



vicotar® Optics – Telecentric Lenses

LENS TYPE	IMAGE SCALE	FIELD OF VIEW [mm ²]						WORKING DISTANCE [mm]	APERTURE ADJUSTABLE
		1.2"	1"	2 / 3"	1 / 1.8"	1 / 2"	1 / 3"		
		15.2 x 15.2 mm ²	12.8 x 9.6 mm ²	8.8 x 6.6 mm ²	7.1 x 5.4 mm ²	6.4 x 4.8 mm ²	4.8 x 3.6 mm ²		
ENLARGING TELECENTRIC LENSES									
10x*	-10:1	1.5 x 1.5	1.3 x 1.0	0.88 x 0.66	0.71 x 0.54	0.64 x 0.48	0.48 x 0.36	49.5	□
5x*	-5:1	3.0 x 3.0	2.6 x 1.9	1.76 x 1.32	1.42 x 1.08	1.28 x 0.96	0.96 x 0.72	64	□
3x*	-3:1	5.1 x 5.1	4.2 x 3.2	2.93 x 2.20	2.37 x 1.80	2.13 x 1.60	1.60 x 1.20	75.5	□
1x*	-1:1	15.2 x 15.2	12.8 x 9.6	8.8 x 6.6	7.1 x 5.4	6.4 x 4.8	4.8 x 3.6	79	□
T10/9.7L	-9.7:1	1.56 x 1.56	1.32 x 0.99	0.91 x 0.68	0.73 x 0.56	0.66 x 0.49	0.49 x 0.37	48	□
T10/7.4L	-7.4:1	2.05 x 2.05	1.73 x 1.30	1.19 x 0.89	0.96 x 0.73	0.86 x 0.65	0.65 x 0.49	49	□
T24/3.0a	-3:1			2.9 x 2.2	2.4 x 1.8	2.1 x 1.6	1.6 x 1.2	30	■
T24/2.5a	-2.5:1			3.5 x 2.6	2.8 x 2.2	2.6 x 1.9	1.9 x 1.4	31	■
T24/2.0a	-2:1			4.4 x 3.3	3.6 x 2.7	3.2 x 2.4	2.4 x 1.8	34	■
T24/1.5a	-1.5:1				4.7 x 3.6	4.3 x 3.2	3.2 x 2.4	39	■
T42/1.4	-1.4:1	10.8 x 10.8	9.1 x 6.9	6.3 x 4.7	5.1 x 3.9	4.6 x 3.4	3.4 x 2.6	102	□
T43/1.4	-1.4:1	10.8 x 10.8	9.1 x 6.9	6.3 x 4.7	5.1 x 3.9	4.6 x 3.4	3.4 x 2.6	102	□
T45/5.0L	-5:1	3.0 x 3.0	2.6 x 1.9	1.8 x 1.3	1.4 x 1.1	1.3 x 1.0	0.96 x 0.72	64	□
T45/4.0L	-4:1	3.8 x 3.8	3.2 x 2.4	2.2 x 1.7	1.8 x 1.4	1.6 x 1.2	1.2 x 0.9	67	□
T45/2.0L	-2:1	7.6 x 7.6	6.4 x 4.8	4.4 x 3.3	3.6 x 2.7	3.2 x 2.4	2.4 x 1.8	77	□
T51/1.7	-1.73:1	8.8 x 8.8	7.4 x 5.6	5.1 x 3.8	4.1 x 3.1	3.7 x 2.8	2.8 x 2.1	49	■
T51/1.4	-1.4:1			6.3 x 4.8	5.1 x 3.9	4.6 x 3.5	3.5 x 2.6	28	■
T51/1.2	-1.2:1			7.3 x 5.5	5.9 x 4.5	5.3 x 4.0	4.0 x 3.0	34	■
