Machine-Vision (M series) + Macro Ring

2/3" format — V: 6.6, H: 8.8

Position of Focus Ring		FL-CC7528-2M f=75mm F2.8 V×H (mm)	W.D.	FL-CC5024A-2M f=50mm F2.4 V×H (mm)	W.D.	FL-CC5028-2M f=50mm F2.8 V×H (mm)	W.D.	FL-CC3516-2M f=35mm F1.6 V×H (mm)	W.D.	FL-CC2514A-2M f=25mm F1.4 V×H (mm)	W.D.	FL-CC2514-2M f=25mm F1.4 V×H (mm)	W.D.	FL-CC1614A-2M f=16mm F1.4 V×H (mm)	W.D.	FL-CC1614-2M f=16mm F1.4 V×H (mm)	W.D.	FL-CC1214A-2M f=12mm F1.4 V×H (mm)	W.D.	FL-CC1214-2M f=12mm F1.4 V×H (mm)	W.D.	FL-CC0814A-2M f=8mm F1.4 V×H (mm)	W.D.	FL-CC0814-2M f=8mm F1.4 V×H (mm)	W.D.	FL-CC0614A-2M f=6mm F1.4 V×H (mm)	W.D.
0.5mm	maximum	960.8 × 1281.0	10652	643.5 × 858.0	4790	659.8 × 879.7	5048	448.1 × 597.5	2303	338.2 × 451.0	1312	330.0 × 440.1	1250	211.3 × 281.7	501	211.2 × 281.6	499	162.3 × 216.4	288	158.4 × 211.2	275	108.8 × 145.1	123	109.7 × 146.3	127	81.8 × 109.1	61
	minimum	54.9 × 73.3	663	8.5 × 11.3	99	95.8 × 127.8	777	66.6 × 88.8	340	24.2 × 32.3	93	55.0 × 73.3	208	37.7 × 50.2	80	71.6 × 95.5	161	44.5 × 59.3	69	57.2 × 76.2	91	49.4 × 65.8	49	48.9 × 65.2	50	49.2 × 65.6	30
1.0mm	maximum	480.4 × 640.5	5355	321.8 × 429.0	2413	329.9 × 439.9	2549	224.1 × 298.8	1150	169.1 × 225.5	655	165.0 × 220.0	625	105.6 × 140.9	245	105.6 × 140.8	243	81.1 × 108.2	137	79.2 × 105.6	131	54.4 × 72.5	55	54.8 × 73.1	58	40.9 × 54.5	22
	minimum	52.0 × 69.3	630	8.4 × 11.2	98	83.7 × 111.6	685	58.0 × 77.3	296	22.6 × 30.1	86	47.1 × 62.9	179	32.0 × 42.6	66	53.5 × 71.3	117	34.9 × 46.5	51	42.0 × 56.0	64	34.0 × 45.3	29	33.8 × 45.1	31	30.7 × 41.0	13
1.5mm(1+0.5)	maximum	320.3 × 427.0	3589	214.5 × 286.0	1621	219.9 × 293.2	1716	149.4 × 199.2	766	112.7 × 150.3	436	110.0 × 146.7	417	70.4 × 93.9	160	70.4 × 93.9	158	54.1 × 72.1	87	52.8 × 70.4	83	36.3 × 48.4	32	36.6 × 48.8	35	x	-
	minimum	49.3 × 65.7	601	8.3 × 11.0	98	74.3 × 99.0	613	51.3 × 68.4	262	21.2 × 28.3	81	41.2 × 55.0	156	27.8 × 37.0	56	42.7 × 56.9	91	28.7 × 38.3	39	33.2 × 44.3	48	25.9 × 34.5	19	25.9 × 34.5	21	x	-
5mm	maximum	96.1 × 128.1	1117	64.4 × 85.8	512	66.0 × 88.0	551	44.8 × 59.8	228	33.8 × 45.1	130	33.0 × 44.0	125	21.1 × 28.2	40	21.1 × 28.2	39	16.2 × 21.6	16	15.8 × 21.1	16	x	-	x	-	x	-
	minimum	36.3 × 48.4	457	7.6 × 10.1	93	41.5 × 55.4	365	28.5 × 38.0	144	14.7 × 19.6	56	22.0 × 29.3	83	14.5 × 19.3	24	17.7 × 23.6	30	12.8 × 17.1	10	13.5 × 17.9	12	x	-	x	-	x	-
10mm	maximum	48.0 × 64.1	587	32.2 × 42.9	274	33.0 × 44.0	301	22.4 × 29.9	113	16.9 × 22.5	64	16.5 × 22.0	63	10.6 × 14.1	14	10.6 × 14.1	13	x	-	x	-	x	-	x	-	x	-
	minimum	26.3 × 35.1	348	6.8 × 9.1	87	25.5 × 34.0	244	17.4 × 23.2	87	10.3 × 13.7	39	13.2 × 17.6	50	8.6 × 11.4	10	9.6 × 12.8	11	x	-	x	-	x	-	x	-	x	-
15mm(10+5)	maximum	32.0 × 42.7	411	21.5 × 28.6	195	22.0 × 29.3	217	14.9 × 19.9	75	11.3 × 15.0	42	11.0 × 14.7	42	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	20.7 × 27.6	285	6.1 × 8.2	82	18.4 × 24.5	190	12.5 × 16.7	62	7.9 × 10.5	29	9.4 × 12.6	36	x	-	x	-	x	-	x	-	x	-	x	-	x	-
20mm	maximum	24.0 × 32.0	322	16.1 × 21.5	155	16.5 × 22.0	176	11.2 × 14.9	55	8.5 × 11.3	32	8.3 × 11.0	31	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	17.0 × 22.7	245	5.6 × 7.5	78	14.4 × 19.2	160	9.8 × 13.1	48	6.4 × 8.5	23	7.3 × 9.8	28	x	-	x	-	x	-	x	-	x	-	x	-	x	-
25mm(20+5)	maximum	19.2 × 25.6	269	12.9 × 17.2	132	13.2 × 17.6	151	9.0 × 12.0	44	6.8 × 9.0	25	6.6 × 8.8	25	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	14.5 × 19.3	217	5.2 × 6.9	75	11.8 × 15.7	140	8.0 × 10.7	39	5.4 × 7.2	20	6.0 × 8.0	23	x	-	x	-	x	-	x	-	x	-	x	-	x	-
30mm(20+10)	maximum	16.0 × 21.4	234	10.7 × 14.3	116	11.0 × 14.7	134	7.5 × 10.0	36	5.6 × 7.5	21	5.5 × 7.3	21	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	12.6 × 16.7	196	4.8 × 6.4	72	10.0 × 13.4	127	6.8 × 9.1	33	4.6 × 6.2	17	5.1 × 6.8	19	x	-	x	-	x	-	x	-	x	-	x	-	x	-
35mm(20+10+5)	maximum	13.7 × 18.3	209	9.2 × 12.3	104	9.4 × 12.6	122	6.4 × 8.5	31	4.8 × 6.4	18	4.7 × 6.3	18	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	11.1 × 14.8	180	4.4 × 5.9	69	8.7 × 11.6	117	5.9 × 7.9	28	4.1 × 5.4	15	4.4 × 5.9	17	x	-	x	-	x	-	x	-	x	-	x	-	x	-
40mm	maximum	12.0 × 16.0	189	8.0 × 10.7	96	8.2 × 11.0	113	5.6 × 7.5	27	4.2 × 5.6	16	4.1 × 5.5	16	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	10.0 × 13.3	167	4.2 × 5.5	67	7.7 × 10.2	109	5.2 × 7.0	25	3.6 × 4.9	13	3.9 × 5.2	15	x	-	x	-	x	-	x	-	x	-	x	-	x	-
45mm(40+5)	maximum	10.7 × 14.2	175	7.2 × 9.5	89	7.3 × 9.8	106	5.0 × 6.6	23	3.8 × 5.0	13	3.7 × 4.9	14	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	9.0 × 12.0	157	3.9 × 5.2	65	6.9 × 9.2	103	4.7 × 6.2	22	3.3 × 4.4	11	3.5 × 4.6	13	x	-	x	-	x	-	x	-	x	-	x	-	x	-
50mm(40+10)	maximum	9.6 × 12.8	163	6.4 × 8.6	84	6.6 × 8.8	101	4.5 × 6.0	21	3.4 × 4.5	12	3.3 × 4.4	13	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	8.2 × 11.0	148	3.7 × 4.9	64	6.2 × 8.3	98	4.2 × 5.7	20	3.0 × 4.0	10	3.1 × 4.2	12	x	-	x	-	x	-	x	-	x	-	x	-	x	-

