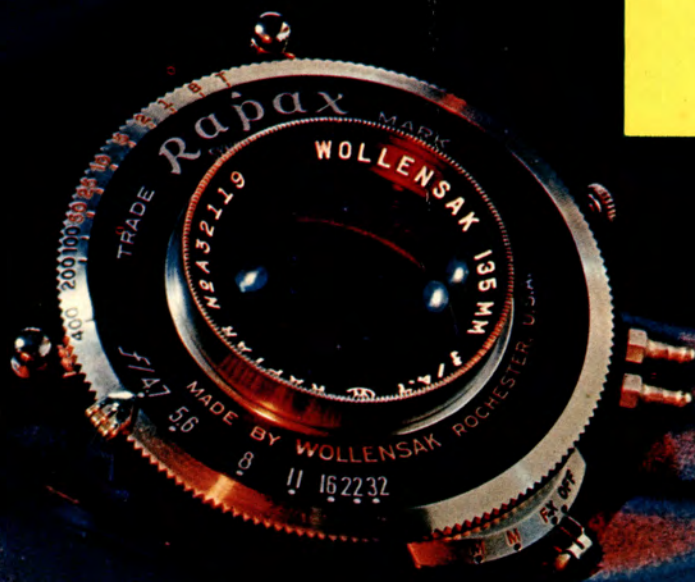


**DEALER**

W O L L E N S A K

— Lenses

and

— Scopes

A P R I L 1, 1 9 5 4

WOLLENSAK OPTICAL CO.

ROCHESTER, N.Y.

The Wollensak Optical Company

is proud to present their new Illustrated Price List on their complete photographic line.

It has long been desired that a lens price list be so prepared to facilitate the understanding and applications of the various lenses available.

This Price List is divided into three parts — Cine Lenses, Still Lenses, Special Lenses and Scopes. Still Lenses are subdivided as to applications rather than just the listings of the different lenses.

For Press and General Photography
For Commercial and Industrial Work
For Enlarging
Lenses for Copying
Lenses for Portraiture

It is to be noted that various lenses depending upon their types and focal lengths are repeated under the different applications. For example: the Raptar Telephoto is generally used for Press and General Photography. However, because it can be used to make fine portraits it is also listed under Lenses for Portraiture.

The Special Lens section contains Mirrotel, Fototel, Pro-35 and TV Raptar Lenses.

The last section contains the complete line of Binoculars and Telescopes.

This price list is more than just a listing of products. It is a selling tool giving complete lens data as to film size and fittings, and subdivided to suggest the right lens for different applications.

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WOLLENSAK 8mm CINE RAPSTAR LENSES

fit the following cameras:

GROUP I 8mm Standard D Mount (.484") Camera.

Keystone Revere Ampro De Jur Bolex H8
Perfex Briskin Franklin Kodak Reliant Wollensak

GROUP II 8mm Bell & Howell Thread Mount (.590") Cameras.

Bell & Howell Auto 8 Magazine
Bell & Howell Model 172A & 172B (Magazine)
Bell & Howell Model 134V & 134W

GROUP III 8mm Bell & Howell Thread Mount (.298") Cameras.

Bell & Howell Tri Lens Bell & Howell 134TA

GROUP IV 8mm Bolex Thread Mount (.307") Cameras.

Bolex L8

*Prices of lenses for the above cameras are the same regardless of model or make.
Specify group number when ordering lenses.*

How to order

When ordering it is only necessary to specify the quantity, the catalog number of the lens and group number. For example:

2 each #810-I

means two 13mm f/1.9 Normal
Cine Raptars in fixed focus to
fit cameras in Group I.

5 each #814-III

means five 9mm f/2.5 Wide
Angle Cine Raptars in fixed fo-
cus to fit cameras in Group III.

WOLLENSAK 16mm CINE RAPSTAR LENSES

fit the following cameras:

STANDARD "C" MOUNT

Auricon Bell & Howell Bolex Cinklox Keystone
Pathe* Revere Victor Wollensak

**Name of camera must be specified when ordering lenses.*

How to order

When ordering it is only necessary to specify the quantity, the catalog number of the lens and group number. For example:

2 each #1610-C

means two 1" f/1.5 Normal
Cine Raptars in focusing mount
with standard "C" mount.

5 each #1615-C

means five 0.7" f/2.5 Wide
Angle Cine Raptar in focusing
mount with standard "C"
mount.

Prices subject to change without notice.

CINE RAPTAR LENSES

for 8mm Cameras

Catalog #810.



HIGH-SPEED



13mm f/1.9 Normal Cine Raptar in fixed focus.

General purpose . . . extreme speed normal lens for shooting pictures under adverse light conditions. No focusing required. Especially designed for the beginner. **\$28.09** tax included.

Focusing Range—At f/1.9 in focus from 10 feet to infinity.
Aperture—f/1.9 to f/22. Filter Size—#4.

Catalog #811.



13mm f/1.9 Normal Cine Raptar in focusing mount.

General purpose . . . extreme speed normal lens for shooting pictures under adverse light conditions. Permits close-ups at wide apertures. Can be used by beginners as a fixed focus lens. **\$45.05** tax included.

Focusing Scale—1 foot to infinity.
Aperture—f/1.9 to f/22. Filter Size—#4.

WIDE ANGLE

Catalog #812.



6.5mm f/1.9 Wide Angle Cine Raptar in fixed focus.

Extreme speed, extreme wide angle lens. Covers full 4-times the area of the normal 1/2" lens. Maximum amount of coverage with highest speed. Extremely useful under adverse light conditions and limited shooting areas. Eliminates panning. **\$60.95** tax included.

Focusing Range—At f/1.9 in focus 3.6 feet to infinity.
Aperture—f/1.9 to f/22. Filter Size—#4.5.

Catalog #813.



6.5mm f/2.5 Wide Angle Cine Raptar in fixed focus.

High-speed extreme wide angle lens. Covers full 4-times area of normal lens. Extremely useful under most lighting conditions and in limited shooting areas. Eliminates panning. Highest quality for price-minded movie makers. **\$45.05** tax included.

Focusing Range—At f/2.5 in focus 3.1 feet to infinity.
Aperture—f/2.5 to f/22. Filter Size—#4.5.

Catalog #814.



TELEPHOTO

Catalog #815.



1" f/2.5 Telephoto Cine Raptar in focusing mount.

High-speed telephoto with 2-time magnification recommended for hand-held telephoto shots. Ideal for close-ups and table tops. Eliminates distortion in perspective for portraiture. Can be used as a fixed focus lens by beginners by simple settings (Red Engravings). **\$50.35** tax included.

Focusing Scale—2 1/2 feet to infinity.
Aperture—f/2.5 to f/16. Filter Size—#4.

Catalog #816.



1 1/2" f/3.5 Telephoto Cine Raptar in fixed focus.

Moderate speed telephoto with 3-time magnification. Ideal for beginner. No focusing required. Highest quality for price-minded movie makers. **\$26.50** no tax.

Focusing Range—At f/3.5 in focus from 25 feet to infinity.
Aperture—f/3.5 to f/22. Filter Size—#4.

Catalog #817.



1 1/2" f/3.5 Telephoto Cine Raptar in focusing mount.

Moderate speed telephoto with 3-time magnification. A more versatile lens for the advanced beginner. Long distance shots brought up close at finger-tip ease. **\$41.25** no tax.

Focusing Scale—5 feet to infinity.
Aperture—f/3.5 to f/22. Filter Size—#4.

Catalog #818.



1 1/2" f/2.5 Telephoto Cine Raptar in focusing mount.

High-speed telephoto with 3-time magnification. Excellent for taking either black and white or color under most lighting conditions. **\$57.75** no tax.

Focusing Scale—2 1/2 feet to infinity.
Aperture—f/2.5 to f/22. Filter Size—#4.

Catalog #819.



38mm f/1.5 Telephoto Cine Raptar in focusing mount.

Ultra-speed telephoto with 3-time magnification. Excellent for either black and white or color under adverse lighting conditions. Highest speed, highest quality at lowest price. **\$67.50** no tax.

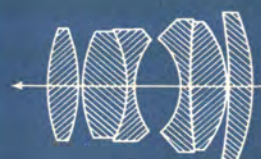
Focusing Scale—3 feet to infinity.
Aperture—f/1.5 to f/22. Filter Size—#5.

CINE RAPTAR LENSES

for 16mm Cameras

HIGH-SPEED

Catalog #1610.



1" f/1.5 Normal Cine Raptor in focusing mount.

General purpose . . . ultra-speed normal lens for shooting pictures under adverse light conditions. Permits close-ups at wide apertures . . . \$92.75 tax included.

Focusing Scale—2 feet to infinity.
Aperture—f/1.5 to f/16. Filter Size—#4.5.

Catalog #1611.



1" f/1.9 Normal Cine Raptor in focusing mount.

General purpose, extreme speed normal lens for shooting pictures under adverse light conditions. Highest quality lens to appeal to the price-minded movie makers . . . Can be used as a fixed focus lens by beginners by simple settings (Red Engravings) . . . \$58.01 tax included.

Focusing Scale—2 feet to infinity.
Aperture—f/1.9 to f/22. Filter Size—#4.

WIDE ANGLE

Catalog #1612.



1/2" (12.7mm) f/1.5 Wide Angle Cine Raptor in focusing mount.

An ultra-speed, highest quality wide angle lens. Covers full 4-times area of a normal lens. Extremely useful under adverse light conditions and limited shooting space . . . \$119.25 tax included.

Focusing Scale—1 foot to infinity.
Aperture—f/1.5 to f/16. Filter Size—#6.

Catalog #1613.



17mm f/2.7 Wide Angle Cine Raptor in fixed focus.

Moderate speed wide angle lens for novice or beginner. Focusing not necessary. Covers field 2.2-times the area of normal lens. Eliminates panning and chopped off heads. Highest quality for price-minded movie makers. \$34.45 tax included.

Focusing Range—At f/2.7 in focus from 15 feet to infinity.
Aperture—f/2.7 to f/16. Filter Size—#4.

Catalog #1614.



17mm f/2.7 Wide Angle Cine Raptor in focusing mount.

Moderate speed wide angle lens covers 2.2-times the area of normal lens. A more versatile lens for the advanced beginner. Full view shots in limited areas . . . \$55.65 tax included.

Focusing Scale—10 inches to infinity.
Aperture—f/2.7 to f/16. Filter Size—#4.

Catalog #1615.



0.7" (17mm) f/2.5 Wide Angle Cine Raptor in focusing mount.

High-speed wide angle lens covering 2.2-times the area of normal lens. Highest quality 0.7" wide angle lens. Designed for those who do not require the speed and extreme coverage of the 1/2" wide angle lens . . . \$71.55 tax included.

Focusing Scale—10 inches to infinity.
Aperture—f/2.5 to f/22. Filter Size—#4.5.

TELEPHOTO

Catalog #1616.



40mm f/1.5 Cine Raptor in focusing mount.

Ultra-speed telephoto with 1 1/2-time magnification. Excellent for shooting either black and white or color under adverse lighting conditions. Can be hand-held if used discriminately. \$115 no tax.

Focusing Scale—2 feet to infinity.
Aperture—f/1.5 to f/22. Filter Size—#5.5.

Catalog #1617.



2" f/3.5 Telephoto Cine Raptor in focusing mount.

Moderate speed telephoto with 2-time magnification. Completely versatile lens of the highest quality for price-minded movie making . . . \$56.50 no tax.

Focusing Scale—2.5 feet to infinity.
Aperture—f/3.5 to f/22. Filter Size—#4.5.

Catalog #1618.



2" (50mm) f/2.5 Telephoto Cine Raptor in focusing mount.

High speed telephoto with 2-time magnification. Ideal for close-ups and table tops. Eliminates distortion in perspective for portraiture. Ideal for moderate telephoto effects. \$79.50 no tax.

Focusing Scale—2 feet to infinity.
Aperture—f/2.5 to f/22. Filter Size—#5.

Catalog #1619.



2" (50mm) f/1.9 Telephoto Cine Raptor in focusing mount.

Extreme speed telephoto with 2-time magnification. Excellent for use under adverse light conditions. For those who want a short telephoto, high quality and high speed at moderate price . . . \$92.50 no tax.

Focusing Scale—1 1/2 feet to infinity.
Aperture—f/1.9 to f/22. Filter Size—#5.5.

Catalog #1620.



2" (50mm) f/1.5 Telephoto Cine Raptor in focusing mount.

Ultra-speed telephoto with 2-time magnification. Excellent for either color or black and white under adverse light conditions. For those who want highest quality and highest speed in a 2" lens . . . \$130 no tax.

Focusing Scale—2 feet to infinity.
Aperture—f/1.5 to f/22. Filter Size—#5.5.

Catalog #1621.



**2 1/2" (63mm) f/2.5 Telephoto Cine Raptor
in focusing mount.**

A high-speed telephoto with 2 1/2-time magnification. Ideal for sporting events, travel, photography where moderate magnification is required. \$89.50 no tax.

Focusing Scale—3 1/2 feet to infinity.
Aperture—f/2.5 to f/22. Filter Size—#5.

Catalog #1622.



**3" f/4 Telephoto Cine Raptor
in focusing mount.**

A moderate speed telephoto with 3-time magnification. A popularly priced telephoto for the amateur photographer. \$60.50 no tax.

Focusing Scale—3 feet to infinity.
Aperture—f/4 to f/32. Filter Size—#4.5.

Catalog #1623.



**3" f/2.5 Telephoto Cine Raptor
in focusing mount.**

High-speed telephoto with 3-time magnification. Excellent for taking far distant shots, landscapes, nature studies, sports, travel, in either color or black and white. Highest quality 3" lens in its field. \$87.50 no tax.

Focusing Scale—3 feet to infinity.
Aperture—f/2.5 to f/22. Filter Size—#5.5.

Catalog #1624.



**3" f/2.8 Telephoto Cine Raptor
in focusing mount.**

A smaller barrel diameter than 3" f/2.5 for use on cameras in combination with extreme wide angle lens . . . cameras with turret limitations. A high quality 4-element lens priced competitively with most 3-element telephotos of comparable speed. \$68.50 no tax.

Focusing Scale—3 feet to infinity.
Aperture—f/2.8 to f/22. Filter Size—#5.

Catalog #1625.



**4" f/4.5 Telephoto Cine Raptor
in focusing mount.**

A moderate speed telephoto with 4-time magnification . . . Highest quality 4" lens at this speed. \$72.50 no tax.

Focusing Scale—4.5 feet to infinity.
Aperture—f/4.5 to f/32. Filter Size—#4.5.

Catalog #1626.



**6" f/4.5 Telephoto Cine Raptor
in focusing mount.**

A moderate speed telephoto with 6-time magnification. Excellent for extreme close-ups of distant objects. Highest quality 6" lens at this speed. \$98.50 no tax.

