

About Lensation

LENSATION provides free of charge consulting about lenses, illumination, optical components and Smart Cameras. In addition we offer a wide range of optical products.

We are fluent in English and German, but some of our people speak Korean, others Chinese or Japanese. As you can imagine, this opens doors in Asia. We can source asian products for you, be it optics or electronic parts.

Are you searching for products that you haven't been able to find yet? Ask us! What we can't offer you yet, we'll source for you. Name the product spec's and the target price - usually we can provide the desired product. And if 'your' product really isn't available, we'll design it for you! Exclusive OEM designs are possible, or just job order production. We care about your individual constraints such as product spec's, high quality and good prices.



Our mission is to keep our customers excited.

With this goal in mind, we provide:

- Free consultancy.
- Exceptionally good value for money.
- Best performance.
- OEM design and development.
- Unique solutions.
- Products tailored especially according to your demands.

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S-Mount Lenses

Overview, sorted by Focal Length	4
10 Megapixel Board Lenses	6
5 Megapixel 1/2.5" Board Lenses	6
Super Megapixel Board Lenses	6
3 Megapixel Board Lenses	7
Megapixel 1/2" Board Lenses	7
1/2" Board Lenses	8
Megapixel Low Distortion Board Lenses	8
Pinhole Board Lenses	8
Megapixel Board Lenses	9
High Resolution Board Lenses	9
High Speed Board Lenses	10
Megapixel Varifocal Board Lenses	10
Standard Board Lenses	11
Waterproof Automotive Board Lenses	11
Fisheye Board Lenses	12

C-Mount (FA) Lenses

8 Megapixel C-Mount Lenses	13
5 Megapixel High Resolution Machine Vision	14
2 Megapixel High Resolution CCTV Lenses	14
Megapixel C-Mount Lenses (C3M series)	15
Megapixel Low Distortion CCTV Lenses	15
Megapixel High Resolution CCTV Lenses	16
High Quality C-Mount Lenses	16
High Speed F0.95 C-Mount Lenses	17
Megapixel Low Distortion Varifocal Lenses	17
Fisheye C-Mount Lenses	17
Economy Megapixel C-Mount Lenses	18
Compact Megapixel C-Mount Lenses	18

Accessories	19
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Telecentric Lenses

Double Side Telecentric Lenses	
T29M, T4M and TDC Series	20
Object Side Telecentric Lenses	
T25M and T15M Series	21
TF8M Series: 8 Megapixel Telecentric	22
TF4M Series: 4 Megapixel Telecentric	23
TC5M Series: 5 MP, Ultra High Resolution	24-25
TCHR Series: High Resolution Telecentric	26-27
TCST Series: Standard Telecentric	28-31
Telecentric Zoom Lenses	32
Sensor Size Extender	32

Line Scan Lenses

TL4K Series: Telecentric Line Scan Lenses	33
TL8K/TL12K Series: Telecentric Line Scan Lenses	34
Line Scan Lenses for Wide Filed of View	35
Line Scan Lenses for 8K to 12K line CCD	36

Macro Lenses

Macro Zoom Lenses	37
MCV5M Varifocal Macro Zoom Lens	38
Macro Lenses for 1" Sensors	38
Macro Lenses up to 15 Megapixels	39-40

Illumination

Coaxial LED Illumination	41
Analog LED Controller	42
Digital LED Controller	42

Distribution

Theia: Super Wide Angle without Distortion	43
Imatest: Software for testing image quality	44

Optics Glossary	45
Optics Formulas	46



S-Mount Board Lenses (M12x0.5)

Lenses with a M12x0.5mm thread are officially called S-Mount lenses, though "M12 lenses" or simply "board lenses" are more common terms. Though we provide simple lenses too, we decided to offer the high quality, megapixel compatible variety of these lenses.

Some lenses of the newest generation are even suitable for 10 Megapixel cameras. Really light sensitive lenses in this size are hard to find, but we're proud to offer a whole range of even F1.2 lenses. Other unusual lenses you find here include board lenses with manual Iris and even varifocal board lenses are available. In case you need other threads, we can offer M17, M14, M13, M10, M8, M9, M7 lenses too.



Overview (FE = Fisheye VF = Varifocal PH = Pinhole)

