quality is of inestimable value.



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.

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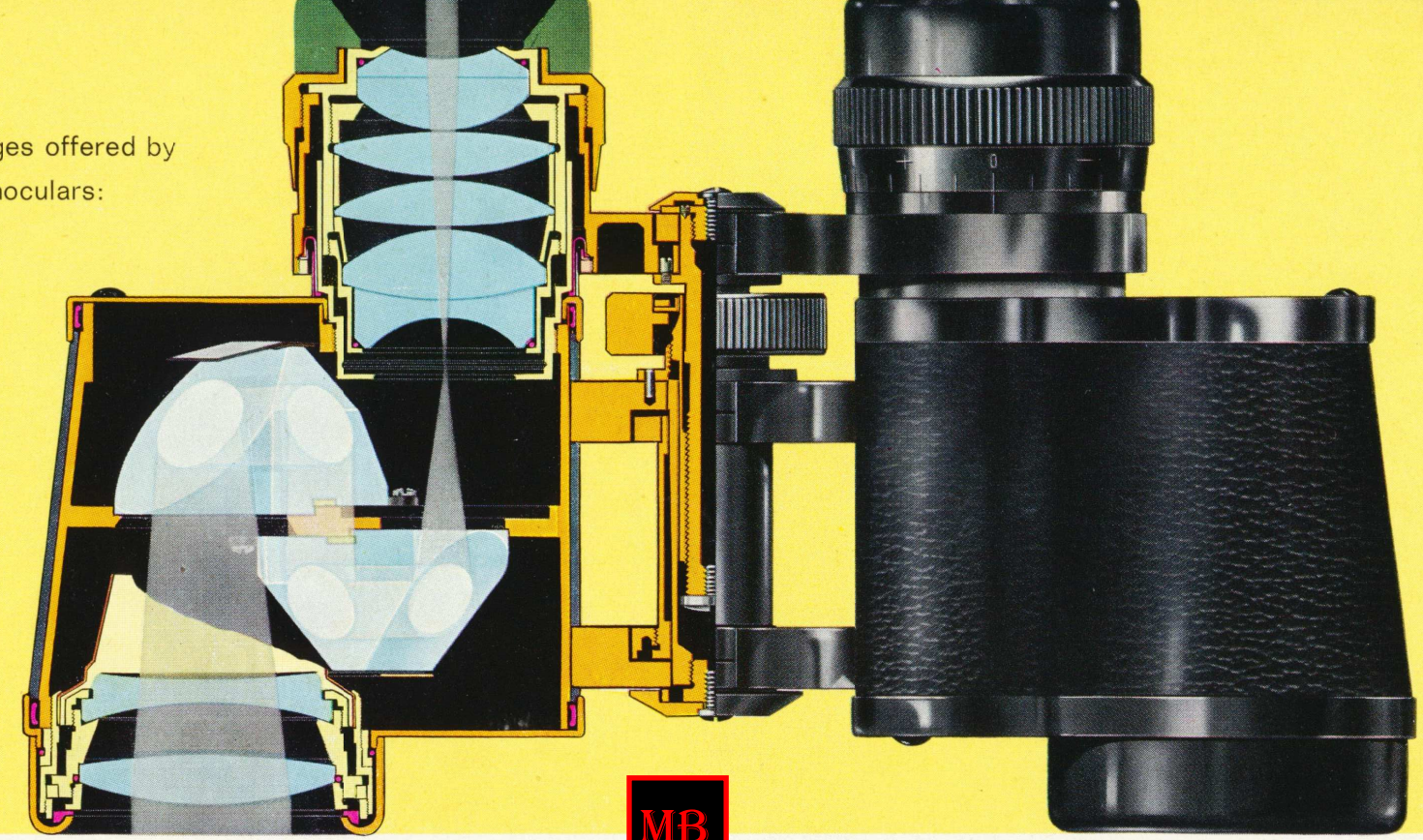
Important advantages offered by
the new ZEISS Binoculars:



Great marginal sharpness
achieved by newly computed oculars (6-lens eyepieces in 8x30 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 wearers of eyeglasses.