Focusing Scale—6 feet to infinity.
Aperture—f/4.5 to f/32. Filter Size—#6.

WOLLENSAK OPTICAL GLASS,

Wocoted Filters



Perfect fit assures optical alignment of filters with lenses.

Wollensak filters are precision calibrated of solid-colored glass—not dyed gelatin between glass. Every piece of glass is carefully selected for shade and purity . . . carefully ground flat—no wedges—and polished to the same optical surface quality as Wollensak lenses. No power can be tolerated in filters which would cause a change of focus . . . could destroy clarity and definition. A quality lens deserves a quality filter. In addition all Wollensak filters are WOCOTED to eliminate bouncing light, flare, etc.

Wollensak all-glass filters are perfectly stable under heat or cold, in tropical humidity or desert aridness. They do not change color. Nothing to deteriorate or to distort image.

Filters are carefully edged and assembled in self-contained metal rings . . . protection against chipping and breakage . . . assurance of perfect alignment in your lens.

Mounts are engraved for easy identification.

Wollensak filters fit lenses perfectly . . . do not change focal length . . . give the best the lens has to offer. Parallelism of surfaces is held within 3 minutes of arc or less, assuring quality of lens performance.

COLOR	SIZE 4 21 mm	4.5 25.7 mm	5 30.4 mm	5.5 36 mm	6 41.5 mm
HAZE	\$2.50	\$2.75	\$3.50	\$4.00	\$4.50
YELLOW (Y-2, Y-4)	\$3.00	\$3.25	\$4.00	\$4.50	\$5.00
GREEN					
RED					
NEUTRAL DENSITY (ND-2X, ND-4X)					
CHROME A					

COLOR FILTERS

HAZE FILTERS: For use with color film because ultra-violet light records as violet. They are recommended particularly when making distant scenes, in shadows, and at high altitudes where excess ultra-violet light prevails. They are colorless and require no change in exposure. It is recommended a haze filter always be used with daylight Kodachrome.

YELLOW FILTERS (Y-2, Y-4): For use with either ortho or pan film. A yellow filter darkens a blue sky, brings out the white clouds and foreground objects. It produces better contrast, and a more natural reproduction . . . is the most frequently used "sky" filter.

GREEN FILTER: Can be used only with pan films, in photographing landscapes, gardens, flower scenes where heavy masses of foliage dominate the picture. The green filter lightens the greens, improves the detail, which is usually lost on black and white film.

RED FILTER: Should be used only with pan or infra-red films. In outdoor scenes it will produce pronounced contrast,

startlingly beautiful effects. It lightens red tremendously, darkens most of the other colors except orange and yellow, which it lightens slightly. It will sharply cut through atmospheric haze, strengthen distant detail. Moonlight effects obtainable by using a red filter and sun shade and shooting directly into the sun.

NEUTRAL DENSITY FILTERS (ND-2X, ND-4X): These filters reduce light intensity. Should be used under extremely bright conditions (such as photographs on the water) to avoid overexposure.

CHROME A FILTER: For use with Kodachrome A (indoor, tungsten film) for photographing in daylight outdoors. Eliminates the necessity for changing to outdoor-type Kodachrome film.

SCREW-IN FILTERS

Screw-in filters are available for Cine Raptars with provisions to take the screw-in filter. (Cine Raptars currently being supplied have provisions to take drop-in filter.)

WOLLENSAK OPTICAL

Compensating Finders



Positive objective finders for 8mm & 16mm cameras.



A viewfinder scope with bracket.



Slip-on finders for 9mm & 6.5mm wide angle lenses.

Wollensak furnishes compensating finders for those cameras with provisions to accept accessory finders. These can be the slip-on type which slide over existing finder, a complete viewfinder scope furnished with a bracket, or, as in the case of some Bell & Howell cameras, positive finders.

POSITIVE OBJECTIVE FINDERS FOR BELL AND HOWELL CAMERAS

These Wollensak finders are brass, chrome plated with coated objectives . . . a precision-made, long-life instrument.

Bell and Howell 8mm Auto 8—172A—172B Cameras:

#201 Objective Finder For 6.5mm Wide Angle Lens	\$6.50
#202 Objective Finder For 9mm Wide Angle Lens	6.50
#203 Objective Finder For 1" Telephoto Lens	6.50
#204 Objective Finder for 1 1/2" Telephoto Lens	6.50

Bell and Howell 8mm Tri Lens and 134TA Cameras:

#205 Objective Finder For 6.5mm Wide Angle Lens	\$6.50
#206 Objective Finder For 9mm Wide Angle Lens	6.50
#207 Objective Finder For 1" Telephoto Lens	6.50
#208 Objective Finder For 1 1/2" Telephoto Lens	6.50

FINDERS FOR 6.5mm WIDE ANGLE LENS

#240 to fit Revere 60, 70	\$3.25
#241 To fit Revere 88	3.25
#242 To fit Revere 99	3.75
#243 To fit DeJur 100 and 300	3.75
#244 To fit Keystone K8, K22 (complete with bracket)	7.95
#245 To fit Keystone K40, K45 (complete with bracket)	7.95

Bell and Howell 16mm Cameras:

#220 Objective Finder For 1/2" Wide Angle Lens	\$8.90
#221 Objective Finder For 0.7" (17mm) Wide Angle Lens	8.90
#222 Objective Finder For 1 1/2" Telephoto Lens	9.50
#223 Objective Finder For 2" Telephoto Lens	8.90
#224 Objective Finder For 2 1/2" Telephoto Lens	9.50
#225 Objective Finder For 3" Telephoto Lens	8.90
#226 Objective Finder For 4" Telephoto Lens	9.30
#227 Objective Finder For 6" Telephoto Lens	10.50

FINDERS FOR 9mm WIDE ANGLE LENS

#250 To fit Revere 60, 70	\$3.25
#251 To fit Revere 88	3.25
#252 To fit Revere 99	3.75
#253 To fit DeJur 100 and 300	3.75
#254 To fit Keystone K8, K22 (complete with bracket)	7.95
#255 To fit Keystone K40, K45 (complete with bracket)	7.95



For Press and General Photography

Series II, Wide Angle and Telephoto Lenses

For cameras having interchangeable lens boards

The heart of every camera, regardless of price, is the lens and shutter. For Masterpiece results there are few truly fine lenses like the Raptar Series II. These four element lenses are designed to produce a sharp image from corner to corner as well as in the center of the film . . . deliver high resolution **without the sacrifice of contrast**. They are fully color corrected and coated . . . excellent for full-color photography.

FOR ACTION, CANDID and PICTORIAL . . .

Ideal for news, feature photography, sports and other outdoor shots, the Raptar Series II lenses have adequate speed and excellent covering power. They can be fitted to popular press-type cameras. For synchronized flash, they should be mounted in Wollensak high-speed full synchromatic Rapax Shutters.



Made with a Series II Lens



Made with a Series II Lens



135mm f/4.7
Raptar Series II in
Rapax Full-Sync. Shutter



162mm f/4.5
Raptar Series II
in Rapax X-Sync. Shutter



10" f/5.6 Raptar Telephoto
in Rapax Non-Sync. Shutter



Made with a Telephoto Lens

FOR NATURE and SPORTS

The Raptar Telephoto is essential for shooting news and sports events, travel photos, architectural and nature studies. Because of its long focus, Raptar Telephotos are also ideal lenses for portraiture. Also excellent for bringing background objects up to show true relation to foreground, enlarging dis-

tant objects when camera position cannot be changed. Raptar Wide Angles are necessary for wide coverage . . . group pictures, industrial photography, architectural shots indoors or out. Wide Angle Lenses cover up to 3.6 times area of a normal lens—valuable for any photographer.



15" f/5.6 Raptar Telephoto
in Alphax Non-Sync. Shutter



Made with a Telephoto Lens

RAPTAR Series II f/4.5 (Wocoted)

Catalog Number	Equiv. Focus		Speed f	Film Size	Mounting	List With Tax
	Inch	mm				
410	3 1/2	90	4.5	2 1/4 x 3 1/4	In No. 1 Iris Diaph. Barrel	\$ 42.07
411	"	"	"	"	In No. 1 Rapax Non-Sync	57.50
412	"	"	"	"	In No. 1 Rapax X-Sync	64.50
413	"	"	"	"	In No. 1 Rapax Full-Sync	79.50
414	4	101	4.5	2 1/4 x 3 1/4	In No. 1 Iris Diaph. Barrel	45.26
415	"	"	"	"	In No. 1 Rapax Non-Sync	60.69
416	"	"	"	"	In No. 1 Rapax X-Sync	67.69
417	"	"	"	"	In No. 1 Rapax Full-Sync	82.69
418	4 1/2	114	4.5	2 1/4 x 3 1/4	In No. 2 Iris Diaph. Barrel	50.59
419	"	"	"	"	In No. 2 Rapax Non-Sync	68.39
420	"	"	"	"	In No. 2 Rapax X-Sync	79.39
421	"	"	"	"	In No. 2 Rapax Full-Sync	95.39
422	"	"	"	"	In No. 2 Alphax Non-Sync	65.89
423	"	"	"	"	In No. 2 Alphax Sync	69.39

No Federal Excise Tax applicable to the following items.

						List
424	5	127	4.5	3 1/4 x 4 1/4	In No. 2 Iris Diaph. Barrel	\$ 51.00
425	"	"	"	"	In No. 2 Rapax Non-Sync	66.50
426	"	"	"	"	In No. 2 Rapax X-Sync	77.50
427	"	"	"	"	In No. 2 Rapax Full-Sync	93.50
428	"	"	"	"	In No. 2 Alphax Non-Sync	64.00
429	"	"	"	"	In No. 2 Alphax Sync	67.50
430	5 3/8	135	4.5	4 x 5	In No. 3 Iris Diaph. Barrel	53.50
431	"	"	4.7	"	In No. 2 Rapax Non-Sync	68.50
432	"	"	"	"	In No. 2 Rapax X-Sync	79.50
433	"	"	"	"	In No. 2 Rapax Full-Sync	95.50
434	"	"	"	"	In No. 2 Alphax Non-Sync	66.00
435	"	"	"	"	In No. 2 Alphax Sync	69.50
436	6 3/8	162	4.5	4 x 5	In No. 4 Iris Diaph. Barrel	65.00
437	"	"	"	"	In No. 3 Rapax Non-Sync	92.00
438	"	"	"	"	In No. 3 Rapax X-Sync	99.00
439	"	"	"	"	In No. 3 Rapax Full-Sync	118.00
440	"	"	"	"	In No. 3 Alphax Non-Sync	92.00
441	"	"	"	"	In No. 3 Alphax Sync	102.00
442	7 1/2	190	4.5	5 x 7	In No. 5 Iris Diaph. Barrel	90.00
443	"	"	"	"	In No. 3 Alphax Non-Sync	116.50
444	"	"	"	"	In No. 3 Alphax Sync	125.50
445	8 1/4	210	4.5	5 x 8	In No. 6 Iris Diaph. Barrel	135.00
446	"	"	"	"	In No. 4 Alphax Non-Sync	151.00
447	"	"	"	"	In No. 4 Alphax Sync	156.00
448	9 1/2	241	4.5	6 1/2 x 8 1/2	In No. 6 Iris Diaph. Barrel	175.00
449	"	"	"	"	In No. 4 Alphax Non-Sync	191.00
450	"	"	"	"	In No. 4 Alphax Sync	196.00
451	11 7/8	302	4.5	8 x 10	In No. 7 Iris Diaph. Barrel	225.00
452	"	"	"	"	In No. 5 Alphax Non-Sync	242.00
453	"	"	"	"	In No. 5 Alphax Sync	250.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.



101mm f/4.5 Raptar Series II
in Rapax Non-Sync. Shutter



127mm f/4.5 Raptar Series II
in Rapax X-Sync. Shutter



7 1/2" f/4.5 Raptar Series II
in Alphax Sync. Shutter

RAPTAR TELEPHOTO f/5.6 (Wocoted)



8" f/5.6 Raptar Telephoto in Rapax Full-Sync. Shutter

Catalog Number	Equiv. Focus		Speed f	Bellows Draw (flange focus) Required at Infinity	Film Size	Mounting	List
	Inch	mm					
510	8	202	5.6	5"	2 1/4 x 3 1/4	In No. 3 Iris Diaph. Barrel	\$ 99.50
511	"	"	"	"	3 1/4 x 4 1/4	In No. 2 Rapax Non-Sync	122.00
512	"	"	"	"	"	In No. 2 Rapax X-Sync	133.00
513	"	"	"	"	"	In No. 2 Rapax Full-Sync	149.00
514	"	"	"	"	"	In No. 2 Alphax Non-Sync	119.50
515	"	"	"	"	"	In No. 2 Alphax Sync	123.00
516	10	254	5.6	6 1/8"	3 1/4 x 4 1/4	In No. 4 Iris Diaph. Barrel	132.00
517	"	"	"	"	4 x 5	In No. 3 Rapax Non-Sync	159.00
518	"	"	"	"	"	In No. 3 Rapax X-Sync	169.00
519	"	"	"	"	"	In No. 3 Rapax Full-Sync	185.00
520	"	"	"	"	"	In No. 3 Alphax Non-Sync	166.00
521	"	"	"	"	"	In No. 3 Alphax Sync	175.00
522	15	380	5.6	9 5/8"	4 x 5	In No. 6 Iris Diaph. Barrel	195.00
523	"	"	"	"	5 x 7	In No. 4 Alphax Non-Sync	218.00
524	"	"	"	"	"	In No. 4 Alphax Sync	223.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to Raptar Telephoto f/5.6 (Wocoted).

RAPTAR WIDE ANGLE f/6.8 (Wocoted)



65mm f/6.8 Raptar Wide Angle in Rapax Full-Sync. Shutter



3 1/2" (90mm) f/6.8 Raptar Wide Angle in Non-Sync. Shutter

Catalog Number	Equiv. Focus		Speed f	Film Size	Angle of View	Mounting	List With Tax
	Inch	mm					
550	2 5/8	65	6.8	3 1/4 x 4 1/4*	92.6°	In No. 1 Iris Diaph. Barrel	\$ 64.43
551	"	"	"	"	"	In No. 1 Rapax Non-Sync	81.99
552	"	"	"	"	"	In No. 1 Rapax X-Sync	88.99
553	"	"	"	"	"	In No. 1 Rapax Full-Sync	103.99
554	3 1/2	90	6.8	4 x 5	84°	In No. 1 Iris Diaph. Barrel	67.10
555	"	"	"	"	"	In No. 1 Rapax Non-Sync	84.65
556	"	"	"	"	"	In No. 1 Rapax X-Sync	91.65
557	"	"	"	"	"	In No. 1 Rapax Full-Sync	106.65
558	4 1/4	108	6.8	5 x 7	90.6°	In No. 2 Iris Diaph. Barrel	74.02
559	"	"	"	"	"	In No. 2 Rapax Non-Sync	94.48
560	"	"	"	"	"	In No. 2 Rapax X-Sync	105.48
561	"	"	"	"	"	In No. 2 Rapax Full-Sync	121.48
562	"	"	"	"	"	In No. 2 Alphax Non-Sync	91.98
563	"	"	"	"	"	In No. 2 Alphax Sync	95.48

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
*When used on 2 1/4 x 3 1/4 angle is 75.6°.