T51/1.0	-1:1				7.1 x 5.4	6.4 x 4.8	4.8 x 3.6	42	■
T51/0.8	-1:1.22				8.7 x 6.6	7.9 x 5.9	5.9 x 4.4	52	■
T51/0.7	-1:1.47				10.4 x 7.9	9.4 x 7.1	7.1 x 5.3	63	■
T80/1.0L	-1:0.99			8.9 x 6.7	7.0 x 5.4	6.5 x 4.9	4.9 x 3.6	115	□
TELECENTRIC MEASURING LENSES									
T100/0.7	-1:1.37			12.1 x 9.0	9.7 x 7.4	8.7 x 6.6	6.6 x 4.9	41	■
T100/0.6	-1:1.82			16.0 x 12.0	12.9 x 9.8	11.6 x 8.7	8.7 x 6.5	77	■
T100/0.48	-1:2.08			18.3 x 13.7	14.8 x 11.2	13.3 x 10.0	10.0 x 7.5	103	■
T100/0.39	-1:2.57				18.3 x 13.9	16.4 x 12.3	12.3 x 9.3	33	■
T100/0.36	-1:2.76				19.6 x 14.9	17.6 x 13.2	13.2 x 9.9	72	■
T107/0.83	-1:1.2	18.2 x 18.2	15.4 x 11.6	10.6 x 7.9	8.5 x 6.5	7.7 x 5.8	5.8 x 4.3	100	■
T107/0.39	-1:2.56			22.5 x 16.9	18.2 x 13.8	16.4 x 12.3	12.3 x 9.2	115	■
T107/0.36	-1:2.75			24.2 x 18.2	19.5 x 14.9	17.6 x 13.2	13.2 x 9.9	93	■
T107/0.33	-1:3.12			27.5 x 20.6	22.2 x 16.9	20.0 x 15.0	15.0 x 11.2	86	■
T107/0.25L	-1:3.72				26.4 x 20.1	23.8 x 17.9	17.9 x 13.4	105	■
T107/0.25	-1:4.05				28.8 x 21.9	26.0 x 19.5	19.5 x 14.6	83	■
T107/0.2	-1:5.02						24.1 x 18.1	56	■
T107/0.2A	-1:5.11						24.5 x 18.4	82	■
T125/0.7L	-1:1.41			12.4 x 9.3	10.0 x 7.6	9.0 x 6.8	6.8 x 5.1	197	□
T150/0.25	-1:4.16			36.6 x 27.4	29.5 x 22.5	26.6 x 20.0	20.0 x 15.0	102	■
T150/0.24L	-1:4.16			36.6 x 27.4	29.5 x 22.5	26.6 x 20.0	15.0 x 11.2	156	■
T150/0.19L	-1:5.34				37.9 x 28.8	34.2 x 25.6	25.6 x 19.2	302	■
T150/0.19	-1:5.35				38.0 x 28.9	34.2 x 25.7	25.7 x 19.3	112	■
T150/0.17L	-1:5.91					37.8 x 28.4	28.4 x 21.3	287	■
T150/0.14	-1:7.23						34.7 x 26.0	71	■
T151/0.44	-1:2.30	35.0 x 35.0	29.5 x 22.1	20.3 x 15.2	16.3 x 12.4	14.7 x 11.0	11.0 x 8.3	200	■
T151/0.39	-1:2.54		32.5 x 24.4	22.3 x 16.8	18.0 x 13.7	16.3 x 12.2	12.2 x 9.1	223	■

