

BURLIGH BROOKS INC.



SCHNEIDER LENSES



- COMMERCIAL
- ENLARGING
- AMATEUR
- INDUSTRIAL
- TECHNICAL
- FASHION
- PORTRAIT
- SCIENTIFIC
- SPORTS
- NEWS
- ARCHITECTURAL
- THEATRICAL
- CINEMATOGRAPHY
- GRAPHIC ARTS
- TELEVISION
- 35 MM. S. L. REFLEX

SCHNEIDER LENSES

Skill and accuracy as basic ingredients, plus a generous sprinkling of precious "know-how" accumulated over fifty long years of experience and research, have made the name Schneider famous for quality lenses throughout the civilized world.

Accuracy is the most important word at the Schneider Optical Works. Accuracy of the glass curvature . . . of lens thickness . . . the distance between the elements . . . the diameter of the mounts — even to go so far as to develop special measuring devices, permitting an accuracy of measurement of 1/1000mm! Yes, this is careful and painstaking control.

Testing begins with meticulous attention to each individual piece of glass . . . then, with the components, which, when fitted together, determine the true quality of the finished lens. In addition to critical optical-bench checks, the most modern electronic testing instruments are employed for determining picture-making properties of each and every lens. Actually this unique procedure might be termed an "electro-cardiogram", which analyzes the lens to detect any optical flaws. This scientific method does not depend on the unstable properties of photographic emulsions (which vary from batch to batch) nor on processing conditions which often fluctuate. In other words, the magic of electronics helps build better lenses.

The house of Schneider, responsible for many "firsts", will continue as always to be one step ahead by pioneering the way with new techniques in order to uphold its established reputation for the very finest in lenses.

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BURLEIGH BROOKS INC.

SCHNEIDER XENAR

The Perfect General Purpose Lens

Ideal for all-round work in both color and black and white. Excellent light transmission, very fine definition with brilliant contrast and separation of tones. Meets every requirement for news, portrait, fashion, commercial and studio work.

Famous for flatness of field . . . Produces negatives that have snap . . . Negatives that can be enlarged to tremendous proportions without loss of detail. In short, whenever critical results are demanded, the Xenar is the answer.



XENAR LENSES IN BARREL (Normal Mount)

Focal Length	Speed	Code	Tax	Tax	List
100mm. (4in.)	f/3.5	.....	1262-60*	125-71 3056-66*	305-15 91.00*
105mm. (4 1/8in.)	f/3.5	Ynabv	1251-22*	124-66 3046-41*	304-22 74.50*
105mm. (4 1/8in.)	f/4.5	Ynmxi	1237-47*	123-41 3033-95*	303-09 54.50*
135mm. (5 1/4in.)	f/4.7	Ynovr	1239-69	..... 3035-72	..... 59.50
135mm. (5 1/4in.)	f/4.5	Ynobi	1239-69	..... 3035-72	..... 59.50
150mm. (6in.)	f/4.5	Ynojg	1243-02	..... 3038-72	..... 64.50
180mm. (7 1/8in.)	f/4.5	Ynpne	1259-70	..... 3053-73	..... 89.50
210mm. (8 3/8in.)	f/4.5	Ynrva	1269-70	..... 3062-73	..... 104.50
240mm. (9 1/2in.)	f/4.5	Ynsyw	12109-72	..... 3098-75	..... 164.50
300mm. (12in.)	f/4.5	Ynuan	12163-08	..... 30146-77	..... 244.50
360mm. (14 1/4in.)	f/4.5	Ynuhv	12239-79	..... 30215-81	..... 359.50
420mm. (16 3/4in.)	f/4.5	Ynuds	12313-16	..... 30281-84	..... 469.50
480mm. (19in.)	f/4.5	Ynuym	12459-90	..... 30413-91	..... 689.50

XENAR LENSES IN SHUTTER

Focal Length	Speed	Shutter	Code	Tax	Tax	List
100mm. (4in.)	f/3.5	C'P'R. Mx/Cro	.....	1287-84*	124-38 3078-03*	303-83 129.50*
105mm. (4 1/8in.)	f/3.5	C'P'R. Mx/Cro	Ynafv	1265-98*	122-84 3059-52*	302-56 97.50*
105mm. (4 1/8in.)	f/4.5	C'P'R. Mx/Cro	Ynnce	1265-76*	122-19 3059-26*	301-91 97.50*
135mm. (5 1/4in.)	f/4.7	C'P'R. Mx/Cro	Ynosk	1279-71	..... 3071-70	..... 119.50
135mm. (5 1/4in.)	f/4.5	C'P'R. Mx/CRI	Ynoez	1279-71	..... 3071-70	..... 119.50
150mm. (6in.)	f/4.5	C'P'R. Mx/CRI	Ynonu	1283-00	..... 3074-70	..... 124.50
180mm. (7 1/8in.)	f/4.5	C'P'R. Ex/CRII	Ynpxo	12129-73	..... 30116-70	..... 194.50
210mm. (8 3/8in.)	f/4.5	C'P'D. Ex/CDIII	Ynsei	12159-75	..... 30143-70	..... 239.50
240mm. (9 1/2in.)	f/4.5	C'P'D. Ex/CDIV	Yntbe	12193-10	..... 30173-70	..... 289.50
300mm. (12in.)	f/4.5	C'P'D. Ex/CDV	Ynudf	12256-46	..... 30230-70	..... 384.50

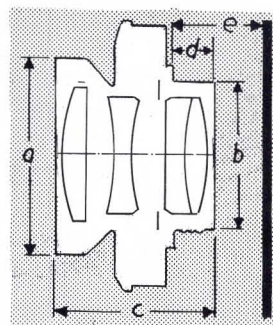
Prices subject to change without notice.

* Includes tax.

Focal length	Speed	Max. angle of view at f/22	Max. image circle diam. at f/22 at inf. mm.	Smallest "q" stop	Film size	Shutter	Front lens mount diam.	Rear lens mount diam.	Overall length	Distance from shutter to rear lens mount end	Distance from lens seat to film plane at inf.	Weight in grams—barrel	Weight in grams—shutter	Filter series
100mm	f/3.5	60°	125	32	2 1/4" x 3 1/4"	0	42	31.8	37.7	12.3	96.2±0.5	240	170	7
105mm	f/3.5	60°	125	32*	2 1/4" x 3 1/4"	0	42	31	34	9.8	99.8±0.3	240	170	7
105mm	f/4.5	62°	127	32	2 1/4" x 3 1/4"	0	42	31	30.3	7.4	99.8±0.3	225	165	7
135mm	f/4.5	62°	161	32	4" x 5"	1	42	31	34	9.1	127.2±0.5	220	155	7
135mm	f/4.7	62°	161	32	4" x 5"	0	42	37.5	33.5	10.2	125.8±0.5	310	245	7
150mm	f/4.5	62°	181	32	4" x 5"	1	42	37.5	38.5	12.1	143.5±0.5	310	250	7
180mm	f/4.5	62°	217	32	4" x 5"	EX/CRII	51	51	44	15.4	173.6±0.5	385	410	8
210mm	f/4.5	62°	253	32	5" x 7"	EX/CDIII	60	57.5	52.5	17.2	201.5±0.5	510	550	8
240mm	f/4.5	62°	282	32	5" x 7"	EX/CDIV	70	70	59	21.8	228.5±1.0	800	780	9
300mm	f/4.5	62°	363	32	8" x 10"	EX/CDV	85	85	73	29	289±1.0	1045	1085	
360mm	f/4.5	62°	433	32	8" x 10"	.....	105	105	81	23	336.5±1.0	1220	....
420mm	f/4.5	62°	507	32	11" x 14"	....	125	125	87.2	26.7	400.7±1.0	1710	....
480mm	f/4.5	62°	580	32	11" x 14"	.....	125	125	100.3	30.5	458±1.0	2100	....

* In Shutter—Barrel is f/22

CONSTRUCTION: Four glass — two cemented lenses and two air-spaced.



SCHNEIDER LENSES

Schneider • Three



SCHNEIDER XENOTAR



An Outstanding Superior High Speed Lens

A universal high speed lens meeting top requirements for definition, brilliance and contrast. By using the very latest types of high refracting glass plus newly introduced design, an outstanding optical correction is achieved in this lens. May be used at full aperture, providing full illumination over the entire field. An extremely high resolving power for both color and black and white.

Very popular with news and magazine photographers using press-type cameras.

XENOTAR LENSES IN BARREL (Normal Mount)

Focal Length	Speed	Code	Tax		Tax		List
80mm. (3¼in.)	f/2.8	Ynioj	1295-91*	128-72	3086-89*	307-90	139.50*
100mm. (4in.)	f/2.8	.....	12116-60*	1210-64	30105-54*	309-59	169.50*
105mm. (4½in.)	f/2.8	Yniwk	12116-60*	1210-64	30105-54*	309-59	169.50*
135mm. (5¼in.)	f/3.5	Ynjjo	12106-39	.....	3095-70	.....	159.50
150mm. (6in.)	f/2.8	Ynjas	12199-77	.....	30179-79	.....	299.50

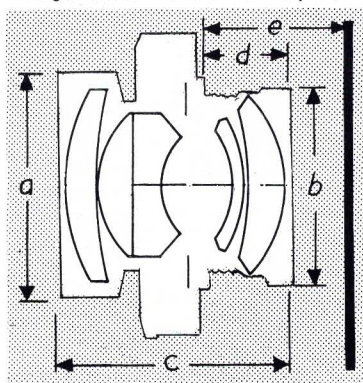
XENOTAR LENSES IN SHUTTER

Focal Length	Speed	Shutter	Code	Tax		Tax		List
80mm. (3¼in.)	f/2.8	C'P'R. Mx/Cro	Ynism	12132-72*	126-98	30119-57*	306-13	195.50*
100mm. (4in.)	f/2.8	C'P'R. Mx/Crl	Ynjyu	12163-40*	1210-97	30147-65	309-87	239.50*
105mm. (4½in.)	f/2.8	C'P'R. Mx/Crl	Ynixb	12153-37*	128-88	30138-52*	308-05	225.50*
135mm. (5¼in.)	f/3.5	C'P'R. Mx/Crl	Ynjot	12146-34	.....	30131-70	.....	219.50
150mm. (6in.)	f/2.8	C'P'R. Ex/CrII	Ynjee	12266-35	.....	30239-72	.....	399.50

Prices subject to change without notice.

* Includes tax.

CONSTRUCTION: Four air-spaced components of five glasses (three single lenses and a cemented pair).



Focal length	Speed	Max. Angle of view at f/22	Max. image circle diam. at f/22 at inf. mm.	Smallest "f" stop	Film size	Shutter	a	b	c	d	e	Weight in grams. barrel	Weight in grams. shutter	Filter series.
80mm	f/2.8	59°	86	22	2¼"x2¼"	1	51	38	42.3	14.1	73.5±0.5	240	240	7
100mm	f/2.8	60°	116	22	2¼"x3¼"	1	60	48	56.3	20.6	95.3±0.5	470	400	8
135mm	f/3.5	59°	150	22	4"x5"	1	60	48	52	20.9	125.3±0.5	430	380	8
150mm	f/2.8	60°	160	32	4"x5"	EX/CRII	80	63	77.2	31.4	139±0.5	780	875	9

BURLEIGH BROOKS INC.

Schneider • Four

SCHNEIDER SYMMAR f/5.6

For Work Of Finest Commercial Quality

A medium speed commercial lens with excellent definition and contrast for black and white and color photography. Its high efficiency in color correction and the rendition of finest details, make it an unsurpassed instrument for industrial and architectural work.