The discriminating user chooses ZEISS Binoculars

Importance of telescopic performance

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 grater the detail recognizable at dusk and at dawn.

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* 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.

ZEISS Binocular with central focusing

6 x 30

A handy, light-weight model for sports, hunting, and hiking. Its 6 x magnification provides considerable image steadiness – an important factor in compensating for any trembling of the hand, or when using the binocular on an unsteady base (a vehicle, for example).

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	15½ ounces
Overall length	3.7 inches

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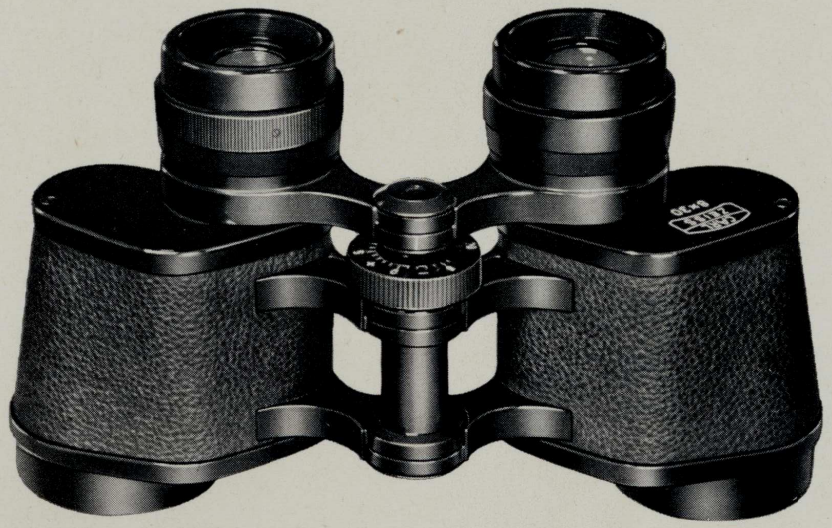
ZEISS Binocular with central focusing

8x30 standard model



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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 extra-ordinarily efficient—permits full use of the wide field of view, sharp to the very edge!

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	17½ ounces
Overall length	3.8 inches

8 x 30 B

for those who wear glasses

ZEISS Binocular with central focusing

This binocular affords the wearer of sunglasses and spectacle lenses a substantially larger field of view than he would obtain with an "ordinary" binocular. Formerly the wearer of spectacles was at a disadvantage. Aside from the inconvenience of constantly having to take off and put on his glasses, any astigmatism of his eyes marred the sharpness of view. Only with eye-correction lenses made especially for the individual user was it possible to overcome this drawback.

The new binocular 8 x 30 B for those wearing glasses is not larger than the standard 8 x 30 model. The important advantage lies in a lens system with 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.

New type convertible eyecups of soft rubber permit quick conversion of the shallow cups for those who wear glasses to high eyecups for those with normal vision.

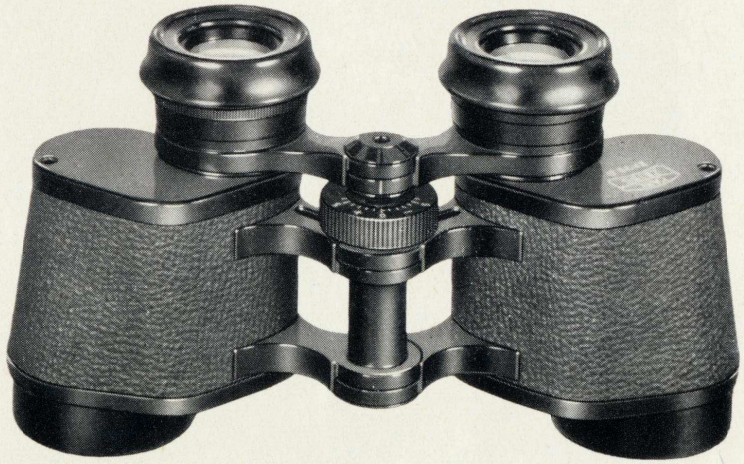

Fig. 1

Fig. 2

With his glasses on, the observer can see only a very small portion of a standard binocular's field of view (see Fig. 1). With the new model 8 x 30 B he sees a greatly increased field, even if he does not remove his glasses (see Fig. 2).