Lensagon No.	Image Format	Focal Length	Aperture	M.O.D.	Back Focal	F.O.V. (diagonal)	Weight	IR corr.	IR cut opt.	Megapixel	Special
BF5M11920	1/3.2"	1.19	2.0	0.2m	6.44	185°	14.7g	•	•	5	FE
BFM1220C	1/3"	1.2	2.0	0.2m	2.91	190°	7.5g		only with	1.3	FE
BK1220	1/4"	1.2	2.0	0.2m	3.4	192°	5.2g		•		
BF2M12520	1/3"	1.25	2.0	0.15m	6.44	185°	14g	•	•	2	FE
BFM1320	1/4"	1.3	2.0	0.05m	4.73	185°	11g	•	•	1	FE
BF5M13720	1/2.5"	1.37	2.0	0.15m	5.57	183°	20.5g	•	•	5	FE
BF9M1422	1/2.3"	1.41	2.2	0.1m	3.69	183°	24.0g	•	•	9	FE
BA1520WPC	1/4"	1.5	2.0	0.2m	2.2	163.0°	5.5g		only with	1	WP
BF2M15520	1/2"	1.55	2.0	0.15m	6.43	185°	19g	•	•	2	FE
BK1820	1/4"	1.8	2.0	0.2m	3.65	160°	5.5g		•		
BA1825WPC	1/4"	1.8	2.5	0.2m	2.2	160.0°	5.5g		only with		WP
BT1922	1/4"	1.9	2.2	0.05m	4.7	156°	3.5g		•		
BF2M2020	2/3"	2.0	2.0	0.08m	6.17	175°	18.5g	•		2	FE
BF2M2020S23	2/3"	2.0	2.0	0.08m	6.17	195°	18g	•		2	FE
BF9M2022	1/2.3"	2.0	2.2	0.1m	5.60	185°	19.6g	•	•	9	FE
BA2025WPC	1/4"	2.0	2.5	0.2m	2.47	160.0°	5.5g		only with		WP
BM2118V2	1/3"	2.1	1.8	0.2m	6.3	170°	6.5g	•	•	1	
BHR2125	1/3"	2.1	2.5	0.2m	4.25	165.7°	6.1g				
BT2120	1/3"	2.1	2.0	0.2m	4.92	151°	6.5g		•		
B5M29740ND	1/2.5"	2.97	4.0	0.2m	2.97	102°	3.5g		•	5	
BFM2320	1/2"	2.3	2.0	0.08m	4.99	185°	13g	•	•	1	FE
BA2325WPC	1/3"	2.3	2.5	0.2m	2.7	163.0°	6.0g		only with		WP
BM2420	1/3"	2.4	2.0	0.15m	4.56	132°	6.0g	•	•	1	
B5M2524	1/2.5"	2.5	2.4	0.1m	4.98	166°	6.1g	•	•	5	
BHR2525	1/3"	2.5	2.5	0.2m	5.04	142.7°	6.8g				
BT2520	1/3"	2.5	2.0	0.2m	5.18	140°	5.3g		•		
B3M2816	1/2.5"	2.8	1.6	0.3m	5.8	147°	5.0g	•	•	3	
BM2820	1/3"	2.8	2.0	0.2m	5.29	122°	6.0g	•	•	1	
BVM2812014	1/3"	2.8 - 12.0	1.4	0.2m	5.91	126° - 28°	45g	•		1	VF
B5M2916	1/2.5"	2.9	1.6	0.1m	4.47	152°	7.2g	•	•	5	
BT2920	1/3"	2.9	2.0	0.2m	5.02	138°	4.5g		•		
BM2920S118	1/1.8"	2.95	2.0	0.15m	7.85	178°	13.0g	•	•	1	
BHR3020	1/3"	3.0	2.0	0.2m	5.67	126.0°	5.9g				
BT3020	1/3"	3.0	2.0	0.2m	5.35	124°	3.5g		•		
B10M3222S12	1/2"	3.2	2.2	0.3m	5.2	146°	26.0g	•	•	10	
BM3518S125ND	1/2.5"	3.5	1.8	0.2m	5.97	90°	12.0g	•		3	
B3M3616	1/2.5"	3.6	1.6	0.2m	6.0	120°	6.3g	•	•	3	
BM3618	1/3"	3.6	1.8	0.2m	6.59	100.2°	6.0g	•	•	1	
B5M3618	1/2.5"	3.6	1.8	0.2m	7.25	128°	5.0g		•	5	
BT3620	1/3"	3.6	2.0	0.2m	5.00	100°	4.1g		•		
BPM3718	1/3"	3.7	1.8	0.1m	3.55	104°	3.1g	•	•	1	PH
BL4012DN	1/3"	4.0	1.2	0.2m	7	62.2°	21.0g	•			
MB4012	1/3"	4.0	1.2	0.2m	6.5	62.2°	34.0g				
BVM409014	1/3"	4.0 - 9.0	1.4	0.2m	5.4	60° - 30°	35g	•		1	VF
BM4018S118	1/1.8"	4.0	1.8	0.2m	8.0	126°	10.0g	•	•	3	
B3M4016	1/2.5"	4.0	1.6	0.2m	7.28	112°	5.4g	•		3	

BSM4016S12	1/2"	4.0	1.6	0.2m	7.2	146°	7.0g	•		2	
BM4015ND	1/3"	4.0	1.5	0.2m	6.8	80.4°	6.0g	•		1.3	
B5M4018	1/2.5"	4.0	1.8	0.2m	7.72	112°	5.0g		•	5	
B5M41430ND	1/2.5"	4.14	3.0	0.2m	5.25	82°	8.3g		•	5	
BM4218	1/3"	4.2	1.8	0.2m	7.21	89°	7.0g	•	•	1	
BHR4318	1/3"	4.3	1.8	0.2m	6.16	83.1°	4.0g				
BK4320	1/3"	4.3	2.0	0.2m	6.1	85°	6.0g		•		
BM4516ND	1/3"	4.5	1.6	0.2m	6.1	68°	10.0g	•		3	
BM4518S125ND	1/2.5"	4.5	1.8	0.2m	6.14	76.4°	13.0g	•	•	3	
BT4620	1/3"	4.6	2.0	0.2m	6.63	80°	4.1g		•		
B10M5022S12	1/2"	5.0	2.2	0.3m	8.5	94°	11.0g	•	•	10	
BVM5015014	1/3"	5.0 - 15.0	1.4	0.2m	6.85	41° - 19°	35g	•		1	VF
B10M5425	1/2.3"	5.4	2.5	0.2m	6.6	70°	6.0g	•	•	10	
BM5518S12ND	1/2"	5.5	1.8	0.2m	6.87	76°	10.0g	•		3	
BHR5620	1/3"	5.6	2.0	0.2m	8.07	65.3°	4.0g				
BL6012	1/3"	6.0	1.2	0.2m	6.96	44.3°	32.5g				
MB6012	1/3"	6.0	1.2	0.2m	6.96	44.3°	33.0g				
B5M6018	1/2.5"	6.0	1.8	0.2m	9.58	75°	6.5g		•	5	
B3M6020S12	1/2"	6.0	2.0	0.3m	8.3	81°	9.9g			3	
B3M6016	1/2.5"	6.0	1.6	0.3m	6.8	72°	5.8g	•	•	3	
BSM6016S12	1/2"	6.0	1.6	0.2m	8.73	88°	4.5g	•		2	
BM6020S12	1/2"	6.0	2.0	0.2m	10.7	85°	6.0g			1.3	
BT6020V2	1/3"	6.1	2.0	0.2m	8.03	62°	6.5g		•		
B10M7224	1/2.3"	7.2	2.4	0.3m	7.23	57°	12.6g	•	•	10	
B5M7630	1/1.8"	7.6	3.0	0.2m	5.38	58°	7.0g		•	5	
BL8012	1/3"	8.0	1.2	0.2m	7.7	34.1°	35.0g				
MB8012	1/3"	8.0	1.2	0.2m	7.7	34.1°	30.0g				
BVM8020014	1/3"	8.0 - 20.0	1.4	0.2m	6.3	33° - 14.5°	35g	•		1	VF
B5M8018	1/2.5"	8.0	1.8	0.2m	7.8	56°	6.5g		•	5	
B3M8018S12	1/2"	8.0	1.8	0.3m	7.9	57.7°	10.7g			3	
B3M8016	1/2.5"	8.0	1.6	0.4m	8.0	54°	5.0g	•		3	
BSM8016S12	1/2"	8.0	1.6	0.2m	5.4	62°	6.0g	•		2	
BM8020S12	1/2"	8.0	2.0	0.2m	8.6	56°	6.0g			1.3	
BM8018S118NDV2	1/1.8"	8.0	1.8	0.2m	6.87	58°	15.0g	•	•	3	
BM8018	1/3"	8.0	1.8	0.2m	5.4	45°	6.0g	•	•	1	
BHR8020	1/3"	8.0	2.0	0.2m	7.6	43.0°	6.0g				
BT8020N	1/3"	8.0	2.0	0.2m	8.25	44°	3.5g		•		
B5M8430N	1/1.8"	8.4	3.0	0.2m	2.79	60°	6.9g		•	5	
BM10028S12	1/2"	10.0	2.8	0.4m	8.0	44°	6.0g			1.2	
B2M10030N2	1/2"	10.3	3.0	0.2m	8.77	54°	3.5g		•	5	
BL12014	1/3"	12.0	1.4	0.3m	13.7	22.4°	28.0g				
MB12014	1/3"	12.0	1.4	0.3m	13.7	22.4°	31.5g				
B5M12028	1/1.8"	12.0	2.8	0.1m	8.57	41°	7.0g		•	5	
B5M12056	1/1.8"	12.0	5.6	0.1m	8.57	41°	7.0g		•	5	
B3M12016	1/2"	12.0	1.6	0.3m	6.44	35°	5.0g	•	•	3	
BSM12016S12	1/2"	12.0	1.6	0.2m	6.54	38.6°	6.0g	•		2	
BM12018	1/3"	12.0	1.8	0.2m	6.54	28.4°	6.0g	•	•	1	
BHR12020	1/3"	12.0	2.0	0.2m	6.7	28.0°	4.5g				
BT12020	1/3"	12.0	2.0	0.4m	8.97	29°	3.2g		•		
BL16014	1/3"	16.0	1.4	0.3m	11.35	17.1°	28.0g				
BHR16012S12	1/2"	16.0	1.2	0.3m	7.2	21.8°	11.0g				
MB16014	1/3"	16.0	1.4	0.3m	11.35	17.1°	29.0g				
BSM16016S12	1/2"	16.0	1.6	0.2m	6.58	24°	7.0g	•		2	
B16020S12	1/2"	16.0	2.0	0.2m	12.3	27.8°	4.2g				
B3M16018	1/2"	16.0	1.8	0.35m	7.21	27.8°	6.5g	•	•	3	
BM16018	1/3"	16.0	1.8	0.2m	6.59	21°	6.0g	•	•	1	
B25020S12	1/2"	25.0	2.0	0.2m	11.8	18.2°	17.6g				
BXM25020	1/3"	25.0	2.0	0.2m	17.58	14°	5.2g		•		
BT25020S12	1/2" (1/3")	25.0	2.0	0.2m	8.29	18.6° (13.8°)	7.0g		•		
B3M25024	1/2"	25.0	2.4	0.4m	10.26	18°	7.1g	•	•	3	
B35020S12	1/2"	35.0	2.0	0.2m	18.9	13.0°	15.4g				
B3M35025	1/2"	35.0	2.5	0.4m	14.49	13.1°	15.5g	•	•	3	
B50020S12	1/2"	50.0	2.0	0.4m	33.9	9.2°	27.1g				
B3M50025	1/2"	50.0	2.5	0.5m	18.38	9.3°	34.5g	•	•	3	