The Symmar has an angle of view of 65° at full aperture, which increases to approximately 70° when the lens is stopped down. This permits a much wider use of camera movements than with other lenses.

If the extension of the camera is sufficiently long, the rear element of the Symmar can be used alone. Its focal length is approximately 1.75 X that of the complete lens, its speed is f/12, while its angle of view is approximately 40°. At full aperture it is quite suitable for portraiture.



SYMMAR f/5.6 IN BARREL (Normal Mount)

Focal Length	Code		Tax		Tax	*List
100mm. (4in.)	Yrocp	1262-60*	125-71	3056-66*	305-15	91.00
105mm. (4 1/8 in.)	Yrnca	1254-68*	124-96	3049-50	304-50	79.50
135mm. (5 1/4 in.)	Yrmhu	1259-70	.....	3053-73	.....	89.50
150mm. (6in.)	Yrmiv	1273-04	.....	3065-70	.....	109.50
180mm. (7 1/8 in.)	Yrmob	1286-38	.....	3077-74	.....	129.50
210mm. (8 1/4 in.)	Yrmse	12104-39	.....	3093-95	.....	156.50
240mm. (9 1/2 in.)	Yrmui	12126-40	.....	30113-76	.....	189.50
300mm. (12in.)	Yrmyc	12216-44	.....	30194-70	.....	324.50
360mm. (14 1/4 in.)	Yrnax	12293-15	.....	30263-70	.....	439.50

Prices subject to change without notice.

* Includes tax.

SYMMAR f/5.6 IN SHUTTER

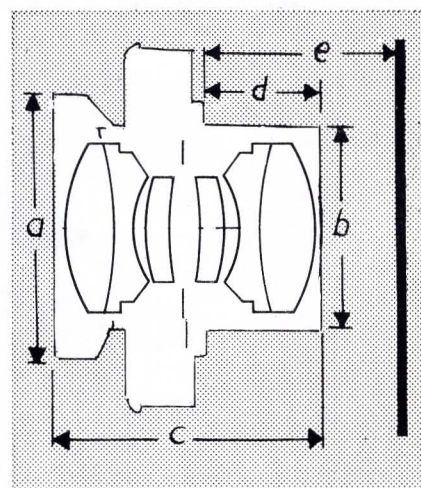
Focal Length	Shutter	Code	Tax			Tax	*List
100mm. (4in.)	C'P'R. Mx/Croo	Yroag	1286-48	124-31	3078-03	303-83	127.50
105mm. (4½in.)	C'P'R. Mx/Croo	Yrnev	1276-37*	124-01	3066-84*	303-59	112.50
135mm. (5¼in.)	C'P'R. Mx/Cro	Yrnca	1279-67	.....	3071-70	.....	119.50
150mm. (6in.)	C'P'R. Mx/CRI	Yrnfa	12109-67	.....	3098-70	.....	164.50
180mm. (7½in.)	C'P'R. Mx/CRI	Yrngy	12123-06	.....	30110-70	.....	184.50
210mm. (8¼in.)	C'P'R. Mx/CRI	Yrnip	12139-74	.....	30125-70	.....	209.50
240mm. (9½in.)	C'P'D. Ex/CRII	Yrnmi	12199-77	.....	30179-70	.....	299.50
300mm. (12in.)	C'P'D. Ex/CDIII	Yrnne	12296-48	.....	30266-70	.....	444.50
360mm. (14¼in.)	C'P'D. Ex/CDIV	Yrnof	12366-52	.....	30329-70	.....	549.50

Prices subject to change without notice.

* Includes tax.

					a	b	c	d	e			
Focal length	Max. image circle diam. at f/22 at inf. mm	Smallest "r" stop	Film size	Shutter	Front lens mount diam.	Rear lens mount diam.	Overall length	Distance from shutter to rear lens mount end	Distance from lens seat to film plane at inf.	Weight in grams—barrel	Weight in grams—shutter	Filter series
100mm	149	45	2 1/4" x 3 1/4"	0	42	31.5	36.3	14.1	85.9±0.8	250	190	7
105mm	151	45	2 1/4" x 3 1/4"	00	32	28.5	34.5	14.5	105.7±0.8	135	105	6
135mm	190	45	4" x 5"	0	42	31.5	41.5	18.1	131.0±0.8	255	195	7
150mm	210	45	4" x 5"	1	51	38	46.5	21.6	146.5±1.0	375	310	8
180mm	253	45	5" x 7"	1	60	45	57.2	24.6	174.7±1.0	475	400	8
210mm	297	45	5" x 7"	1	60	54	64.1	29.2	204.7±1.0	540	485	8
240mm	335	45	8" x 10"	EX/CRII	70	60	75.0	35.9	236.4±1.0	700	745	9
300mm	400	64	8" x 10"	EX/CDIII	90	80	89.5	42.5	283.8±1.0	1175	1225	.
360mm	500	64	11" x 14"	EX/CDIV	110	100	112.5	54.8	356.3±1.0	1760	1750	.

CONSTRUCTION: Four air-spaced components of six elements (two cemented and two individual lenses).



SCHNEIDER LENSES

Schneider • Five



SCHNEIDER COMPONON



Super-fine Lens For Critical Enlarging

The acme of enlarging lens design. Particularly recommended for larger negative sizes. Designed to meet the most critical standards for color or black and white. Famous for its superb definition and contrast, particularly in large scale enlargements.

These fine lenses are also used for microfilm, instrument reading, engineering blow-ups, Schlieren photography (refined optical method for observing disturbances or changes of refractive indices or thicknesses in transparent media) and other similar special applications. Supplied in barrel with click stops or in shutter.

COMPONON LENSES IN BARREL (Normal Mount)

Focal Length, Speed	Code			List
28mm. f/4 (1 1/8 in.)	Yngyd	1235-68	3032-10	53.50
28mm. f/4 (1 1/8 in.) Leica Mount	Ynhaj	1239-32	3035-37	58.95
*50mm. f/4 (2 in.)	Ynhiv	1239-69	3035-72	59.50
50mm. f/4 (2 in.) Leica Mount	Ynidc	1243-69	3039-30	65.50
*60mm. f/5.6 (2 1/4 in.)	Ynikl	1241-69	3037-50	62.50
*80mm. f/5.6 (3 1/4 in.)	Yhijj	1246-36	3041-70	69.50
*105mm. f/5.6 (4 1/8 in.)	Ynigv	1256-35	3050-70	84.50
135mm. f/5.6 (5 1/4 in.)	Ynilx	1259-70	3053-70	89.50
150mm. f/5.6 (6 in.)	Ynhyc	1273-04	3065-70	109.50
180mm. f/5.6 (7 1/8 in.)	Yniaz	1293-05	3083-70	139.50
210mm. f/5.6 (8 1/4 in.)	Ynicr	12113-06	30101-70	169.50
240mm. f/5.6 (9 1/2 in.)	Ynief	12139-74	30125-70	209.50
300mm. f/5.6 (12 in.)	Ynihg	12239-79	30215-70	359.50
360mm. f/5.6 (14 1/4 in.)	Ynifn	12290-48	30261-30	435.50

*Adapter ring with Leica threads (specify lens) — 2.00.

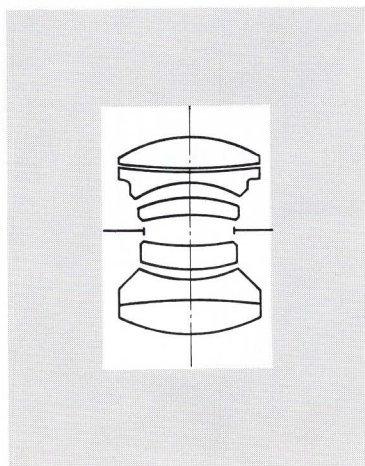
COMPONON LENSES IN SHUTTER

Focal Length	Speed	Shutter	Code	Tax	Tax	List
50mm. (2 in.)	f/4	C'P'R. Mx/Croo	..... 1257-50*	122-54	3052-93*	2.33 85.00*
60mm. (2 1/4 in.)	f/5.6	C'P'R. Mx/Croo	..... 1260-94*	122-85	3055-04*	2.61 90.00*
80mm. (3 1/4 in.)	f/5.6	C'P'R. Mx/Croo	..... 1260-94*	122-85	3055-04*	2.61 90.00*
105mm. (4 1/8 in.)	f/5.6	C'P'R. Mx/Croo	..... 1271-25*	123-78	3064-38*	3.46 105.00*
135mm. (5 1/4 in.)	f/5.6	C'P'R. Mx/Cro	..... 1270-00	.....	3063-00	..... 105.00
150mm. (6 in.)	f/5.6	C'P'R. Mx/CRI	..... 12100-00	.....	3090-00	..... 150.00
180mm. (7 1/8 in.)	f/5.6	C'P'R. Mx/CRI	..... 12113-39	.....	30102-05	..... 170.00

Prices subject to change without notice.

*Includes tax.

CONSTRUCTION: Four to six glass, air-spaced.



Focal length	Speed	Negative size	Smallest "f" stop	Lens board hole diam. mm	Number of elements	Front mount diameter mm	Rear extension from flange—mm
50mm	f/4	35mm	16	27	5	36	7
60mm	f/5.6	1 1/8" x 1 1/8"	32	27	6	36	7
80mm	f/5.6	2 1/4" x 2 1/4"	32	27	6	36	8
105mm	f/5.6	2 1/4" x 3 1/4"	45	35	4	36	6
135mm	f/5.6	4" x 5"	45	35	6	42	15
150mm	f/5.6	4" x 5"	45	42	6	57	19
180mm	f/5.6	5" x 7"	45	42	6	60	0
210mm	f/5.6	5" x 7"	45	42	6	60	27
240mm	f/5.6	8" x 10"	45	80	6	70	18
300mm	f/5.6	8" x 10"	64	94	6	90	15

BURLEIGH BROOKS INC.

Schneider • Six

SCHNEIDER COMPONAR

High Quality, Budget Price Enlarging Lens

The superb resolution and efficiency of the Componar is well known. It is extremely popular for most normal enlarging work from small and medium size negatives. Extremely flat field . . . Excellent qualities of contrast, graduation and definition. Splendid sharpness even at full aperture . . . Shorter exposures, too! Furnished in barrel (normal mounts) with click-stop diaphragms.

The calibre of an enlargement is dependent upon the performance of the enlarging lens, in quite the same manner as the quality of the camera lens determines the quality of the negative selected for enlargement. The Componar preserves the definition and brilliance of the original.



COMPONAR LENSES

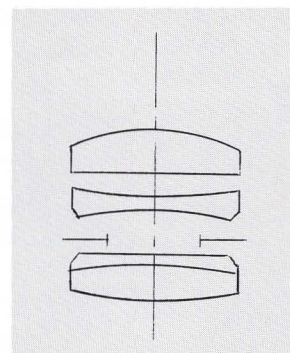
Focal Length	Code			List
*50mm. f/4 (2in.)	Ytiix	1223-01	3020-71	34.50
50mm. f/4 Leica Mount	Ytiju	1226-35	3023-72	39.50
*60mm. f/4 (2 1/4 in.)	Ytiky	1225-01	3022-51	37.50
*75mm. f/4.5 (3in.)	Ytfyg	1223-01	3020-71	34.50
105mm. f/4.5 (4 1/8 in.)	Ytgyk	1223-01	3020-71	34.50
135mm. f/4.5 (5 1/4 in.)	Ytidb	1236-35	3032-72	54.50

* Adapter ring with Leica threads (specify lens) — 2.00.

