

No links to other lenses

Lenses for Analog Professional Photography

Apo-Macro-Sironar

In the near area, at scales of around 1:1, the quality of lenses optimized for larger distances falls visibly from the usual standard of performance. Here the Apo-Macro-Sironar-N lenses come into their own for imaging scales of 1:5 and greater.

Incidentally, imaging scales of 1:5 or larger are required even in conventional table-top photography or studio photography (e.g. pack shots): for example, 1:3 at a film size of 13×18 cm means the full format image reproduction of an object of approximately 40×50 cm in size.

The Apo-Macro-Sironar offers excellent imaging quality in conjunction with the wide freedom of movement required for perfect perspective corrections of large-format photography.

The Apo-Macro-Sironar provides exceptional results without any color fringes at a scale range from 1:5 to 2:1 without any need to adjust the lens individually. The focal lengths of 120 and 180 mm allow work with most cameras without any extra monorail extension even at a scale of 2:1.



Data sheets

► [Formats, dimensions, shutter data, image circles, movement ranges](#)

► [Performance data](#)

Apo-Macro-Sironar Max. recommended film format

120 mm f/5.6	9×12 cm / 4×5 in.
180 mm f/5.6	13×18 cm / 5×7 in.

**Apo-Macro-Sironar: the best large format lens
to make little things look great**

Apo-Macro-Sironar

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Formats, shutter sizes, dimensions, weight

Lens	Max. recommended film format	Shutter size	Push-on mount Ø	Filter thread	Rear barrel Ø	Flange focal length 1)	Overall length	Weight w/Copal
120 mm f/5.6	9×12 cm / 4×5 in.	0	51 mm	M 49 × 0.75	40.5 mm	235.6 mm	43.8 mm	220 g
180 mm f/5.6	13×18 cm / 5×7 in.	1	70 mm	M 67 × 0.75	54.0 mm	356.6 mm	61.2 mm	410 g

1) With Copal shutter for scale 1:∞

Shutter data

Shutter type and size	Shutter speeds range	Manual cocking	Self cocking	Mechanical	Electronic	x-synchronized	Smallest f-stop increments	Screw thread	Lens board opening	Lens board thickness	Accessories required
Copal 0	B, T, 1/500 s ... 1 s	•	•	•	•	•		M 32.5 × 0.5	34.8 mm	1.5 ... 4.0 mm	
Copal 1	B, T, 1/400 s ... 1 s	•	•	•	•	•		M 39 × 0.75	41.8 mm	1.5 ... 3.0 mm	
Copal Press 0	B, 1/125 s ... 1 s		•	•	•	•		M 32.5 × 0.5	34.8 mm	1.5 ... 3.0 mm	
Copal Press 1	B, 1/125 s ... 1 s		•	•	•	•		M 39 × 0.75	41.8 mm	1.5 ... 2.0 mm	
Rollei Electron. 0	B, 1/500 s ... 30 s				•	•	1/10	M 39 × 0.75	41.8 mm	1.5 ... 3.0 mm	Control Unit
Rollei Electron. 1	B, 1/300 s ... 30 s				•	•	1/10	M 39 × 0.75	41.8 mm	1.5 ... 3.0 mm	Control Unit