RAPTAR Series III WIDE ANGLE f/9.5 (Wocoted)



6 1/4" (159mm) f/9.5 Raptar Wide Angle in Non-Sync. Shutter

Catalog Number	Equiv. Focus		Speed f	Film Size	Angle of View	Mounting	List
	Inch	mm					
575	6 1/4	159	9.5	8 x 10	91.2°	In No. 4 Iris Diaph. Barrel	\$106.50
576	"	"	"	"	"	In No. 3 Rapax Non-Sync	130.50
577	"	"	"	"	"	In No. 3 Rapax X-Sync	137.50
578	"	"	"	"	"	In No. 3 Rapax Full-Sync	156.50
579	"	"	"	"	"	In No. 3 Alphax Non-Sync	147.00
580	"	"	"	"	"	In No. 3 Alphax Sync	155.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to Series III Raptar Wide Angle f/9.5 Lenses (Wocoted).

Raptars For Commercial and Industrial Work

Series Ia, Series II, Telephoto and Wide Angle Lenses
For cameras having interchangeable lens boards

For exceptionally large coverage, extreme adaptability and the versatility of three focal length lenses in one there is no finer lens than the Raptar Series Ia Triple Convertible. Front and rear elements are complete corrected lenses. Used together they form a lens of normal focal lengths. Used separately, the focal lengths of either the front or rear elements are longer. Where true perspective, larger images, or telephoto effects are desired, you merely remove the front combination, or the rear combination, replacing it with the front. These double protar type lenses consist of two 4-element halves, each of which is color corrected and anastigmatic.



8 1/4" f/6.8 Raptar Series Ia Convertible in Rapax Non-Sync. Shutter



15" f/5.6 Raptar Telephoto in Alphax Non-Sync. Shutter



Made with a Series Ia Lens

Triple Convertible lenses are recommended for taking landscapes, making industrial shots and architectural studies, and doing illustrative and commercial photography. Longer focal length lenses in the Raptar Series II or the telephoto-type lenses also provide the true perspective essential for top quality commercial work.

Where space is a factor it is essential that the commercial photographer use a Wide Angle lens to cover his assignment properly.



Made with a Telephoto Lens



Made with a Series II Lens



11 7/8" (302mm)
f/4.5 Raptar Series II in
Alphax-Sync. Shutter



3 1/2" (90mm)
f/6.8 Wide Angle
Raptar in Rapax
Non-Sync. Shutter

RAPTAR Series Ia
CONVERTIBLE f/6.8 (Wocoted)

Catalog Number	Equiv. Focus		Front Focus Inch	Rear Focus Inch	Speed f	Film Size	Mounting	List
	Inch	mm						
610	6 1/2	165	12 3/4	10	6.8	4 x 5	In No. 2 Iris Diaph. Barrel	\$ 93.50
611	"	"	"	"	"	"	In No. 2 Rapax Non-Sync	111.00
612	"	"	"	"	"	"	In No. 2 Rapax X-Sync	122.00
613	"	"	"	"	"	"	In No. 2 Rapax Full-Sync	138.00
614	"	"	"	"	"	"	In No. 2 Alphax Non-Sync	120.00
615	"	"	"	"	"	"	In No. 2 Alphax Sync	125.00
616	8 1/4	210	15 1/2	12 3/4	6.8	5 x 8	In No. 4 Iris Diaph. Barrel	120.00
617	"	"	"	"	"	"	In No. 3 Rapax Non-Sync	143.00
618	"	"	"	"	"	"	In No. 3 Rapax X-Sync	150.00
619	"	"	"	"	"	"	In No. 3 Rapax Full-Sync	169.00
620	"	"	"	"	"	"	In No. 3 Alphax Non-Sync	150.00
621	"	"	"	"	"	"	In No. 3 Alphax Sync	159.00
622	10	254	20	15 1/2	6.8	6 1/2 x 8 1/2	In No. 4 Iris Diaph. Barrel	156.50
623	"	"	"	"	"	"	In No. 3 Rapax Non-Sync	180.50
624	"	"	"	"	"	"	In No. 3 Rapax X-Sync	187.50
625	"	"	"	"	"	"	In No. 3 Rapax Full-Sync	206.50
626	"	"	"	"	"	"	In No. 3 Alphax Non-Sync	187.50
627	"	"	"	"	"	"	In No. 3 Alphax Sync	196.50
628	13	330	25 1/2	20	6.8	8 x 10	In No. 6 Iris Diaph. Barrel	200.00
629	"	"	"	"	"	"	In No. 4 Alphax Non-Sync	223.00
630	"	"	"	"	"	"	In No. 4 Alphax Sync	228.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to the above items.



6 1/2" f/6.8
Raptar Series Ia Convertible
in Rapax X-Sync. Shutter

RAPTAR Series II f/4.5 (Wocoted)

Catalog Number	Equiv. Focus		Speed f	Film Size	Mounting	List
	Inch	mm				
436	6 3/8	162	4.5	4 x 5	In No. 4 Iris Diaph. Barrel	65.00
437	"	"	"	"	In No. 3 Rapax Non-Sync	92.00
438	"	"	"	"	In No. 3 Rapax X-Sync	99.00
439	"	"	"	"	In No. 3 Rapax Full-Sync	118.00
440	"	"	"	"	In No. 3 Alphax Non-Sync	92.00
441	"	"	"	"	In No. 3 Alphax Sync	102.00
442	7 1/2	190	4.5	5 x 7	In No. 5 Iris Diaph. Barrel	90.00
443	"	"	"	"	In No. 3 Alphax Non-Sync	116.50
444	"	"	"	"	In No. 3 Alphax Sync	125.50
445	8 1/4	210	4.5	5 x 8	In No. 6 Iris Diaph. Barrel	135.00
446	"	"	"	"	In No. 4 Alphax Non-Sync	151.00
447	"	"	"	"	In No. 4 Alphax Sync	156.00
448	9 1/2	241	4.5	6 1/2 x 8 1/2	In No. 6 Iris Diaph. Barrel	175.00
449	"	"	"	"	In No. 4 Alphax Non-Sync	191.00
450	"	"	"	"	In No. 4 Alphax Sync	196.00
451	11 7/8	302	4.5	8 x 10	In No. 7 Iris Diaph. Barrel	225.00
452	"	"	"	"	In No. 5 Alphax Non-Sync	242.00
453	"	"	"	"	In No. 5 Alphax Sync	250.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to the above items.



11 7/8" (302mm) f/4.5
Raptar Series II in
Alphax Sync. Shutter

RAPTAR TELEPHOTO f/5.6 (Wocoted)



15" f/5.6 Raptar
Telephoto in Barrel

Catalog Number	Equiv. Focus		Speed f	Bellows Draw (flange focus) Required at Infinity	Film Size	Mounting	List
	Inch	mm					
516	10	254	5.6	6 1/8"	3 1/4 x 4 1/4	In No. 4 Iris Diaph. Barrel	132.00
517	"	"	"	"	4 x 5	In No. 3 Rapax Non-Sync	159.00
518	"	"	"	"	"	In No. 3 Rapax X-Sync	169.00
519	"	"	"	"	"	In No. 3 Rapax Full-Sync	185.00
520	"	"	"	"	"	In No. 3 Alphax Non-Sync	166.00
521	"	"	"	"	"	In No. 3 Alphax Sync	175.00
522	15	380	5.6	9 5/16"	4 x 5	In No. 6 Iris Diaph. Barrel	195.00
523	"	"	"	"	5 x 7	In No. 4 Alphax Non-Sync	218.00
524	"	"	"	"	"	In No. 4 Alphax Sync	223.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to Raptar Telephoto f/5.6 (Wocoted).

RAPTAR WIDE ANGLE f/6.8 (Wocoted)



3 1/2" (90mm) f/6.8
Raptar Wide Angle
in Non-Sync. Rapax

Catalog Number	Equiv. Focus		Speed f	Film Size	Angle of View	Mounting	List With Tax
	Inch	mm					
554	3 1/2	90	6.8	4 x 5	84°	In No. 1 Iris Diaph. Barrel	67.10
555	"	"	"	"	"	In No. 1 Rapax Non-Sync	84.65
556	"	"	"	"	"	In No. 1 Rapax X-Sync	91.65
557	"	"	"	"	"	In No. 1 Rapax Full-Sync	106.65
558	4 1/4	108	6.8	5 x 7	90.6°	In No. 2 Iris Diaph. Barrel	74.02
559	"	"	"	"	"	In No. 2 Rapax Non-Sync	94.48
560	"	"	"	"	"	In No. 2 Rapax X-Sync	105.48
561	"	"	"	"	"	In No. 2 Rapax Full-Sync	121.48
562	"	"	"	"	"	In No. 2 Alphax Non-Sync	91.98
563	"	"	"	"	"	In No. 2 Alphax Sync	95.48

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
*When used on 2 1/4 x 3 1/4 angle is 75.6°.

RAPTAR Series III WIDE ANGLE f/9.5 (Wocoted)



6 1/4" (159mm) f/9.5
Raptar Wide Angle in
Alphax Sync. Shutter

Catalog Number	Equiv. Focus		Speed f	Film Size	Angle of View	Mounting	List
	Inch	mm					
575	6 1/4	159	9.5	8 x 10	91.2°	In No. 4 Iris Diaph. Barrel	\$106.50
576	"	"	"	"	"	In No. 3 Rapax Non-Sync	130.50
577	"	"	"	"	"	In No. 3 Rapax X-Sync	137.50
578	"	"	"	"	"	In No. 3 Rapax Full-Sync	156.50
579	"	"	"	"	"	In No. 3 Alphax Non-Sync	147.00
580	"	"	"	"	"	In No. 3 Alphax Sync	155.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to Series III Raptar Wide Angle f/9.5 Lenses (Wocoted).

Raptars For Enlarging

Professional and amateur photographers who want the finest in enlarging lenses . . . lenses that produce crisp, brilliant enlargements . . . lenses that capture all the tonal qualities and detail of the negative, will select a Wollensak Enlarging Raptar.

This series of Raptars is designed to do one specific job — make enlargements. So Enlarging Raptars are designed specifically for a flat field at a short range to project from a flat surface to a flat surface.

It also means that Enlarging Raptars are exceptionally well corrected for chromatic aberrations . . . important since enlarging lenses are usually focused by visual inspection of the projected image. Light should be distributed evenly over the entire print surface with corners as fully lighted as the center portion of the enlargement. Finally, it means Enlarging Raptars deliver high resolution without sacrifice of contrast . . . very necessary if over-all sharp enlargements are to be produced. Like all Raptar lenses they are Wocoted. Complete range of focal lengths from 2" to 11 7/8".



Catalog Number	Equiv. Focus		Film Size	Mounting	List
	Inch	mm			
710	*2	50	1 1/4 x 1 3/8	In No. 1 Iris Diaph. Barrel	\$ 28.50
711	*3	75	2 1/4 x 2 1/4	In No. 1 Iris Diaph. Barrel	31.00
712	*3 1/2	90	2 1/4 x 3 1/4	In No. 1 Iris Diaph. Barrel	32.50
713	*4	101	2 1/4 x 3 1/4	In No. 1 Iris Diaph. Barrel	37.50
714	*5	127	3 1/4 x 4 1/4	In No. 2 Iris Diaph. Barrel	44.00
715	*5 3/8	135	4 x 5	In No. 3 Iris Diaph. Barrel	47.50
716	*6 3/8	162	4 x 5	In No. 4 Iris Diaph. Barrel	60.00
717	7 1/2	190	5 x 7	In No. 5 Iris Diaph. Barrel	82.50
718	8 1/4	210	5 x 8	In No. 6 Iris Diaph. Barrel	125.00
719	9 1/2	241	6 1/2 x 8 1/2	In No. 6 Iris Diaph. Barrel	160.00
720	11 7/8	302	8 x 10	In No. 7 Iris Diaph. Barrel	215.00

*Supplied with click stops.
No Federal Excise Tax applicable to the above items.

Raptar Lenses for Copying

The Raptar Apochromatic Process lenses are recommended for both critical copy work like line cuts and for the less critical copy work such as half-tones. Also excellent for copying, enlarging and reducing because of their flat field, even illumination, chromatic correction and over-all covering

power. The exceptional chromatic qualities of the Raptar Process lens make it ideal for four-color process work. Over-all sharpness with maximum resolution is maintained for all copy ratios.

In barrel mounting, barrel is slotted to accept waterhouse stops.

Raptar Apochromatic Process f/10 Lenses (Wocoted)

Catalog Number	Equiv. Focus		Plates Covered for Reduction Inch	Plates Covered for Full-Size Copy Inch	Mounting	List
	Inch	mm				
650	10 1/4	260	6 1/2 x 8 1/2	10 x 12	In No. 3 Iris Diaph. Barrel	\$136.00
651	"	"	"	"	In No. 3 Rapax Non-Sync	155.00
652	"	"	"	"	In No. 3 Rapax X-Sync	162.00
653	"	"	"	"	In No. 3 Rapax Full-Sync	181.00
654	"	"	"	"	In No. 3 Alphax Non-Sync	162.00
655	"	"	"	"	In No. 3 Alphax Sync	171.00
656	13	330	7 x 9	11 x 13	In No. 4 Iris Diaph. Barrel	177.50
657	"	"	"	"	In No. 3 Rapax Non-Sync	190.50
658	"	"	"	"	In No. 3 Rapax X-Sync	197.50
659	"	"	"	"	In No. 3 Rapax Full-Sync	216.50
660	"	"	"	"	In No. 3 Alphax Non-Sync	197.50
661	"	"	"	"	In No. 3 Alphax Sync	206.50
662	14	355	8 x 10	11 x 14	In No. 4 Iris Diaph. Barrel	177.50
663	"	"	"	"	In No. 3 Rapax Non-Sync	190.50
664	"	"	"	"	In No. 3 Rapax X-Sync	197.50
665	"	"	"	"	In No. 3 Rapax Full-Sync	216.50
666	"	"	"	"	In No. 3 Alphax Non-Sync	197.50
667	"	"	"	"	In No. 3 Alphax Sync	206.50
668	16	406	10 x 12	12 x 15	In No. 5 Iris Diaph. Barrel	214.50
669	"	"	"	"	In No. 3 Alphax Non-Sync	231.00
670	"	"	"	"	In No. 3 Alphax Sync	240.00
671	19	482	12 x 15	14 x 17	In No. 6 Iris Diaph. Barrel	268.00
672	"	"	"	"	In No. 4 Alphax Non-Sync	261.00
673	"	"	"	"	In No. 4 Alphax Sync	266.00
674	25	635	16 x 20	20 x 24	In No. 7 Iris Diaph. Barrel	369.00
675	"	"	"	"	In No. 5 Alphax Non-Sync	361.00
676	"	"	"	"	In No. 5 Alphax Sync	368.00

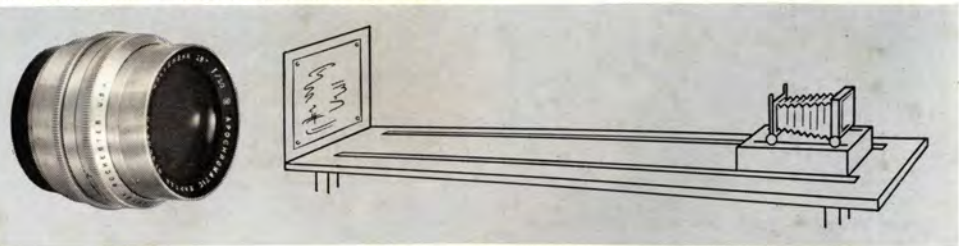
FILTER HOLDER FOR ABOVE PROCESS LENSES (ANY SIZE) 10.00

NOTE: See Alphax Shutters for synchronization data. No Federal Excise Tax applicable to the above items. Process Lenses supplied with slotted barrel and one waterhouse stop.