Left axis: Extension Tube Set (Macro Ring) EX-C6 (0.5mm, 1mm, 5mm, 10mm, 20mm and 40mm)

Please note:
All values are calculation based (design figure)
W.D. : Object~L1 vertex

Machine-Vision (M series) + Macro Ring

1/1.8" format
V: 5.4
H: 7.2

Position of Focus Ring		FL-CC7528-2M f=75mm F2.8 V x H (mm)	W.D.	FL-CC5024A-2M f=50mm F2.4 V x H (mm)	W.D.	FL-CC5028-2M f=50mm F2.8 V x H (mm)	W.D.	FL-CC3516-2M f=35mm F1.6 V x H (mm)	W.D.	FL-CC2514A-2M f=25mm F1.4 V x H (mm)	W.D.	FL-CC2514-2M f=25mm F1.4 V x H (mm)	W.D.	FL-CC1614A-2M f=16mm F1.4 V x H (mm)	W.D.	FL-CC1614-2M f=16mm F1.4 V x H (mm)	W.D.	FL-CC1214A-2M f=12mm F1.4 V x H (mm)	W.D.	FL-CC1214-2M f=12mm F1.4 V x H (mm)	W.D.	FL-CC0814A-2M f=8mm F1.4 V x H (mm)	W.D.	FL-CC0814-2M f=8mm F1.4 V x H (mm)	W.D.	FL-CC0614A-2M f=6mm F1.4 V x H (mm)	W.D.
0.5mm	maximum	786.1 x 1048.1	10652	526.5 x 702.0	4790	539.8 x 719.8	5048	366.7 x 488.9	2303	276.7 x 369.0	1312	270.0 x 360.0	1250	172.9 x 230.5	501	172.8 x 230.4	499	132.8 x 177.0	288	129.6 x 172.8	275	89.0 x 118.7	123	89.7 x 119.7	127	66.9 x 89.3	61
	minimum	45.0 x 59.9	663	6.9 x 9.3	99	78.4 x 104.6	777	54.5 x 72.6	340	19.8 x 26.4	93	45.0 x 60.0	208	30.8 x 41.1	80	58.6 x 78.1	161	36.4 x 48.5	69	46.8 x 62.4	91	40.4 x 53.9	49	40.0 x 53.4	50	40.3 x 53.7	30
1.0mm	maximum	393.0 x 524.0	5355	263.3 x 351.0	2413	269.9 x 359.9	2549	183.3 x 244.4	1150	138.4 x 184.5	655	135.0 x 180.0	625	86.4 x 115.3	245	86.4 x 115.2	243	66.4 x 88.5	137	64.8 x 86.4	131	44.5 x 59.3	55	44.9 x 59.8	58	33.5 x 44.6	22
	minimum	42.5 x 56.7	630	6.9 x 9.1	98	68.5 x 91.3	685	47.4 x 63.2	296	18.5 x 24.7	86	38.6 x 51.4	179	26.1 x 34.9	66	43.8 x 58.3	117	28.6 x 38.1	51	34.4 x 45.8	64	27.8 x 37.1	29	27.7 x 36.9	31	25.1 x 33.5	13
1.5mm(1+0.5)	maximum	262.0 x 349.4	3589	175.5 x 234.0	1621	179.9 x 239.9	1716	122.2 x 163.0	766	92.2 x 123.0	436	90.0 x 120.0	417	57.6 x 76.8	160	57.6 x 76.8	158	44.3 x 59.0	87	43.2 x 57.6	83	29.7 x 39.6	32	29.9 x 39.9	35	x	-
	minimum	40.3 x 53.8	601	6.8 x 9.0	98	60.8 x 81.0	613	42.0 x 56.0	262	17.3 x 23.1	81	33.7 x 45.0	156	22.7 x 30.3	56	34.9 x 46.5	91	23.5 x 31.3	39	27.2 x 36.2	48	21.2 x 28.2	19	21.2 x 28.2	21	x	-
5mm	maximum	78.6 x 104.8	1117	52.7 x 70.2	512	54.0 x 72.0	551	36.7 x 48.9	228	27.7 x 36.9	130	27.0 x 36.0	125	17.3 x 23.1	40	17.3 x 23.0	39	13.3 x 17.7	16	13.0 x 17.3	16	x	-	x	-	x	-
	minimum	29.7 x 39.6	457	6.2 x 8.3	93	34.0 x 45.3	365	23.3 x 31.1	144	12.1 x 16.1	56	18.0 x 24.0	83	11.8 x 15.8	24	14.5 x 19.3	30	10.5 x 14.0	10	11.0 x 14.7	12	x	-	x	-	x	-