Focal length	Speed	Negative size	Smallest f stop	Lens board hole diameter—mm	Number of elements	Front lens mount diameter—mm	Rear extension from flange —mm
50mm	f/4	35mm	32	27	4	36	3
*50mm	f/4	35mm	32	39	4	36	3
60mm	f/4	1 5/8" x 1 5/8"	32	27	3	36	3
75mm	f/4.5	2 1/4" x 2 1/4"	22	27	3	36	5
105mm	f/4.5	2 1/4" x 3 1/4"	22	35	3	48	5
135mm	f/4.5	4" x 5"	22	42	4	57	8

* Leica Mount

CONSTRUCTION:
Three or four glass.



SCHNEIDER COMPARON

For Highly Specialized Applications

A new enlarging lens with the famous Schneider superb image quality for use where a magnification mainly between 2:1 and 6:1 is required. The optimum ratio is 4:1 but very acceptable results can be obtained in the 8:1 to 12:1 magnification range.



COMPARON LENSES

Focal Length, Speed	Code			List
105mm. f/4.5 (4 1/8 in.)	Ytird	1239-69	3035-70	59.50
135mm. f/4.5 (5 1/4 in.)	Ytiss	1256-36	3050-70	84.50
150mm. f/5.6 (6in.)	Ytitp	1249-69	3044-70	74.50
210mm. f/5.6 (8 1/4 in.)	Ytiur	1276-37	3068-70	114.50
300mm. f/5.6 (12in.)	Ytiva	12186-43	30167-70	279.50

Prices subject to change without notice.

SCHNEIDER LENSES



Schneider • Seven

SCHNEIDER ANGULON f/6.8

For General Wide Angle Work



A moderately priced lens of symmetrical design for working in confined spaces. The angular field of 80° increases to 90° when stopped down. Highly corrected and free of distortion. At the smaller apertures, extensive use may be made of camera movements. In fact, the next shorter focal length Angulon may be used instead to obtain extreme wide angle coverage of a given negative size.

For landscapes or portraits, the front element used independently, has a focal length 2 X the complete lens, while the rear element has a focal length 1½ X. Exposure factor is 4 X for the front lens and 3 X for the rear.

ANGULON f/6.8 LENSES IN BARREL (Normal Mount)

Focal Length	Code	Tax		Tax		List
65mm. (2⅝in.)	Yohuz	1244-68*	124-08	3040-44*	303-68	64.95*
90mm. (3½in.)	Yoidd	1251-56*	124-71	3046-67*	304-24	74.95*
120mm. (4¾in.)	Yoime	1259-50*	125-43	3053-86*	304-90	86.50*
165mm. (6½in.)	Yoiwr	1277-71	.....	3069-90	.....	116.50
210mm. (8¼in.)	Yokad	1293-05	.....	3083-70	.....	139.50

Prices subject to change without notice.

* Includes tax.

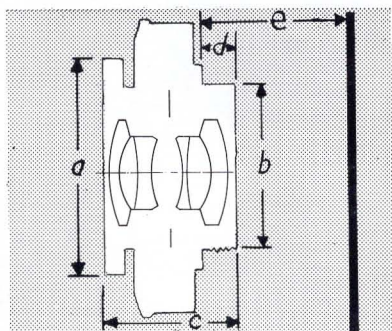
ANGULON f/6.8 LENSES IN SHUTTER

Focal Length	Shutter	Code	Tax		Tax		List
65mm. (2⅝in.)	C'P'R. Mx/Croo	Yohwa	1267-43*	123-18	3060-86*	302-90	99.50*
65mm. (2⅝in.)	Prontor o/oo	Yohok	1264-05*	123-27	3057-91*	303-02	94.50*
90mm. (3½in.)	Prontor-o	Yoiij	1264-05*	123-27	3057-91*	303-02	94.50*
90mm. (3½in.)	C'P'R. Mx/Cro	Yoigb	1274-13*	123-29	3066-89*	302-98	109.50*
120mm. (4¾in.)	C'P'R. Mx/Crl	Yoisi	1297-69*	123-94	3088-11*	303-52	144.50*
120mm. (4¾in.)	Ibsor-I	Yoipu	1271-07*	124-12	3064-19*	303-73	104.50*
165mm. (6½in.)	C'P'R. Ex/CrII	Yoizo	12149-74	.....	30134-70	.....	224.50
210mm. (8¼in.)	C'P'D. Ex/CdIII	Yokga	12183-09	.....	30164-70	.....	274.50

Prices subject to change without notice.

* Includes tax.

CONSTRUCTION: Two components of three cemented lenses each.



					a	b	c	d	e			
Focal length—mm.	Max. angle of view at f/22—degrees	Max. angle of view at f/22	Smallest f stop	Film size	Front lens mount diameter—mm	Rear lens mount diameter—mm	Length of lens—mm	Distance from shutter to rear lens mount end	Distance from lens seat to film plane at inf.	Weight in grams—barrel	Weight in grams—shutter	Filter series
65	81°	109	22	2¼"x3¼"	32	24	21	5.5	63.5±0.5	100	80	5
90	81°	152	32	4"x5"	42	31	25.5	7.5	89.8±0.5	195	130	6
120	83°	200	32	5"x7"	51	37.5	29.5	9.1	120.8±1.0	290	225	7
165	84°	278	32	8"x10"	60	48	34.3	13.3	166.4±1.0	255	310	8
210	85°	353	45	11"x14"	70	57	45.8	19.1	212.6±1.0	385	475	9

BURLEIGH BROOKS INC.

Schneider • Eight

SCHNEIDER-SUPER ANGULON f/8

Unmatched For Critical Wide Angle Photos

Modern air-spaced high-efficiency construction offers highest edge-to-edge definition and illumination . . . Distortion free linear perspective with **extreme angle of view of 100°** available at full aperture.

The Super-Angulon f/8 possesses excellent resolution and contrast even at full aperture, so that finest results can be obtained without stopping down. It enables the full diameter of the image circle to be utilized without loss of quality. For technical reasons, it may be advantageous to stop down slightly. As a "normal" wide-angle lens, the Super-Angulon permits the fullest use of all the movements of the latest professional-type cameras.



SUPER-ANGULON f/8 IN SHUTTER

Focal Length	Shutter	Code		Tax		Tax	List
47mm. (1 7/8 in.)	C'P'R. Mx/Voo	Yoofu	12122-41*	128-06	30110-66*	307-40	179.59*
47mm. (1 7/8 in.)	Prontor Press	Yoozj	12108-92*	127-60	3098-45*	306-87	159.50*
65mm. (2 5/8 in.)	C'P'R. Mx/Voo	Yooms	12125-88*	128-45	30113-74*	307-61	184.50*
65mm. (2 5/8 in.)	Prontor Press	Yopac	12119-21*	128-47	30107-77*	307-67	174.50*
75mm. (3 in.)	C'P'R. Mx/Voo	Yopif	12134-81*	129-23	30121-83*	308-32	197.50*
75mm. (3 in.)	Prontor Press	Yopji	12134-33*	129-27	30115-87*	308-42	187.50*
90mm. (3 1/2 in.)	C'P'R. Mx/Voo	Yoorg	12143-12*	1210-17	30129-38*	309-21	209.50*
90mm. (3 1/2 in.)	Prontor Press	Yooja	12136-41*	1210-04	30123-36*	309-14	199.50*
121mm. (4 3/4 in.)	C'P'R. Mx/Cro	Yooud	12223-01	.....	30200-70	.....	334.50
121mm. (4 3/4 in.)	Prontor Press	Yopua	12213-11	.....	30191-70	.....	319.50
165mm. (6 1/2 in.)	C'P'R. Mx/Crl	Yoowb	12333-50	.....	30300-00	.....	500.00
210mm. (8 1/4 in.)	C'P'R. Mx/Crl	Yooxv	12530-27	.....	30477-00	.....	795.00

NEW!

53mm. (2 1/8 in.) Super-Angulon f/4
in Compur Mx/Cro Shutter

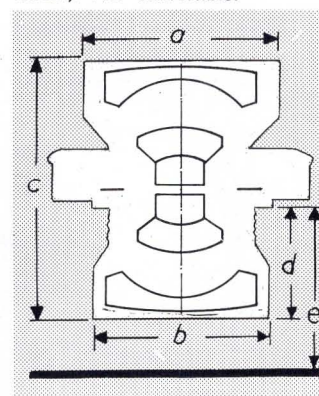
..... 12321-59* 123-52 30290-81* 322-78 469.50*

Prices subject to change without notice.

* Includes tax

					a	b	c	d	e		
Focal length	Maximum angle of view at f/22	Max. image circle diameter—mm	Smallest f stop	Film size	Front lens mount diameter—mm	Rear lens mount diameter	Overall length	Distance from shutter to rear lens mount end	Distance from lens seat to film plane at int.	Weight in grams	Filter series
47mm	100°	112	32	2 1/4" x 3 1/4"	42	34	44.5	18.5	50.9±0.5	175	7
65mm	100°	153	45	4" x 5"	51	42	57	25	70.4±0.5	265	8
90mm	100°	214	64	5" x 7"	70	57	80.3	36.2	100±0.5	355	9
121mm	100°	286	64	8" x 10"	80	75	103.5	42.5	100±1.0	675	
165mm	100°	393	64	11" x 14"	110	100	142.5	60.5	130±1.0	1650	
210mm	100°	501	64	.....	132	125	178.5	77.5	228±1.0	2325	

CONSTRUCTION: Six glass, four air-spaced components (two cemented pair and two individual lenses). Not convertible.



SCHNEIDER LENSES

Schneider • Nine



SCHNEIDER TELE-ARTON f/5.5



The Ideal Tele Lens For Medium Size Cameras

This series of telephoto lenses was specifically designed for medium size cameras — from 2¼"x3¼" to 4"x5". It produces an even illumination of the negative with virtually no vignetting. High resolving power is another of its features. This type of lens, due to its construction, requires approximately half the distance between the rear lens surface and the film plane, that would be needed for a lens of the same focal length, belonging to the Symmar or Xenar family. The Tele-Arton has excellent definition even without stopping down. By employing new types of optical glass and increasing refracting surfaces, an efficiency has been obtained that is quite amazing. This has also resulted in greater contrast.

TELE-ARTON f/5.5 IN BARREL (Normal Mount)

Focal Length	Film Size	Code			List
180mm. (7⅞in.)	2¼"x3¼"	Yrifk	1273-04	3065-74	109.50
240mm. (9½in.)	2¼"x3¼"	Yriin	12106-39	3095-75	159.50
240mm. (9½in.)	4"x5"	Yriot	12116-39	30104-75	174.50
270mm. (10⅝in.)	4"x5"	Yrisa	12146-41	30131-77	219.50

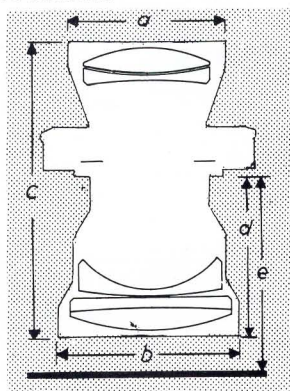
TELE-ARTON f/5.5 IN SHUTTER

Focal Length	Film Size	Shutter	Code			List
180mm. (7⅞in.)	2¼"x3¼"	C'P'R. Mx/Cro	Yrigz	1296-38	3086-70	144.50
240mm. (9½in.)	2¼"x3¼"	C'P'R. Mx/CrI	Yrijo	12143-07	30128-70	214.50
240mm. (9½in.)	4"x5"	C'P'R. Ex/CrII	Yripv	12189-76	30170-70	284.50
270mm. (10⅝in.)	4"x5"	C'P'R. Ex/CrII	Yriub	12216-44	30194-70	324.50
*180mm. (7⅞in.) Tele-Arton f/4		C'P'R. Mx/CrI	Yrifk	12179-76	30161-70	269.50

*New item.