Prisms for Process Lenses

Catalog Number	Size Inches	Description	List
690	2	Prisms	\$125.00
691	2 1/2	Prisms	135.00
692	3	Prisms	185.00
693	3 1/2	Prisms	235.00

Extra charge for fitting Prisms to lenses of other makes. No Federal Excise Tax applicable to the above items.



19" f/10 Apochromatic Process Raptar

Lenses for Portraiture • Veritar, Telephoto and Series II Lenses

For cameras having interchangeable lens boards

The Portrait Veritar permits camera artists to create portraits of the right degree of controllable softness or sharpness. At f/6 or f/8 there's color brilliancy and sparkle, as well as a general softness with a plastic roundness. Unessential wiry detail is suppressed. Stopped down the Veritar approaches the sharp performance of an anastigmat. Gone is guesswork. Negatives have the exact sharpness or softness of the image seen on the ground glass. Retouching is reduced to a minimum. Color corrected and Wocoted the Veritar comes in 10-inch and 14-inch focal lengths.



14" f/6 Veritar in Alphax Sync. Shutter



Made with a Veritar Lens

For crisp, sharp portraiture some studios use the Series II Raptar . . . ideal where a sharp lens with anastigmatic qualities is needed. The 9 1/2" lens should be used on split 5 x 7 film, the 11 7/8" on a full 5 x 7 for heads and 8 x 10 for full figure work.

Because of their long focus and true perspective many photographers find Raptar Telephoto f/5.6 lenses well suited for portrait photography . . . especially for home portraiture where 4 x 5 press and view type cameras are used.



Made with a Series II Lens



11 7/8" (302mm) f/4.5 Raptar Series II in Alphax Sync. Shutter

15" f/5.6 Raptar Telephoto in Alphax Non-Sync. Shutter

PORTRAIT VERITAR f/6 (Wocoted)



14" f/6 Veritar in
Alphax Sync. Shutter

Catalog Number	Equiv. Focus Inch	Focus mm	Film Size	Mounting	List
475	10	254	5 x 7	In No. 6 Iris Diaph. Barrel	\$120.00
476	"	"	"	In No. 4 Alphax Non-Sync	145.00
477	"	"	"	In No. 4 Alphax Sync	160.00
478	14	356	8 x 10	In No. 8 Iris Diaph. Barrel	192.50
479	"	"	"	In No. 5 Alphax Non-Sync	198.00
480	"	"	"	In No. 5 Alphax Sync	205.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to the above items.

RAPTAR Series II f/4.5 (Wocoted)



11 7/8" (302mm) f/4.5 Raptar
Series II in Alphax Sync. Shutter

Catalog Number	Equiv. Focus Inch	Focus mm	Speed f	Film Size	Mounting	List
448	9 1/2	241	4.5	6 1/2 x 8 1/2	In No. 6 Iris Diaph. Barrel	175.00
449	"	"	"	"	In No. 4 Alphax Non-Sync	191.00
450	"	"	"	"	In No. 4 Alphax Sync	196.00
451	11 7/8	302	4.5	8 x 10	In No. 7 Iris Diaph. Barrel	225.00
452	"	"	"	"	In No. 5 Alphax Non-Sync	242.00
453	"	"	"	"	In No. 5 Alphax Sync	250.00

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to the above items.

RAPTAR TELEPHOTO f/5.6 (Wocoted)



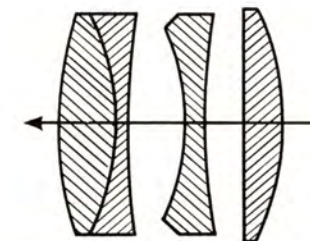
15" f/5.6
Raptar Telephoto in
Alphax Non-Sync. Shutter

Catalog Number	Equiv. Focus Inch	Focus mm	Speed f	Bellows Draw (flange focus) Required at Infinity	Film Size	Mounting	List
510	8	202	5.6	5"	2 1/4 x 3 1/4 3 1/4 x 4 1/4	In No. 3 Iris Diaph. Barrel	\$ 99.50
511	"	"	"	"	"	In No. 2 Rapax Non-Sync	122.00
512	"	"	"	"	"	In No. 2 Rapax X-Sync	133.00
513	"	"	"	"	"	In No. 2 Rapax Full-Sync	149.00
514	"	"	"	"	"	In No. 2 Alphax Non-Sync	119.50
515	"	"	"	"	"	In No. 2 Alphax Sync	123.00
516	10	254	5.6	6 1/8"	3 1/4 x 4 1/4 4 x 5	In No. 4 Iris Diaph. Barrel	132.00
517	"	"	"	"	"	In No. 3 Rapax Non-Sync	159.00
518	"	"	"	"	"	In No. 3 Rapax X-Sync	169.00
519	"	"	"	"	"	In No. 3 Rapax Full-Sync	185.00
520	"	"	"	"	"	In No. 3 Alphax Non-Sync	166.00
521	"	"	"	"	"	In No. 3 Alphax Sync	175.00
522	15	380	5.6	9 5/16"	4 x 5 5 x 7	In No. 6 Iris Diaph. Barrel	195.00
523	"	"	"	"	"	In No. 4 Alphax Non-Sync	218.00
524	"	"	"	"	"	In No. 4 Alphax Sync	223.00

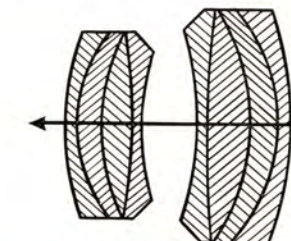
NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to Raptar Telephoto f/5.6 (Wocoted).

Wollensak PHOTOGRAPHIC LENS CONSTRUCTIONS

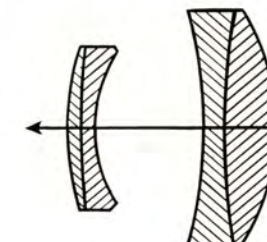
RAPTAR SERIES II f/4.5 LENSES



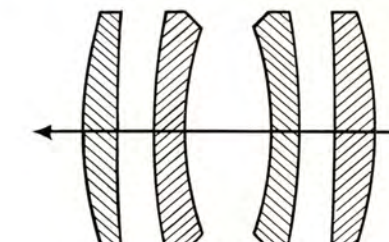
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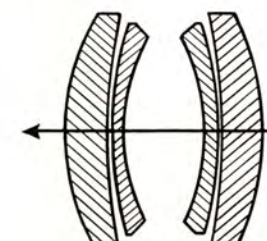
RAPTAR TELEPHOTO f/5.6 LENSES



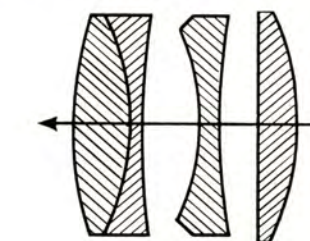
RAPTAR APOCHROMATIC PROCESS f/10 LENSES



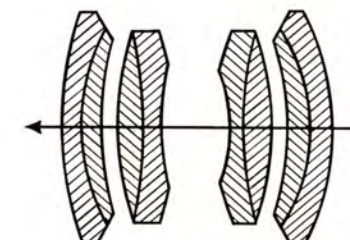
RAPTAR WIDE ANGLE f/6.8 LENSES



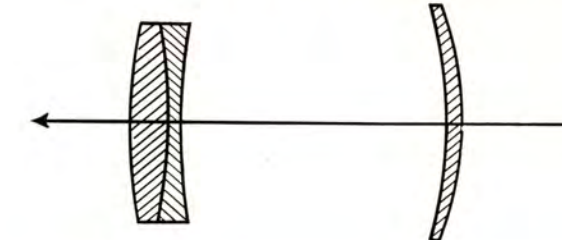
RAPTAR ENLARGING f/4.5 LENSES



RAPTAR WIDE ANGLE f/9.5 LENSES



VERITAR f/6 LENSES



20" f/6.3 Fototel Lenses

I. OPTICAL SYSTEM

1. The optical system of the 20" f/6.3 Fototel Lens is based on a concentric Mirror System, consisting of a concave spherical mirror and a correcting lens. The latter serves a dual purpose, viz.:

- Optical correction of the spherical aberration of the concave mirror;
- "Folding back" of the light rays. This is achieved by aluminizing the central portion which forms a convex mirror.

The curvature of the image is eliminated by a slightly negative meniscus-shaped lens, the field flattener lens, with the result that a plane image field is produced.

2. The mirror system of the 20" f/6.3 Fototel differs from refractive lens systems by the following characteristics:

- Optimum combination of luminosity and high resolving power
- Simplicity of optical design
- Light weight and very short length
- Highest contrast and highest resolution of all longer focal length lenses
- Completely color corrected. No color aberrations in reflective (mirror) system

The Fototel lens is supplied in focusing mount with or without reflex focusing device, and equipped with tripod socket for amateur and professional ASA tripod standards.

II. OPTICAL AND MECHANICAL DATA

Optical data:

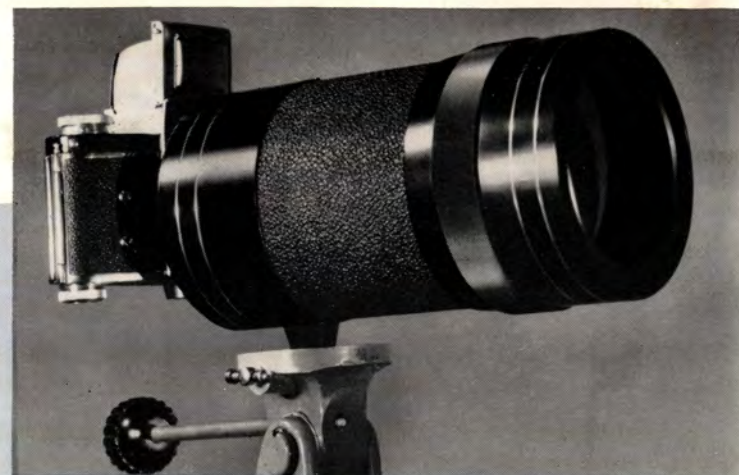
Relative aperture	f/6.3
Nominal focal length	20"
Focusing range	12' to infinity

Size of Image

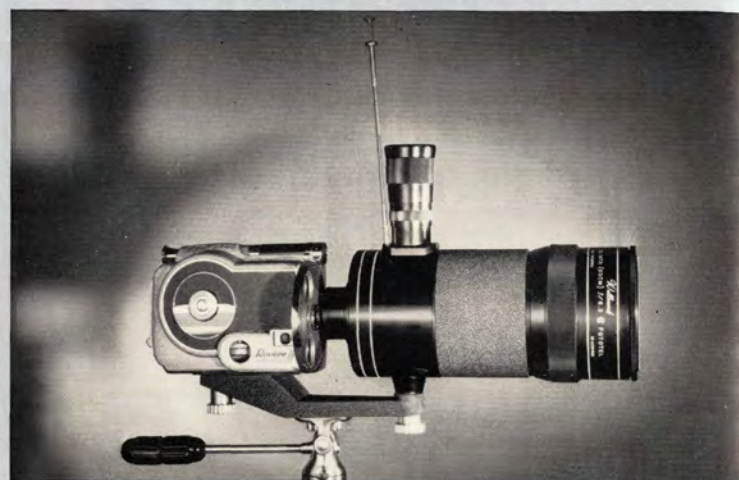
The 20" f/6.3 Fototel is designed for an image size 24 x 36mm (for miniature cameras) or less (for cine cameras).

Weight

20" f/6.3 Fototel, without accessories: approx. 5 lbs.



20" Fototel on 35mm Camera.



20" Fototel on 16mm Revere Turret Camera.



20" Fototel on Cine Special.

III. ADAPTATION TO CAMERAS

Reflex Cameras

The 20" f/6.3 Fototel lens is available for the following makes of reflex cameras:

Make of Camera	Manufacturer
Contax D (Pentacox)	Zeiss Ikon Mechanik VEB, Dresden 21 A, Germany
Alpa II	Pignons A. G., Ballaiques, Switzerland
Praktica FX	Kamera Werkstätten, Niedersetzlitz, Germany
Wrayflex	Wray Optical Works, Ltd., Bromley, Kent, England
Rectaflex	Maison Rectaflex, Rome, Italy
Exakta	Ihagee Kamera Werke A. G., Dresden A16, Germany

and others

As each make of camera calls for a different adapter system, it is necessary to state the make and type of camera to be used. For adaptation to other makes of reflex cameras than those mentioned above write Wollensak.

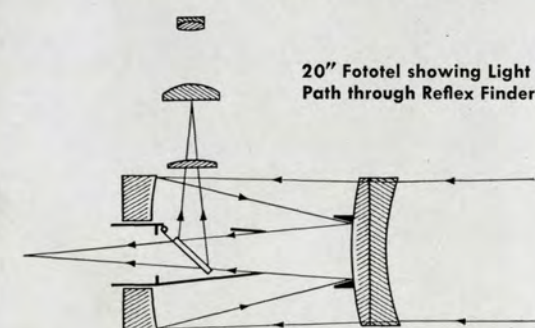
\$450.00 each

Non-Reflex Cameras

The 20" f/6.3 Fototel is fitted with an incorporated reflex viewfinder. Focusing is effected on the ground glass of this reflex viewfinder.