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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 1,000 yds. 6° 18'
Weight	approx. 17 ounces
Overall length	3.5 inches

ZEISS Binocular with individual eyepiece focusing

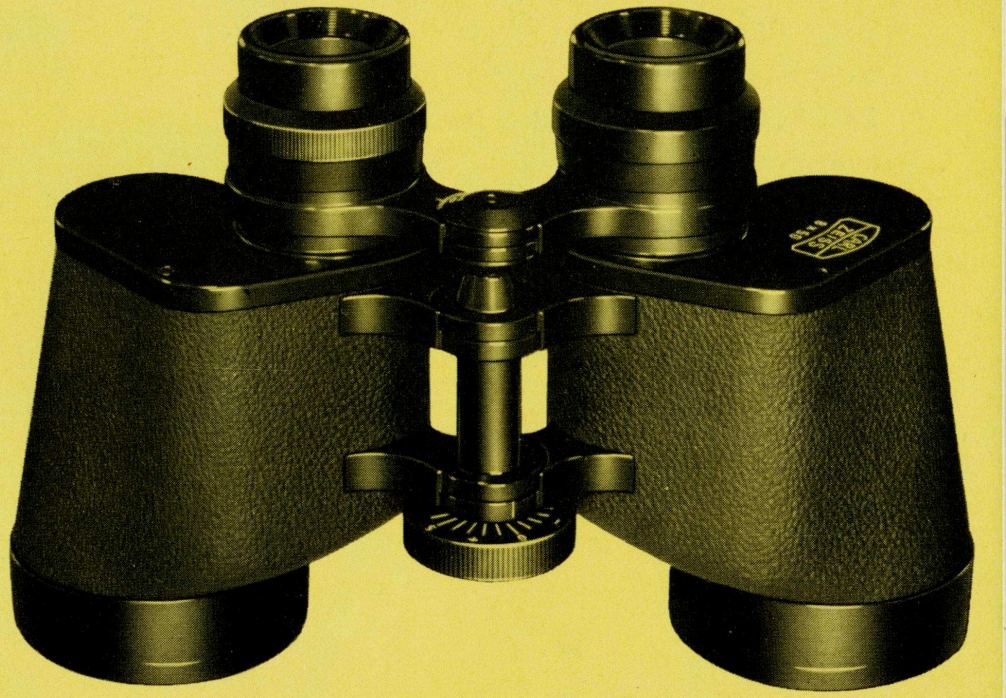
7 x 50

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

ZEISS Binocular with central focusing

8 x 50



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 7 x 50 model. The 8 x 50 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 8 x 50 model is your logical choice.