Prices subject to change without notice.

CONSTRUCTION: Four components, five elements.



						a	b	c	d	e			
Focal length	Maximum angle of view at f/22	Max. image circle diam.—mm	Smallest f stop	Film size	Shutter	Front lens mount diameter—mm	Rear lens mount diameter	Overall length—mm	Distance from shutter to rear lens mount end	Distance from lens seat to film plane at inf.	Weight in grams—barrel	Weight in grams—shutter	Filter series
180mm	35°	113	32	2¼"x3¼"	0	42	48	76.8	41.8	115.5±0.5	380	315	6
240mm	30°	129	32	2¼"x3¼"	1	51	50	103.5	47	145.9±0.5	590	370	8
240mm	35°	152	32	4"x5"	EX/CRII	51	65	103	59	158±0.5	660	800	8
270mm	35°	171	32	4"x5"	EX/CRII	60	70	113.5	62	172.9±0.5	870	900	8

BURLEIGH BROOKS INC.

Schneider • Ten

SCHNEIDER TELE-XENAR f/5.5

World's Favorite Tele Lens

The most popular telephoto lens for use primarily on large size cameras to capture distant scenes, sports, wild-life, etc. It is preferred by most newsphotographers for its extreme sharpness right up to the corners; for its absence of distortion and for its uniform flat field.

Compact and light in weight, the Tele-Xenar is the gate-way to pictures of more pleasing composition and better perspective.



TELE-XENAR f/5.5 IN BARREL (Normal Mount)

Focal Length	Film Size	Code			List
360mm. (14 $\frac{1}{4}$ in.)	5"x7"	Yrgpi	12116-39	30104-70	174.50
500mm. (20in.)	8"x10"	Yriba	12306-49	30275-70	459.50

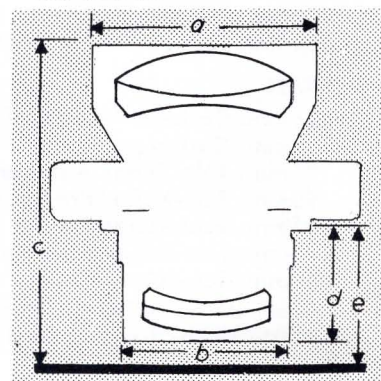
TELE-XENAR f/5.5 IN SHUTTER

Focal Length	Film Size	Shutter	Code			List
360mm. (14¼in.)	5"x7"	C'P'D. Ex/CdIII	Yrhat	12206-44	30185-70	309.50
500mm. (20in.)	8"x10"	C'P'D. Ex/Cdv	Yricl	12393-20	30353-70	589.50

Prices subject to change without notice.

Focal length	Maximum angle of view at f/22	Max. image circle diam.—mm	Smallest f stop	Film size	Shutter	a	b	c	d	e	Weight in grams—barrel	Weight in grams—shutter	Filter series
360mm (14 $\frac{1}{4}$ in.)	35°	209	32	5"x7"	EX/CDIII	70	57	111	30.8	214±1.0	655	670	8
500mm (20in.)	35°	314	32	8"x10"	EX/CDV	110	86	156	63.2	312±1.5	1635	1660	9

CONSTRUCTION: Two components, four elements.



SCHNEIDER LENSES

Schneider • Eleven



SCHNEIDER INTERCHANGEABLE LENSES

Especially Computed For 35mm. Single Lens Reflex Cameras • FROM 28mm TO 360mm

Achieve greater versatility and widen the scope of your 35mm. Single Lens Reflex tremendously, by adding the finest in special lenses. These Schneider interchangeable lenses can genuinely boast of excellent definition, even distribution of light and superb color correction.

Fully automatic pre-set diaphragms make picture taking considerably easier . . . Permit inspection of the subject on the focusing screen **at full aperture** — until the shutter is released . . . Only then does the diaphragm close down to the pre-set opening. After exposure the diaphragm returns automatically to full aperture.

Automatic and Stop-o-matic lenses feature automatic depth-of-field indicators: Two separate red-tinted areas move together or move apart automatically while the zone between them clearly indicates the depth-of-field range for any of the pre-set apertures.

Pre-set diaphragm lenses are focused at full aperture. After focusing has been accomplished, a turn of the outer lens ring closes the diaphragm down to the pre-selected opening. These lenses have the conventional depth-of-field scales engraved on the barrel.

Lenses are available in various mounts, each one precision geared to the camera on which it is used . . . click-stops on all Schneider interchangeable lenses.



EXAKTA

28mm. Curtagon Stopomatic f/4
35mm. Curtagon Stopomatic f/2.8
50mm. Xenon Stopomatic f/1.9
135mm. Tele-Xenar Stopomatic f/3.5
90mm. Tele-Xenar Pre-Set f/3.5
135mm. Tele-Xenar Pre-Set f/3.5
200mm. Tele-Xenar Pre-Set f/5.5
360mm. Tele-Xenar Pre-Set f/5.5

Code

Yrszu 12123-48*
Yrude 12130-36*
Yrsux 12103-09*
Yrswi 12109-72
Yrjeu 1263-70*
Ysfsu 1279-71
Yfisiz 1289-71
Yriyo 12163-08

Tax

1211-27
1211-90
129-29
.....
126-00
.....
.....
.....

30111-76*
30117-99*
3093-40*
3098-70
3059-46*
3071-70
3080-70
30146-70

Tax

3010-16
3010-73
308-49
.....
305-41
.....
.....
.....

List

179.50*
189.50*
150.00*
164.50
95.50*
119.50
134.50
244.50

PRACTICA, PENTACON

28mm. Curtagon Automatic f/4†
35mm. Curtagon Automatic f/2.8†
135mm. Tele-Xenar Automatic f/3.5†
90mm. Tele-Xenar Pre-Set f/3.5
135mm. Tele-Xenar Pre-Set f/3.5
200mm. Tele-Xenar Pre-Set f/5.5
360mm. Tele-Xenar Pre-Set f/5.5

Yrujt 1298-03*
Yruld 12102-84*
Yruki 1289-71
Yrjik 1261-57*
Ysfat 1279-71
Ysnfa 1289-71
Yrjao 12163-08

128-95
129-39
.....
125-62
.....
.....
.....

3088-73*
3093-08*
3080-70
3055-73*
3071-70
3080-70
30146-70

308-07
308-46
.....
305-07
.....
.....
.....

142.50*
149.50*
134.50
89.50*
119.50
134.50
244.50

PRACTINA

135mm. Tele-Xenar Pre-Set f/3.5
200mm. Tele-Xenar Pre-Set f/5.5
360mm. Tele-Xenar Pre-Set f/5.5

Ysfuw 1279-71
Ysfwd 1289-71
Ysfxy 12163-08

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3071-70
3080-70
30146-70

.....
.....
.....

119.50
134.50
244.50

PENTAX

28mm. Curtagon Automatic f/4†
35mm. Curtagon Automatic f/2.8†
135mm. Tele-Xenar Automatic f/3.5†
90mm. Tele-Xenar Pre-Set f/3.5
135mm. Tele-Xenar Pre-Set f/3.5
200mm. Tele-Xenar Pre-Set f/5.5
360mm. Tele-Xenar Pre-Set f/5.5

Yrund 1298-03*
Yruml 12102-84*
Yruds 1289-71
Yrjik 1261-57*
Ysfat 1279-71
Ysnfa 1289-71
Yrjao 12163-08

128-95
129-39
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125-62
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3088-73*
3093-08*
3080-70
3055-73*
3071-70
3080-70
30146-70

308-07
308-46
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305-07
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142.50*
149.50*
134.50
89.50*
119.50
134.50
244.50

Prices subject to change without notice.

† Internal release.

* Includes tax.

Note: 90 to 360mm. lenses are supplied with threaded reversible lens hoods (mount on lens in reverse position when not in use—fits in case)

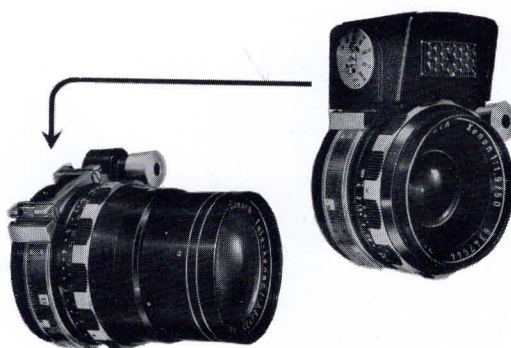
SCHNEIDER LENSES



SCHNEIDER INTERCHANGEABLE METER-CONTROL LENSES

For 35mm. Single Lens Reflex Cameras • WITH FULLY AUTOMATIC PRE-SET DIAPHRAGMS

The additional advantage of an excellent exposure meter which couples directly to the iris diaphragm of any of these lenses, for quick easy shooting. If one desires to take a picture at a specified pre-set aperture, the proper shutter speed can be read off from the lens, after bringing the two meter pointers to coincidence. This reading is then transferred to the speed dial on the camera. The meter, scaled in ASA ratings, can be detached instantly at will and fitted to any lens belonging to this series. The price of the meter is additional.



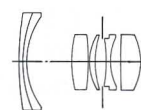
	Code		Tax		Tax	List
EXAKTA						
50mm. Xenon Stopomatic f/1.9	Ypbid	12123-48*	1211-27	30111-76*	3010-16	179.50*
35mm. Curtagon Stopomatic f/2.8	Ypbow	1298-03*	128-95	3088-73*	308-07	142.50*
28mm. Curtagon Stopomatic f/4	Ypcwe	12102-84*	129-39	3093-08*	308-46	149.50*
135mm. Tele-Xenar Stopomatic f/3.5	Ypbuc	1296-38	.....	3086-70	.....	144.50
PRACTICA						
50mm. Xenon Automatic f/1.9	Ypcar	12123-48*	1211-27	30111-76*	3010-16	179.50*
35mm. Curtagon Automatic f/2.8	Ypceu	1298-03*	128-95	3088-73*	308-07	142.50*
28mm. Curtagon Automatic f/4	Ypcxa	12102-84*	129-39	3093-08*	308-46	149.50*
135mm. Tele-Xenar Automatic f/3.5	Ypcup	1296-38	.....	3086-70	.....	144.50
PENTAX						
50mm. Xenon Automatic f/1.9	Ypcdi	12123-48*	1211-27	30111-76*	3010-16	179.50*
35mm. Curtagon Automatic f/2.8	Ypcik	1298-03*	128-95	3088-73*	308-07	142.50*
28mm. Curtagon Automatic f/4	Ypdac	12102-84	129-39	3093-08*	308-46	149.50*
135mm. Tele-Xenar Automatic f/3.5	Ypcvy	1296-38	.....	3086-70	.....	144.50
INTERCHANGEABLE METER	Ypbyo	1223-35	.....	3021-00	.....	35.00

Prices subject to change without notice.

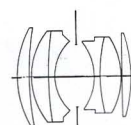
*Includes tax.