The 20" f/6.3 Fototel lens is available for the following makes of cameras:

Make of Camera:	Manufacturer
Leica	Ernst Leitz, Wetzlar, Germany
Contax and others	Zeiss Ikon A. G. Stuttgart-S, Germany



20" Fototel showing Light Path through Reflex Finder.

When ordering it is necessary to state the make and type of non-reflex camera to be used. For adaptations to other makes of non-reflex cameras write Wollensak.

\$485.00

Cine Cameras

The 20" f/6.3 Fototel Lens is available for the following cameras. It is necessary to state the make and type of camera to be used.

Wollensak Fastax 16mm and 35mm
Wollensak 16mm—91-93
Revere 16mm—16-26
Cine Kodak Special I
Cine Kodak Special II
Mitchell 16mm and 35mm
Bell & Howell 16mm and 35mm and others

Supporting Brackets to adapt lens and camera to fit the tripod are available at additional cost.

Quotations will be submitted upon request. It is recommended the camera be forwarded to Wollensak for fitting the lens and/or installation of supporting bracket for camera and lens.

Test Films will be furnished for each lens installed on camera at the Wollensak Optical Company.

20" f/6.3 Fototel Lens for Motion Picture Camera without Reflex Housing **\$450.00**

20" f/6.3 Fototel Lens for Motion Picture Cameras with Reflex Housing **\$485.00**

Prices of 20" f/6.3 Fototel includes genuine leather carrying case.

Filters:

The following drop-in precision optical flat glass filters can be supplied:

Fototel Filters	Red 8X
Fototel Filters	Yellow 2X
Fototel Filters	Orange 4X
Fototel Filters	Haze 1X
Fototel Filters	ND 2X
Fototel Filters	ND 4X

\$16.50 each

Mirrotel Lenses

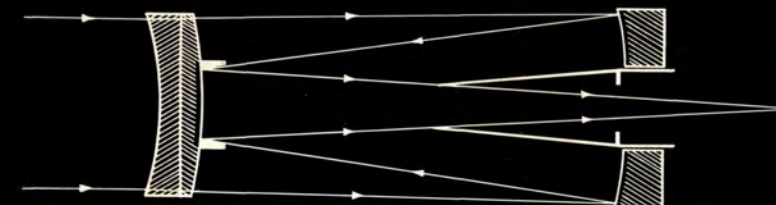
with MIRROR OPTICS



80" f/14 Mirrotel Lens



40" f/8 Mirrotel Lens



Light path through Mirrotel Lens

The most important advantage of an Optical Mirror System is the complete absence of chromatic aberration (no special focusing for Infra-Red). There is no secondary color and no lateral color to fuzz up the image. Because the light path is "folded" three times within the system, the length and weight are less than 1/3 those of an equivalent refractive telephoto objective, thereby attaining greater stability (extremely important for long focus objectives), ease of operation and superior performance. Example: a conventional 80" EFL refractive telephoto objective would be 68" long measured from focal plane to front lens. The 80" Mirrotel is only 20" long from focal plane to front lens. The ratio for the 20" Fototel and 40" Mirrotel is about one-half.

The Mirrotels are concentric systems, therefore the straight line containing the center of curvature parallel to any given ray of light may be regarded as the axis of the system. There is no coma, astigmatism or distortion. This means that the high quality axial image is maintained at all extra axial image points.

Wocoting

The mirror surfaces and all glass-to-air surfaces are treated with Wollensak anti-reflection hard coating, Wocote. This coating effectively reduces internal reflections, bouncing light, flare . . . greatly increases image contrast and brilliance . . . sharpens detail . . . produces purer, richer colors in full color photography.

Qualities of Mirrotel Lens

Every Mirrotel lens is individually assembled, adjusted, and tested to meet the resolution defined by the design. A photograph is made with each lens using a target one mile away. This photograph is furnished with the lens to prove its performance.

40" (100cm) f/8 MIRROTEL

Optical Data

Hyper Focal Distance 40" Critical Definition . . . 3.1 miles
Hyper Focal Distance 40" Normal Definition75 miles
Nominal Focal Length40" (100cm)
Flange Focal Distance3.543" (9cm)
Relative Aperturef/8
Field of View
(exposure size)either 18 x 24mm or 24 x 36mm
Photographic resolving power on
Kodak Plus-X film40 lines per mm

Filter Data

Filters are housed in a turret at the rear of the lens. The turret rotates and is indexed to locate filter position. The filter in place is read off at the bottom of the indexing filter disk. The standard optical glass filters supplied are Red (A-25), Yellow (K-2), Orange and Neutral (Haze). The neutral filter is a haze filter and an optical path compensating filter. The neutral filter should be used for focusing and for any shots where a colored filter is not desired. It must not be removed for any reason or the focus distance will not remain constant from one filter position to another.

Mechanical Data

Screw Thread Adapting Ring2.365 x 32 NS 2
Total Length13.6" (34.5cm)
Weight12 1/2 lbs.
Diameter6" (15.2cm)
1 Back dust cap supplied

Focusing jacket, supporting brackets and adapters for particular cameras (35mm motion or still) are available at additional cost.

Lens dimensions are held to close tolerances to facilitate interchangeability in supporting mounts and brackets.

Adaptation for dessicant cartridge holder and dessicant cartridge can be furnished at additional cost.

40" Mirrotel lens complete
with durable, sturdy case**\$1,600.00**

80" (200cm) f/14 MIRROTEL

Optical Data

Hyper Focal Distance 80" Critical Definition . . . 7.2 miles
Hyper Focal Distance 80" Normal Definition . . . 1.5 miles
Nominal Focal Length800" (200cm)
Flange Focal Distance3.543" (9cm)
Relative Aperturef/14
Field of View
(exposure size)either 18 x 24mm or 24 x 36mm
Photographic resolving power on
Kodak Plus-X film50 lines per mm

Filter and Auxiliary Lens Turret Data

The turret comes complete with three filters and an auxiliary lens and is an integral part of the Mirrotel lens. It is located at the rear of the lens for convenient selection of filters. The turret rotates and is indexed to locate the filter and auxiliary lens position. The filter or auxiliary lens in place is

View of farmhouse and buildings taken with 2" objective at a distance of 3 1/2 miles with A-25 filter and Plus-X film at 1/50 second f/8.



Same farmhouse and buildings taken at same time from the same point with Wollensak 80" f/14 Mirrotel Telephoto objective with A-25 filter and Plus-X film at 1/25 second.



identified at the bottom of the turret disk. The standard optical glass filters supplied are Red (A-25), Yellow (K-2), and Neutral (Haze). The neutral filter is a haze filter and an optical path compensating filter. The neutral filter should be used for focusing and for any shots where a colored filter is not desired. It must not be removed for any reason or the focus distance will not remain constant from one filter position to another.

The auxiliary lens is mounted in the filter turret to increase a given constant focusing range which has been determined by the individual purchaser's needs. Its purpose is to allow for closer focusing distances.

The 80" Mirrotel lens has a focusing range of 437 yards to infinity. The auxiliary lens is furnished in order to focus down to 219 yards.

An additional filter may be supplied in place of the auxiliary lens, if specified when ordering.

Mechanical Data

Screw Thread Adapting Ring2.365" x 32 NS 2
Total Length21 1/8" (53.6cm)
Weight16 lbs.
Diameter6 1/2" (16.5cm)
1 Back dust cap supplied

Focusing jacket, supporting brackets and adapters for particular cameras (35mm motion or still) are available at additional cost.

Lens dimensions are held to close tolerances to facilitate interchangeability in supporting mounts and brackets.

Adaptation for dessicant cartridge holder and dessicant cartridge can be furnished at additional cost.

80" Mirrotel lens complete
with durable, sturdy case**\$2,000.00**

Pro-35 Raptar Lenses

FOR PROFESSIONAL
35mm MOTION
PICTURE CAMERAS



Pro-35 in
Mitchell Mount

Pro-35 in
Eyemo Mount

This series of lenses enables professional photographers to achieve the ultimate in motion picture photography, whether in the studio or on location. It assures them that their cameras are equipped with the finest lenses . . . lenses that are balanced . . . have uniformity of exposure, have uniformity of color value, have uniformity of high contrast, have uniformity of covering power, have uniformity of highest resolution.

The lens features desired by professional mo-

tion picture photographers are incorporated in the specially designed Wollensak Pro-35 Raptars. Color values are maintained from one focal length to the other by virtue of design and accurate "T" stop calibration, plus unsurpassed correction for color and black and white 35mm films. All glass-to-air surfaces of the lens are Wocoted (not just the external lens surface). This anti-reflection, hard coating reduces internal light reflections and flare, greatly increases brilliance and detail.

For Mitchell Cameras

Wollensak Pro-35 Raptars are made for Mitchell Cameras with focusing jacket and mount as an integral part of the lens assembly. In addition, Mitchell mounts have built-in compensating focusing arrangement which adjusts footage scale in relation to possible wear in pinion on camera base. Wear is caused by racking over the camera from focusing position to taking position. (Rack-over permits focusing through the taking lens without disturbing lens position. This feature eliminates parallax and enables the photographer to see the exact composition he will take.)

For Bell & Howell Eyemo Cameras

Wollensak Pro-35 Raptars are available for Eyemo cameras in focusing mount made as an integral part of the lens assembly . . . not put on afterward by another manufacturer.

30 • April 1, 1954

Prices and Specifications Pro-35 Raptar Lenses

		List In Barrel with Iris Diaphragm	List In Focusing Mount for Eyemo Cameras	List In Focusing Mount for Mitchell Cameras
1" (25mm) f/2.3		\$130.00 8.67 tax	\$210.00 15.75 tax	\$230.00 17.25 tax
1 1/8" (35mm) f/2.3		135.00	215.00	232.50
2" (50mm) f/2.3		140.00	215.00	237.50
3" (75mm) f/2.3		160.00	240.00	257.50
4" (101mm) f/2.3		200.00	280.00	297.50
6" (152mm) f/2.7		230.00	325.00	325.00
10" (254mm) f/4.5		195.00	275.00	275.00
15" (380mm) f/4.5		280.00	420.00	420.00
20" (508mm) f/5.6		370.00	450.00	450.00

12", 14", 16", 18" and 24" Raptars are also available. Prices on request.

TV Raptar Lenses

FOR STUDIO
AND FIELD USE



135mm f/3.8 TV Raptar

8 1/4" f/3.5 TV Raptar

16" f/4.5
TV Raptar

Wollensak TV Raptar Lenses are specially designed for the television industry . . . built for tomorrow's advancements as well as today's requirements. For example, TV Raptars will resolve more than 2 1/2 times today's TV requirements. TV Raptars are made complete with camera mounts an integral part of the lens. They are not added afterward by some other supplier. Wollensak TV lenses are designed specifically for TV cameras . . . won't be outmoded by new techniques and improvements in telecasting.

Wollensak TV Raptars are fully color-corrected lenses with high resolution without the sacrifice of contrast . . . designed and produced to take better television pictures . . . give full coverage. There is no drop-off from center to edge of picture. In addition, all glass-to-air surfaces of Raptar lenses are Wocoted. (This is the trade name for Wollensak's anti-reflection hard coating that effectively reduces internal light reflections and flares . . . greatly increases brilliance . . . and definition.)

The optical characteristics of Wollensak TV lenses are dependent upon the lens design, the material used, the skill in manufacture and the integrity of the maker. That is why Wollensak can offer the following guarantee: "The excellent performance of Wollensak TV Raptars is unconditionally guaranteed."

Television producers will want the finest results obtainable. A fine production is dependent upon their skill, technique and imagination. To get the most from their efforts they should use the highest quality lenses . . . TV Raptar Lenses by Wollensak.

April 1, 1954 • 31

List Prices and Specifications of "TV" Raptar Lenses

2" (50mm) f/2.0 Raptar TV		In Barrel With Focusing Mount \$215
3" (75mm) f/3.5 Raptar TV 3 1/2" (90mm) f/3.5 Raptar TV 4" (101mm) f/3.5 Raptar TV		175 185 200
5 3/8" (135mm) f/3.8 Raptar TV		240
8 1/4" f/3.5 Raptar TV		In Barrel With Iris Diaphragm 275
10" f/4.5 Raptar TV 12" f/4.5 Raptar TV 14" f/4.5 Raptar TV 15" f/4.5 Raptar TV 16" f/4.5 Raptar TV		275 310 320 360 380
18" f/5.6 Raptar TV 20" f/5.6 Raptar TV 24" f/5.6 Raptar TV		350 450 750

Specify manufacturer of camera when ordering.

Scopes



6x, 30 PRISM BINOCULAR

This is the all-around prismatic sports binocular. It is ideal for the race track, football games and other spectator sports, where action is fast and a glass of brilliant illumination and moderate, easily controlled power is desired. Special features include individual focusing of both eyepieces, Wocoted lens surfaces, moisture proof, dust proof and an attractive finish . . . built to give a lifetime of service. Attractive leather carrying case and straps are furnished . . . \$115.00*
With center focusing . . . \$125.00*



8x, 30 PRISM BINOCULAR

Wherever you turn, new thrills await you with Wollensak Prism Binoculars. Ideal for big game hunting, navigation and long distance viewing, where high power and extreme compactness are desired. It provides large, clear view, true perspective, and stereoscopic depth that brings objects out in relief. Special features include center focusing, separate adjustable eyepiece and Wocoted anti-reflection lens surfaces. Like all Wollensak instruments it is precision-built for dependable, life-long use. It is moisture proof, dust proof and comes complete with leather carrying case and straps . . . \$135.00*

SPECIFICATIONS

Magnification 6 diameters
Objective Lenses 30mm dia.
Exit Pupil 4.3mm
Light Transmission (coated optics) 83%
Field at 1000 yards 130 yards
Angular Field 7°26'
Inter-Pupillary Distance . . . 48 to 72mm
Length Closed 4½"
Length Extended 4¾"
Weight 18 oz.

SPECIFICATIONS

Magnification 8 diameters
Objective Lenses 30mm dia.
Exit Pupil 3.5mm
Light Transmission (coated optics) 83%
Field at 1000 yards 125 yards
Angular Field 7°10'
Inter-Pupillary Distance . . . 48 to 72mm
Length Closed 4¼"
Length Extended 4½"
Weight 18 oz.

20x MIRROSCOPE†

Here is a lower cost, lighter, easier-to-handle scope for shooters, hobbyists, and viewing enthusiasts. Top quality lenses, achromatic eyepiece, Kellner type, color corrected and coated, provide 20-power magnification. Precision-surfaced mirrors not only gather and transmit more light than is possible with prisms, but are permanized and coated against discoloration for the lifetime of the instrument. Mirrors eliminate waste of internal space . . . permit secure mounting of the entire optical system in an aluminum tube three to four inches shorter than comparable prism scopes. Quick, easy focusing with eyepiece \$49.75
Case, genuine leather with shoulder straps . . . \$6.00

SPECIFICATIONS

†Entrance Pupil 50mm
Exit Pupil 2.3mm
Eye Distance 12mm
Magnification 20x
Field 1°40'
Field at 1000 yards 87'
Relative Brightness 5.3
Light Transmission 85%
Weight 19 oz.