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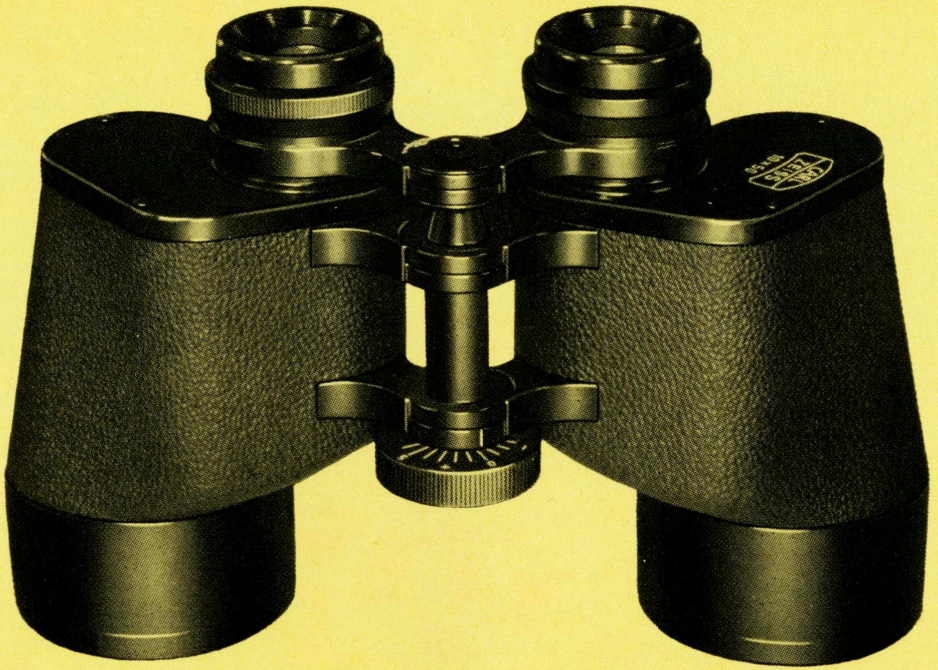
Magnification (M)	8 times
Objective diameter (D)	50 mm.
Exit pupil (P)	6.25 mm.
Twilight performance ($\sqrt{M \cdot D}$)	20
Field of view	130 yds. at 1,000 yds.
	7° 24'
Weight	37 ounces
Overall length	5 inches

ZEISS Binocular with central focusing

10 x 50



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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 10 x magnification, creates an image quality never before achieved.

This 10 x 50 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.

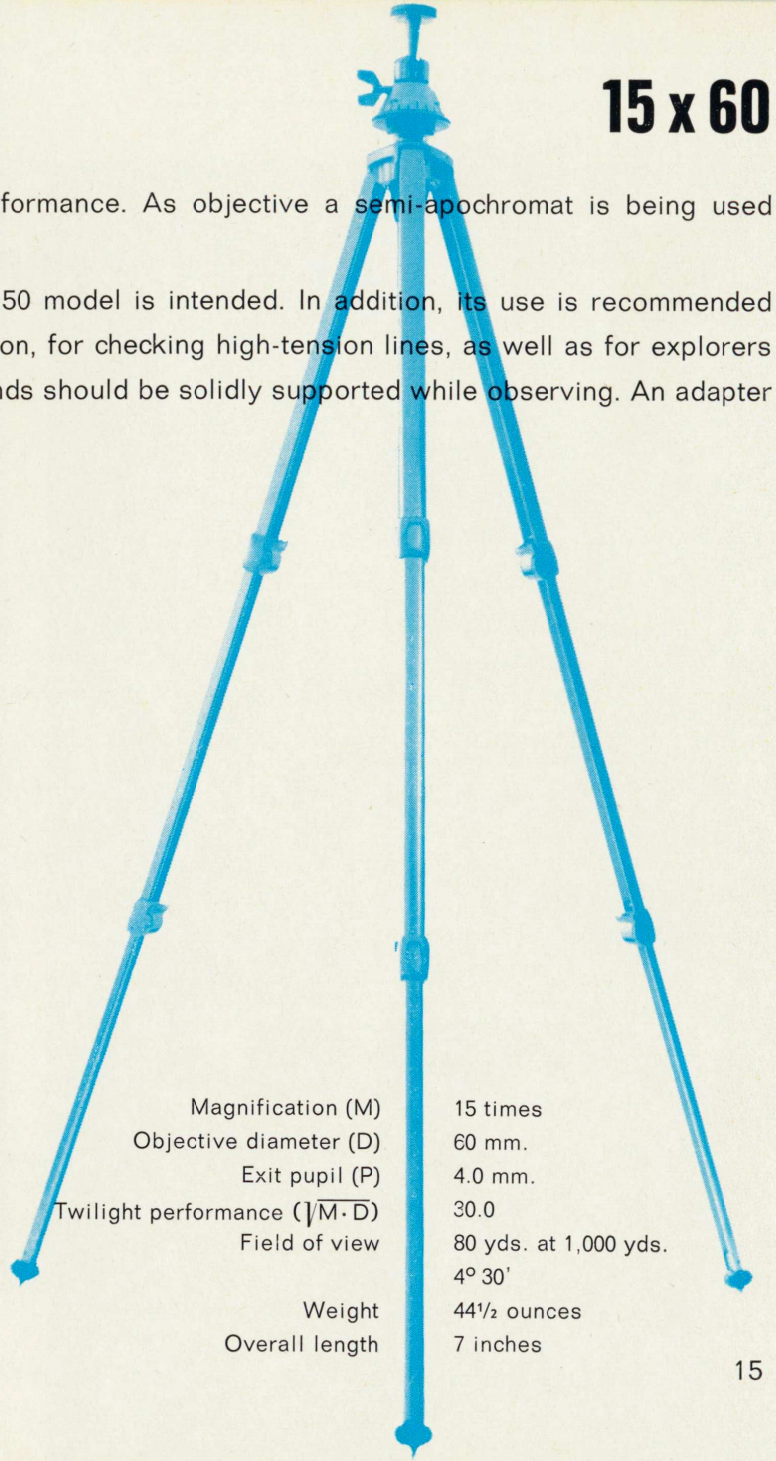
Magnification (M)	10 times
Objective diameter (D)	50 mm.
Exit pupil (P)	5 mm.
Twilight performance ($\sqrt{M \cdot D}$)	22.4
Field of view	130 yds. at 1,000 yds.
	7° 24'
Weight	35 ounces
Overall length	5 inches