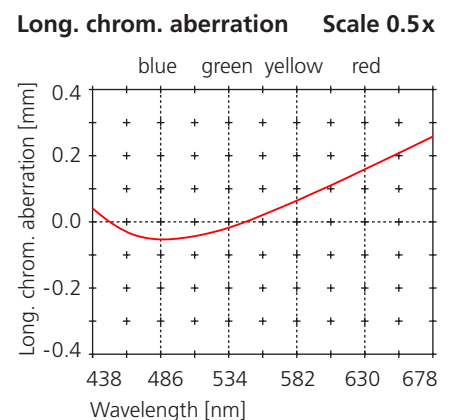
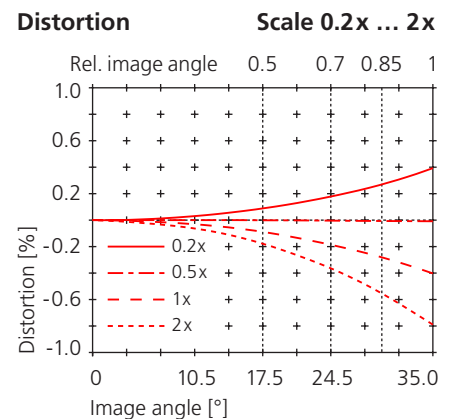
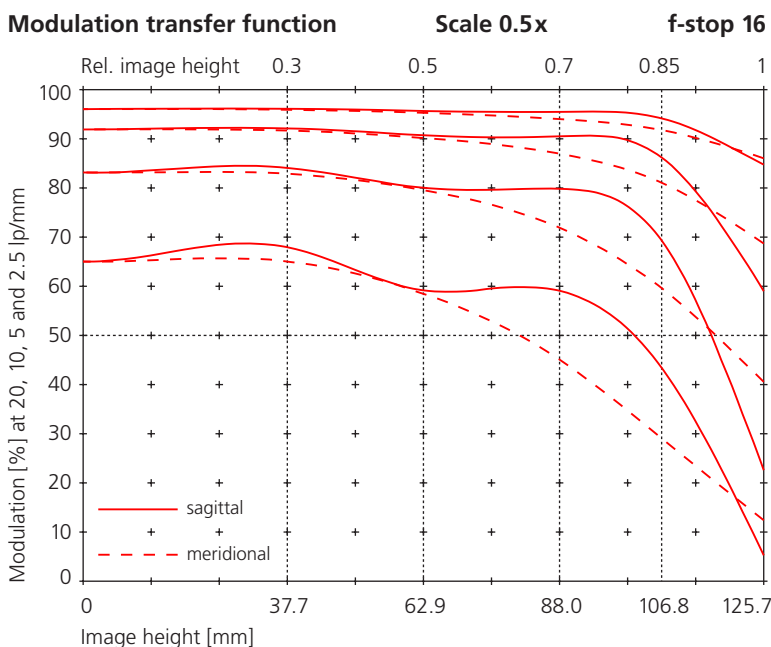
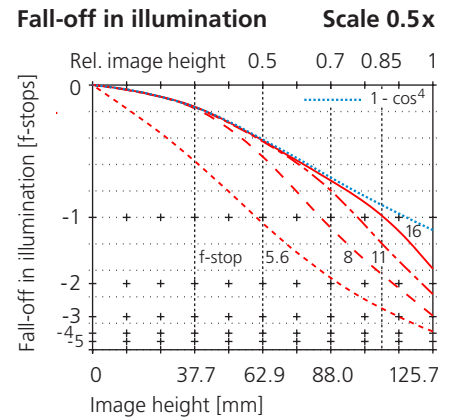
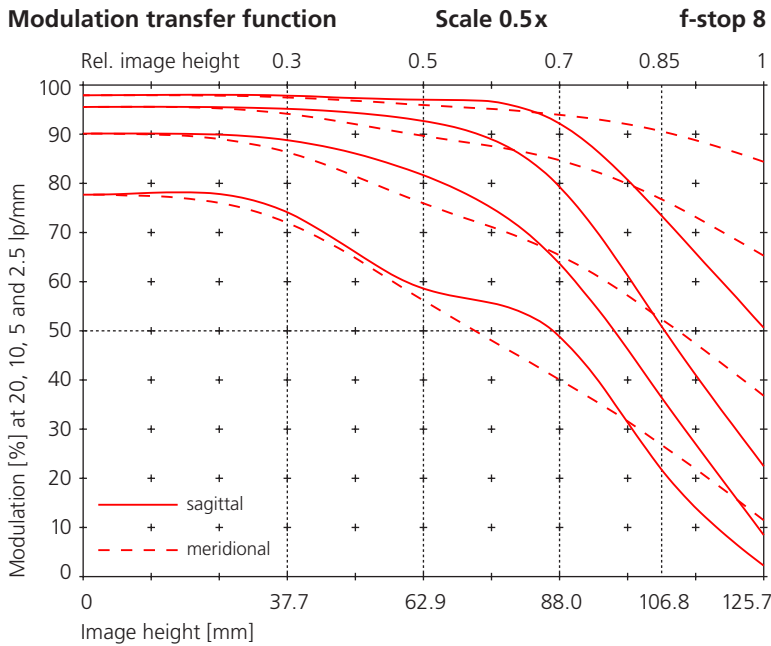
Working apertures, image angles, image circles and movement ranges

Lens	Image scale	Working f-stop	Image angle	Image circle diameter	Movement range [mm] 2) vertical/horizontal (landscape format)					
					6×7 cm	6×9 cm	6×12 cm	4×5 in.	5×7 in.	8×10 in.
120 mm f/5.6	1:5	8-11	70°	201 mm	66 / 62	62 / 52	55 / 39	33 / 28		
	1:1	8-11	60°	277 mm	106 / 101	103 / 92	98 / 79	77 / 70	49 / 39	
	2:1	8-11	55°	374 mm	156 / 151	154 / 141	150 / 128	129 / 121	106 / 92	44 / 37
180 mm f/5.6	1:5	16-22	70°	302 mm	119 / 114	116 / 104	112 / 91	90 / 83	64 / 53	
	1:1	16-22	60°	415 mm	177 / 171	174 / 161	171 / 148	150 / 142	129 / 113	70 / 61
	2:1	16-22	55°	562 mm	251 / 245	249 / 235	247 / 222	226 / 217	207 / 189	156 / 141

2) These values apply to the recommended working aperture at the given scale; with increasing scale image circle and movement ranges increase

Apo-Macro-Sironar 120 mm f/5.6

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**All spatial frequencies [line pairs/mm],
image heights [mm] and scales
are related to the film or sensor side**