10mm	maximum	39.3 x 52.4	587	26.3 x 35.1	274	27.0 x 36.0	301	18.3 x 24.4	113	13.8 x 18.4	64	13.5 x 18.0	63	8.6 x 11.5	14	8.6 x 11.5	13	x	-	x	-	x	-	x	-	x	-
	minimum	21.5 x 28.7	348	5.6 x 7.4	87	20.9 x 27.8	244	14.2 x 19.0	87	8.4 x 11.2	39	10.8 x 14.4	50	7.0 x 9.4	10	7.9 x 10.5	11	x	-	x	-	x	-	x	-	x	-
15mm(10+5)	maximum	26.2 x 34.9	411	17.6 x 23.4	195	18.0 x 24.0	217	12.2 x 16.3	75	9.2 x 12.3	42	9.0 x 12.0	42	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	16.9 x 22.5	285	5.0 x 6.7	82	15.0 x 20.1	190	10.3 x 13.7	62	6.4 x 8.6	29	7.7 x 10.3	36	x	-	x	-	x	-	x	-	x	-	x	-	x	-
20mm	maximum	19.7 x 26.2	322	13.2 x 17.6	155	13.5 x 18.0	176	9.2 x 12.2	55	6.9 x 9.2	32	6.8 x 9.0	31	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	13.9 x 18.6	245	4.6 x 6.1	78	11.8 x 15.7	160	8.0 x 10.7	48	5.2 x 7.0	23	6.0 x 8.0	28	x	-	x	-	x	-	x	-	x	-	x	-	x	-
25mm(20+5)	maximum	15.7 x 21.0	269	10.5 x 14.0	132	10.8 x 14.4	151	7.3 x 9.8	44	5.5 x 7.4	25	5.4 x 7.2	25	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	11.8 x 15.8	217	4.2 x 5.6	75	9.7 x 12.9	140	6.6 x 8.8	39	4.4 x 5.9	20	4.9 x 6.5	23	x	-	x	-	x	-	x	-	x	-	x	-	x	-
30mm(20+10)	maximum	13.1 x 17.5	234	8.8 x 11.7	116	9.0 x 12.0	134	6.1 x 8.1	36	4.6 x 6.1	21	4.5 x 6.0	21	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	10.3 x 13.7	196	3.9 x 5.2	72	8.2 x 10.9	127	5.6 x 7.4	33	3.8 x 5.1	17	4.2 x 5.5	19	x	-	x	-	x	-	x	-	x	-	x	-	x	-
35mm(20+10+5)	maximum	11.2 x 15.0	209	7.5 x 10.0	104	7.7 x 10.3	122	5.2 x 7.0	31	4.0 x 5.3	17	3.9 x 5.1	18	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	9.1 x 12.1	180	3.6 x 4.8	69	7.1 x 9.5	117	4.8 x 6.5	28	3.3 x 4.4	15	3.6 x 4.8	17	x	-	x	-	x	-	x	-	x	-	x	-	x	-
40mm	maximum	9.8 x 13.1	190	6.6 x 8.8	96	6.7 x 9.0	113	4.6 x 6.1	27	3.5 x 4.6	15	3.4 x 4.5	16	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	8.1 x 10.9	167	3.4 x 4.5	67	6.3 x 8.4	109	4.3 x 5.7	25	3.0 x 4.0	13	3.2 x 4.2	15	x	-	x	-	x	-	x	-	x	-	x	-	x	-
45mm(40+5)	maximum	8.7 x 11.6	175	5.9 x 7.8	89	6.0 x 8.0	106	4.1 x 5.4	23	3.1 x 4.1	13	3.0 x 4.0	14	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	7.4 x 9.8	157	3.2 x 4.3	65	5.6 x 7.5	103	3.8 x 5.1	22	2.7 x 3.6	11	2.8 x 3.8	13	x	-	x	-	x	-	x	-	x	-	x	-	x	-
50mm(40+10)	maximum	7.9 x 10.5	163	5.3 x 7.0	84	5.4 x 7.2	101	3.7 x 4.9	21	2.8 x 3.7	12	2.7 x 3.6	13	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	minimum	6.7 x 9.0	148	3.0 x 4.0	64	5.1 x 6.8	98	3.5 x 4.6	20	2.4 x 3.3	10	2.6 x 3.4	12	x	-	x	-	x	-	x	-	x	-	x	-	x	-

