sinar

Sinaron Digital Lenses

Congratulations on your purchase of this high-quality Sinaron Digital lens! We would like to thank you for your confidence in our products.

Sinaron Digital lenses excel in their very high resolving power of at least 50 line pairs per millimeter (lp/mm) up to the edge of the image circle; with HR type lenses as much as 60 lp/mm. This enables optimal use of the resolution of the image sensor. Thanks to maximally reduced color aberration Sinaron Digital lenses produce images that are virtually free of color fringes.

To achieve optimal reproduction efficiency, the lens should be stopped down two f-stops and used within the recommended scale of reproduction. Brilliant, finely-detailed images can be captured in this way to a standard ordinary lenses would not be capable of producing.
Below you will find the most important technical data regarding your lens.

Technical Data	**Item No.**	**Aperture Range**	**Angle of View**	**Image Circle** [mm]	**Shift Range** [mm] [A]	**Shift Range Macroscan** [mm] [B]	**Scale of Reproduction**			**Application Range Image Plane/Subject** [cm/feet]		**Resolution in Line Pairs**	**Filter Thread**	**Lens Adapter Ring Item no.**
Lens Type			Stopped down 2 f-stops (at infinity ∞)				min.	optimal	max.	min.	max.	(at least)	[mm]	
Sinaron Digital HR 4.5/28 CAB	443.87.158	4.5–32	101°	70	4	n.a.	1:40	1:80	1:∞	124/4′2″	∞	**60**	M72	547.81.066
Sinaron Digital HR 4.5/28 CMV	443.84.158	4.5–32+1/3	101°	70	4	n.a.	1:40	1:80	1:∞	124/4′2″	∞			
Sinaron Digital HR 4.0/35 CAB	443.87.160	4.0–32	90°	70	6	n.a.	1:25	1:50	1:∞	99/3′3″	∞	**60**	M67	547.81.055
Sinaron Digital HR 4.0/35 CMV	443.84.160	4.0–32+1/3	90°	70	4	n.a.	1:25	1:50	1:∞	99/3′3″	∞			
Sinaron Digital HR 4.0/35 DB	446.85.160	4.0–32	90°	70	6	n.a.	1:25	1:50	1:∞	99/3′3″	∞			
Sinaron Digital 4.5/45 CAB	443.87.103	4.5–32	95°	100	10	n.a.	1:5	1:30	1:∞	36/1′3″	∞	50	M67	547.81.055
Sinaron Digital 4.5/45 CMV	443.84.103	4.5–32+1/3	95°	100	45	n.a.	1:5	1:30	1:∞	36/1′3″	∞			
Sinaron Digital 4.5/45 DB	446.85.123	4.5–32	82°	80	11	n.a.	1:5	1:30	1:∞	36/1′3″	∞			
Sinaron Digital 4.5/55 CAB	443.87.105	4.5–32+2/3	93°	120	12	n.a.	1:5	1:30	1:∞	44/1′6″	∞	50	M67	547.81.055
Sinaron Digital 4.5/55 CMV	443.84.105	4.5–45	93°	120	32	32	1:5	1:30	1:∞	44/1′6″	∞			
Sinaron Digital 4.5/55 DB	446.85.125	4.5–32	83°	101	22	12	1:5	1:30	1:∞	44/1′6″	∞			
Sinaron Digital HR 4.0/60 CAB	443.87.164	4.0–32	67°	80	15	n.a.	1:10	1:30	1:∞	74/2′6″	∞	**60**	M49	547.81.051
Sinaron Digital HR 4.0/60 CMV	443.84.164	4.0–32+1/3	67°	80	11	11	1:10	1:30	1:∞	74/2′6″	∞			
Sinaron Digital HR 4.0/60 DB	446.85.164	4.0–32	67°	80	11	n.a.	1:10	1:30	1:∞	74/2′6″	∞			
Sinaron Digital 4.0/80 CAB	443.87.108	4.0–32	58°	92 [C]	25 [C]	n.a.	1:2	1:10	1:15	37/1′3″	141/3′7″	50	M40.5	547.81.050
Sinaron Digital 4.0/80 DB	446.85.128	4.0–32	58°	92 [C]	21 [C]	10 [C]	1:2	1:10	1:15	37/1′3″	141/3′7″			
Sinaron Digital 5.6/90 CAB	443.87.109	5.6–45	76°	140	48	n.a.	1:5	1:20	1:∞	67/2′3″	∞	50	M67	547.81.055