S-Mount Lenses (M12x0.5)

NEW 10 Megapixel Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
B10M3222S12	1/2"	3.2	2.2	0.3m	5.2	146°	26.0g	•	•	10	B10M3222S12C
B10M5022S12	1/2"	5.0	2.2	0.3m	8.5	94°	11.0g	•	•	10	B10M5022S12C
B10M5425	1/2.3"	5.4	2.5	0.2m	6.6	70°	6.0g	•	•	10	B10M5425C
B10M7224	1/2.3"	7.2	2.4	0.3m	7.23	57°	12.6g	•	•	10	B10M7224C

5 Megapixel 1/2.5" Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
B5M2524	1/2.5"	2.5	2.4	0.1m	4.98	166°	6.1g	•	•	5	B5M2524C
B5M2916	1/2.5"	2.9	1.6	0.1m	4.47	152°	7.2g	•	•	5	B5M2916C
B5M3618	1/2.5"	3.6	1.8	0.2m	7.25	128°	5.0g	•	•	5	B5M3618C
B5M4018	1/2.5"	4.0	1.8	0.2m	7.72	112°	5.0g	•	•	5	B5M4018C
B5M6018	1/2.5"	6.0	1.8	0.2m	9.58	75°	6.5g	•	•	5	B5M6018C
B5M8018	1/2.5"	8.0	1.8	0.2m	7.8	56°	6.5g	•	•	5	B5M8018C

Super Megapixel Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
BM4018S118	1/1.8"	4.0	1.8	0.2m	8.0	126°	10.0g	•	•	3	BM4018S118C
B3M6020S12	1/2"	6.0	2.0	0.3m	8.3	81°	9.9g			3	x
B5M7630	1/1.8"	7.6	3.0	0.2m	5.38	58°	7.0g		•	5	B5M7630C
B3M8018S12	1/2"	8.0	1.8	0.3m	7.9	57.7°	10.7g			3	x
B5M8430N	1/1.8"	8.4	3.0	0.2m	2.79	60°	6.9g		•	5	B5M8430NC

Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
B2M10030N2	1/2"	10.3	3.0	0.2m	8.77	54°	3.5g		•	5	B2M10030N2C
B5M12028	1/1.8"	12.0	2.8	0.1m	8.57	41°	7.0g		•	5	B5M12028C
B5M12056	1/1.8"	12.0	5.6	0.1m	8.57	41°	7.0g		•	5	B5M12056C

NEW 3 Megapixel Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
B3M2816	1/2.5"	2.8	1.6	0.3m	5.8	147°	5.0g	•	•	3	B3M2816C
B3M3616	1/2.5"	3.6	1.6	0.2m	6.0	120°	6.3g	•	•	3	B3M3616C
B3M4016	1/2.5"	4.0	1.6	0.2m	7.28	112°	5.4g	•	•	3	B3M4016C
B3M6016	1/2.5"	6.0	1.6	0.3m	6.8	72°	5.8g	•	•	3	B3M6016C
B3M8016	1/2.5"	8.0	1.6	0.4m	8.0	54°	5.0g	•	•	3	B3M8016C
B3M12016	1/2"	12.0	1.6	0.3m	6.44	35°	5.0g	•	•	3	B3M12016C
B3M16018	1/2"	16.0	1.8	0.35m	7.21	27.8°	6.5g	•	•	3	B3M16018C
B3M25024	1/2"	25.0	2.4	0.4m	10.26	18°	7.1g	•	•	3	B3M25024C
B3M35025	1/2"	35.0	2.5	0.4m	14.49	13.1°	15.5g	•	•	3	B3M35025C
B3M50025	1/2"	50.0	2.5	0.5m	18.38	9.3°	34.5g	•	•	3	B3M50025C