Extension Tube Set (Macro Ring) EX-C6 (0.5mm, 1mm, 5mm, 10mm, 20mm and 40mm)

Please note:
All values are calculation based (design figure)
W.D. : Object~L1 vertex

Machine-Vision (M series) + Macro Ring

1/2" format
V: 4.8
H: 6.4

Extension Tube Set (Macro Ring) EX-C6 (0.5mm, 1mm, 5mm, 10mm, 20mm and 40mm)	Position of Focus Ring		FL-CC7528-2M f=75mm F2.8		FL-CC5024A-2M f=50mm F2.4		FL-CC5028-2M f=50mm F2.8		FL-CC3516-2M f=35mm F1.6		FL-CC2514A-2M f=25mm F1.4		FL-CC2514-2M f=25mm F1.4		FL-CC1614A-2M f=16mm F1.4		FL-CC1614-2M f=16mm F1.4		FL-CC1214A-2M f=12mm F1.4		FL-CC1214-2M f=12mm F1.4		FL-CC0814A-2M f=8mm F1.4		FL-CC0814-2M f=8mm F1.4		FL-CC0614A-2M f=6mm F1.4	
			V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.	V x H (mm)	W.D.
	0.5mm	maximum	698.7 x 931.6	10652	468.0 x 624.0	4790	479.8 x 639.8	5048	325.9 x 434.6	2303	246.0 x 328.0	1312	240.0 x 320.0	1250	153.7 x 204.9	501	153.6 x 204.8	499	118.0 x 157.4	288	115.2 x 153.6	275	79.1 x 105.5	123	79.8 x 106.4	127	59.5 x 79.3	61
		minimum	40.0 x 53.3	663	6.2 x 8.2	99	69.7 x 92.9	777	48.4 x 64.5	340	17.6 x 23.5	93	40.0 x 53.3	208	27.4 x 36.5	80	52.1 x 69.4	161	32.3 x 43.1	69	41.6 x 55.4	91	35.9 x 47.9	49	35.6 x 47.4	50	35.8 x 47.7	30
	1.0mm	maximum	349.4 x 465.8	5355	234.0 x 312.0	2413	239.9 x 319.9	2549	163.0 x 217.3	1150	123.0 x 164.0	655	120.0 x 160.0	625	76.8 x 102.4	245	76.8 x 102.4	243	59.0 x 78.7	137	57.6 x 76.8	131	39.6 x 52.7	55	39.9 x 53.2	58	29.8 x 39.7	22
		minimum	37.8 x 50.4	630	6.1 x 8.1	98	60.9 x 81.1	685	42.2 x 56.2	296	16.4 x 21.9	86	34.3 x 45.7	179	23.2 x 31.0	66	38.9 x 51.9	117	25.4 x 33.8	51	30.6 x 40.7	64	24.7 x 32.9	29	24.6 x 32.8	31	22.4 x 29.8	13
	1.5mm (1+0.5)	maximum	232.9 x 310.5	3589	156.0 x 208.0	1621	159.9 x 213.3	1716	108.6 x 144.9	766	82.0 x 109.3	436	80.0 x 106.7	417	51.2 x 68.3	160	51.2 x 68.3	158	39.3 x 52.5	87	38.4 x 51.2	83	26.4 x 35.2	32	26.6 x 35.5	35	x	-
		minimum	35.9 x 47.8	601	6.0 x 8.0	98	54.0 x 72.0	613	37.3 x 49.8	262	15.4 x 20.5	81	30.0 x 40.0	156	20.2 x 26.9	56	31.0 x 41.4	91	20.9 x 27.9	39	24.1 x 32.2	48	18.8 x 25.1	19	18.8 x 25.1	21	x	-
	5mm	maximum	69.9 x 93.2	1117	46.8 x 62.4	512	48.0 x 64.0	551	32.6 x 43.5	228	24.6 x 32.8	130	24.0 x 32.0	125	15.4 x 20.5	40	15.4 x 20.5	39	11.8 x 15.7	16	11.5 x 15.4	16	x	-	x	-	x	-
		minimum	26.4 x 35.2	457	5.5 x 7.4	93	30.2 x 40.3	365	20.7 x 27.6	144	10.7 x 14.3	56	16.0 x 21.3	83	10.5 x 14.0	24	12.9 x 17.1	30	9.3 x 12.4	10	9.8 x 13.0	12	x	-	x	-	x	-