Focal length	Name of lens	Number of elements	Angle of view—degrees	Image scale compared to 50mm lens	Smallest f stop	Slip-on filter mount diam.—mm	Length of lens—mm	Weight—ounces	Closest distance—feet	Filter series
28mm	Curtagon Automatic f/4	7	75	0.56	22	51	49	7.5	11 in.	7
28mm	Curtagon Stopomatic f/4	7	75	0.56	22	51	49	11.6	11 in.	7
35mm	Curtagon Automatic f/2.8	6	63	0.7	22	51	50	7.4	1'-2"	7
35mm	Curtagon Stopomatic f/2.8	6	63	0.7	22	51	51	11.4	1'-2"	7
50mm	Xenon Stopomatic f/1.9	6	45	1.0	22	51	51	12	1'-8"	7
90mm	Tele-Xenar Pre-Set f/3.5	4	27	1.8	22	51	66	12.4	3'-5"	7
135mm	Tele-Xenar Pre-Set f/3.5	4	19	2.7	22	51	90	20.6	5'-0	7
135mm	Tele-Xenar Stopomatic f/3.5	4	19	2.7	32	51	96	24.3	5'-0	7
200mm	Tele-Xenar Pre-Set f/5.5	4	13	4.0	32	51	140	20.8	7'-0	7
360mm	Tele-Xenar Pre-Set f/5.5	4	7	7.0	32	75	250	45.8	15'-0	8

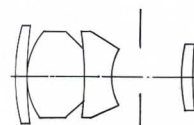
(Schneider Interchangeable Lenses For 35mm Single Lens Reflex Cameras)



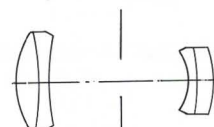
Curtagon



Xenon



Tele-Xenar 90mm—135mm



Tele-Xenar 200mm—360mm

SCHNEIDER LENSES

Schneider • Thirteen



SCHNEIDER LENSES

For 8mm. Movie Cameras

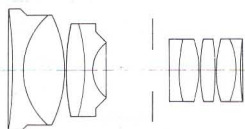


An excellent group of high speed, needle-sharp lenses for standard 8mm. movie cameras. Click-stop diaphragms . . . smooth, accurate helical focusing . . . Mounts are made of brass, chromium-plated . . . Convenient depth-of-field scales. Highest quality optics — finest mechanical construction . . . Bench tested for outstanding performance. Furnished with "D" mounts.

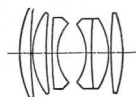
Focal Length	Speed	Name	Code		Tax		Tax	List
5.5mm.	f/1.8	Cinegon	Yrosf	1268-45*	126-25	3061-95*	305-63	99.50*
12.5mm.	f/2.7	Kinoplan	Ysdei	1227-17*	122-47	3024-50*	302-24	39.50*
13mm.	f/1.5	Kino-Xenon	Yronb	1272-57*	126-62	3065-69*	305-97	105.50*
25mm.	f/1.5	Kino-Xenon	Yroxi	1265-01*	125-93	3058-84*	305-35	94.50*
38mm.	f/2.8	Kino-Xenar	Ympee	1247-81*	124-36	3043-27*	303-93	69.50*
75mm.	f/2.8	Makro-Tele-Xenar	Ysfyi	1299-72	.....	3089-70	.....	149.50

Prices subject to change without notice.

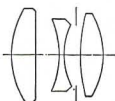
* Including tax.



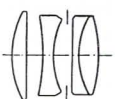
5.5mm. Cinegon f/1.8



13mm. Xenon f/1.5



12.5mm. Kinoplan f/2.7



38mm. Kino-Xenar f/2.8

Focal length	Lens	Angle—degrees	Number of elements	Smallest f stop	Closest distance—feet	Slip-on filter mount diameter mm	Largest diam.—mm	Filter series
5.5mm.	f/1.8 Cinegon	57	9	16	8 in.	23	28.8	5
12.5mm.	f/2.7 Kinoplan	25.2	4	16	1	24	28.8	5
13mm.	f/1.5 Kino-Xenon	25.1	6	16	1	24	28.8	5
25mm.	f/1.5 Kino-Xenon	13.2	6	16	1.75	24	28.8	5
38mm.	f/2.8 Kino-Xenar	9	4	16	1.75	24	28.8	5

BURLEIGH BROOKS INC.

Schneider • Fourteen

SCHNEIDER VARIOGON ZOOM f/1.8

For near or far shots • FROM 8MM. TO 48MM.

A continuous variable Zoom lens for 8MM. Movie Cameras, with a speed of f/1.8 and with sharpness **at any focal length** surpassing that of even the finest fixed focal length lens systems. The parallax-free, constant image reflex viewfinder provides a brilliant image and may be employed as a rangefinder for close work. This truly perfect lens is the most cherished instrument of every movie-maker.

Motor drive, as optional equipment, can be fitted without difficulty at a later date.

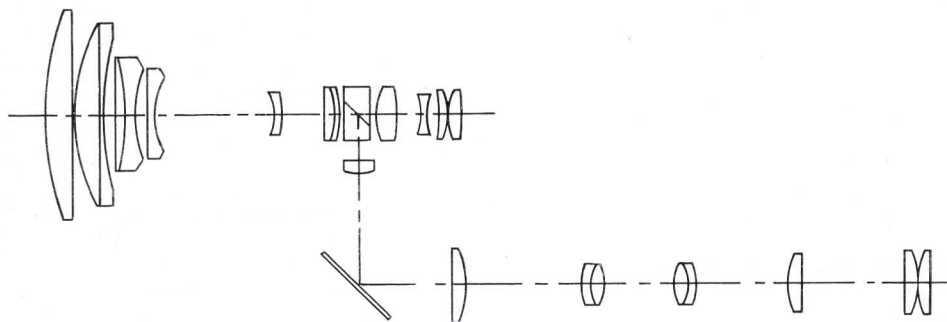
(Be sure to specify "for Bolex H8" when ordering Variogon for this model).



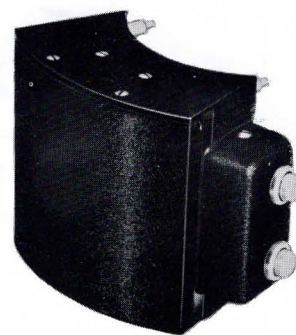
8mm. to 48mm. Variogon f/1.8 Zoom Lens with

		List
Viewfinder	24149-63	199.50
Extra Reflex Viewfinder	3332-14	45.00
Electric Motor	3635-35	49.50
Close-up lens — 57mm., 1.0	1311-70	19.50
Vario Curtar	4844-58	75.00
Viewfinder for Bolex H8	3638-40	65.00
Special Rubber Eyepiece	121-46	2.25
Lens Hood	127-30	10.95

Prices subject to change without notice.



Focal length mm.	Speed	Number of lenses	Number of elements	Angle in degrees	Focusing range	Mounting thread	Slip-on diameter	Mount
8 to 48	f/1.8	13	10	7 to 42	Inf. to 3 ft. 3 in.	55x0.75	57	D



MOTOR ATTACHMENT
FOR THE VARIOGON

SCHNEIDER LENSES

Schneider • Fifteen



SCHNEIDER MOVIE LENSES *For 16mm. Cameras*



Newest optical designs provide higher speed with unsurpassed definition and uniform spectral transmission of light with all Schneider cine lenses . . . Consistently correct color balance is maintained when shooting a film with lenses of various focal lengths.

Click-stops, which can be disengaged for smooth, complete fades . . . Linear scale "f" numbers evenly spaced in white and additional "T" (true stop) scale in green. Automatic depth-of-field indicator constantly shows depth-of-field for every setting.

The 100mm. and 150mm. telephoto lenses are fitted with a special device which permits pre-setting the most important distances and using them when required, without removing the camera from shooting position.

Adjustable screw threads permit locking the lens by a simple operation, so that scales are in the most convenient reading position.

Two ranges of depth are provided: Red field for normal use and a yellow field for most exacting demands (circle of confusion of 1/1000th. of the diagonal.)

All lenses have helical focusing mounts and standard "C" threads.

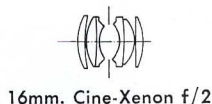
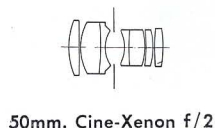
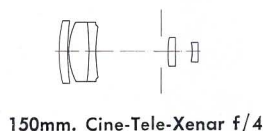
SCHNEIDER LENSES FOR 16mm MOVIE CAMERAS

Focal Length	Lens	Code	Tax		Tax		List
10mm.	f/1.8 Cinegon	Yslao	12133-80*	1212-21	30121-10*	3011-01	194.50*
16mm.	f/2 Cine-Xenon	Ysldi	1285-65*	127-82	3077-52*	307-05	124.50*
25mm.	f/1.4 Cine-Xenon	Yslik	1292-53*	128-45	3083-74*	307-61	134.50*
50mm.	f/2 Cine-Xenon	Yslor	1275-04	.....	3067-50	.....	112.50
75mm.	f/2.8 Cine-Tele-Xenar	Yslup	1256-36	.....	3050-70	.....	84.50
100mm.	f/2.8 Cine-Tele-Xenar	Yslvy	12103-72	.....	3093-30	.....	155.50
150mm.	f/4 Cine-Tele-Xenar	Yslwe	1293-05	.....	3083-70	.....	139.50
Leather case for 100mm., 150mm. lenses			123-00		304-50		7.00

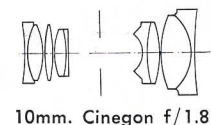
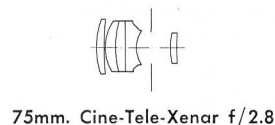
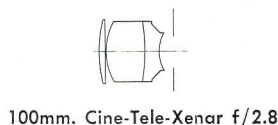
Note: When ordering 10mm. to 50mm., specify (RX) if for Bolex H 16

Prices subject to change without notice.

* Including tax.



Focal length	Lens	Angle of view—degrees	Number of elements	Smallest f stop	Closest distance in feet	Slip-on filter mount diam.—mm	Largest Diam.—mm	Filter series
10mm.	f/1.8 Cinegon	64	9	22	8 in.	33-5	39	6
16mm.	f/2 Cine-Xenon	43	6	22	2.8	33-5	39	6
25mm.	f/1.4 Cine-Xenon	28	7	22	1.8	33-5	38	5
50mm.	f/2 Cine-Xenon	16	7	22	2.8	33-5	39	5
75mm.	f/2.8 Cine-Tele-Xenar	10	5	22	5.0	33-5	39	5
100mm.	f/2.8 Cine-Tele-Xenar	7	4	32	6.0	43-5	51	6
150mm.	f/4 Cine-Tele-Xenar	5	5	32	12	43.5	52-5	6



SCHNEIDER

35mm CINE LENSES

Focal Length	Lens	Code	Tax		Tax		List
18mm.	f/1.8 Cinegon	Yruuj	12322-92*	1229-32	30292-33*	3026-58	469.50*
28mm.	f/2 Kino-Xenon	Yruph	1268-43*	126-21	3061-95*	305-63	99.50*
35mm.	f/2 Kino-Xenon	Yruwx	1263-03	.....	3056-73	.....	94.50
40mm.	f/2 Kino-Xenon	Yrvij	1263-03	.....	3056-73	.....	94.50
50mm.	f/2 Kino-Xenon	Yrxey	1263-03	.....	3056-73	.....	94.50
75mm.	f/2 Kino-Xenon	Yrijt	1293-05	.....	3083-75	.....	139.50
100mm.	f/2 Kino-Xenon	Yrsaml	12216-44	.....	30194-80	.....	324.50

Prices subject to change without notice.