Megapixel 1/2" Board Lenses



BSM-Series	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
BSM4016S12	1/2"	4.0	1.6	0.2m	7.2	146°	7.0g	•		2	x
BSM6016S12	1/2"	6.0	1.6	0.2m	8.73	88°	4.5g	•		2	x
BSM8016S12	1/2"	8.0	1.6	0.2m	5.4	62°	6.0g	•		2	x
BSM12016S12	1/2"	12.0	1.6	0.2m	6.54	38.6°	6.0g	•		2	x
BSM16016S12	1/2"	16.0	1.6	0.2m	6.58	24°	7.0g	•		2	x
BM Series											
BM2920S118	1/1.8"	2.95	2.0	0.15m	7.85	178°	13.0g	•	•	1	BM2920S118C
BM6020S12	1/2"	6.0	2.0	0.2m	10.7	85°	6.0g			1.3	x
BM8020S12	1/2"	8.0	2.0	0.2m	8.6	56°	6.0g			1.3	x
BM10028S12	1/2"	10.0	2.8	0.4m	8.0	44°	6.0g			1.2	x

S-Mount Lenses (M12x0.5)

1/2" Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
B16020S12	1/2"	16.0	2.0	0.2m	12.3	27.8°	4.2g				x
B25020S12	1/2"	25.0	2.0	0.2m	11.8	18.2°	17.6g				x
B35020S12	1/2"	35.0	2.0	0.2m	18.9	13.0°	15.4g				x
B50020S12	1/2"	50.0	2.0	0.4m	33.9	9.2°	27.1g				x

Megapixel Low Distortion Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Distortion	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
B5M29740ND	1/2.5"	2.97	4.0	0.2m	2.97	102°	< 1%	3.5g		•	5	B5M29740NDC
BM3516ND	1/3"	3.5	1.6	0.2m	5.97	81°	< 1.9%	10.0g	•	•	3	BM3516NDC
BM3518S125ND	1/2.5"	3.5	1.8	0.2m	5.97	90°	< 1.9%	12.0g	•	•	3	BM3518S125NDC
B5M41430ND	1/2.5"	4.14	3.0	0.2m	5.25	82°	< 0.2%	8.3g		•	5	B5M41430NDC
BM4516ND	1/3"	4.5	1.6	0.2m	6.1	68°	< 1.9%	10.0g	•		3	x
BM4518S125ND	1/2.5"	4.5	1.8	0.2m	6.14	76.4°	< 1.9%	13.0g	•	•	3	BM4518S125NDC
BM5518S12ND	1/1.8"	5.5	1.8	0.2m	6.87	76°	< 1.9%	10.0g	•		3	x
BM8018S118NDV2	1/1.8"	7.8	1.8	0.1m	7.1	57°	-2.0%	36.1g	•	•	3	BM8018S118NDV2C

Pinhole Board Lens



BPM3718

Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Mega-pixel	Lensagon No. with IR cut
BPM3718	1/3"	3.7	1.8	0.1m	3.55	104°	3.1g	•	•	1	BPM3718C

S-Mount Lenses (M12x0.5)

Megapixel Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
BM2118V2	1/3"	2.1	1.8	0.2m	6.3	170°	6.5g	•	•	1	BM2118V2C
BM2420	1/3"	2.4	2.0	0.15m	4.56	132°	6.0g	•	•	1	BM2420C
BM2820	1/3"	2.8	2.0	0.2m	5.29	122°	6.0g	•	•	1	BM2820C
BM3618	1/3"	3.6	1.8	0.2m	6.59	100.2°	6.0g	•	•	1	BM3618C
BM4218	1/3"	4.2	1.8	0.2m	7.21	89°	7.0g	•	•	1	BM4218C
BM6018	1/3"	6.0	1.8	0.2m	9.33	60°	6.0g	•	•	1	BM6018C
BM8018	1/3"	8.0	1.8	0.2m	5.4	45°	6.0g	•	•	1	BM8018C
BM12018	1/3"	12.0	1.8	0.2m	6.54	28.4°	6.0g	•	•	1	BM12018C
BM16018	1/3"	16.0	1.8	0.2m	6.59	21°	6.0g	•	•	1	BM16018C

High Resolution Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
BHR2125	1/3"	2.1	2.5	0.2m	4.25	165.7°	6.1g				x
BHR2525	1/3"	2.5	2.5	0.2m	5.04	142.7°	6.8g				x
BHR3020	1/3"	3.0	2.0	0.2m	5.67	126.0°	5.9g				x
BHR4318	1/3"	4.3	1.8	0.2m	6.16	83.1°	4.0g				x
BHR5620	1/3"	5.6	2.0	0.2m	8.07	65.3°	4.0g				x
BHR8020	1/3"	8.0	2.0	0.2m	7.6	43.0°	6.0g				x
BHR12020	1/3"	12.0	2.0	0.2m	6.7	28.0°	4.5g				x

S-Mount Lenses (M12x0.5)

High Speed Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
BL4012DN	1/3"	4.0	1.2	0.2m	7	62.2°	21.0g	•			x
BL6012	1/3"	6.0	1.2	0.2m	6.96	44.3°	32.5g				x
BL8012	1/3"	8.0	1.2	0.2m	7.7	34.1°	35.0g				x
BL12014	1/3"	12.0	1.4	0.3m	13.7	22.4°	28.0g				x
BL16014	1/3"	16.0	1.4	0.3m	11.35	17.1°	28.0g				x
BHR16012S12	1/2"	16.0	1.2	0.3m	7.2	21.8°	11.0g				x

with Manual Iris

Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
MB4012	1/3"	4.0	1.2	0.2m	6.5	62.2°	34.0g				x
MB6012	1/3"	6.0	1.2	0.2m	6.96	44.3°	33.0g				x
MB8012	1/3"	8.0	1.2	0.2m	7.7	34.1°	30.0g				x
MB12014	1/3"	12.0	1.4	0.3m	13.7	22.4°	31.5g				x
MB16014	1/3"	16.0	1.4	0.3m	11.35	17.1°	29.0g				x

Megapixel Varifocal Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
BVM2812014	1/3"	2.8 - 12.0	1.4	0.2m	5.91	126° - 28°	45g	•		1	x
BVM409014	1/3"	4.0 - 9.0	1.4	0.2m	5.4	60° - 30°	35g	•		1	x
BVM5015014	1/3"	5.0 - 15.0	1.4	0.2m	6.85	41° - 19°	35g	•		1	x
BVM8020014	1/3"	8.0 - 20.0	1.4	0.2m	6.3	33° - 14.5°	35g	•		1	x

S-Mount Lenses (M12x0.5)

Standard Board Lenses

Lensation has various choice of standard M12x0.5 lenses. If your enquiry is about a lens with IR cut filter, please add the letter „C" behind the model name.

