

SCHNEIDER

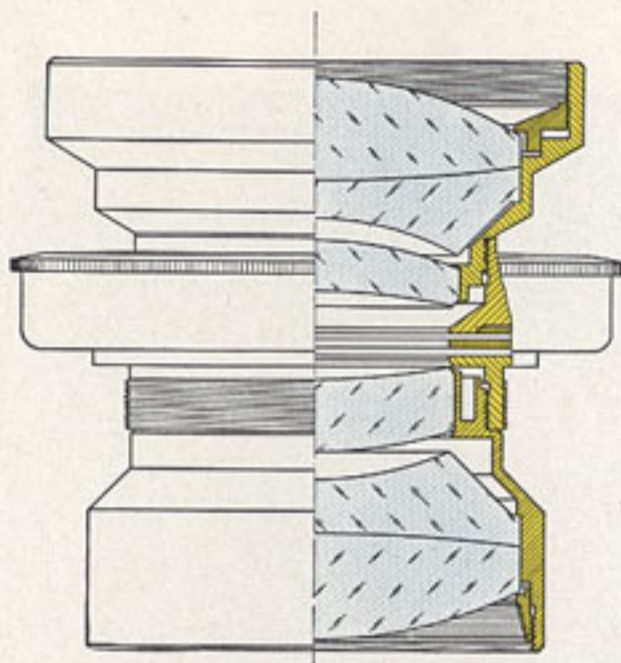
SYMMAR

the ideal universal lens
with the large image circle.

The Schneider Symmar is a special lens for cameras designed to permit the correction of perspective. The movements of a camera are only of real practical value within the image circle depicted irreproachably by the lens. In this leaflet we hope to make it easier to choose a Symmar lens of the most suitable focal length. Here we give you all the essential details about the Schneider Symmar lenses, the lenses with a particularly wide angle of view, which allow even the most extreme camera movements for each individual format. The diameters of the actual image circles listed in the tables are based on focusing at ∞ and a stop of $f/22$. The optimum definition lies generally 2 to 3 stops below the full aperture of the lens. Stopping down a lens further still will neither improve nor impair the definition, but will result in gaining more depth of field.

The resolution, the contrast and the colour correction of the Symmar lenses have made them famous all over the world. An overwhelming number of black-and-white and colour pictures, in which a true-to-nature reproduction of every detail is essential, are made with the Schneider Symmar. We must refrain from listing all the fields of photography in which this type of lens excels, since it has been found extremely suitable for every type of work the professional photographer could possibly encounter. Far more convincing than any words are the technical details accompanying the pictures published all over the world with the note "photographed with a Schneider Symmar".

SCHNEIDER-SYMMAR f/5.6

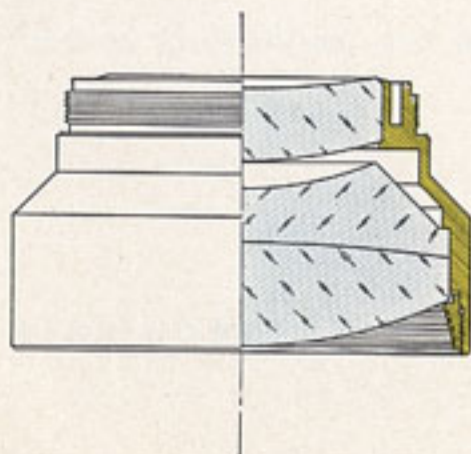


The Schneider Symmar f/5.6 is of almost symmetrical design and permits excellent pictures to be taken at a close range, even up to an image scale of 1:1 (natural size). If the distance between the lens and the subject is shorter still, the lens should be turned. The side with the engraving should always point in the direction of the greater distance, regardless whether it is the subject or the image distance.

F mm	Max. image circle φ from f/22 on	Smallest stop	Shutter size	Format		Lens φ front	Lens φ rear	Total length of lens	Distance between seating face and focal plane at ∞	Weight in grams	
				mm	in.					Normal mount	Mounted in shutter
100	149	45	0	65 × 90	2 1/4 × 3 1/4	42	31.5	36.3	85.9 ± 0.8	250	190
135	190	45	0	90 × 120	4 × 5	42	31.5	41.5	131.0 ± 0.8	255	195
150	210	45	I	90 × 120	4 × 5	51	38	46.5	146.5 ± 1.0	375	310
180	253	45	I	130 × 180	5 × 7	60	45	57.2	174.7 ± 1.0	475	400
210	297	45	I	130 × 180	5 × 7	60	54	64.1	204.7 ± 1.0	540	485
240	335	45	II 5/2	180 × 240	8 × 10	70	60	75.0	236.4 ± 1.0	700	745
300	400	64	III 7	240 × 300	—	90	80	89.5	283.8 ± 1.0	1175	1225
360	500	64	IV 10/2	300 × 400	—	110	100	112.5	356.3 ± 1.0	1760	1750

Technical data for using the rear lenses of the Symmar

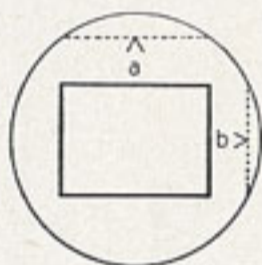
Rel. aperture f/12,
Angle of view approx. 40°



Focal length		Camera extension in mm (Distance from focal plane to seating face of lens)		
whole lens	rear element	∞	10ft (3m)	6ft (2m)
100	175	215	225	235
135	235	285	310	325
150	265	325	350	375
180	315	380	430	460
210	370	450	510	570
240	420	500	590	680
300	500	610	745	—
360	620	760	1025	—

Movements of the camera format within the image circle

F mm	Maximum possible movement in mm from f/22 on													
	56×72		65×90		90×120		100×150		130×180		180×240		240×300	
	a	b	a	b	a	b	a	b	a	b	a	b	a	b
100	37	33	33	28										
135	60	54	57	50	34	28	9.4	6.6						
150			67	60	46	39	24	18						
180			90	82	71	62	52	42	32	25				
210			113	105	95	85	79	65	60	49				
240							100	85	82	70	35	28		
300									119	104	77	64	14	12
360									173	156	135	118	81	70



The values given apply to horizontal pictures. For upright pictures values a and b must be exchanged. For a combination of vertical and horizontal movement the values will decrease.

The advantages of the Schneider Symmar

- **Design:** The Schneider Symmar f/5.6 is a four-component, six-element lens, made up of converging meniscus lenses which enclose the diaphragm, whilst two cemented diverging lenses form the front and rear components. The design is that of a Gauss Double Lens of the second order.
- **Angle of view:** The Schneider Symmar f/5.6 has an angle of view of 65° at full aperture, which increases to approx. 70° when the lens is stopped down; this means that camera movements are possible to a much greater extent than with other lenses.
- **Rear element:** If the extension of the camera is sufficiently long, the rear element of the Schneider Symmar f/5.6 can be used on its own. In this case its aperture is f/12 and its focal length approx. 1.75 x longer than that of the whole lens, whilst its angle of view is approx. 40°. At full aperture it is eminently suitable for portraiture.



Photographed with a Symmar by A. Morath (Linhof Technika 4 x 5 in.)

Reproduced with a Symmar



The versatility of the Schneider Symmar is also confirmed by its frequent use in process work, for which symmetrical lenses are particularly suitable.

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