ZEISS central-focusing Binocular

15 x 60

The binocular with 15 x 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 10 x 50 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 accesory.

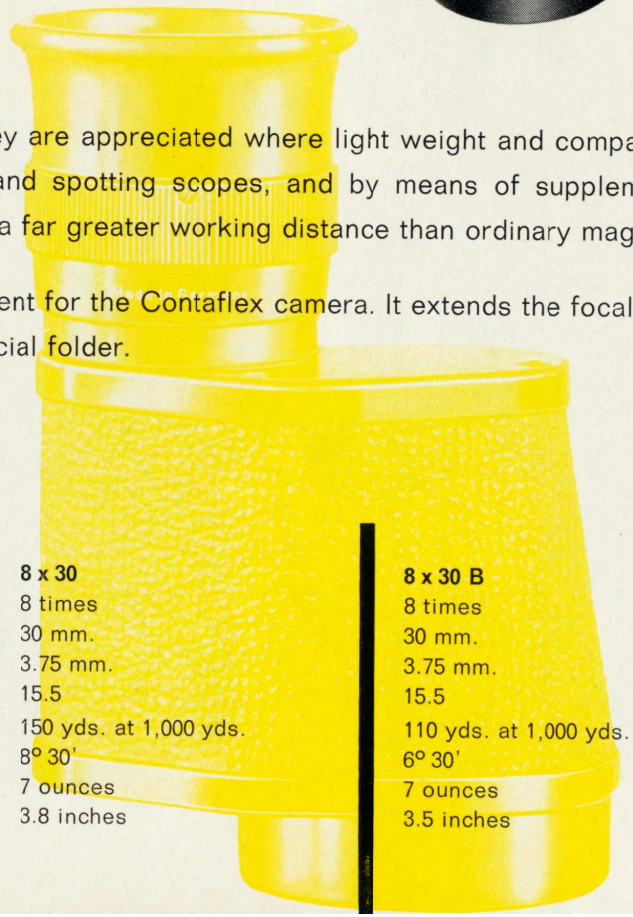


Magnification (M)	15 times
Objective diameter (D)	60 mm.
Exit pupil (P)	4.0 mm.
Twilight performance ($\sqrt{M \cdot D}$)	30.0
Field of view	80 yds. at 1,000 yds.
	4° 30'
Weight	44½ ounces
Overall length	7 inches