20x SPOTTING SCOPE

Here is a sturdy, compact, smart looking spotting scope that is built for years of use. It contains all the features of higher priced instruments, yet sells at a remarkably low price. Built-in sunshade, smart gray wrinkle finish, click-stop focusing. The spotting scope has finest optical craftsmanship, Wocoted glass-to-air surfaces, wide objective so target hits can be spotted easily. Seamless body keeps dirt out. No special adapter needed for tripod. Socket is built in for quick, easy attachment . . . \$34.95

SPECIFICATIONS

†Entrance Pupil 40mm
Exit Pupil 2.0mm
Eye Distance 9.8mm
Magnification 20x
Field at 1000 yards 75'
Relative Brightness 4.0
Weight 25 oz.

*Items are subject to Federal Tax

†The Freeland Scope Stand is recommended for use with the Mirroscope. They are available direct from Freeland Scope Center, 3737 - 14th Ave., Rock Island, Illinois.



RAMBLER FIELD GLASS

Here is an excellent glass for bird study, watching athletic contests, the theater, because of its lightness, compactness and excellent optical system. Wide field of view eliminates ordinary shifting to follow movement. Special features include Wocoted lens surfaces, central focusing and attractive, permanent finish. Smart leather carrying case and straps furnished . . . \$29.50*

SPECIFICATIONS

Magnification 4 diameters
Objective Lenses 33mm
Exit Pupil 8mm
Field at 1000 yards 76 yards
Angular Field 4°20'
Inter-Pupillary Distance . . . 63mm
Length Closed 3¾"
Length Extended 3¾"
Weight 9 oz.



ALLSCOPE

For the theater or sporting events take along an Allscope. It is a 3-power glass set in a spectacle mount. Nosepiece and pupillary distance are readily adjusted to fit wearer. Other features are flexible temples, Wocoted optics, and individual eyepiece focusing. Furnished with black leather case . . . \$39.50*

SPECIFICATIONS

Magnification 3 diameters
Objective Lenses 26mm
Exit Pupil 8mm
Field at 1000 yards 110 yards
Angular Field 6°20'
Inter-Pupillary Distance . . . 56 to 69.5mm
Weight 3 oz.



EXPLORER TELESCOPE

Here is an inexpensive, full 8-power achromatic telescope. It's small, compact, lightweight . . . especially popular with Boy Scouts and nature lovers for studying birds and animals close-up . . . \$9.95

SPECIFICATIONS

Magnification 8 diameters
Objective Lens 21mm
Field at 1000 yards 35 yards
Length Closed 6¾"
Length Extended 9¼"
Weight 6 oz.

15x - 40x VARI-POWER TELESCOPE



It's not one telescope but six telescopes in one, with magnification from 15 to 40 times normal image. Range of power changed by merely drawing the graduated power (smallest) tube in or out. It's a wonderful companion when hunting, motoring, fishing, camping or traveling. In its class the Vari-Power is unexcelled for workmanship, design and optical quality. Optical surfaces are Wocoted. Leather carrying case is furnished. \$33.50

Only a WOLLENSAK Vari-Power has all these 6 Features

1. Images equally sharp and clear at all powers.
2. Power tube graduated in click stops with intermediate markings permitting instant automatic fixing of selected power—no guesswork.
3. All five lenses in the eyepiece and achromatic objective—12 surfaces in all—are Wocoted for greater brilliance of image and elimination of disturbing reflections and flare.
4. Knurled ring on eyepiece drawtube makes focusing easy and fast.
5. Chrome plated tubes, rust-proof and attractive.
6. Size of body tube allows for easy grip. Vinylite covering for richness in appearance and durability.

SPECIFICATIONS

Magnification 15 to 40 diameters
Objective Lens 36mm
Field at 1000 yards 31 feet to 79 feet (from maximum to minimum power)
Length Closed 8¼"
Length Extended 26¼"
Number of Draw Tubes 3
Weight 20 oz.



6x, 30 and 8x, 30 PRISM MONOCULAR

Here are the ideal glasses for hunters and outdoorsmen. They are compact, lightweight and can be focused and held easily in one hand. They deliver same fine definition as Prism Binocular. Features include Wocoted optics and clearly marked diopter scale on eyepiece for individual setting. Leather carrying case is furnished. 6x, 30 . . . \$48.50
8x, 30 . . . \$52.50

SPECIFICATIONS

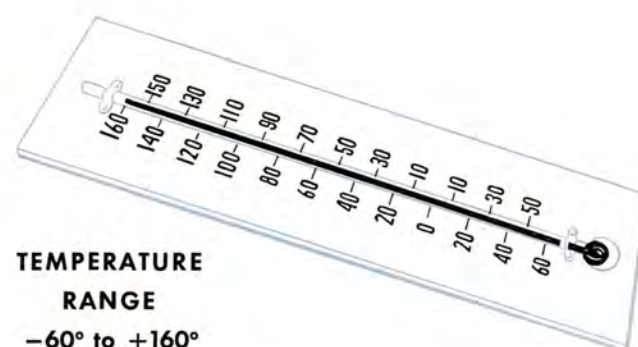
	8x	6x
Magnification	8 diameters	6 diameters
Objective Lens	30mm	30mm
Exit Pupil	3.5mm	4.3mm
Field at 1000 yards	125 yards	130 yards
Angular Field	7°10'	7°26'
Length Closed	4¼"	4½"
Length Extended	4¾"	4¾"
Weight	8 oz.	8 oz.

Wollensak THERMO-SETTING CEMENT

Thermo-setting cements were developed before and improved during the last war. These new adhesives hold lens elements firmly together, without harmful strain through quick and extreme temperature and humidity changes. They are entirely stable throughout the temperature range from -60°F to $+160^{\circ}\text{F}$, and in all humidity conditions.



The widespread enjoyment of photography and the increase in travel by camera fans to all parts of the world convinced Wollensak that in order to maintain the high Raptar standards of lens performance **thermo-setting cement** must be used in all Wollensak lenses containing cemented lenses, whether for military or civilian use.



THERMO-SETTING CEMENT IS USED IN ALL WOLLENSAK LENSES CONTAINING CEMENTED ELEMENTS.

Even photo fans who stay at home in temperate climates are not free from extreme temperature variations. Imagine a camera locked in a closed car parked in the broiling sun on a cloudless sunny day . . . on the desert, near your mountain retreat, or city home. Here the temperature will go well over 100°F . The old type thermo-plastic cement, as its name implies, became fluid with the heat causing the cement to blister and the elements to separate. This is why Wollensak has changed to **thermo-setting cement!**

Now all Wollensak lenses whether for still cameras, movie cameras, or enlargers . . . wherever the optical elements are cemented together . . . are cemented with the best of the **thermo-setting cements**. Another Wollensak **first** that assures the highest quality in lens performance.

CONFIDENTIAL DEALER PRICE LIST

Cine Raptar Lenses

Cine Raptar Lenses (Wocoted) for 8mm Movie Cameras

Catalog Number	Inch	mm	Speed	Type	Mounting	Filter Size	List With Tax	Dealer Net With Tax
810	$\frac{1}{2}$	13	1.9	High Speed	Fixed Focus	4	\$28.09	\$17.49
811	$\frac{1}{2}$	13	1.9	High Speed	Focusing Mount	4	45.05	28.05
812	$\frac{1}{4}$	6.5	1.9	Wide Angle	Fixed Focus	4.5	60.95	37.95
813	$\frac{1}{4}$	6.5	2.5	Wide Angle	Fixed Focus	4.5	45.05	28.05
814	$\frac{3}{8}$	9	2.5	Wide Angle	Fixed Focus	4.5	41.87	26.07
815	1	25	2.5	Telephoto	Focusing Mount	4	50.35	31.35

No Federal Excise Tax Applicable to the Following Items.

							List	Dealer Net
816	$1\frac{1}{2}$	38	3.5	Telephoto	Fixed Focus	4	\$26.50	\$15.90
817	$1\frac{1}{2}$	38	3.5	Telephoto	Focusing Mount	4	41.25	24.75
818	$1\frac{1}{2}$	38	2.5	Telephoto	Focusing Mount	4	57.75	34.65
819	$1\frac{1}{2}$	38	1.5	Telephoto	Focusing Mount	5	67.50	40.50

Cine Raptar Lenses (Wocoted) for 16mm Movie Cameras

Catalog Number	Inch	mm	Speed	Type	Mounting	Filter Size	List With Tax	Dealer Net With Tax
1610	1	25	1.5	High Speed	Focusing Mount	4.5	\$92.75	\$57.75
1611	1	25	1.9	High Speed	Focusing Mount	4	58.01	36.12
1612	$\frac{1}{2}$	12.7	1.5	Wide Angle	Focusing Mount	6	119.25	74.25
1613	$\frac{1}{16}$	17	2.7	Wide Angle	Fixed Focus	4	34.45	21.45
1614	$\frac{1}{16}$	17	2.7	Wide Angle	Focusing Mount	4	55.65	34.65
1615	0.7	17	2.5	Wide Angle	Focusing Mount	4.5	71.55	44.55

No Federal Excise Tax Applicable to the Following Items.

							List	Dealer Net
1616	$1\frac{1}{16}$	40	1.5	Telephoto	Focusing Mount	5.5	\$115.00	\$69.00
1617	2	50	3.5	Telephoto	Focusing Mount	4.5	56.50	33.90
1618	2	50	2.5	Telephoto	Focusing Mount	5	79.50	47.70
1619	2	50	1.9	Telephoto	Focusing Mount	5.5	92.50	55.50
1620	2	50	1.5	Telephoto	Focusing Mount	5.5	130.00	78.00
1621	$2\frac{1}{2}$	63	2.5	Telephoto	Focusing Mount	5	89.50	53.70
1622	3	75	4.0	Telephoto	Focusing Mount	4.5	60.50	36.30
1623	3	75	2.5	Telephoto	Focusing Mount	5.5	87.50	52.50
1624	3	75	2.8	Telephoto	Focusing Mount	5	68.50	41.10
1625	4	101	4.5	Telephoto	Focusing Mount	4.5	72.50	43.50
1626	6	152	4.5	Telephoto	Focusing Mount	6	98.50	59.10

All prices subject to change without notice

Wollensak Wocoted Filters

Wollensak Coated Filter Discs with Chrome Rim

HAZE			ALL OTHER COLORS		
Size	List	Dealer Net	Size	List	Dealer Net
4	\$2.50	\$1.50	4	\$3.00	\$1.80
4.5	2.75	1.65	4.5	3.25	1.95
5	3.50	2.10	5	4.00	2.40
5.5	4.00	2.40	5.5	4.50	2.70
6	4.50	2.70	6	5.00	3.00

No Federal Excise Tax Applicable to the Above Items.

Wollensak Screw-in Filters

These filters are available for the older style Cine Lenses

The New Cine Raptar Lenses take the drop-in filter discs

Screw-in Filters for 8mm Wollensak Cine Lenses

Catalog Number	Filter	Outside Hood Diameter of Lens	List	Dealer Net
70	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lenses Velostigmat 1/2" F f3.5 Fixed Focus Velostigmat 1/2" F f1.9 Foc. Mt. Velostigmat 1/2" F f2.5 Fixed Focus Velostigmat 1/2" F f2.7 Fixed Focus Cine Raptar 1/2" F f1.9 Foc. Mt.	5/8 5/8 5/8 5/8 5/8	\$2.50 3.00	\$1.50 1.80
62	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lens Cine Raptar 1/2" F f2.5 Fixed Focus	23/32	2.50 3.00	1.50 1.80
69	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lenses Cine Raptar 1/2" F f1.9 Fixed Focus Cine Raptar 1/2" F f1.9 Foc. Mt. Cine Raptar Telephoto 1" F f2.5 Foc. Mt. Cine Raptar Telephoto 1 1/2" F f3.5 Foc. Mt. Cine Raptar Telephoto 1 1/2" F f3.5 Fixed Foc.	25/32 53/64 25/32 25/32 7/8	2.50 3.00	1.50 1.80
36	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lens Cine Raptar Wide Angle 9mm F f2.5	1 1/32	3.50 4.00	2.10 2.40
51	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lens Cine Raptar Telephoto 1 1/2" F f2.5	1 1/32	3.50 4.00	2.10 2.40

Please specify Catalog Number when ordering Filters.

No Federal Excise Tax Applicable to the Above Items.

Wollensak Screw-in Filters

These filters are available for the older style Cine Lenses

The New Cine Raptar Lenses take the drop-in filter discs

Screw-in Filters for 16mm Wollensak Cine Lenses

Catalog Number	Filter	Outside Hood Diameter of Lens	List	Dealer Net
70	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lenses Velostigmat 1" F f3.5 Foc. Mt. Velostigmat 1" F f2.5 Fixed Foc. Velostigmat 1" F f2.7 Fixed Foc.	5/8 5/8 5/8	\$2.50 3.00	\$1.50 1.80
69	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lenses Cine Raptar 1" F f3.5 Fixed Foc. Cine Raptar 1" F f2.5 Fixed Foc. Cine Raptar 17mm F f2.7 Fixed Foc.	27/32 25/32 25/32	2.50 3.00	1.50 1.80
68	*Filter—All colors (except Type A) *Filter—Kodachrome Type A For the following Wollensak Lenses Cine Raptar 17mm F f2.7 Foc. Mt. Cine Raptar 1" F f2.5 Foc. Mt. *(slip on filter)	29/32 29/32	4.00 4.50	2.40 2.70
51	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lenses Cine Raptar 1" F f1.5 Foc. Mt. Cine Raptar 1" F f1.9 Foc. Mt. Cine Anastigmat 1" F f1.9 Foc. Mt.	1 1/32 1 1/32 1 39/64	3.50 4.00	2.10 2.40
73	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lenses Cine Raptar 2" F f1.9 Cine Raptar 40mm F f1.5 Cine Raptar 2" F f1.5 Foc. Mt. Cine Raptar 3" F f2.5 Foc. Mt. Cine Raptar 6" F f4.5 Foc. Mt.	15/8 15/8 13/4 13/4 1 11/64	6.50 6.95	3.90 4.17
54	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lens Cine Anastigmat 2" F f1.9 Foc. Mt.	1 39/64	6.00 6.50	3.60 3.90
52	Filter—All colors (except Type A) Filter—Kodachrome Type A For the following Wollensak Lenses Cine Raptar Telephoto 2" F f3.5 Foc. Mt. Cine Raptar Telephoto 3" F f4.0 Foc. Mt. Cine Raptar Telephoto 4" F f4.5 Foc. Mt.	1 3/16 1 3/16 1 3/16	4.00 4.50	2.40 2.70

Please specify Catalog Number when ordering Filters.