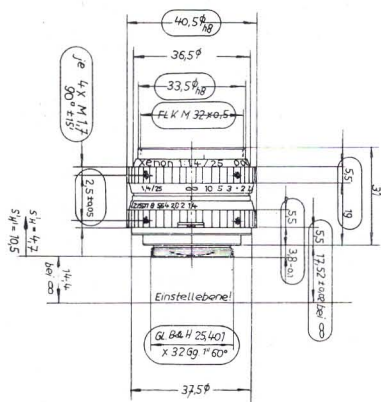
* Including tax.

BURLEIGH BROOKS INC.

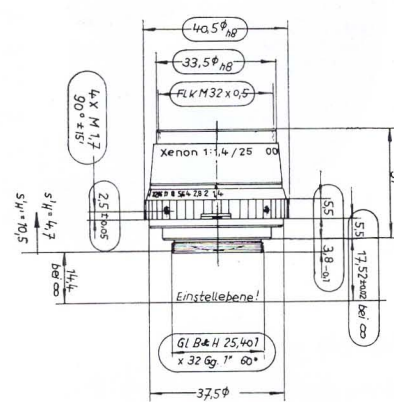
SCHNEIDER TV VIDICON LENSES



VIDICON TYPE "A" FOCUSING MOUNT



VIDICON TYPE "B" BARREL



Schneider T V — Vidicon lenses are not conventional motion picture lenses . . . They have been especially developed and manufactured for use on T V cameras. Critical definition is assured from these highest quality lenses. Each lens is tested electronically for **contrast** and resolving power. Finest precision construction . . . Chromium-plated brass is corrosion-resistant . . . Fitted with international standard "C" mounts and fully closing diaphragms . . . Temperature stabilization from +65 to -20 degrees centigrade . . . Vibration proofed to 8 "Gs" . . . Coverage is 9.6mm X 12.8mm . . . Uniform diaphragm controls.

Type "A" lenses have helical focusing

mounts with uniform distance and torque, plus provision for accommodation of remote control drive-units. Type "B" lenses are supplied in plain barrel **without** helical mounts.

TYPE "A" FOCUSING MOUNT

10mm. f/1.8 Cinegon	30117-49*	1210-68	175.00*
16mm. f/2 Xenon	3073-85*	126-71	110.00*
25mm. f/1.4 Xenon	3080-56*	127-32	120.00*
50mm. f/2 Xenon	3078-00	.....	120.00
75mm. f/2.8 Tele-Xenar	3065-00	.....	100.00
100mm. f/2.8 Tele-Xenar	30104-00	.....	160.00
150mm. f/4 Tele-Xenar	3097-50	.....	150.00

* Includes tax.

TYPE "B" BARREL

	TYPE	DATE	PRICE	LIST
10mm. f/1.8	Cinegon	3096-01*	128-73	143.00*
16mm. f/2	Xenon	3059-08*	125-37	88.00*
25mm. f/1.4	Xenon	3063-11*	125-74	94.00*
50mm. f/2	Xenon	3061-75	.....	95.00
75mm. f/2.8	Tele-Xenar	3052-00	.....	80.00
100mm. f/2.8	Tele-Xenar	3084-50	.....	130.00
150mm. f/4	Tele-Xenar	3078-00	.....	120.00

* Includes tax.

IMAGE ORTHICON LENSES

In focusing mount. Available with following threads:

M 48x1 and flange focus 53mm

M 42x1 and flange focus 45.5mm (Praktica Mount)

			Tax	List
28mm. f/4	Curtagon	30127-56*	1211-60	190.00*
35mm. f/2.8	Curtagon	30117-00	....	180.00
50mm. f/2	Xenon	30104-00	....	160.00
75mm. f/2	Xenon	30175-50	....	270.00
100mm. f/2	T V - Xenon	30438-75	....	675.00
150mm. f/2.8	Xenotar	30367-25	....	565.00
200mm. f/5.5	Tele-Xenar	30172-25	....	265.00
300mm. f/5	Tele-Xenar	30299-00	....	460.00

* Includes tax.

Prices subject to change without notice.

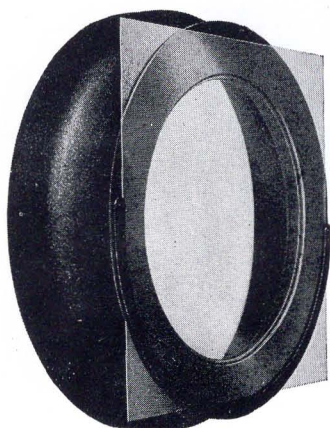
SCHNEIDER LENSES

Schneider • Seventeen



SCHNEIDER MAGNETIC FILTER HOLDERS

For gelatine filters



FILTER HOLDER SET I for 2" square gelatines consists of filter holder, magnetic ring and spacing ring 126-34
 Lens Hood No. 24/3 123-67
 Extra Space Rings each 121-67

		List
305-70		9.50
303-30		5.50
301-50		2.50

FILTER HOLDER SET II for 4" square gelatines consists of filter holder, magnetic ring and spacing ring 1219-98
 Lens Hood No. 56 125-30
 Extra Spacing Rings, each 123-97

3017-97	29.95
304-77	7.95
303-57	5.95

FILTER HOLDER SET III for 6" square gelatines consists of filter holder, magnetic ring and spacing ring 1230-35
 Lens Hood No. 60 129-00
 Extra Spacing Rings each 126-34

3027-30	45.50
308-10	13.50
305.70	9.50

FILTER HOLDER I

Without Spacing Ring

105mm. Xenar f/3.5
 105mm. Xenar f/4.5
 127mm. Xenar f/4.7
 135mm. Xenar f/4.7
 150mm. Xenar f/4.5
 135mm. Symmar f/5.6
 180mm. Tele-Arton f/5.5
 * 47mm. Super-Angulon f/8
 90mm. Angulon f/6.8

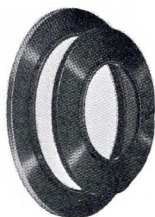
With Spacing Ring Ia

105mm. Symmar f/5.6
 65mm. Angulon f/6.8

Spacing Ring Ic

With small hole. Can be threaded for special lenses.

*Lens Hood 24/3 cannot be used with this lens.



FILTER HOLDER II

Without Spacing Ring

150mm. Xenotar f/2.8
 121mm. Super-Angulon f/8

With Spacing Ring IIa

105mm. Xenotar f/2.8
 180mm. Xenar f/4.5
 150mm. Symmar f/5.6
 240mm. Tele-Arton f/5.5
 * 65mm. Super-Angulon f/8
 120mm. Angulon f/6.8

With Spacing Ring IIb

135mm. Xenotar f/3.5
 210mm. Xenar f/4.5
 180mm. Symmar f/5.6
 210mm. Symmar f/5.6
 270mm. Tele-Arton f/5.5
 165mm. Angulon f/6.8

With Spacing Ring IIc

240mm. Xenar f/4.5
 240mm. Symmar f/5.6
 360mm. Tele-Xenar f/5.5
 * 90mm. Super-Angulon f/8
 210mm. Angulon f/6.8

Spacing Ring IId

With small hole. Can be threaded for special lenses.

*Lens Hood No. 56 cannot be used with this lens.

FILTER HOLDER III

Without Spacing Ring

*210mm. Super-Angulon f/8

With Spacing Ring IIIa

300mm. Xenar f/4.5

With Spacing Ring IIIb

300mm. Symmar f/5.6

With Spacing Ring IIIc

360mm. Xenar f/4.5

With Spacing Ring IIId

165mm Super-Angulon f/8
 360mm. Symmar f/5.6
 500mm. Tele-Xenar f/5.5

With Spacing Ring IIIe

420mm. Xenar f/4.5
 480mm. Xenar f/4.5

Spacing Ring IIIf

With small hole. Can be threaded for special lenses.

*Lens Hood No. 60 cannot be used with this lens.

Prices subject to change without notice.

BURLEIGH BROOKS INC.

Schneider • Eighteen

SCHNEIDER SPECIAL HELICAL MOUNTS

For Super-Angulon Lenses up to 90mm. only.

This special accessory extends the focusing range of these lenses. The mounting flange locks lens and shutter securely in place. Focusing scale is matched to lens.

			List
For 47mm. Super-Angulon f/8	1235-02	3031-50	52.50
For 65mm. Super-Angulon f/8	1235-02	3031-50	52.50
For 75mm. Super-Angulon f/8	1235-02	3031-50	52.50
For 90mm. Super Angulon f/8	1235-02	3031-50	52.50



LENS CARRYING CASES

For Lenses With Practica, Pentacon Mounts

35mm. Curtagon Automatic f/2.8	124-00	303-60	6.00
28mm. Curtagon Automatic f/4	124-00	303-60	6.00
135mm. Tele-Xenar Automatic f/3.5	125-10	304-59	7.65

For Lenses With Exakta Mount

35mm. Curtagon Stopomatic f/2.8	124-00	303-60	6.00
28mm. Curtagon Stopomatic f/4	124-00	303-60	6.00
50mm. Xenon Stopomatic f/1.9	124-00	303-60	6.00
135mm. Tele-Xenar Stopomatic f/3.5 ...	127-34	306-60	11.00



For Automatic Meter Lenses

With Exakta, Practica, Pentax Mounts

50mm. Xenon f/1.9	124-34	303-90	6.50
35mm. Curtagon f/2.8	124-34	303-90	6.50
135mm. Tele-Xenar f/3.5	128-84	307-95	13.25

For Pre-Set Lenses With Exakta,

Practica, Pentax, Praktina Mounts

135mm. Tele-Xenar f/3.5	125-10	304-59	7.65
200mm. Tele-Xenar f/5.5	127-47	306-72	11.20
360mm. Tele-Xenar f/5.5	1211-21	3010-08	16.80



LENS HOODS

135mm. Tele-Xenar f/3.5—No. 27/2	142-65	3.95
200mm. Tele-Xenar f/5.5—No. 26	142-65	3.95
360mm. Tele-Xenar f/5.5—No. 32/1	144-50	6.75

LENS CAPS

Pliable plastic caps — specify diameter	19-80	1.20
Metal dust cap for Exakta body	19-80	1.20
Metal rear cap for Exakta lenses	19-80	1.20

MOUNTED LENSES

Lenses may be ordered mounted, for Pacemaker, Crown or Century Graphic "23", "34" or "45" (retainer ring mounting; shutter size OO, O and 1.) When ordering specify camera size and model.

Mounting charge	121-33	2.00
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Mounting services also available for other popular cameras at nominal charge.



SCHNEIDER FOCUSING MAGNIFIER

An excellent 8X precision magnifier in focusing mount for examining ground glass image, negatives, transparencies, etc. Three element construction, brass barrel attractively finished in black. Nylon rim at base to protect delicate surfaces from scratches. ... Ytrxy 127-67 306.90 11.50

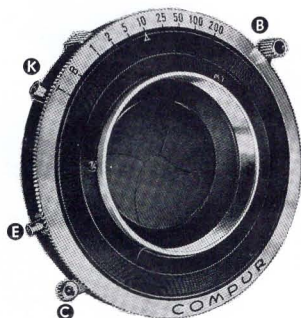
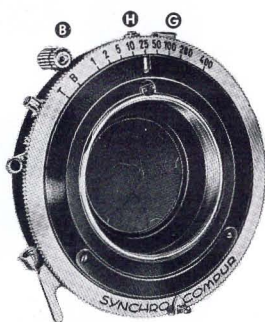
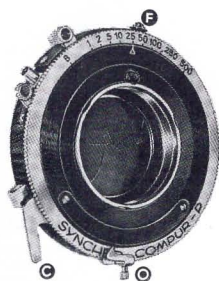
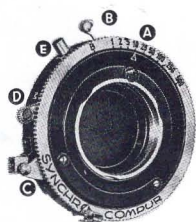


Prices subject to change without notice.