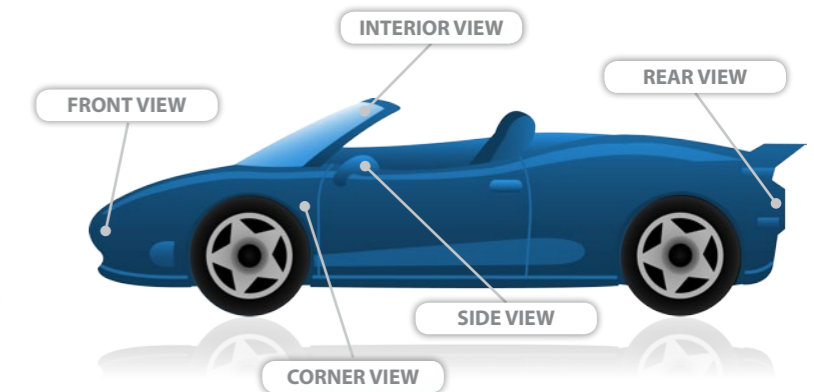


Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
BK1220	1/4"	1.2	2.0	0.2m	3.4	192°	5.2g		•		BK1220C
BK1820	1/4"	1.8	2.0	0.2m	3.65	160°	5.5g		•		BK1820C
BT1922	1/4"	1.9	2.2	0.05m	4.7	156°	3.5g		•		BT1922C
BT2120	1/3"	2.1	2.0	0.2m	4.92	151°	6.5g		•		BT2120C
BT2520	1/3"	2.5	2.0	0.2m	5.18	140°	5.3g		•		BT2520C
BT2920	1/3"	2.9	2.0	0.2m	5.02	138°	4.5g		•		BT2920C
BT3020	1/3"	3.0	2.0	0.2m	5.35	124°	3.5g		•		BT3020C
BT3620	1/3"	3.6	2.0	0.2m	5.00	100°	4.1g		•		BT3620C
BK4320	1/3"	4.3	2.0	0.2m	6.1	85°	6.0g		•		BK4320C
BT4620	1/3"	4.6	2.0	0.2m	6.63	80°	4.1g		•		BT4620C
BT6020V2	1/3"	6.1	2.0	0.2m	8.03	62°	6.5g		•		BT6020V2C
BT8020N	1/3"	8.0	2.0	0.2m	8.25	44°	3.5g		•		BT8020NC
BT12020	1/3"	12.0	2.0	0.4m	8.97	29°	3.2g		•		BT12020C
BT16020	1/3"	16.0	2.0	0.4m	9.98	22°	3.9g		•		BT16020C
BXM25020	1/3"	25.0	2.0	0.2m	17.58	14°	5.2g		•		BXM25020C
BT25020S12	1/2" (1/3")	25.0	2.0	0.2m	8.29	18.6° (13.8°)	7.0g		•		BT25020S12C

Waterproof Automotive Board Lenses



Lensagon No.	Image format	Focal length	Aperture	M.O.D.	Back focal length	FOV (dia.)	Weight	IR corr.	IR cut Option	Megapixel	Lensagon No. with IR cut
BA1520WPC	1/4"	1.5	2.0	0.2m	2.2	163.0°	5.5g		only	1	x
BA1825WPC	1/4"	1.8	2.5	0.2m	2.2	160.0°	5.5g		only		x
BA2025WPC	1/4"	2.0	2.5	0.2m	2.47	160.0°	5.5g		only		x
BA2325WPC	1/3"	2.3	2.5	0.2m	2.7	163.0°	6.0g		only		x



S-Mount Lenses (M12x0.5)

Fisheye Board Lenses



Lensagon No.	Image Format	Focal Length	Aperture	M.O.D.	Back Focal Length	Angle of View (diag.)	Image Circle	Weight	IR corr.	IR cut option	Mega-pixel
BF5M11920	1/3.2"	1.19	2.0	0.2m	6.44	185°	3.24	14.7g	•	•	5
BFM1220C	1/3"	1.2	2.0	0.2m	2.91	190°	3.84	7.5g		only with IR cut	1.3
BF2M12520	1/3"	1.25	2.0	0.15m	6.44	185°	3.6	14 g	•	•	2
BFM1320	1/4"	1.3	2.0	0.05m	4.73	185°	2.45	11g	•	•	1
BF5M13720	1/2.5"	1.37	2.0	0.15m	5.57	183°	4.15	20.5g	•	•	5
BF9M1422	1/2.3"	1.41	2.2	0.1m	3.69	183°	4.5	24.0g	•	•	9
BF2M15520	1/2"	1.55	2.0	0.15m	6.43	185°	4.8	19 g	•	•	2
BF2M2020	2/3"	2.0	2.0	0.08m	6.17	175°	6.0	18.5g	•		2
BF2M2020S23	2/3"	2.0	2.0	0.08m	6.17	195°	6.54	18g	•		2
BF9M2022	1/2.3"	2.0	2.2	0.1m	5.60	185°	4.6	19.6g	•	•	9
BFM2320	1/2"	2.3	2.0	0.08m	4.99	185°	4.54	13g	•	•	1

C-Mount Lenses

NEW 8 Megapixel C-Mount Lenses

Designed for the new 8 Megapixel CCDs



Features

- High performance from macro to infinity
- Suited fine for factory automation and also high end surveillance

Lensagon No.	Focal length	Aperture	Range of WD	TV distortion *	Angle of view (VxH)	Filter size	Format
C8M1614GSV2	16mm	1.4	0.2m~∞	<1%	44.0° x 32.0°	M49 P=0.75	1"
C8M2014GSV2	20mm	1.4	0.2m~∞	<1%	35.0° x 26.4°	M49 P=0.75	1"
C8M2514GSV2	25mm	1.4	0.2m~∞	<1%	28.9° x 21.6°	M49 P=0.75	1"
C8M2220S43	22mm	2.0	0.5m~∞	<1%	45.5° x 34.5°		4/3"
C8M3520S43	35mm	2.0	0.4m~∞	<1%	26.5° x 20.5°		4/3"



Kennen Sie schon
www.optowiki.info/

Dort finden Sie viele interessante Fragen zu Optik - und überraschende Antworten!

Did you already know
www.optowiki.info/

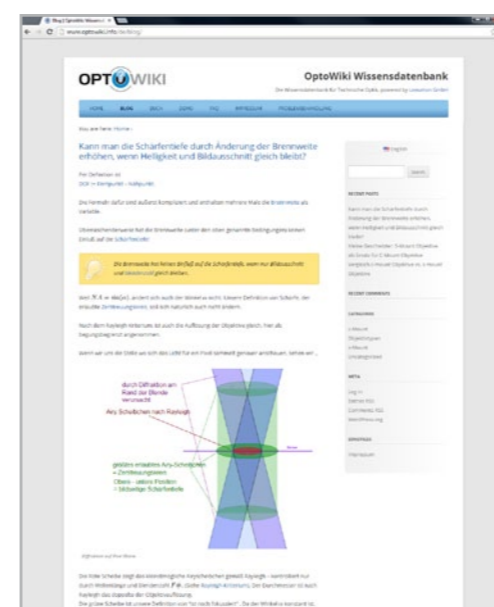
You will find many interesting questions about optics and surprising answers!