	10mm	maximum	34.9 x 46.6	587	23.4 x 31.2	274	24.0 x 32.0	301	16.3 x 21.7	113	12.3 x 16.4	64	12.0 x 16.0	63	7.7 x 10.2	14	7.7 x 10.2	13	x	-	x	-	x	-	x	-	x	-
		minimum	19.2 x 25.5	348	4.9 x 6.6	87	18.5 x 24.7	244	12.7 x 16.9	87	7.5 x 10.0	39	9.6 x 12.8	50	6.2 x 8.3	10	7.0 x 9.3	11	x	-	x	-	x	-	x	-	x	-
	15mm (10+5)	maximum	23.3 x 31.1	411	15.6 x 20.8	195	16.0 x 21.3	217	10.9 x 14.5	75	8.2 x 10.9	42	8.0 x 10.7	42	x	-	x	-	x	-	x	-	x	-	x	-	x	-
		minimum	15.0 x 20.0	285	4.5 x 6.0	82	13.4 x 17.8	190	9.1 x 12.2	62	5.7 x 7.6	29	6.9 x 9.1	36	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	20mm	maximum	17.5 x 23.3	322	11.7 x 15.6	155	12.0 x 16.0	176	8.1 x 10.9	55	6.1 x 8.2	32	6.0 x 8.0	31	x	-	x	-	x	-	x	-	x	-	x	-	x	-
		minimum	12.4 x 16.5	245	4.1 x 5.4	78	10.5 x 13.9	160	7.1 x 9.5	48	4.6 x 6.2	23	5.3 x 7.1	28	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	25mm (20+5)	maximum	14.0 x 18.6	269	9.4 x 12.5	132	9.6 x 12.8	151	6.5 x 8.7	44	4.9 x 6.6	25	4.8 x 6.4	25	x	-	x	-	x	-	x	-	x	-	x	-	x	-
		minimum	10.5 x 14.0	217	3.8 x 5.0	75	8.6 x 11.4	140	5.8 x 7.8	39	3.9 x 5.2	20	4.4 x 5.8	23	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	30mm (20+10)	maximum	11.6 x 15.5	234	7.8 x 10.4	116	8.0 x 10.7	134	5.4 x 7.2	36	4.1 x 5.5	21	4.0 x 5.3	21	x	-	x	-	x	-	x	-	x	-	x	-	x	-
		minimum	9.1 x 12.2	196	3.5 x 4.6	72	7.3 x 9.7	127	5.0 x 6.6	33	3.4 x 4.5	17	3.7 x 4.9	19	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	35mm (20+10+5)	maximum	10.0 x 13.3	209	6.7 x 8.9	104	6.9 x 9.1	122	4.7 x 6.2	31	3.5 x 4.7	17	3.4 x 4.6	18	x	-	x	-	x	-	x	-	x	-	x	-	x	-
		minimum	8.1 x 10.8	180	3.2 x 4.3	69	6.3 x 8.4	117	4.3 x 5.7	28	3.0 x 4.0	15	3.2 x 4.3	17	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	40mm	maximum	8.7 x 11.6	190	5.9 x 7.8	96	6.0 x 8.0	113	4.1 x 5.4	27	3.1 x 4.1	15	3.0 x 4.0	16	x	-	x	-	x	-	x	-	x	-	x	-	x	-
		minimum	7.2 x 9.7	167	3.0 x 4.0	67	5.6 x 7.4	109	3.8 x 5.1	25	2.6 x 3.5	13	2.8 x 3.8	15	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	45mm (40+5)	maximum	7.8 x 10.4	175	5.2 x 6.9	89	5.3 x 7.1	106	3.6 x 4.8	23	2.7 x 3.6	13	2.7 x 3.6	14	x	-	x	-	x	-	x	-	x	-	x	-	x	-
		minimum	6.6 x 8.7	157	2.8 x 3.8	65	5.0 x 6.7	103	3.4 x 4.5	22	2.4 x 3.2	11	2.5 x 3.4	13	x	-	x	-	x	-	x	-	x	-	x	-	x	-
	50mm (40+10)	maximum	7.0 x 9.3	163	4.7 x 6.2	84	4.8 x 6.4	101	3.3 x 4.3	21	2.5 x 3.3	12	2.4 x 3.2	13	x	-	x	-	x	-	x	-	x	-	x	-	x	-
		minimum	6.0 x 8.0	148	2.7 x 3.6	64	4.5 x 6.0	98	3.1 x 4.1	20	2.2 x 2.9	10	2.3 x 3.0	12	x	-	x	-	x	-	x	-	x	-	x	-	x	-