SCHNEIDER LENSES

Schneider • Nineteen





OPERATION OF SHUTTERS

MX/CROO Synchro-Compur

speeds: B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/250, 1/500 sec.

Select and set speed with serrated ring (A). Cock shutter by moving lever (B) clockwise until it locks. Release with lever (C) or with cable release. Flash: lever (D)—M setting provides full synchronization (all speeds) for class M flash bulbs (No. 5, 25). X setting for electronic flash at all speeds,—also for M, SF, M-2 bulbs at slower speeds. (E) flash contact. Time exposures and ground glass focusing: use locking cable release with speed ring (A) set on bulb.

MX/CRO Synchro-Compur

(speeds, operation and flash same as for MX/CROO)

Blade arrester for ground glass focusing: to hold shutter blades open set speed and cock in usual manner. Push back blade arrester button (F) and release shutter (C). After focusing, slide arrester button forward or push cocking lever slightly clockwise. Recock shutter for exposure. (O) f/stop lever.

MX/CRI Synchro-Compur

speeds: T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/200, 1/400-500 sec.

(operation and flash same as for MX/CROO)

Time exposures: use "T" setting on speed ring.

Blade arrester: shutter blades may be opened for focusing after shutter has been cocked (at any speed—also with delayed action setting) by depressing lever (G). Flash circuit remains open during this operation. To close blades lift lever (G). Shutter may be released immediately without re-cocking.

Delayed action: push back delay control button (H) after cocking shutter; move cocking lever (B) further clockwise from cocked position until it locks. Exposure will be delayed approx. 10 secs. after releasing shutter.

EX/CRII Compur

speeds: T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/200 sec.

Note that cocking lever (B) is located at the right. Shutter need not be cocked for Time and Bulb; with these settings, open and close shutter by means of release lever (C) or with cable release at (K). Flash: X synchronization for electronic flash at all speeds. Use flash bulbs up to 1/25 sec. Flash contact (E).

EX/CDIII, IV, V Compound

speeds: III — T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/75, 1/100 sec.

IV — T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50, 1/75 sec.

V — T, B, 1, 1/2, 1/5, 1/10, 1/25, 1/50 sec.

Instantaneous exposures: set button (M) to 'M'. Set speed at dial (L). Press lever (B) down until it locks to cock.

Release: press lever (C) or use cable release (socket N). Note: at 1, 1/2, 1/5 sec. allow at least 6 secs. between cocking and releasing to permit correct adjustment of pressure in shutter piston for accurate exposure. Flash: same as for EX/CRII. Time and bulb exposures: set button (M) to 'T' or 'B'. Open and close blades with lever (C) or with cable release.

MOUNTING FLANGES

		List
Compur 00	191-47	2.20
Compur 0	191-60	2.40
Compur I	191-87	2.80
Compur II	192-27	3.40
Compound III	192-53	3.80
Compound IV	192-93	4.40
Compound V	193-47	5.20

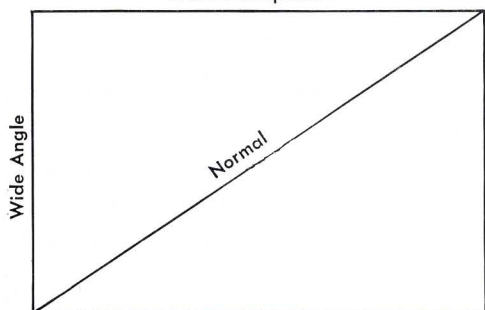
Prices subject to change without notice.

BURLEIGH BROOKS INC.

Schneider • Twenty

Selecting the proper focal length according to film size

2 X = Telephoto



1 X = Wide field (Symmar)
Long side plus short side for Portraits

TABLE OF NEGATIVE DIAGONALS

film size	diagonal	
	inches	mm
35mm (15/16"x1-7/16")	1 3/4	45
2 1/4" x 2 1/4"	3- 3/16	80
2 1/4" x 3 1/4"	3-15/16	100
4" x 5"	6 5/8	161
5" x 7"	8 5/8	219
8" x 10"	12 3/4	323
11" x 14"	17 7/8	453

CONVERSION TABLE
mm to inches

mm	inches
50	2
65	2 5/8
75	3
90	3 1/2
105	4 1/8
120	4 3/4
135	5 1/4
150	6
165	6 1/2
180	7 1/8
210	8 1/4
240	9 1/2
270	10 5/8
300	12
360	14 1/4
420	16 3/4
480	19

To convert mm to inches divide by 25.4

*Maximum Movements of the Symmar f/6.8

Focal Length	56x72mm		2 1/4"x3 1/4"		4"x5"		5"x7"		8"x10"		11"x14"	
	a	b	a	b	a	b	a	b	a	b	a	b
100mm.	37	33	33	28								
135mm.	60	54	57	50	34	28						
150mm.			67	60	46	39						
180mm.			90	82	71	62	32	25				
210mm.			113	105	95	85	60	49				
240mm.							82	70	35	28		
300mm.							119	104	77	64	14	12
360mm.							173	156	135	118	81	70

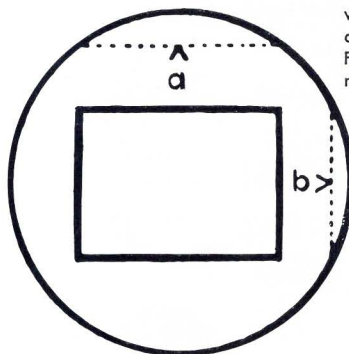
*Maximum Movements of the Super-Angulon f/8

Focal Length	56x72mm		2 1/4"x3 1/4"		4"x5"		5"x7"		8"x10"		11"x14"	
	a	b	a	b	a	b	a	b	a	b	a	b
47mm.	16	13	10	8								
53mm.	17	13	12	9								
65mm.	41	36	37	31								
75mm.	55	50	52	45	29	23						
90mm.			71	63	50	43						
121mm.					124	113	91	78	45	36		
165mm.									73	61		
210mm.											82	71

*Maximum Movements of the Angulon f/6.8

Focal Length	56x72mm		2 1/4"x3 1/4"		4"x5"		5"x7"		8"x10"		11"x14"	
	a	b	a	b	a	b	a	b	a	b	a	b
65mm.	13	11	8	6								
90mm.	40	35	36	30	10	8						
120mm.			68	61	47	40	5	36				
165mm.					97	87	62	51	9	7		
210mm.									65	54	—	—

*Maximum possible movement in mm. at f/22. The values given apply to horizontal pictures. For vertical pictures, values "a" and "b" must be reversed. For a combination of vertical and horizontal movement, the values will decrease.



SCHNEIDER LENSES

Schneider • Twenty One



SCHNEIDER REPRO-CLARON

The Ultimate In Fine Correction



A new process lens developed primarily for the graphic arts industry . . . designed for extreme close-up photography when an absolutely flat field 1:1 reproduction is required.

The ultimate in fine correction . . . will satisfy even the most exacting demands for maximum color correction over the entire spectrum.

A truly valuable investment for technical close-ups . . . accurate reproductions of the finest line detail . . . small machine parts . . . clinical photography . . . scientific and engineering projects, where there can be no compromise with perfect definition and contrast quality.

In focal lengths of 210mm. or longer, the Repro-Claron is available in special barrels that are constructed to take an unusual patented removable Waterhouse rotary diaphragm. Provision has been made, too for plug-in filters, so essential for graphic arts reproduction purposes.

REPRO-CLARON IN BARREL

Focal Length, Speed	Barrel	Code	Tax	List
55mm. f/8 (2½in.)	Regular barrel	Yueti 1279-11*	127-22	115.00*
135mm. f/8 (5¼in.)	Regular barrel	Yueub . . . . .	. . . . .	120.00
210mm. f/9 (8¼in.)	Process barrel	Yuewf . . . . .	. . . . .	155.00
305mm. f/9 (12in.)	Process barrel	Yuexp . . . . .	. . . . .	215.00
355mm. f/9 (14in.)	Process barrel	Yueyu . . . . .	. . . . .	240.00
420mm. f/9 (16½in.)	Process barrel	Yufaw . . . . .	. . . . .	280.00
485mm. f/9 (19in.)	Process barrel	Yufea . . . . .	. . . . .	300.00
610mm. f/9 (24in.)	Process barrel	Yufgi . . . . .	. . . . .	395.00

* Includes tax.

REPRO-CLARON IN SHUTTER

Focal Length, Speed	Shutter	Code	List
55mm. f/8 (2½in.)	C'P'R. Mx/Croo	Yueba 12100-00	150.00
135mm. f/8 (5¼in.)	C'P'R. Mx/Croo	Yuecl 12103-39	155.00
210mm. f/9 (8¼in.)	C'P'R. Mx/Cro	Yuedc 12123-40	185.00
305mm. f/9 (12in.)	C'P'R. Mx/CRI	Yuefk 12170-09	255.00
355mm. f/9 (14in.)	C'P'R. Mx/CRII	Yuegi 12223-45	335.00
420mm. f/9 (16½in.)	C'P'D. Ex/CDIII	Yuehj 12266-80	400.00
485mm. f/9 (19in.)	C'P'D. Ex/CDIV	Yuein 12315-00	420.00
610mm. f/9 (24in.)	C'P'D. Ex/CDV	Yuejo 12390-00	520.00

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... For Perfect Definition and Contrast Quality

REVOLVING WATERHOUSE STOPS FOR REPRO-CLARON LENSES IN PROCESS BARRELS

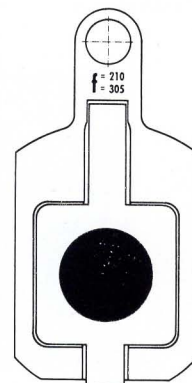
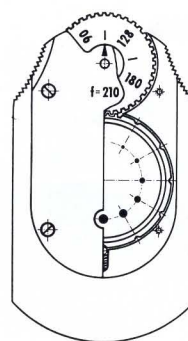
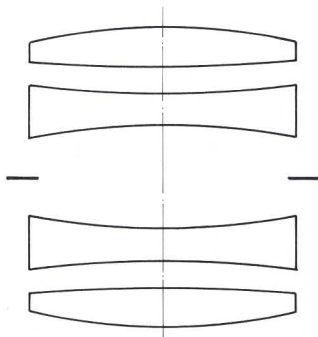
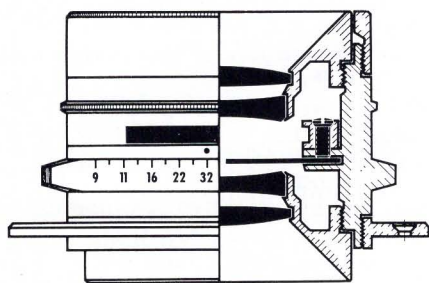
	Code	List
For 210mm. lens	Yufjy 1211-00	16.50
For 305mm. lens	Yufke 1211-00	16.50
For 355mm. lens	Yufmo 1211-00	16.50
For 420mm. lens	Yufon 1211-00	16.50
For 485mm. lens	Yufyd 1213-34	20.00
For 610mm. lens	Yueei 1217-00	20.50

GELATINE FILTER HOLDER FOR REPRO-CLARON LENSES IN PROCESS BARRELS

	Code	List
For 210mm. lens	Yuemd 123-67	5.50
For 305mm. lens	Yuemd 123-67	5.50
For 355mm. lens	Yuenr 124-34	6.50
For 420mm. lens	Yneot 124-77	7.15
For 485mm. lens	Yuety 125-44	8.15
For 610mm. lens	Yuery 126-50	9.75

SPECIAL CASES FOR REPRO-CLARON LENSES

	Code	List
For 210mm. lens	..... 125-97	8.95
For 305mm. lens	..... 125-97	8.95
For 355mm. lens	..... 126-97	10.45
For 420mm. lens	..... 126-97	10.45
For 485mm. lens	..... 128-34	12.50
For 610mm. lens	..... 129-17	13.75



SCHNEIDER LENSES

Schneider • Twenty Three



In recent times repeated references have been made in the technical literature to a "new" electronic testing method for determining the picture-making quality of photographic lenses.