F: Können s-mount Objektive so gut sein wie c-mount Objektive?

A: Sogar noch besser!
Obwohl eine natürliche Obergrenze für die Auflösung von s-mount Objektiven besteht, gibt es einige in einer Qualität, die man bei c-mount nicht findet, oder nur zu drastisch höheren Preisen.

Q: Warum ist das Bild der Kamera total verschwommen!?

A: ... also nicht nur 'etwas' unscharf?
Dann könnte es sein, dass Sie ein cs-mount Objektiv auf einer c-Mount Kamera verwenden. Bei cs-mount Kameras sind es ca. 5mm weniger von der Vorderkante bis zum Sensor als bei c-mount Kameras.



Q: Can s-mount lenses be as good as c-mount lenses?

A: Even better!
Although there is a natural limit on the quality of s-mount lenses, some of them provide a quality not found in the c-mount area, or only for dramatically higher prices.

Q: Why is the camera image totally blurred!?

A: ... not just 'something' out of focus!? It could be that you are using a CS-mount lens on a C-mount camera. At cs-mount cameras it is about 5mm less from the leading edge of the mechanics to the sensor

S-Mount
C-Mount
Accessories
Telecentric
Line Scan
Macro
Illumination

C-Mount Lenses

5 Megapixel High Resolution Machine Vision Lenses

Suitable for inspection and alignment, required for high accuracy

Features

- Suitable for 5 mega upto 10 mega pixel CCDs
- Focal length longer than f16mm is compatible with 1.1 CCD
- High performance, compared to conventional CCTV lenses
- High resolution at whole range of WD and excellent brightness
- Robust design, suitable for machine vision applications
- Two different mount types available : slip mount for all lenses, fix mount for 25mm, 50mm, 75mm



Lensagon No.	Focal length	Aperture	Range of WD	TV distortion *	max. Magnification	Filter size	Format
CSM0528	5mm	2.8	0.05m ~ ∞	-0.55%	0.044x	M55 P=0.75	2/3"
CSM0818	8mm	1.8	0.1m ~ ∞	0.31%	0.078x	M40.5 P=0.75	2/3"
CSM1214	12mm	1.4	0.1m ~ ∞	-0.31%	0.1x	M37.5 P=0.5	2/3"
CSM1618GS	16mm	1.8	0.033m ~ ∞	-0.27%	0.3x	M49 P=0.75	1.1"
CSM2514GS	25mm	1.4	0.08m ~ ∞	-0.09%	0.3x	M52 P=0.75	1.1"
CSM3514GS	35mm	1.4	0.11m ~ ∞	-0.05%	0.3x	M46 P=0.75	1.1"
CSM5018GS	50mm	1.8	0.192m ~ ∞	-0.01%	0.3x	M49 P=0.75	1.2"
CSM7518GS	75mm	1.8	0.29m ~ ∞	0.00%	0.3x	M55 P=0.75	1.2"

*TV distortion indicates a value for the closest working distance with 2/3 CCD

2 Megapixel High Resolution CCTV C-Mount Lenses

This new 2MP C-Mount lenses have been developed for high resolution and excellent brightness, to match the improvement in machine vision systems. They bring the best quality results for your application.

Features:

- Compatible with small pixel size 2 MP cameras
- Designed for high durability
- Stable performance at macro ~ infinity, suitable for machine vision and surveillance
- Image Format: 8.8 mm x 6.6 mm (Ø11 mm)
- Lock screws for manual iris and manual focus.



Lensagon No.	Focal length	Aperture	Range of WD	Angle of View (HxV)	TV Distortion			Filter size	Format
					1/3"	1/2"	2/3"		
CM0814HL	8mm	1.4	0.10m ~ ∞	56° x 44°	-0.18%	-0.12%	0.83%	M34 P=0.5	2/3"
CM1214HL	12mm	1.4	0.15m ~ ∞	39° x 30°	-0.08%	-0.11%	-0.12%	M30.5 P=0.5	2/3"
CM1614HL	16mm	1.4	0.20m ~ ∞	30° x 23°	-0.05%	-0.08%	-0.14%	M30.5 P=0.5	2/3"
CM2514HL	25mm	1.4	0.30m ~ ∞	19° x 15°	-0.02%	-0.05%	-0.12%	M30.5 P=0.5	2/3"
CM3514HL	35mm	1.4	0.40m ~ ∞	14° x 11°	-0.003%	-0.01%	-0.06%	M30.5 P=0.5	2/3"
CM5018HL	50mm	1.8	0.50m ~ ∞	10° x 7.7°	0.02%	0.03%	0.07°	M30.5 P=0.5	2/3"

C-Mount Lenses

Megapixel C-Mount Lenses (C3M Series)

Features:

- Compatible with over 3,000,000 pixel CCDs
- Low optical distortion
- High performance and excellent value for money
- Focal length 4mm coming soon!
- Lock screws for manual iris and manual focus.



Lensagon No.	Focal length	Aperture	Range of WD	Angle of View (HxV)					Weight	Format
				1/3"	1/2"	1/1.8"	2/3"	1"		
C3M0616	6mm	1.6	0.15m ~ ∞	53.8° x 33.2°	67.2° x 43.3°	45.1° x 71.1°	-	-	91.1g	1/1.8"
C3M0814	8mm	1.4	0.20m ~ ∞	33.2° x 25.2°	43.4° x 33.2°	48.3° x 36.4°	-	-	64.8g	1/1.8"
C3M1216	12mm	1.6	0.15m ~ ∞	22.4° x 17.4°	29.5° x 22.4°	33.2° x 24.6°	40.2° x 30.5°	-	68.2g	2/3"
C3M1616	16mm	1.6	0.30m ~ ∞	17.4° x 12x5°	22.4° x 17.4°	25.2° x 18.5°	29.5° x 22.6°	-	89g	2/3"
C3M2518	25mm	1.8	0.30m ~ ∞	10.6° x 8.1°	14.4° x 10.6°	16.2° x 12.9°	19.6° x 15.2°	-	55g	2/3"
C3M3520	35mm	2.0	0.40m ~ ∞	7.5° x 5.5°	10.3° x 7.5°	11.4° x 8.4°	14.2° x 10.5°	-	56g	2/3"
C3M5025	50mm	2.5	0.50m ~ ∞	5.3° x 4.7°	7.2° x 5.3°	8.1° x 6.5°	10.3° x 7.3°	-	79g	2/3"
C3M7528	75mm	2.8	1.20m ~ ∞	3.4° x 2.5°	4.5° x 3.4°	5.3° x 4.4°	6.43° x 5.2°	9.2° x 6.9°	167.5g	1"