Please note:
All values are calculation based (design figure)
W.D. : Object~L1 vertex

Machine-Vision (M series) + Macro Ring

2/3" format — V: 6.6, H: 8.8

Extension Tube position	Position of Focus Ring	FL-CC5028A-5M02 f=75mm F2.8 V x H (mm)	W.D.	FL-CC5028A-5M035 f=50mm F2.4 V x H (mm)	W.D.	FL-CC2514-5M f=50mm F2.8 V x H (mm)	W.D.	FL-CC1614-5M f=35mm F1.6 V x H (mm)	W.D.	FL-CC0814-5M f=25mm F1.4 V x H (mm)	W.D.
0.5mm	maximum	41.3 x 55.1	343	22.8 x 30.4	199	330.0 x 440.0	1237	211.1 x 281.4	498	108.8 x 145.0	116
0.5mm	minimum	25.4 x 33.9	220	16.1 x 21.5	147	27.3 x 36.4	91	38.3 x 51.1	79	50.9 x 67.9	44
1.0mm	maximum	38.9 x 51.9	325	22.0 x 29.4	193	165.0 x 220.0	612	105.5 x 140.7	242	54.4 x 72.5	48
1.0mm	minimum	24.5 x 32.7	212	15.7 x 21.0	144	25.2 x 33.6	83	32.4 x 43.2	65	34.7 x 46.2	24
1.5mm(1+0.5)	maximum	36.8 x 49.1	308	21.3 x 28.4	187	110.0 x 146.7	404	70.4 x 93.8	157	36.3 x 48.3	26
1.5mm(1+0.5)	minimum	23.6 x 31.5	206	15.4 x 20.5	141	23.4 x 31.2	76	28.1 x 37.5	55	26.3 x 35.1	13
5mm	maximum	26.7 x 35.6	229	17.5 x 23.3	158	33.0 x 44.0	112	21.1 x 28.1	38	x	-
5mm	minimum	19.0 x 25.3	170	13.3 x 17.7	125	15.7 x 20.9	46	14.5 x 19.4	22	x	-
10mm	maximum	19.1 x 25.5	171	13.9 x 18.5	130	16.5 x 22.0	50	10.6 x 14.1	12	x	-
10mm	minimum	14.8 x 19.8	137	11.1 x 14.8	108	10.6 x 14.2	27	8.6 x 11.5	8	x	-
15mm(10+5)	maximum	14.9 x 19.9	138	11.5 x 15.3	111	11.0 x 14.7	29	x	-	x	-
15mm(10+5)	minimum	12.2 x 16.2	117	9.5 x 12.7	96	8.0 x 10.7	18	x	-	x	-
20mm	maximum	12.2 x 16.3	117	9.8 x 13.1	98	8.3 x 11.0	18	x	-	x	-
20mm	minimum	10.3 x 13.8	102	8.3 x 11.1	87	6.5 x 8.6	12	x	-	x	-
25mm(20+5)	maximum	10.4 x 13.8	102	8.6 x 11.4	89	6.6 x 8.8	12	x	-	x	-
25mm(20+5)	minimum	9.0 x 11.9	91	7.4 x 9.9	80	5.4 x 7.2	8	x	-	x	-
30mm(20+10)	maximum	9.0 x 12.0	92	7.6 x 10.2	81	x	-	x	-	x	-
30mm(20+10)	minimum	7.9 x 10.6	83	6.7 x 8.9	74	x	-	x	-	x	-
35mm(20+10+5)	maximum	7.9 x 10.6	84	6.8 x 9.1	75	x	-	x	-	x	-
35mm(20+10+5)	minimum	7.1 x 9.4	77	6.1 x 8.1	69	x	-	x	-	x	-
40mm	maximum	7.1 x 9.5	77	6.2 x 8.3	70	x	-	x	-	x	-
40mm	minimum	6.4 x 8.6	72	5.6 x 7.4	65	x	-	x	-	x	-
45mm(40+5)	maximum	6.4 x 8.6	72	5.7 x 7.6	66	x	-	x	-	x	-
45mm(40+5)	minimum	5.9 x 7.8	67	5.2 x 6.9	62	x	-	x	-	x	-
50mm(40+10)	maximum	5.9 x 7.8	67	5.2 x 7.0	63	x	-	x	-	x	-
50mm(40+10)	minimum	5.4 x 7.2	64	4.8 x 6.4	59	x	-	x	-	x	-