■ available □ not available

* used only in combination with MK190 series

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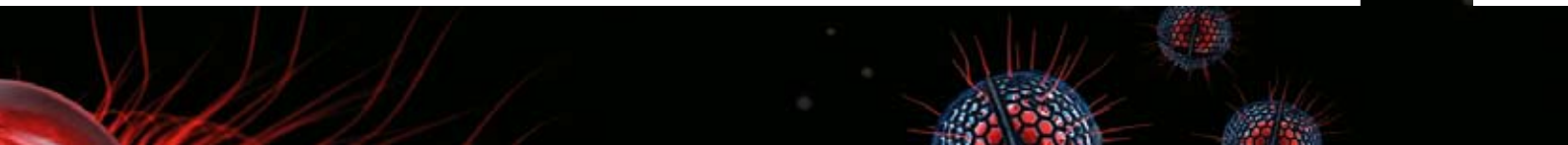
LENS TYPE	IMAGE SCALE	FIELD OF VIEW [mm²]						WORKING DISTANCE [mm]	APERTURE ADJUSTABLE
		1.2"	1"	2 / 3"	1 / 1.8"	1 / 2"	1 / 3"		
		15.2 x 15.2 mm²	12.8 x 9.6 mm²	8.8 x 6.6 mm²	7.1 x 5.4 mm²	6.4 x 4.8 mm²	4.8 x 3.6 mm²		
TELECENTRIC MEASURING LENSES									
T152/0.36	-1 : 2.78		35.6 x 26.7	24.5 x 18.3	19.7 x 15.0	17.8 x 13.3	13.3 x 10.0	110	■
T151/0.30	-1 : 3.27			28.8 x 21.6	23.2 x 17.7	20.9 x 15.7	15.7 x 11.8	185	■
T151/0.26 L	-1 : 3.88				27.5 x 21.0	24.8 x 18.6	18.6 x 14.0	277	■
T201/0.42	-1 : 2.39	36.3 x 36.3	30.6 x 23.0	21.0 x 15.8	17.0 x 12.9	15.3 x 11.5	11.5 x 8.6	210	■
T201/0.30	-1 : 3.25		42.0 x 31.5	28.9 x 21.7	23.1 x 17.6	21.0 x 15.8	15.8 x 11.8	157	■
T201/0.28 L	-1 : 3.50			31.1 x 23.4	24.9 x 18.9	22.7 x 17.0	17.0 x 12.7	278	■
T201/0.26	-1 : 3.81			33.9 x 25.4	27.1 x 20.6	24.6 x 18.5	18.5 x 13.8	130	■
T201/0.19	-1 : 5.13			45.6 x 34.2	36.4 x 27.7	33.2 x 24.9	24.9 x 18.6	143	■
T201/0.19 L	-1 : 7.23				36.9 x 28.0	33.6 x 25.2	25.2 x 18.9	284	■
T201/0.15	-1 : 6.71				47.6 x 36.2	43.5 x 32.7	32.6 x 24.5	136	■
T201/0.13 L	-1 : 7.43						36.1 x 27.1	273	■
T201/0.12	-1 : 8.47						41.4 x 31.0	135	■
T240/0.27 a	-1 : 3.65	56 x 56	47 x 36	33 x 24	26 x 20	24 x 18	18 x 13	287	■
T240/0.18 a	-1 : 5.78		74 x 55	51 x 38	41 x 31	37 x 28	28 x 21	202	■
T240/0.13 a	-1 : 7.63			67 x 51	54 x 41	49 x 37	37 x 28	213	■
T240/0.10 a	-1 : 9.69				69 x 52	62 x 47	47 x 35	195	■
T240/0.08 a	-1 : 13.05						61 x 46	184	■
T360/0.19 a	-1 : 5.3	81 x 81	68 x 51	47 x 35	38 x 29	34 x 25	25 x 19	356	■
T360/0.13 a	-1 : 7.64		99 x 73	67 x 50	54 x 41	49 x 37	37 x 27	205	■
T360/0.09 a	-1 : 11.2			99 x 74	80 x 61	72 x 54	54 x 40	264	■
T360/0.07 a	-1 : 13.8				98 x 74	88 x 66	66 x 50	194	■
TELECENTRIC WIDEFIELD LENSES									
TL250/0.03	-1 : 38						182 x 137	220	■
TL371/0.03	-1 : 31 ...			273 x 205 ...	220 x 167 ...	198 x 149 ...		50 ...	■
	-1 : 34			300 x 244	241 x 184	218 x 163		1000	
TL380/0.04	-1 : 24 ...		306 x 230 ...	211 x 158 ...	170 x 130 ...			100 ...	■
	-1 : 26		339 x 254	229 x 172	185 x 140			750	