Sinaron Digital 5.6/90 CMV	443.84.109	5.6–45+2/3	76°	140	42	42	1:5	1:20	1:∞	67/2′3″	∞			
Sinaron Digital 5.6/90 DB	446.85.129	5.6–45	76°	140	53	34	1:5	1:20	1:∞	67/2′3″	∞			
Sinaron Digital HR 4.0/100 CAB	443.87.168	4.0–45	44°	80	25	n.a.	1:5	1:20	1:∞	73/2′5″	∞	**60**	M58	547.81.053
Sinaron Digital HR 4.0/100 CMV	443.84.168	4.0–45+2/3	44°	80	11	11	1:5	1:20	1:∞	73/2′5″	∞			
Sinaron Digital HR 4.0/100 DB	446.85.168	4.0–45	44°	80	11	n.a.	1:5	1:20	1:∞	73/2′5″	∞			
Sinaron Digital 4.0/105 CAB	443.87.110	4.0–32	54°	107 [C]	25 [C]	n.a.	1:2	1:6	1:15	47/1′7″	178/5′10″	50	M40.5	547.81.050
Sinaron Digital 4.0/105 DB	446.85.130	4.0–32	54°	107 [C]	29 [C]	19 [C]	1:2	1:6	1:15	47/1′7″	178/5′10″			
Sinaron Digital macro 5.6/120 CAB	443.87.111	5.6–45	46°	122 [D]	48 [D]	n.a.	2:1	1:1	1:5	54/1′10″	86/2′9″	50	M49	547.81.051
Sinaron Digital macro 5.6/120 CMV	443.84.111	5.6–64	46°	122 [D]	48 [D]	48 [D]	2:1	1:1	1:5	54/1′10″	86/2′9″			
Sinaron Digital macro 5.6/120 DB	446.85.131	5.6–45	46°	122 [D]	48 [D]	24 [D]	2:1	1:1	1:5	54/1′10″	86/2′9″			
Sinaron Digital 5.6/135 CAB	443.87.113	5.6–64	58°	150	48	n.a.	1:5	1:10	1:∞	97/3′3″	∞	50	M49	547.81.051
Sinaron Digital 5.6/135 CMV	443.84.113	5.6–64+1/3	58°	150	48	40	1:5	1:10	1:∞	97/3′3″	∞			
Sinaron Digital 5.6/135 DB	446.85.133	5.6–64	58°	150	48	40	1:5	1:10	1:∞	97/3′3″	∞			
Sinaron Digital 5.6/150 CAB	443.87.115	5.6–64	53°	150	48	n.a.	1:5	1:10	1:∞	108/3′6″	∞	50	M49	547.81.051
Sinaron Digital 5.6/150 CMV	443.84.115	5.6–64+1/3	53°	150	48	40	1:5	1:10	1:∞	108/3′6″	∞			
Sinaron Digital 5.6/180 CAB	443.87.120	5.6–64+1/3	45°	150	48	n.a.	1:5	1:10	1:∞	129/4′3″	∞	50	M67	547.81.055
Sinaron Digital HR 5.6/180 CAB	443.87.174	5.6– 64	25°	80	48	n.a.	1:5	1:12	1:∞	128/4′3″	∞	**60**	M67	547.81.055
Sinaron Digital HR 5.6/180 CMV	443.84.174	5.6–64+1/3	25°	80	48	11	1:5	1:12	1:∞	128/4′3″	∞			
Sinaron Digital HR 5.6/180 DB	443.85.174	5.6–64	25°	80	48	n.a.	1:5	1:12	1:∞	128/4′3″	∞			
Sinaron Digital 5.6/210 CAB	443.87.122	5.6–64+2/3	40°	150	48	n.a.	1:5	1:10	1:∞	148/4′11″	∞	50	M72	547.81.061
Sinaron Digital 5.6/210 DB	446.85.138	5.6–45	40°	170 [E]	58 [E]	50 [E]	1:2	1:4	1:8	93/3′1″	209/6′10″	50	M67	547.81.055

[A] All data concerning the shift ranges are based on the use of a Sinarback 54 (except [B], with SB 44). With other Sinarbacks all displacements are typically about 2 to 8 mm greater. With scales of reproduction greater than 1:∞ the possible displacements are greater than stated. [A/B] With lenses with short focal lengths the specified shift ranges can only be achieved when a wide angle bellows is used. [C] On scale of reproduction 1:15 [D] On scale of reproduction 1:5 [E] On scale of reproduction 1:8

SINAR AG • CH-8245 Feuerthalen/Switzerland • Telephone: +41 / 52 647 07 07 • Fax: +41 / 52 647 06 06 • E-mail: sinar@sinar.ch • Website: www.sinarcameras.com • Printed in Switzerland • Technical modifications reserved • 961.05/07.77.001 de - 02.8416 •