Extension Tube Set (Macro Ring) EX-C6 (0.5mm, 1mm, 5mm, 10mm, 20mm and 40mm)

Please note:
All values are calculation based (design figure)
W.D. : Object~L1 vertex

RICOH Corporation   Security System Division

Machine-Vision (M series) + Macro Ring

1/1.8" format
V: 5.4
H: 7.2

Extension Tube Set (Macro Ring) EX-C6 (0.5mm, 1mm, 5mm, 10mm, 20mm and 40mm)	Position of Focus Ring	FL-CC5028A-5M02 f=75mm F2.8 V x H (mm)	W.D.	FL-CC5028A-5M035 f=50mm F2.4 V x H (mm)	W.D.	FL-CC2514-5M f=50mm F2.8 V x H (mm)	W.D.	FL-CC1614-5M f=35mm F1.6 V x H (mm)	W.D.	FL-CC0814-5M f=25mm F1.4 V x H (mm)	W.D.
0.5mm	maximum	33.8 x 45.1	343	18.6 x 24.8	199	270.0 x 360.0	1237	172.7 x 230.2	498	89.0 x 118.6	116
0.5mm	minimum	20.8 x 27.7	220	13.2 x 17.6	147	22.3 x 29.8	91	31.3 x 41.8	79	41.7 x 55.5	44
1.0mm	maximum	31.9 x 42.5	325	18.0 x 24.0	193	135.0 x 180.0	612	86.3 x 115.1	242	44.5 x 59.3	48
1.0mm	minimum	20.0 x 26.7	212	12.9 x 17.2	144	20.6 x 27.5	83	26.5 x 35.4	65	28.4 x 37.8	24
1.5mm(1+0.5)	maximum	30.1 x 40.2	308	17.5 x 23.3	187	90.0 x 120.0	404	57.6 x 76.7	157	29.7 x 39.5	26
1.5mm(1+0.5)	minimum	19.3 x 25.8	206	12.6 x 16.8	141	19.2 x 25.6	76	23.0 x 30.7	55	21.5 x 28.7	13
5mm	maximum	21.8 x 29.1	229	14.3 x 19.1	158	27.0 x 36.0	112	17.3 x 23.0	38	x	-
5mm	minimum	15.5 x 20.7	170	10.8 x 14.5	125	12.8 x 17.1	46	11.9 x 15.9	22	x	-
10mm	maximum	15.7 x 20.9	171	11.4 x 15.1	130	13.5 x 18.0	50	8.6 x 11.5	12	x	-
10mm	minimum	12.1 x 16.2	137	9.1 x 12.1	108	8.7 x 11.6	27	7.0 x 9.4	8	x	-
15mm(10+5)	maximum	12.2 x 16.3	138	9.4 x 12.6	111	9.0 x 12.0	29	x	-	x	-
15mm(10+5)	minimum	10.0 x 13.3	117	7.8 x 10.4	96	6.6 x 8.8	18	x	-	x	-
20mm	maximum	10.0 x 13.4	117	8.0 x 10.7	98	6.8 x 9.0	18	x	-	x	-
20mm	minimum	8.4 x 11.3	102	6.8 x 9.1	87	5.3 x 7.0	12	x	-	x	-
25mm(20+5)	maximum	8.5 x 11.3	102	7.0 x 9.4	89	5.4 x 7.2	12	x	-	x	-
25mm(20+5)	minimum	7.3 x 9.8	91	6.1 x 8.1	80	4.4 x 5.9	8	x	-	x	-
30mm(20+10)	maximum	7.4 x 9.8	92	6.2 x 8.3	81	x	-	x	-	x	-
30mm(20+10)	minimum	6.5 x 8.6	83	5.5 x 7.3	74	x	-	x	-	x	-
35mm(20+10+5)	maximum	6.5 x 8.7	84	5.6 x 7.5	75	x	-	x	-	x	-
35mm(20+10+5)	minimum	5.8 x 7.7	77	5.0 x 6.6	69	x	-	x	-	x	-
40mm	maximum	5.8 x 7.8	77	5.1 x 6.8	70	x	-	x	-	x	-
40mm	minimum	5.2 x 7.0	72	4.6 x 6.1	65	x	-	x	-	x	-
45mm(40+5)	maximum	5.3 x 7.0	72	4.7 x 6.2	66	x	-	x	-	x	-
45mm(40+5)	minimum	4.8 x 6.4	67	4.2 x 5.6	62	x	-	x	-	x	-
50mm(40+10)	maximum	4.8 x 6.4	67	4.3 x 5.7	63	x	-	x	-	x	-
50mm(40+10)	minimum	4.4 x 5.9	64	3.9 x 5.2	59	x	-	x	-	x	-