■ available □ not available

vicotar® Optics – Accessories

LENS TYPE	TELECENTRIC LIGHT TYPE	LENS HOLDER	BEAM DEFLECTION		COAXIAL LIGHTING ADAPTER				FILTER THREAD	
			PSO type	Working distance [mm]	Beam splitter unit	Adapter (for lens)	Working distance with lighting reflection [mm]	Working distance with camera reflection [mm]	Object side	Camera side
ENLARGING TELECENTRIC LENSES										
10 x	TZB10	OH35,5	PSO90-10	33	STE30x30	TZO-35,5	8	7	Filter with socket joint d=35,5 mm	<input type="checkbox"/>
5 x	TZB10	OH34	PSO90-45	47	STE30x30	TZO-34	22	21	Filter with socket joint d=34 mm	<input type="checkbox"/>
3 x	TZB10	OH34	PSO90-45	59	STE30x30	TZO-34	34	33		<input type="checkbox"/>
1 x	TZB10	OH34	PSO90-45	62	STE30x30	TZO-34	37	36		<input type="checkbox"/>
T10/9.7L	TZB10	OH35,5	PSO90-10	31	STE30x30	TZO-35,5	6	5	Filter with socket joint d=35,5 mm	<input type="checkbox"/>
T10/7.4L	TZB10	OH35,5	PSO90-10	32	STE30x30	TZO-35,5	7	6	Filter with socket joint d=35,5 mm	<input type="checkbox"/>
T24/3.0a	TZB10	OH32	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M 20,5 x 0,5
T24/2.5a	TZB10	OH32	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M 20,5 x 0,5
T24/2.0a	TZB10	OH32	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M 20,5 x 0,5
T24/1.5a	TZB10	OH32	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M 20,5 x 0,5
T42/1.4	TZB10	OH34	PSO90-45	85	STE30x30	TZO-34	60	59	Filter with socket joint d=34 mm	<input type="checkbox"/>
T43/1.4	TZB10	OH34	PSO90-45	85	STE30x30	TZO-34	60	59		<input type="checkbox"/>
T45/5.0L	TZB10	OH34	PSO90-45	47	STE30x30	TZO-34	22	21		<input type="checkbox"/>
T45/4.0L	TZB10	OH34	PSO90-45	50	STE30x30	TZO-34	25	24	<input type="checkbox"/>	<input type="checkbox"/>
T45/2.0L	TZB10	OH34	PSO90-45	60	STE30x30	TZO-34	35	34	<input type="checkbox"/>	<input type="checkbox"/>
T51/1.7	TZB30	OH32	PSO90-100	33	STE30x30	TZO-32	8	7	M 26 x 0,5	M 20,5 x 0,5
T51/1.4	TZB10	OH32	PSO90-100	12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M 26 x 0,5	M 20,5 x 0,5
T51/1.2	TZB10	OH32	PSO90-100	18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M 26 x 0,5	M 20,5 x 0,5
T51/1.0	TZB10	OH32	PSO90-100	26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M 26 x 0,5	M 20,5 x 0,5
T51/0.8	TZB30	OH32	PSO90-100	36	STE30x30	TZO-32	11	10	M 26 x 0,5	M 20,5 x 0,5
T51/0.7	TZB30	OH32	PSO90-100	47	STE30x30	TZO-32	22	21	M 26 x 0,5	M 20,5 x 0,5
T80/1.0L	TZB30	OH25	PSO90-80	98	STE30x30	TZO-25	74	73	M 19 x 0,5	<input type="checkbox"/>