No Federal Excise Tax Applicable to the Above Items.

Wollensak Optical Compensating Finders

Positive Objective Finders for Bell and Howell Cameras

Catalog Number		List	Dealer Net
Bell and Howell 8mm Auto 8—172A—172B Cameras:			
201	Objective Finder for 6.5mm Wide Angle Lens	\$ 6.50	\$ 3.90
202	Objective Finder for 9mm Wide Angle Lens	6.50	3.90
203	Objective Finder for 1" Telephoto Lens	6.50	3.90
204	Objective Finder for 1½" Telephoto Lens	6.50	3.90
Bell and Howell 8mm Tri Lens and 134TA Cameras:			
205	Objective Finder for 6.5mm Wide Angle Lens	6.50	3.90
206	Objective Finder for 9mm Wide Angle Lens	6.50	3.90
207	Objective Finder for 1" Telephoto Lens	6.50	3.90
208	Objective Finder for 1½" Telephoto Lens	6.50	3.90
Bell and Howell 16mm Cameras:			
220	Objective Finder for ½" Wide Angle Lens	8.90	5.34
221	Objective Finder for 17mm Wide Angle Lens	8.90	5.34
222	Objective Finder for 40mm F Telephoto Lens	9.50	5.70
223	Objective Finder for 2" Telephoto Lens	8.90	5.34
224	Objective Finder for 2½" Telephoto Lens	9.50	5.70
225	Objective Finder for 3" Telephoto Lens	8.90	5.34
226	Objective Finder for 4" Telephoto Lens	9.30	5.58
227	Objective Finder for 6" Telephoto Lens	10.50	6.30

Finders for 6.5mm Cine Raptar Wide Angle Lens

Catalog Number	Description	List	Dealer Net
240	To Fit Revere 60 and 70	\$3.25	\$1.95
241	To Fit Revere 88	3.25	1.95
242	To Fit Revere 99	3.75	2.25
243	To Fit De Jur 100 and 300	3.75	2.25
244	To Fit Keystone K8, K22 (Complete with Bracket)	7.95	4.77
245	To Fit Keystone K40 and K45 (Complete with Bracket)	7.95	4.77

Finders for 9mm Cine Raptar Wide Angle Lens

Catalog Number	Description	List	Dealer Net
250	To Fit Revere 60 and 70	\$3.25	\$1.95
251	To Fit Revere 88	3.25	1.95
252	To Fit Revere 99	3.75	2.25
253	To Fit De Jur 100 and 300	3.75	2.25
254	To Fit Keystone K8, K22 (Complete with Bracket)	7.95	4.77
255	To Fit Keystone K40 and K45 (Complete with Bracket)	7.95	4.77

No Federal Excise Tax Applicable to Finders.

CONFIDENTIAL DEALER PRICE LIST

Wollensak Lenses, Shutters and Accessories
For Still Photography

Raptar Series II f/4.5 Lenses (Wocoted)

Catalog Number	Equiv. Focus Inch	mm	Speed f	Film Size	Mounting	List With Tax	Dealer Net With Tax
410	3½	90	4.5	2¼ x 3¼	In No. 1 Iris Diaph. Barrel	\$ 42.07	\$ 28.25
411	"	"	"	"	In No. 1 Rapax Non-Sync	57.50	37.90
412	"	"	"	"	In No. 1 Rapax X-Sync	64.50	42.45
413	"	"	"	"	In No. 1 Rapax Full-Sync	79.50	52.20
414	4	101	4.5	2¼ x 3¼	In No. 1 Iris Diaph. Barrel	45.26	30.39
415	"	"	"	"	In No. 1 Rapax Non-Sync	60.69	40.04
416	"	"	"	"	In No. 1 Rapax X-Sync	67.69	44.59
417	"	"	"	"	In No. 1 Rapax Full-Sync	82.69	54.34
418	4½	114	4.5	2¼ x 3¼	In No. 2 Iris Diaph. Barrel	50.59	33.97
419	"	"	"	"	In No. 2 Rapax Non-Sync	68.39	45.12
420	"	"	"	"	In No. 2 Rapax X-Sync	79.39	52.27
421	"	"	"	"	In No. 2 Rapax Full-Sync	95.39	62.67
422	"	"	"	"	In No. 2 Alphax Non-Sync	65.89	43.49
423	"	"	"	"	In No. 2 Alphax Sync	69.39	45.77
No Federal Excise Tax applicable to the following items.						List	Dealer Net
424	5	127	4.5	3¼ x 4¼	In No. 2 Iris Diaph. Barrel	\$ 51.00	\$ 33.15
425	"	"	"	"	In No. 2 Rapax Non-Sync	66.50	43.23
426	"	"	"	"	In No. 2 Rapax X-Sync	77.50	50.38
427	"	"	"	"	In No. 2 Rapax Full-Sync	93.50	60.78
428	"	"	"	"	In No. 2 Alphax Non-Sync	64.00	41.60
429	"	"	"	"	In No. 2 Alphax Sync	67.50	43.88
430	5½	135	4.5	4 x 5	In No. 3 Iris Diaph. Barrel	53.50	34.78
431	"	"	4.7	"	In No. 2 Rapax Non-Sync	68.50	44.53
432	"	"	"	"	In No. 2 Rapax X-Sync	79.50	51.68
433	"	"	"	"	In No. 2 Rapax Full-Sync	95.50	62.08
434	"	"	"	"	In No. 2 Alphax Non-Sync	66.00	42.90
435	"	"	"	"	In No. 2 Alphax Sync	69.50	45.18
436	6½	162	4.5	4 x 5	In No. 4 Iris Diaph. Barrel	65.00	42.25
437	"	"	"	"	In No. 3 Rapax Non-Sync	92.00	59.80
438	"	"	"	"	In No. 3 Rapax X-Sync	99.00	64.35
439	"	"	"	"	In No. 3 Rapax Full-Sync	118.00	76.70
440	"	"	"	"	In No. 3 Alphax Non-Sync	92.00	59.80
441	"	"	"	"	In No. 3 Alphax Sync	102.00	66.30
442	7½	190	4.5	5 x 7	In No. 5 Iris Diaph. Barrel	90.00	58.50
443	"	"	"	"	In No. 3 Alphax Non-Sync	116.50	75.73
444	"	"	"	"	In No. 3 Alphax Sync	125.50	81.58
445	8¼	210	4.5	5 x 8	In No. 6 Iris Diaph. Barrel	135.00	87.75
446	"	"	"	"	In No. 4 Alphax Non-Sync	151.00	98.15
447	"	"	"	"	In No. 4 Alphax Sync	156.00	101.40
448	9½	241	4.5	6½ x 8½	In No. 6 Iris Diaph. Barrel	175.00	113.75
449	"	"	"	"	In No. 4 Alphax Non-Sync	191.00	124.15
450	"	"	"	"	In No. 4 Alphax Sync	196.00	127.40
451	11½	302	4.5	8 x 10	In No. 7 Iris Diaph. Barrel	225.00	146.25
452	"	"	"	"	In No. 5 Alphax Non-Sync	242.00	157.30
453	"	"	"	"	In No. 5 Alphax Sync	250.00	162.50

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.

Raptar Telephoto f/5.6 Lenses (Wocoted)

Catalog Number	Equiv. Focus Inch	mm	Speed f	Bellows Draw (flange focus) Required at Infinity	Film Size	Mounting	List	Dealer Net
510	8	202	5.6	5"	2 1/4 x 3 1/4 3 1/4 x 4 1/4	In No. 3 Iris Diaph. Barrel	\$ 99.50	\$ 64.68
511	"	"	"	"	"	In No. 2 Rapax Non-Sync	122.00	79.30
512	"	"	"	"	"	In No. 2 Rapax X-Sync	133.00	86.45
513	"	"	"	"	"	In No. 2 Rapax Full-Sync	149.00	96.85
514	"	"	"	"	"	In No. 2 Alphax Non-Sync	119.50	77.68
515	"	"	"	"	"	In No. 2 Alphax Sync	123.00	79.95
516	10	254	5.6	6 1/8"	3 1/4 x 4 1/4 4 x 5	In No. 4 Iris Diaph. Barrel	132.00	85.80
517	"	"	"	"	"	In No. 3 Rapax Non-Sync	159.00	103.35
518	"	"	"	"	"	In No. 3 Rapax X-Sync	169.00	109.85
519	"	"	"	"	"	In No. 3 Rapax Full-Sync	185.00	120.25
520	"	"	"	"	"	In No. 3 Alphax Non-Sync	166.00	107.90
521	"	"	"	"	"	In No. 3 Alphax Sync	175.00	113.75
522	15	380	5.6	9 3/16"	4 x 5 5 x 7	In No. 6 Iris Diaph. Barrel	195.00	126.75
523	"	"	"	"	"	In No. 4 Alphax Non-Sync	218.00	141.70
524	"	"	"	"	"	In No. 4 Alphax Sync	223.00	144.95

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to Raptar Telephoto f/5.6 (Wocoted).

Raptar Wide Angle f/6.8 Lenses (Wocoted)

Catalog Number	Equiv. Focus Inch	mm	Speed f	Film Size	Angle of View	Mounting	List With Tax	Dealer Net With Tax
550	2 3/16	65	6.8	3 1/4 x 4 1/4*	92.6°	In No. 1 Iris Diaph. Barrel	\$ 64.43	\$ 43.26
551	"	"	"	"	"	In No. 1 Rapax Non-Sync	81.99	54.34
552	"	"	"	"	"	In No. 1 Rapax X-Sync	88.99	58.89
553	"	"	"	"	"	In No. 1 Rapax Full-Sync	103.99	68.64
554	3 1/2	90	6.8	4 x 5	84°	In No. 1 Iris Diaph. Barrel	67.10	45.05
555	"	"	"	"	"	In No. 1 Rapax Non-Sync	84.65	56.13
556	"	"	"	"	"	In No. 1 Rapax X-Sync	91.65	60.68
557	"	"	"	"	"	In No. 1 Rapax Full-Sync	106.65	70.43
558	4 1/4	108	6.8	5 x 7	90.6°	In No. 2 Iris Diaph. Barrel	74.02	49.70
559	"	"	"	"	"	In No. 2 Rapax Non-Sync	94.48	62.63
560	"	"	"	"	"	In No. 2 Rapax X-Sync	105.48	69.78
561	"	"	"	"	"	In No. 2 Rapax Full-Sync	121.48	80.18
562	"	"	"	"	"	In No. 2 Alphax Non-Sync	91.98	61.01
563	"	"	"	"	"	In No. 2 Alphax Sync	95.48	63.28

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
*When used on 2 1/4 x 3 1/4 angle is 75.6°.

Series III Raptar Wide Angle f/9.5 Lenses (Wocoted)

Catalog Number	Equiv. Focus Inch	mm	Speed f	Film Size	Angle of View	Mounting	List	Dealer Net
575	6 1/4	159	9.5	8 x 10	91.2°	In No. 4 Iris Diaph. Barrel	\$106.50	\$ 69.23
576	"	"	"	"	"	In No. 3 Rapax Non-Sync	130.50	84.83
577	"	"	"	"	"	In No. 3 Rapax X-Sync	137.50	89.38
578	"	"	"	"	"	In No. 3 Rapax Full-Sync	156.50	101.73
579	"	"	"	"	"	In No. 3 Alphax Non-Sync	147.00	95.55
580	"	"	"	"	"	In No. 3 Alphax Sync	155.00	100.75

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to Series III Raptar Wide Angle f/9.5 Lenses (Wocoted).

Raptar Series Ia Convertible f/6.8 Lenses (Wocoted)

Catalog Number	Equiv. Focus Inch	mm	Front Focus Inch	Rear Focus Inch	Speed f	Film Size	Mounting	List	Dealer Net
610	6 1/2	165	12 3/4	10	6.8	4 x 5	In No. 2 Iris Diaph. Barrel	\$ 93.50	\$ 60.78
611	"	"	"	"	"	"	In No. 2 Rapax Non-Sync	111.00	72.15
612	"	"	"	"	"	"	In No. 2 Rapax X-Sync	122.00	79.30
613	"	"	"	"	"	"	In No. 2 Rapax Full-Sync	138.00	89.70
614	"	"	"	"	"	"	In No. 2 Alphax Non-Sync	120.00	78.00
615	"	"	"	"	"	"	In No. 2 Alphax Sync	125.00	81.25
616	8 1/4	210	15 1/2	12 3/4	6.8	5 x 8	In No. 4 Iris Diaph. Barrel	120.00	78.00
617	"	"	"	"	"	"	In No. 3 Rapax Non-Sync	143.00	92.95
618	"	"	"	"	"	"	In No. 3 Rapax X-Sync	150.00	97.50
619	"	"	"	"	"	"	In No. 3 Rapax Full-Sync	169.00	109.85
620	"	"	"	"	"	"	In No. 3 Alphax Non-Sync	150.00	97.50
621	"	"	"	"	"	"	In No. 3 Alphax Sync	159.00	103.35
622	10	254	20	15 1/2	6.8	6 1/2 x 8 1/2	In No. 4 Iris Diaph. Barrel	156.50	101.73
623	"	"	"	"	"	"	In No. 3 Rapax Non-Sync	180.50	117.33
624	"	"	"	"	"	"	In No. 3 Rapax X-Sync	187.50	121.88
625	"	"	"	"	"	"	In No. 3 Rapax Full-Sync	206.50	134.23
626	"	"	"	"	"	"	In No. 3 Alphax Non-Sync	187.50	121.88
627	"	"	"	"	"	"	In No. 3 Alphax Sync	196.50	127.73
628	13	330	25 1/2	20	6.8	8 x 10	In No. 6 Iris Diaph. Barrel	200.00	130.00
629	"	"	"	"	"	"	In No. 4 Alphax Non-Sync	223.00	144.95
630	"	"	"	"	"	"	In No. 4 Alphax Sync	228.00	148.20

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to the above items.