8 x 30 8 x 30 B

The models 8 x 30 and 8 x 30 B are also available as monoculars. They are appreciated where light weight and compactness are of great importance. They serve also as observation, reading, and spotting scopes, and by means of supplementary close-up lenses they can be used as telescopic magnifiers, offering a far greater working distance than ordinary magnifiers.

In addition, the monocular 8 x 30 B can be employed as tele-attachment for the Contaflex camera. It extends the focal length of the standard lens from 50 mm. to 400 mm. Please ask for our special folder.



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	8 x 30	8 x 30 B
Magnification (M)	8 times	8 times
Objective diameter (D)	30 mm.	30 mm.
Exit pupil (P)	3.75 mm.	3.75 mm.
Twilight performance ($\sqrt{M \cdot D}$)	15.5	15.5
Field of view	150 yds. at 1,000 yds.	110 yds. at 1,000 yds.
	8° 30'	6° 30'
Weight	7 ounces	7 ounces
Overall length	3.8 inches	3.5 inches

Photograph taken with standard lens
of 50 mm. focal length.

Photograph taken with 8 x 30 B as tele-attachment and 50 mm.
lens (total focal length 400 mm.)
An 8 x sectional enlargement of the normal photograph could
not provide the same details.

ZEISS Monocular

15 x 60

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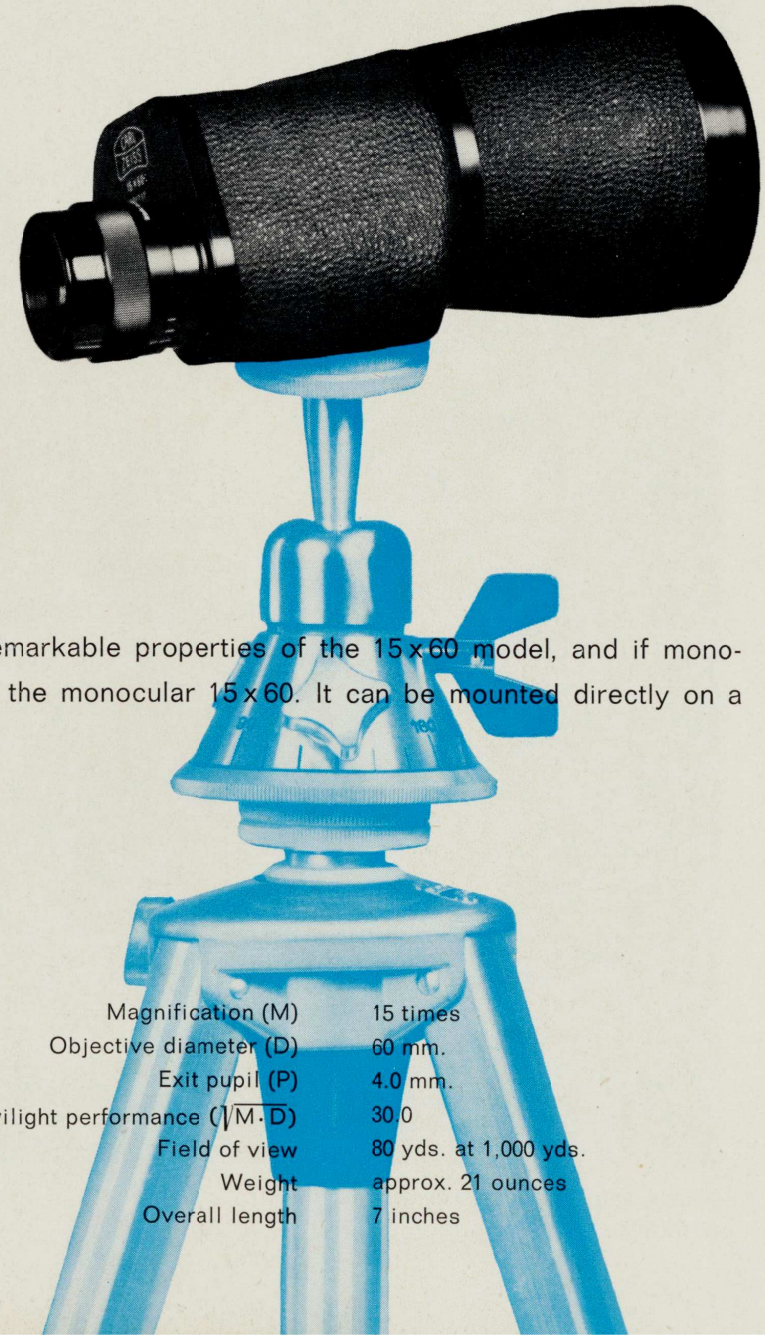
If you are looking for a particularly light-weight glass with the remarkable properties of the 15 x 60 model, and if monocular observation is satisfactory for your purpose, you will choose the monocular 15 x 60. It can be mounted directly on a camera tripod.