Megapixel Low Distortion CCTV Lenses (ND series)

Features

- High resolution, compatible with CCDs of over 1,000,000 pixel
- High performance at less than WD500mm
- Low color aberration and low TV distortion
- Micro-photography without extension ring



1/2"format (ND series)

Lensagon No.	Focal length	Aperture	Range of WD	TV distortion	Angle of View (VxH)	Filter screw	Format
CMFA0420ND	4mm	2.0	0.1m~∞	0.91%	59.96°x75.14°	M27 P=0.5	1/2"
CMFA0622ND	6mm	2.2	0.1m~∞	-0.01%	40.47°x52.35°	M30.5 P=0.5	1/2"
CMFA1022ND	10mm	2.2	0.1m~∞	-0.08%	26.31°x34.61°	M27 P=0.5	1/2"

2/3"format (ND series)

Lensagon No.	Focal length	Aperture	Range of WD	TV distortion	Angle of View (VxH)	Filter screw	Format
CMFA1520ND	15mm	2.0	0.1m~∞	-0.09%	24.11°x31.79°	M27 P=0.5	2/3"
CMFA2020ND	20mm	2.0	0.1m~1m	-0.10%	18.20°x24.11°	M27 P=0.5	2/3"
CMFA2520ND	25mm	2.0	0.15m~1m	-0.01%	14.75°x19.58°	M27 P=0.5	2/3"
CMFA3020ND	30mm	2.0	0.2m~1m	-0.02%	12.55°x16.69°	M27 P=0.5	2/3"
CMFA3519ND	35mm	1.9	0.3m~1m	-0.03%	10.77°x14.32°	M27 P=0.5	2/3"
CMFA5025ND	50mm	2.5	0.4m~1m	-0.03%	7.82°x10.38°	M27 P=0.5	2/3"
CMFA7538ND	75mm	3.8	0.4m~1m	-0.01%	5.11°x6.81°	M27 P=0.5	2/3"

Megapixel High Resolution CCTV Lenses (MJ series)

Lensagon No.	Focal length	Aperture	Range of WD	TV distortion	Angle of View (VxH)	Filter screw	Format
CM0614MJ	6mm	1.4	0.2m~∞	-0.96%	44.3°x57.4°	M30.5 P=0.5	1/2"
CM1614MJ	16mm	1.4	0.25m~∞	-0.28%	23.3°x30.7°	M25.5 P=0.5	2/3"
CM2514MJ	25mm	1.4	0.25m~∞	-0.3%	15.1°x20.1°	M25.5 P=0.5	2/3"
CM3520MJ	35mm	2.0	0.25m~∞	-0.2%	10.4°x14.3°	M25.5 P=0.5	2/3"
CM5028MJ	50mm	2.8	0.5m~∞	-0.2%	7.4°x9.9°	M25.5 P=0.5	2/3"

High Quality C-Mount Lenses

Features

- Cover a wide range of uses from inspection to factory automation
- Vibration-resistant focus and iris locks available
- Compatible with 1/3", 1/2", 2/3", 1" 400,000 pixel cameras



1/2" format

Lensagon No.	Focal length	Aperture	Operation Range	Angle of View (V x H)	Filter screw	Format
CY0316	3.5mm	1.6	0.1m~∞	69.0° x 85.0°	M43 P=0.75	1/2"
CY0614	6mm	1.4	0.2m~∞	42.0° x 54.5°	M27 P=0.5	1/2"
CY1214	12mm	1.4	0.3m~∞	22.0° x 29.0°	M27 P=0.5	1/2"

2/3" format

Lensagon No.	Focal length	Aperture	Operation Range	Angle of View (V x H)	Filter screw	Format
CY04818	4.8mm	1.8	0.2m~∞	85.0° x 69.0°	M37.5 P=0.5	2/3"
CY0614S23	6mm	1.4	0.2m~∞	81.9° x 61.2°	no filter thread	2/3"
CY0813	8mm	1.3	0.2m~∞	45.0° x 57.8°	M25.5 P=0.5	2/3"
CY1614	16mm	1.4	0.4m~∞	23.2° x 30.7°	M27 P=0.5	2/3"
CY2514	25mm	1.4	0.5m~∞	21.6° x 28.5°	M27 P=0.5	2/3"
CY3519	35mm	1.9	0.5m~∞	10.8° x 14.4°	M27 P=0.5	2/3"
CY5018	50mm	1.8	1m~∞	7.9° x 10.5°	M30.5 P=0.5	2/3"
CY7527	75mm	2.7	1m~∞	4.9° x 6.6°	M30.5 P=0.5	2/3"
CY10035	100mm	3.5	1m~∞	3.8° x 5.1°	M30.5 P=0.5	2/3"

Megapixel High Resolution 1" C-Mount Lenses

Lensagon No.	Focal length	Aperture	Operation Range	Angle of View (V x H)	Filter screw	Format
CM0814GS	8mm	1.4	0.1m~∞	79.7° x 63.0°	M55 P=0.75	1"
CM1214GS	12mm	1.4	0.3m~∞	55.6° x 42.5°	M27 P=0.5	1"
CM1614GS	16mm	1.4	0.3m~∞	44.3° x 33.6°	M35.5 P=0.5	1"
CM2514GS	25mm	1.4	0.3m~∞	29.3° x 22.0°	M35.5 P=0.5	1"
CM3514GS	35mm	1.4	0.3m~∞	20.9° x 15.8°	M35.5 P=0.5	1"
CM5014GS	50mm	1.4	0.5m~∞	14.5° x 10.8°	M40.5 P=0.5	1"
CM7518GS	75mm	1.8	1.0m~∞	9.7° x 7.3°	M46.5 P=0.75	1"

High Speed F0.95 C-Mount Lenses

Lensagon No.	Focal length	Aperture	Operation Range	Angle of View (V x H)	Filter screw	Format
CHS17095	17mm	0.95	0.5m~∞	22.0° x 29.0°	M40.5 P=0.5	2/3"
CHS25095	25mm	0.95	0.5m~∞	21.7° x 28.7°	M40.5 P=0.5	1"
CHS50095	50mm	0.95	0.7m~∞	11.0° x 14.6°	M62.0 P=0.75	1"

Megapixel Low Distortion C-Mount Varifocal Lenses

The CVM series maintains straight lines in wide angle images!

Utilising advanced lens technology to XD (extra low Dispersion) glass and an aspherical lens, this new multi-megapixel lens will pave the way for more possibilities in applications such as high end surveillance.