Please note:
All values are calculation based (design figure)
W.D. : Object~L1 vertex

RICOH Corporation   Security System Division

Machine-Vision (M series) + Macro Ring

1/2" format
V: 4.8
H: 6.4

Extension Tube Set (Macro Ring) EX-C6 (0.5mm, 1mm, 5mm, 10mm, 20mm and 40mm)

Position of Focus Ring		FL-CC5028A-5M02 f=75mm F2.8 V x H (mm)	W.D.	FL-CC5028A-5M035 f=50mm F2.4 V x H (mm)	W.D.	FL-CC2514-5M f=50mm F2.8 V x H (mm)	W.D.	FL-CC1614-5M f=35mm F1.6 V x H (mm)	W.D.	FL-CC0814-5M f=25mm F1.4 V x H (mm)	W.D.
0.5mm	maximum	30.0 x 40.1	343	16.6 x 22.1	199	240.0 x 320.0	1237	153.5 x 204.7	498	79.1 x 105.5	116
	minimum	18.5 x 24.6	220	11.7 x 15.6	147	19.9 x 26.5	91	27.9 x 37.1	79	37.0 x 49.4	44
1.0mm	maximum	28.3 x 37.8	325	16.0 x 21.4	193	120.0 x 160.0	612	76.7 x 102.3	242	39.5 x 52.7	48
	minimum	17.8 x 23.7	212	11.4 x 15.3	144	18.3 x 24.5	83	23.6 x 31.4	65	25.2 x 33.6	24
1.5mm(1+0.5)	maximum	26.8 x 35.7	308	15.5 x 20.7	187	80.0 x 106.7	404	51.2 x 68.2	157	26.4 x 35.2	26
	minimum	17.2 x 22.9	206	11.2 x 14.9	141	17.0 x 22.7	76	20.4 x 27.2	55	19.1 x 25.5	13
5mm	maximum	19.4 x 25.9	229	12.7 x 16.9	158	24.0 x 32.0	112	15.3 x 20.5	38	x	-
	minimum	13.8 x 18.4	170	9.6 x 12.9	125	11.4 x 15.2	46	10.6 x 14.1	22	x	-
10mm	maximum	13.9 x 18.6	171	10.1 x 13.5	130	12.0 x 16.0	50	7.7 x 10.2	12	x	-
	minimum	10.8 x 14.4	137	8.1 x 10.7	108	7.7 x 10.3	27	6.3 x 8.3	8	x	-
15mm(10+5)	maximum	10.9 x 14.5	138	8.4 x 11.2	111	8.0 x 10.7	29	x	-	x	-
	minimum	8.9 x 11.8	117	6.9 x 9.2	96	5.8 x 7.8	18	x	-	x	-
20mm	maximum	8.9 x 11.9	117	7.2 x 9.5	98	6.0 x 8.0	18	x	-	x	-
	minimum	7.5 x 10.0	102	6.1 x 8.1	87	4.7 x 6.3	12	x	-	x	-
25mm(20+5)	maximum	7.5 x 10.1	102	6.2 x 8.3	89	4.8 x 6.4	12	x	-	x	-
	minimum	6.5 x 8.7	91	5.4 x 7.2	80	3.9 x 5.2	8	x	-	x	-
30mm(20+10)	maximum	6.5 x 8.7	92	5.5 x 7.4	81	x	-	x	-	x	-
	minimum	5.8 x 7.7	83	4.9 x 6.5	74	x	-	x	-	x	-
35mm(20+10+5)	maximum	5.8 x 7.7	84	5.0 x 6.6	75	x	-	x	-	x	-
	minimum	5.2 x 6.9	77	4.4 x 5.9	69	x	-	x	-	x	-
40mm	maximum	5.2 x 6.9	77	4.5 x 6.0	70	x	-	x	-	x	-
	minimum	4.7 x 6.2	72	4.1 x 5.4	65	x	-	x	-	x	-
45mm(40+5)	maximum	4.7 x 6.2	72	4.1 x 5.5	66	x	-	x	-	x	-
	minimum	4.3 x 5.7	67	3.7 x 5.0	62	x	-	x	-	x	-
50mm(40+10)	maximum	4.3 x 5.7	67	3.8 x 5.1	63	x	-	x	-	x	-
	minimum	3.9 x 5.2	64	3.5 x 4.6	59	x	-	x	-	x	-

Please note:
All values are calculation based (design figure)
W.D. : Object~L1 vertex

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