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.
Weight	approx. 21 ounces
Overall length	7 inches

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)

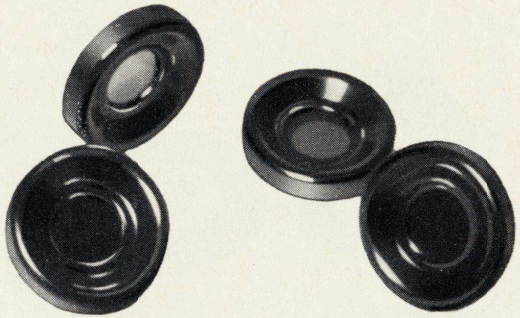
Case for monoculars

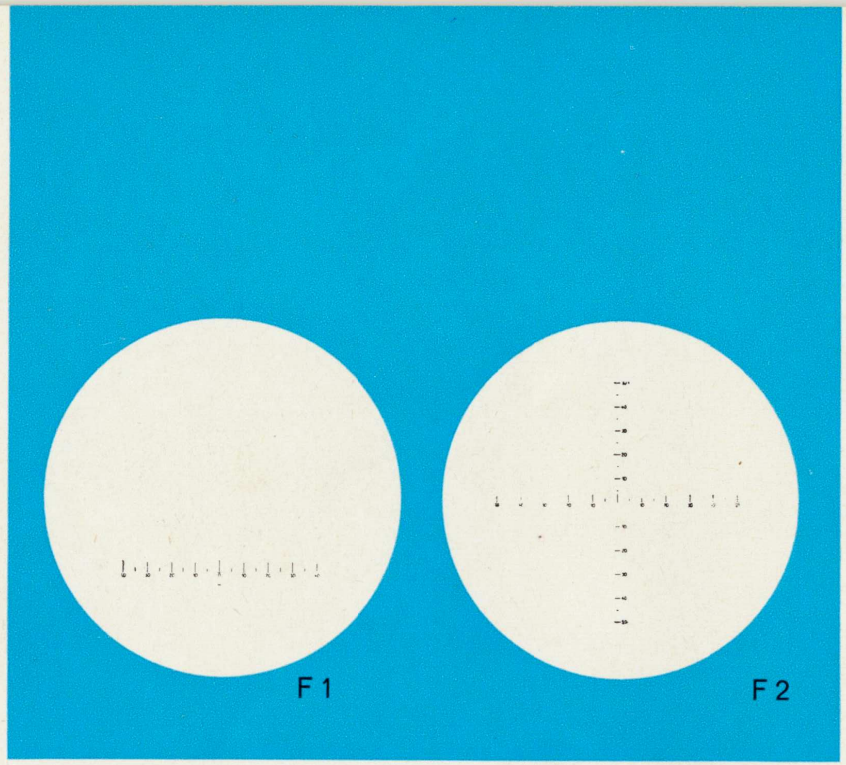
Flat case (model F) for ZEISS binoculars 6 x 30 and 8 x 30