Raptar Apochromatic Process f/10 Lenses (Wocoted)

Catalog Number	Equiv. Focus		Plates Covered for Reduction Inch	Plates Covered for Full-Size Copy Inch	Mounting	List	Dealer Net	
	Inch	mm						
650	10¼	260	6½ x 8½	10 x 12	In No. 3 Iris Diaph. Barrel	\$136.00	\$ 90.67	
651	"	"	"	"	In No. 3 Rapax Non-Sync	155.00	103.34	
652	"	"	"	"	In No. 3 Rapax X-Sync	162.00	108.01	
653	"	"	"	"	In No. 3 Rapax Full-Sync	181.00	120.67	
654	"	"	"	"	In No. 3 Alphax Non-Sync	162.00	108.01	
655	"	"	"	"	In No. 3 Alphax Sync	171.00	114.01	
656	13	330	7 x 9	11 x 13	In No. 4 Iris Diaph. Barrel	177.50	118.34	
657	"	"	"	"	In No. 3 Rapax Non-Sync	190.50	127.01	
658	"	"	"	"	In No. 3 Rapax X-Sync	197.50	131.67	
659	"	"	"	"	In No. 3 Rapax Full-Sync	216.50	144.34	
660	"	"	"	"	In No. 3 Alphax Non-Sync	197.50	131.67	
661	"	"	"	"	In No. 3 Alphax Sync	206.50	137.67	
662	14	355	8 x 10	11 x 14	In No. 4 Iris Diaph. Barrel	177.50	118.34	
663	"	"	"	"	In No. 3 Rapax Non-Sync	190.50	127.01	
664	"	"	"	"	In No. 3 Rapax X-Sync	197.50	131.67	
665	"	"	"	"	In No. 3 Rapax Full-Sync	216.50	144.34	
666	"	"	"	"	In No. 3 Alphax Non-Sync	197.50	131.67	
667	"	"	"	"	In No. 3 Alphax Sync	206.50	137.67	
668	16	406	10 x 12	12 x 15	In No. 5 Iris Diaph. Barrel	214.50	143.01	
669	"	"	"	"	In No. 3 Alphax Non-Sync	231.00	154.01	
670	"	"	"	"	In No. 3 Alphax Sync	240.00	160.01	
671	19	482	12 x 15	14 x 17	In No. 6 Iris Diaph. Barrel	268.00	178.68	
672	"	"	"	"	In No. 4 Alphax Non-Sync	261.00	174.01	
673	"	"	"	"	In No. 4 Alphax Sync	266.00	177.34	
674	25	635	16 x 20	20 x 24	In No. 7 Iris Diaph. Barrel	369.00	246.01	
675	"	"	"	"	In No. 5 Alphax Non-Sync	361.00	240.68	
676	"	"	"	"	In No. 5 Alphax Sync	368.00	245.35	
FILTER HOLDER FOR ABOVE PROCESS LENSES (ANY SIZE)							10.00	6.67

NOTE: See Alphax Shutters for synchronization data.
Process Lenses supplied with slotted barrel and one waterhouse stop.
No Federal Excise Tax applicable to the above items.

Prisms For Process Lenses

Catalog Number	Size Inches	Description	List	Dealer Net
690	2	Prisms.....	\$125.00	\$ 83.34
691	2½	Prisms.....	135.00	90.00
692	3	Prisms.....	185.00	123.34
693	3½	Prisms.....	235.00	156.67

Extra charge for fitting Prisms to lenses of other makes.
No Federal Excise Tax applicable to the above items.

Portrait Veritar f/6 Lenses (Wocoted)

Catalog Number	Equiv. Focus Inch	Focus mm	Film Size	Mounting	List	Dealer Net
475	10	254	5 x 7	In No. 6 Iris Diaph. Barrel	\$120.00	\$ 78.00
476	"	"	"	In No. 4 Alphax Non-Sync	145.00	94.25
477	"	"	"	In No. 4 Alphax Sync	160.00	104.00
478	14	356	8 x 10	In No. 8 Iris Diaph. Barrel	192.50	125.13
479	"	"	"	In No. 5 Alphax Non-Sync	198.00	128.70
480	"	"	"	In No. 5 Alphax Sync	205.00	133.25

NOTE: See Alphax Shutters for synchronization data.
Prices of Lenses in Shutters do not include cable releases.
No Federal Excise Tax applicable to the above items.

Enlarging Lenses
Raptar Enlarging f/4.5 Lenses (Wocoted)

Catalog Number	Equiv. Focus Inch	Focus mm	Film Size	Mounting	List	Dealer Net
710	*2	50	1¼ x 1½	In No. 1 Iris Diaph. Barrel	\$ 28.50	\$ 17.10
711	*3	75	2¼ x 2¼	In No. 1 Iris Diaph. Barrel	31.00	18.60
712	*3½	90	2¼ x 3¼	In No. 1 Iris Diaph. Barrel	32.50	19.50
713	*4	101	2¼ x 3¼	In No. 1 Iris Diaph. Barrel	37.50	22.50
714	*5	127	3¼ x 4¼	In No. 2 Iris Diaph. Barrel	44.00	26.40
715	*5½	135	4 x 5	In No. 3 Iris Diaph. Barrel	47.50	28.50
716	*6½	162	4 x 5	In No. 4 Iris Diaph. Barrel	60.00	36.00
717	7½	190	5 x 7	In No. 5 Iris Diaph. Barrel	82.50	49.50
718	8¼	210	5 x 8	In No. 6 Iris Diaph. Barrel	125.00	75.00
719	9½	241	6½ x 8½	In No. 6 Iris Diaph. Barrel	160.00	96.00
720	11½	302	8 x 10	In No. 7 Iris Diaph. Barrel	215.00	129.00

*Supplied with click stops.
No Federal Excise Tax applicable to the above items.

Wollensak Shutters
Rapax Shutters

Catalog Number	Size	Maximum Diaphragm Open.		Lens Mount Thread Diameter		Speeds	Flange Diameter		Type Shutter	*List	*Dealer Net
		Inch	mm	Front Inches	Rear Inches		Inside Inches	Outside Inches			
752	1	25/32	20	3/32	1 1/32	1 to 1/400 plus T & B	1 1/16	1 11/16	Rapax Non-Sync	\$33.00	\$22.00
753	1	"	"	"	"	"	"	"	Rapax X-Sync	40.00	26.67
754	1	"	"	"	"	"	"	"	Rapax Full-Sync	55.00	36.67
755	2	1	25.4	1 1/4	1 1/4	1 to 1/400 plus T & B	1 21/64	1 7/8	Rapax Non-Sync	37.50	25.00
756	2	"	"	"	"	"	"	"	Rapax X-Sync	48.50	32.33
757	2	"	"	"	"	"	"	"	Rapax Full-Sync	64.50	43.00
758	3	1 13/64	31	1 35/64	1 37/64	1 to 1/200 plus T & B	1 43/64	2 19/64	Rapax Non Sync	43.00	28.67
759	3	"	"	"	"	"	"	"	Rapax X-Sync	50.00	33.34
760	3	"	"	"	"	"	"	"	Rapax Full-Sync	69.00	46.00

*No Federal Excise Tax on Shutters only.

Wollensak Shutters (Cont.)

Alphax Shutters

Cat. No.	Size	Maximum Dia-phragm Open.		Lens Mount Thread Diameter		Flange Diameters		Type of Shutter Alphax	Speeds	Synchronized Speeds With			*List	*Dealer Net
		Inch	mm	Front Inches	Rear Inches	Inside Inches	Outside Inches			Class M	Class F	Class X		
779	2	1	25.4	1 7/32	1 7/32	1 21/64	1 55/64	Non-Sync	1 to 1/100	.....	.....	.....	\$35.00	\$23.33
780	2	1	25.4	1 7/32	1 7/32	1 21/64	1 55/64	Sync	1 to 1/100	1/50 and slower	All speeds	All speeds	38.50	25.67
781	3	1 3/8	34.9	1 51/64	1 51/64	2	2 21/32	Non-Sync	1 to 1/100	.....	.....	.....	50.00	33.34
782	3	1 3/8	34.9	1 51/64	1 51/64	2	2 21/32	Sync	1 to 1/100	1/50 and slower	All speeds	All speeds	59.00	39.34
783	4	1 11/16	42.7	2 27/64	2 27/64	2 3/8	3 17/32	Non-Sync	1 to 1/50	.....	.....	.....	53.00	35.34
784	4	1 11/16	42.7	2 27/64	2 27/64	2 3/8	3 17/32	Sync	1 to 1/50	All speeds	All speeds	All speeds	58.00	38.67
785	5	2 2/32	56.7	2 15/16	2 15/16	3 1/8	4 3/64	Non-Sync	1/2 to 1/50	.....	.....	.....	58.00	38.67
786	5	2 2/32	56.7	2 15/16	2 15/16	3 1/8	4 3/64	Sync	1/2 to 1/50	All speeds	All speeds	All speeds	65.00	43.34

†Upon request numbers 3, Non-Sync 4, and 5 Sync and Non-Sync Alphax Shutters are available with press focus levers at an additional charge of \$10.00 to the list price of the shutter.
*No Federal Tax on Shutters only.
‡All shutters include time and bulb setting.

Accessories

Standard Flanges

Thread Diam. Inches	*List	*Dealer Net
5/8 to 1	\$1.25	\$.81
1 1/16 to 2	2.00	1.30
2 1/16 to 2 1/2	3.00	1.95
2 3/8 to 3	3.50	2.28
3 1/8 to 3 1/2	4.00	2.60
3 3/8 to 4	5.00	3.25
4 1/8 to 4 1/2	6.00	3.90
4 3/8 to 5	7.50	4.88

Available for Wollensak Mountings only. For older Wollensak Lenses not listed in this Price List specify whether lens is in barrel or shutter, specify which shutter.
*No Federal Excise Tax on flanges and lens caps.

Lens Caps

Inside Diam.	*List	*Dealer Net
1" and under	\$1.25	\$.81
2" and under	1.75	1.14
3" and under	2.25	1.46
4" and under	3.00	1.95
5" and under	3.50	2.28

*No Federal Excise Tax on flanges and lens caps.

Miscellaneous Accessories

Catalog Number	Description	List	Dealer Net
910	**Wocote Lens Cleaning Tissue (100 sheets 3 x 4½).....	\$.35	\$.23
911	***Wocote Lens Cleaner, per bottle (2 oz.).....	.35	.23
912	Electrical connecting cords for Synchromatic Rapax and Alphax Shutters.....	2.00	1.30
913	7" Cable Release.....	1.00	.65
914	12" Cable Release.....	2.25	1.46
915	18" Cable Release.....	3.00	1.95
916	36" Cable Release.....	4.50	2.93

**Packaged 12 per carton.
***Packaged 6 per carton.
No Federal Excise Tax applicable to the above items.

Wollensak Scopes and Special Purpose Lenses

Wollensak Scopes

	List	Dealer Net		List	Dealer Net
8x30 Wollensak Binocular	*\$135.00	*\$81.00	4-Power Rambler	*\$29.50	*\$17.70
6x30 Wollensak Binocular with individual focusing	*115.00	*69.00	8-Power Explorer Telescope	9.95	5.97
6x30 Wollensak Binocular with center focusing	*125.00	*75.00	3-Power Allscope	*39.50	*23.70
†20-Power Wollensak Mirroscope	49.75	29.85	15x40 Vari Power Telescope	33.50	20.10
Case for Mirroscope	6.00	3.60	8-Power Prism Monocular	52.50	31.50
20-Power Wollensak Spotting Scope	34.95	20.97	6-Power Prism Monocular	48.50	29.10
			Flat Eyecups for Wollensak Binoculars (Specify Model) Per Pair	2.50	1.50

*These items subject to Federal Tax.
†The Freeland Scope Stand is recommended for use with the Mirroscope. They are available direct from Freeland Scope Center, 3737 - 14th Ave., Rock Island, Illinois.

Raptar Pro-35 Lenses

List In Barrel With Iris Diaphragm	Dealer Net	List In Focusing Mount for Eyemo Cameras	Dealer Net	List In Focusing Mount for Mitchell Cameras	Dealer Net
1" (25mm) f/2.3	\$130.00 8.67 tax	\$210.00 15.75 tax	\$157.50 15.75 tax	\$230.00 17.25 tax	\$172.50 17.25 tax
1 3/8" (35mm) f/2.3	135.00	215.00	161.25	232.50	174.38
2" (50mm) f/2.3	140.00	215.00	161.25	237.50	178.13
3" (75mm) f/2.3	160.00	240.00	180.00	257.50	193.13
4" (101mm) f/2.3	200.00	280.00	210.00	297.50	223.13
6" (152mm) f/2.7	230.00	325.00	243.75	325.00	243.75
10" (254mm) f/4.5	168.00	275.00	206.25	275.00	206.25
15" (380mm) f/4.5	300.00	420.00	315.00	420.00	315.00
20" (508mm) f/5.6	330.00	450.00	337.50	450.00	337.50

12", 14", 16", 18" and 24" Raptars are also available.
Prices on request.

"TV" Raptar Lenses

	List	Dealer Net
	In Barrel With Focusing Mount	
2" (50mm) f/2.0 Raptar TV	\$215	\$161.25
3" (75mm) f/3.5 Raptar TV	175	131.25
3½" (90mm) f/3.5 Raptar TV	185	138.75
4" (101mm) f/3.5 Raptar TV	200	150.00
5⅜" (135mm) f/3.8 Raptar TV	240	180.00
	In Barrel With Iris Diaphragm	
8¼" f/3.5 Raptar TV	275	206.25
10" f/4.5 Raptar TV	275	206.25
12" f/4.5 Raptar TV	310	232.50
14" f/4.5 Raptar TV	320	240.00
15" f/4.5 Raptar TV	360	270.00
16" f/4.5 Raptar TV	380	285.00
18" f/5.6 Raptar TV	350	262.50
20" f/5.6 Raptar TV	450	337.50
24" f/5.6 Raptar TV	750	562.50

Specify manufacturer of camera when ordering.

The above items can **only** be purchased direct from Wollensak

Mirrotel and Fototel Lenses

		List	Dealer Net
40" f/8	Wollensak Mirrotel Lens complete with sturdy, durable carrying case	\$1600.00	\$1280.00
80" f/14	Wollensak Mirrotel Lens complete with sturdy, durable carrying case	2000.00	1800.00
20" f/6.3	Wollensak Fototel Lens for 35mm Reflex Cameras without Reflex Housing complete with genuine leather case	450.00	337.50
20" f/6.3	Wollensak Fototel Lens for 35mm Cameras with Reflex Housing complete with genuine leather case	485.00	363.75
20" f/6.3*	Wollensak Fototel Lens for Motion Picture Cameras without Reflex Housing complete with genuine leather case	450.00	337.50
20" f/6.3*	Wollensak Fototel Lens for Motion Picture Cameras with Reflex Housing complete with genuine leather case	485.00	363.75

*Supporting Brackets to adapt lens and camera to fit the tripod are available at additional cost. Quotations will be submitted upon request. It is recommended the camera be forwarded to Wollensak for fitting the lens and/or installation of supporting bracket for camera and lens.

Fototel Filters
3 1/2" Diameter x 1/4" Thick
Precision Optical Glass

	List	Dealer Net
Fototel Filter RED 8X	\$16.50	\$12.38
Fototel Filter YELLOW 2X	16.50	12.38
Fototel Filter ORANGE 4X	16.50	12.38
Fototel Filter HAZE 1X	16.50	12.38
Fototel Filter ND 2X	16.50	12.38
Fototel Filter ND 4X	16.50	12.38

The above items can **only** be purchased direct from Wollensak

WOLLENSAK

Optical Co., Rochester 21, N. Y.

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