

Technical Data - Sinaron Digital Lenses

Item no.	Lens Type	Aperture Range	Recommended Working Apert.	Angel of View	Image Circle (mm)	Shift Range		Scale of Reproduction			Applications Range	Resolution in lp / mm	Filter Thread
						horizontal	vertical	min	opt	max			
443.xx.156	Sinaron Digital HR 5.6/23	5.6-22	5.6-8	112°	70	7	5	1:50	1:∞	1:∞	0,25m-∞	60	M72R
443.xx.158	Sinaron Digital HR 4.5/28	4.5-32	5.6-8	101°	70	7	5	1:80	1:80	1:∞	0,30m-∞	60	M72R
443.xx.159	Sinaron Digital HR 4.0/32	4.0-32	5.6-8	107°	90	19	17	1:70	1:∞	1:∞	0,40m-∞	60	M86
443.xx.160	Sinaron Digital HR 4.0/35	4.0-32	5.6	90°	70	7	5	1:50	1:50	1:∞	0,40m-∞	60	M67
443.xx.162	Sinaron Digital HR 4.0/40	4.0-32	5.6-8	94°	90	19	17	1:30	1:∞	1:∞	0,50m-∞	60	M67
443.xx.103	Sinaron Digital 4.5/45	4.5-32	8-11	95°	100	22	19	1:5	1:30	1:∞	0,60m-∞	50	M67
443.xx.163	Sinaron Digital HR 4.0/50	4.0-32	5.6-8	84°	90	19	17	1:20	1:∞	1:∞	0,80m-∞	60	M67
443.xx.105	Sinaron Digital 4.5/55	4.5-32	8-11	95°	120	22	19	1:30	1:30	1:∞	0,90m-∞	50	M67
443.xx.164	Sinaron Digital HR 4.0/60	4.0-32	5.6	60°	70	7	5	1:10	1:30	1:∞	0,70m-∞	60	M49
443.xx.107	Sinaron Digital HR 5.6/70	5.6-32	5.6-8	70°	100	25	22	1:10	1:30	1:∞	0,80m-∞	60	M58
443.xx.109	Sinaron Digital HR 5.6/90	5.6-45	5.6-11	70°	125	39	35	1:5	1:20	1:∞	1,30m-∞	60	M67
443.xx.119	Sinaron Digital HR SW 5.6/90	5.6-45	5.6-11	67°	120	36	32	1:5	1:∞	1:∞	1,30m-∞	100	M72
443.xx.168	Sinaron Digital HR 4.0/100	4.0-45	5.6	39°	70	7	5	1:5	1:20	1:∞	1,80m-∞	60	M58
443.xx.111	Sinaron Digital macro 5.6/120	5.6-64	8-11	46°	122c	48c	46c	2:1	1:1	1:5	0,15 - 0,7m	50	M49
443.xx.113	Sinaron Digital 5.6/135	5.6-64	8-11	58°	150	48	46	1:5	1:10	1:∞	3,00m-∞	50	M49
443.xx.115	Sinaron Digital 5.6/150	5.6-64	8-11	53°	150	48	46	1:5	1:10	1:∞	3,50m-∞	50	M49
443.xx.120	Sinaron Digital 5.6/180	5.6-64	8-11	45°	150	48	46	1:5	1:10	1:∞	3,50m-∞	50	M67
443.xx.174	Sinaron Digital HR 5.6/180	5.6-32	5.6-8	25°	80	13	11	1:5	1:12	1:∞	4,00m-∞	60	M67
443.xx.122	Sinaron Digital 5.6/210	5.6-45	8-11	40°	170	48	46	1:5	1:10	1:∞	4,00m-∞	50	M72

Shutter Size for all Lenses is copal 0 - except for Sinaron 5.6/210 with copal 1

c = On scale of reproduction 1:5

All data concerning the shift ranges is based on the use of digital backs with a CCD sensor size of 48 x 36 mm. Camera-movements are calculated via the image circle with focus on infinity. With scales of reproduction greater than 1:Infinity and with smaller sensors the possible displacements are greater than stated. With focal lengths shorter than 90 mm the specified shift ranges can only be achieved when a wide-angle bellows is used.