Anti-glare glasses,

solar observation glasses,

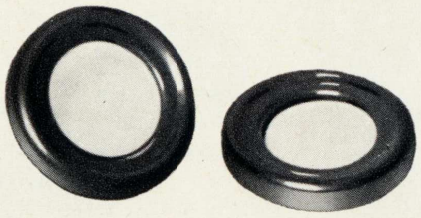
and polarizing filters in slip-on mounts



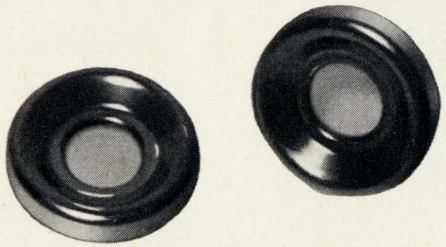


Graticules for measuring purposes available for all models shown in this booklet except 8 x 30 B. (Fitted on special order.)

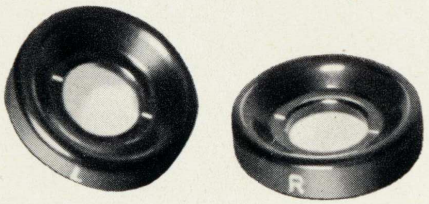
Flat rubber eyecups for eyeglass wearers



Umbral lenses in slip-on mounts



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

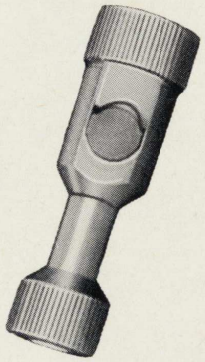


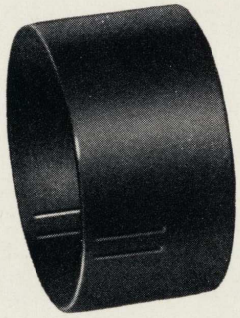
Rain guard

Button anchor strap

Rubber guards for the 7 x 50 binocular

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.





Table

Model	6 x 30	8 x 30	mon. 8 x 30	8 x 30 B	mon. 8 x 30 B	7 x 50	8 x 50	10 x 50	15 x 60	mon. 15 x 60
Magnification (M)	6 times	8 times	8 times	8 times	8 times	7 times	8 times	10 times	15 times	15 times
Objective diameter (D)	30 mm.	30 mm.	30 mm.	30 mm.	30 mm.	50 mm.	50 mm.	50 mm.	60 mm.	60 mm.
Exit pupil (P)	5.0 mm.	3.75 mm.	3.75 mm.	3.75 mm.	3.75 mm.	7.1 mm.	6.25 mm.	5 mm.	4.0 mm.	4.0 mm.
Twilight performance ($\sqrt{M \cdot D}$)	13.4	15.5	15.5	15.5	18.7	15.5	20	22.4	30.0	30.0
Field of view at 1,000 yds.	150 yds.	150 yds.	150 yds.	110 yds.	110 yds.	130 yds.	130 yds.	130 yds.	80 yds.	80 yds.
Weight	15½ ounces	17½ ounces	7 ounces	17 ounces	7 ounces	32 ounces	37 ounces	35 ounces	44½ ounces	21 ounces
Overall length	3.7 ins.	3.8 ins.	3.8 ins.	3.5 ins.	3.5 ins.	4.7 ins.	5.3 ins.	5 ins.	7 ins.	7 ins.

Every ZEISS binocular is supplied with a detailed instruction booklet.

CARL ZEISS Oberkochen/Württ.

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The great name in optics

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Author: Prof. H. Köhler

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