The concept has been variously identified as "optical transfer function," "contrast transfer function," and "spatial frequency response," as well as the more widely accepted term "frequency response function." This last is the one presently used by the West German optical industry.

The idea and methodology have been known and discussed in technical circles for more than 10 years now, but the amateur photographic public only now is beginning to hear about it in product advertising. A general clarification of the basic principles seems necessary.

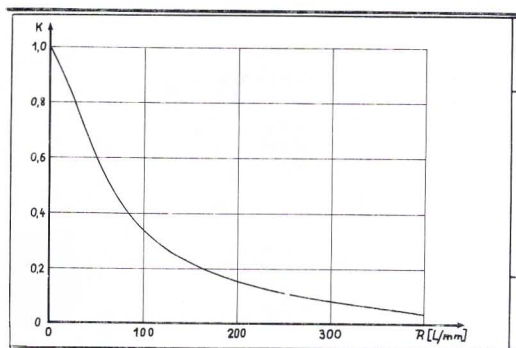
Up to now the performance of a photographic lens generally has been determined by its resolution capabilities or its measured "resolving power"—frequently incorrectly. In practice, this is the ability of a lens to reproduce on a film emulsion the images of two objects which are situated very close to each other (such as the laths of a very narrow lattice fence) in a manner that permits the object to be seen clearly separated in the resulting photograph. This is why photographers sometimes refer to the "separation capabilities" of a lens.

Assuming that the lattice work of our test fence is absolutely white, the resolution test method does not tell us whether the lens has distinguished a slight or a great brightness difference between the white laths and the background space which possibly may be darker.

This brightness difference is called "contrast." It was 12 years ago when I first called attention to the fact that contrast is as important as resolving power for the determination of picture quality — particularly since the resolution of high quality lenses is generally higher than that of normal film emulsions.

Contrast Important

Since 1950 our company has been working primarily on the factors that increase the photographic contrast rendition of lenses. It always has been known that the better a lens is corrected for inherent optical aberrations, the better its contrast performance. It also has been shown in the course of development that



Curve of lens performance, as derived by the FRF method. Resolution (in lines/mm) is along horizontal axis, contrast is marked on vertical axis.

"FRF"

The Electronic Approach To Better Lens Quality

lens systems with very high contrast characteristics usually show somewhat lower resolution capabilities. The latter is not of great importance, however, because these systems usually are far ahead of the film in resolution.

In 1945 a theoretical paper by Duffieux appeared in France which did not get much attention at the beginning. It discussed the basis of contrast rendition in optical picture reproduction.

After this it was primarily the work of television firms — notably the RCA research organization in Camden, N.J., headed by Dr. Otto Schade — which proved that the photographic lenses used in TV cameras at the time provided too much unnecessary resolving power but not enough contrast.

Beginning in 1952 Dr. Schade undertook a systematic exploration of the entire problem, starting out with the imaging of the white lattice test pattern, by the photographic lens, on the photo cathode image tube of the TV camera, and proceeding through the electronic mechanism of the system to the reproduction of the television image of the lattice on the oscilloscope screen. The latter can be roughly compared to a cathode ray oscillograph.

Scientists Agree

Dr. Schade's results and later the results of other scientists — at the Bell Laboratories in the U.S.A., the Institute for Applied Optics in Rochester, the Institute of Optics in Paris, the Federal Physical-Technical Institute in West Germany, the Bureau of Standards in Washington, D.C., and at the development laboratories of various photographic lens manufacturers — pointed to the possibility of evaluating both the resolving power and the contrast rendition of lenses by scanning with a photo-cathode image-recording tube the picture of the test subject produced by the particular lens.

Let us go back again to our lattice fence test subject. When we reduce the distance between the laths to an infinitesimally small separation, we eventually come to the point where the lens no longer can image the laths individually — the fence is reproduced as an even, grey, surface. Here we have reached the resolution "threshold value" of the particular lens, and further contrast characteristic tests are meaningless.

Of great importance, however, was the realization that some lens systems showed extremely high contrast rendition when the slats of the test lattice were moderately separated. In other words these lens systems had a combination of high contrast and medium resolution capability, which is demonstrated on the cathode ray oscillograph by a large high curve. It was

BURLEIGH BROOKS INC.

Here presented for the first time are some of the basic facts about frequency response function, pioneered in the U.S.A. by RCA

by

HANS JOSEPH SCHNEIDER
Jos. Schneider & Co., Kreuznach

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found that this high contrast decreased as the spaces between the lattice work were narrowed — somewhat like an exponential function.

With some lenses the contrast rendition, as observed on the oscilloscope screen, remained high for a long time — as the lattice work was narrowed to a point of high resolution. With other types of lenses it was found that the contrast rendition decreased very rapidly at the large separation of the laths (low resolution), but very slowly up to points of very high resolution.

The important question now was which of the two lens types was better suited to producing optimum picture quality.

A whole series of methods, developed in the 1950's in the United States, France, Germany, Japan and particularly in Sweden, created means of constantly changing the lath separation distances. In our own firm, we have developed a somewhat different test method beginning in 1954 (used in continuous production control since 1959).

This method enables us to show the complete behavior of the lens in regard to both resolution and contrast (the summation of all residual lens aberrations) in the form of a curve on the cathode-ray oscilloscope screen. In a sense this is quite similar to the electrocardiogram the physician takes of the human heart function: the shapes of the curves and the heights of the peaks and depths indicate correct or faulty functioning.

This was the first time we were able to produce an absolutely objective, electronically measurable picture of the total quality of a lens — on a TV tube which could be photographed for further study and evaluation.

No longer were we dependent on the variable properties of photographic emulsions and on hard-to-reproduce processing conditions. In practice our "electro-cardiogram of optical behavior" is recorded electrically by a graph writer on a 30 x 30 cm sheet of coordinate paper with millimeter rulings. In addition we continued our usual strict determination of individual optical faults like spherical aberration, astigmatism, axial and lateral chromatic aberrations, and distortion as well as resolving power.

Although our firm treated these matters as extremely confidential in the beginning, we soon found that our friends in West Germany and elsewhere—particularly in the United States—also were using this electronic method in their lens development procedures. A lively exchange of information and experiences ensued at the recent International Congress of Optical Engineers.

It was principally the American television people who contributed so decisively to this new method of picture-quality determination—because as world pioneers in their field they were forced by necessity to find lenses best suited to their purposes among those available.

It is impossible to overestimate the importance of Dr. Schade's work in paving the way for the breakthrough and of the cooperation between the optical laboratories of leading universities and various industrial firms in refining the techniques in use today.

The next step was the immediate evaluation of the electronically "written" curves for use in the mathematical formulations of new lens designs. This necessitated a special electronic analysis of the curves with considerable work involved on the theoretical and the practical side.

Dramatic Results

It would go far beyond the scope of this article (intended only to outline basic principles) to go into further explanations of the complicated and involved mathematical and electronic processes.

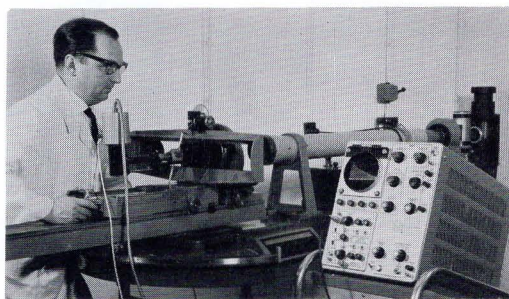
I only want to state, for the record, that the end results have brought our company, since the end of the 1950's, a long step toward better optical systems for photography. It is evident now that our present "electro-cardiogram" of the lens has shown up and permitted the correction of optical faults which could not have been correctly analyzed by the best of our former methods of classical aberration analysis. The advantage accrues to the consumer.

For several years now the frequency response function approach has been the technical standard of many lens manufacturers, even though it has just been discovered by advertising copywriters.

This method is of special importance in designing lenses of variable focal length (zoom lenses), because it has eliminated the need for making large numbers of photographic measuring pictures. Through electronics it is possible to observe constantly the frequency response curve on the oscilloscope while moving a lens through its entire focal length range.

It was largely due to this facility that our Variogon lens construction could achieve its exceptional and widely recognized picture qualities.

Our achievements to date are only the beginning. The method of frequency response function can be applied much further and it is already opening up new and exciting optical horizons.



Set-up for "FRF" testing photographic lenses: At left, next to technician, is light source, then lens, collimator and oscilloscope. Note picture on oscilloscope tube bears similarity to curve on page 24.

SCHNEIDER LENSES

Schneider • Twenty Five



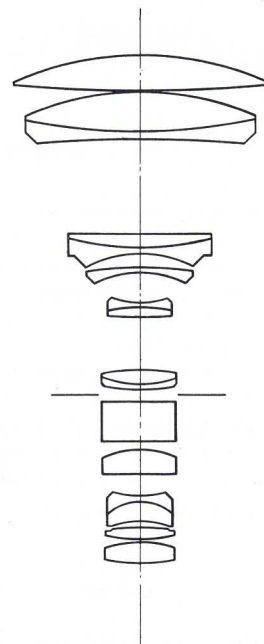
Available Soon!

2 NEW LENSES

*For 16mm.
Movie Cameras*

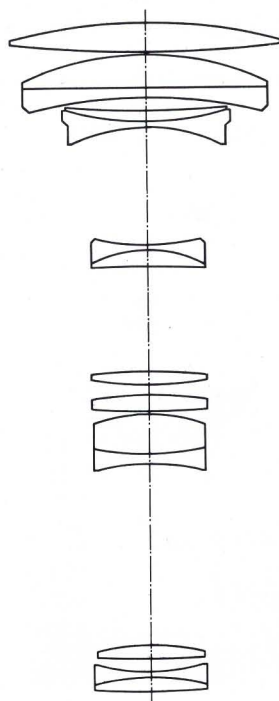
SCHNEIDER VARIOGON f/2

*Zooms from 16mm. to 80mm.
(5/8in. To 3 1/4in.)*



ANGULAR FIELDS

Focal Length	Height of Image	Width of Image	Diagonal of Image
16mm.	26°	36°	43°
40mm.	11°	15°	18°
80mm.	5.5°	7.4°	9°



*For 35mm.
Single Lens Reflex Cameras*

SCHNEIDER TELE-VARIOGON f/4

*Zooms from 80mm. to 240mm.
(3 1/4in. To 9 1/2in.)*

ANGULAR FIELDS

Focal Length	Height of Image	Width of Image	Diagonal of Image
80mm.	17°	25°	30°
160mm.	9°	13°	15°
240mm.	6°	9°	10°

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