not available



vicotar® Optics – Accessories

LENS TYPE	TELECENTRIC LIGHT TYPE	LENS HOLDER	BEAM DEFLECTION		COAXIAL LIGHTING ADAPTER				FILTER THREAD	
			PSO type	Working distance [mm]	Beam splitter unit	Adapter (for lens)	Working distance lighting reflection [mm]	Working distance camera reflection [mm]	Object side	Camera side
TELECENTRIC MEASURING LENSES										
T100/0.7	TZB30	OH32	PSO90-100	25	□	□	□	□	M 26 x 0.5	M 20.5 x 0.5
T100/0.6	TZB30	OH32	PSO90-100	60	STE30x30	TZO-32	35	34	M 26 x 0.5	M 20.5 x 0.5
T100/0.48	TZB30	OH32	PSO90-100	87	STE30x30	TZO-32	62	61	M 26 x 0.5	M 20.5 x 0.5
T100/0.39	TZB30	OH32	PSO90-100	16	□	□	□	□	M 26 x 0.5	M 20.5 x 0.5
T100/0.36	TZB30	OH32	PSO90-100	56	STE30x30	TZO-32	31	30	M 26 x 0.5	M 20.5 x 0.5
T107/0.83	TZB30	OH32	PSO90-107	78	STE30x30	TZO-42	58	57	M 39 x 0.5	□
T107/0.39	TZB30	OH32	PSO90-107	93	STE30x30	TZO-42	73	72	M 39 x 0.5	M 20.5 x 0.5
T107/0.36	TZB51	OH32	PSO90-107	71	STE30x30	TZO-42	51	50	M 39 x 0.5	M 20.5 x 0.5
T107/0.33	TZB51	OH32	PSO90-107	64	STE30x30	TZO-42	44	43	M 39 x 0.5	M 20.5 x 0.5
T107/0.25L	TZB51	OH32	PSO90-107	83	STE30x30	TZO-42	63	62	M 39 x 0.5	□
T107/0.25	TZB51	OH32	PSO90-107	61	STE30x30	TZO-42	41	40	M 39 x 0.5	□
T107/0.2	TZB51	OH32	PSO90-107	34	STE30x30	TZO-42	14	13	M 39 x 0.5	□
T107/0.2A	TZB51	OH32	PSO90-107	60	STE30x30	TZO-42	40	39	M 39 x 0.5	□
T125/0.7L	TZB30	OH32	PSO90-100	181	STE30x30	TZO-32	156	155	M 26 x 0.5	□
T150/0.25	TZB51	OH150/200	PSO90-150	81	STE60x60	TZO-56	36	35	M 52 x 0.75	M 20.5 x 0.5
T150/0.24L	TZB51	OH150/200	PSO90-150	127	STE60x60	TZO-56	83	82	M 52 x 0.75	M 20.5 x 0.5
T150/0.19L	TZB51	OH150/200	PSO90-150	273	STE60x60	TZO-56	229	228	M 52 x 0.75	□
T150/0.19	TZB51	OH150/200	PSO90-150	83	STE60x60	TZO-56	39	38	M 52 x 0.75	M 20.5 x 0.5
T150/0.17L	TZB51	OH150/200	PSO90-150	258	STE60x60	TZO-56	214	213	M 52 x 0.75	□
T150/0.14	TZB51	OH150/200	PSO90-150	42	□	□	□	□	M 52 x 0.75	□
T151/0.44	TZB51	OH150/200	PSO90-150	171	STE60x60	TZO-56	127	126	M 52 x 0.75	□
T151/0.39	TZB51	OH150/200	PSO90-150	194	STE60x60	TZO-56	150	149	M 52 x 0.75	M 20.5 x 0.5
T152/0.36	TZB51	OH150/200	PSO90-150	81	STE60x60	TZO-56	37	36	M 52 x 0.75	M 20.5 x 0.5
T151/0.30	TZB51	OH150/200	PSO90-150	156	STE60x60	TZO-56	112	111	M 52 x 0.75	M 20.5 x 0.5
T151/0.26L	TZB51	OH150/200	PSO90-150	248	STE60x60	TZO-56	204	203	M 52 x 0.75	M 20.5 x 0.5
T201/0.42	TZB60	OH150/200	PSO90-200	118	STE60x60	TZO-71	137	136	M 67 x 0.75	M 20.5 x 0.5
T201/0.30	TZB60	OH150/200	PSO90-200	65	STE60x60	TZO-71	84	83	M 67 x 0.75	□
T201/0.28L	TZB60	OH150/200	PSO90-200	186	STE60x60	TZO-71	205	204	M 67 x 0.75	M 20.5 x 0.5
T201/0.26	TZB60	OH150/200	PSO90-200	38	STE60x60	TZO-71	57	56	M 67 x 0.75	M 20.5 x 0.5
T201/0.19	TZB60	OH150/200	PSO90-200	51	STE60x60	TZO-71	70	69	M 67 x 0.75	M 20.5 x 0.5
T201/0.19L	TZB60	OH150/200	PSO90-200	192	STE60x60	TZO-71	211	210	M 67 x 0.75	□
T201/0.15	TZB60	OH150/200	PSO90-200	44	STE60x60	TZO-71	63	62	M 67 x 0.75	M 20.5 x 0.5
T201/0.13L	TZB60	OH150/200	PSO90-200	181	STE60x60	TZO-71	200	199	M 67 x 0.75	M 20.5 x 0.5
T201/0.12	TZB60	OH150/200	PSO90-200	43	STE60x60	TZO-71	62	61	M 67 x 0.75	□
T240/0.27a	TZB95	OHM-240/OH240	□	□	STE60x60	TZO-106	212	211	M 100 x 1.0	M 20.5 x 0.5
T240/0.18a	TZB95	OHM-240/OH240	□	□	STE60x60	TZO-106	127	126	M 100 x 1.0	M 20.5 x 0.5
T240/0.13a	TZB95	OHM-240/OH240	□	□	STE60x60	TZO-106	138	137	M 100 x 1.0	M 20.5 x 0.5
T240/0.10a	TZB95	OHM-240/OH240	□	□	STE60x60	TZO-106	120	119	M 100 x 1.0	□
T240/0.08a	TZB95	OHM-240/OH240	□	□	STE60x60	TZO-106	115	114	M 100 x 1.0	□
T360/0.19a	TZB130	OHM360	□	□	□	□	□	□	M 144 x 0.75	M 20.5 x 0.5
T360/0.13a	TZB130	OHM360	□	□	□	□	□	□	M 144 x 0.75	M 20.5 x 0.5
T360/0.09a	TZB130	OHM360	□	□	□	□	□	□	M 144 x 0.75	M 20.5 x 0.5
T360/0.07a	TZB130	OHM360	□	□	□	□	□	□	M 144 x 0.75	□

□ not available