Features

- High resolution, compatible with CCDs of over 1,000,000 pixel
- Compact design and low distortion: Where "normal" 4.5mm lenses for 1/2" have a distortion of between 20% and 30%, this brand new aspherical lenses have a distortion of below 0.5% (T) on a 1/2" sensor.



Lensagon No.	Focal length	Aperture (max.)	Operation Range	TV Distortion	Angle of View (H x V)		Format
					Wide	Tele	
CVM0411ND	4.4 - 11mm	1.6	0.3m ~ ∞	W: -0.2% T: 0.35%	76.6° x 61.2°	36.7° x 28.0°	1/1.8"
CVM1040ND	10 - 40mm	1.6	0.5m ~ ∞	W: -0.17% T: 0.1%	39.5° x 22.5°	10.5° x 7.9°	1/1.8"
CVM1664NDGS	16 - 64mm	1.8	1.0m ~ ∞	W: -3.4% T: 0.2%	45.9° x 34.2°	11.7° x 8.8°	1"

Fisheye C/CS-Mount Lenses

We offer of high quality Fisheye-Lenses, supporting up to 5 Megapixel sensors.

A Fisheye lens is essentially a wide angle lens which will take a really wide picture (although a somewhat distorted wide picture). They are normally used to take pictures of wide areas.



Lensagon No.	Image Format	Focal Length	Aperture (max.)	M.O.D.	Angle of View	Note	IR corr.	Image Circle	Mega-pixel
CSF5M1414	1/2"	1.4mm	1.4	0.08m ~ ∞	182°	CS-Mount		4.8mm	5
CF5M1414	1/2"	1.4mm	1.4	0.08m ~ ∞	182°	C-Mount		4.8mm	5

C-Mount Lenses

Economy Megapixel C-Mount Lenses

Lensagon No.	CM6014N3	CM8014N3	CM12014N3	CVM40100	CVM60120
					
Image Format	1/2"	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C	C
Focal Length	6mm	8mm	12mm	4.0~10mm	6.0~12mm
Aperture	1:1.4	1:1.4	1:1.4	1:1.6	1:1.6
M.O.D.	0.3m	0.3m	0.3m	0.2m	0.2m
Zoom	-	-	-	Manual with lock	Manual with lock
Focus	Manual with lock	Manual with lock	Manual with lock	Manual with lock	Manual with lock
Iris	Manual with lock	Manual with lock	Manual with lock	Manual	Manual
Angle of View (HxV)	66.2° x 49.6°	48.2° x 36.1°	30.8° x 24.2°	Wide: 87.2° x 65.4° Tele: 44.4° x 33.3°	Wide: 53.0° x 39.75° Tele: 28.0° x 21.0°
Back Focal Length	11.6mm	13.8mm	15.2mm	9.5mm	9.67mm
Weight	89g	95g	95g	72g	72g
Note	Megapixel	Megapixel	Megapixel	Megapixel	Megapixel

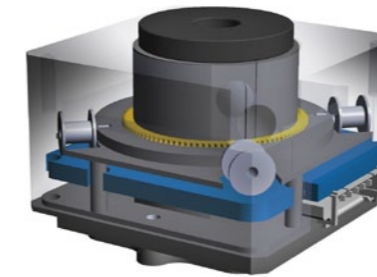
Compact Megapixel C-Mount Lenses

Lensagon No.	CHR4020	CHR6020	CHR8020	CHR12020
				
Image Format	1/2"	1/2"	1/2"	1/2"
Mount	C	C	C	C
Focal Length	4mm	6mm	8mm	12mm
Aperture	1:2.0	1:2.0	1:2.0	1:2.0
M.O.D.	0.4m	0.4m	0.4m	0.4m
Zoom	-	-	-	-
Focus	Manual	Manual	Manual	Manual
Iris	Fixed	Fixed	Fixed	Fixed
Angle of View(HxV)	95.0°x71.6°	62.2°x47.2°	45.6°x35.0°	30.7°x22.9°

Accessories

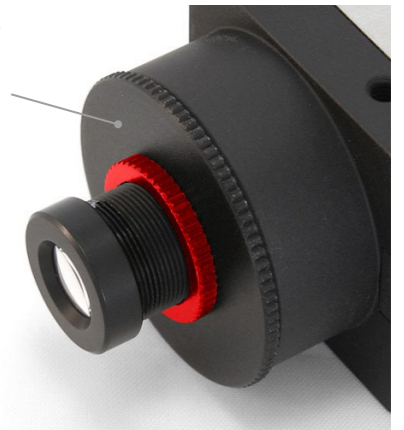
NEW Motor focus holder SHMFM12-03MC

This device helps to change the focus of a S-mount lens easily. The focus settings can be changed by applying voltage and sending commands over I2C. The focus range is 7.5mm with more accuracy than fixing manually.





The motor driver is integrated. It can be controlled by a 6p PicoBlade connector with power and I2C.


Example combination of Lock Ring (red) and C-Mount to S-Mount Adapter on a C-Mount smart camera.





S-Mount Accessories


- 


CH303015-20M
CS-Mount Lens Holder for PCB
To be mounted directly to PCB boards. Configurable with filter.
- 


ST05
M12 Extension ring 5mm
Material: Aluminium, Height: 5 mm
- 


ST10
M12 Extension ring 10mm
Material: Aluminium, Height: 10 mm
- 

M12TM14
M12 to M14 Adapter
Material: Aluminium. For using M12x0.5 lenses in M14x0.5 mounts
- 

SH01F08V3
S-mount lens holder 8mm
Material: Plastic, mounting hole distance 22mm, Height: 8 mm, Width: 20.3 mm
- 

SH02M13V3
S-mount lens holder 13mm
Material: Plastic, mounting hole distance 22mm, Height: 13 mm, Width: 20.3 mm
- 

SH03H16V2
S-mount lens holder 16mm
Material: Plastic, mounting hole distance 22mm, side hole for lock screw. Inner height 5.5mm
- 

LRM12V2
M12 x 0.5 Lock Ring
Material: Aluminium, Black anodized, Height: 2 mm, Diameter: 15.8 mm
- 

FAM12D14H08
Iris/Filter adapter for M12x0.5
allows to add a filter to standard S-Mount (M12x0.5) Lenses or to modify the F-Number.

C-Mount Accessories

- 

ADCTS
C-Mount to CS-Mount Adapter
with male and female thread, 5mm effective height, for use of c-mount lenses with cs-mount cameras
- 

CT40
Extension Tube 40mm
Material: Aluminium, Height: 40 mm
40mm extension tube for C-Mount lenses.
- 

AD02F
S-Mount to C-Mount Adapter Flat
Male c-mount thread and female M12x0.5 thread, for use of s-mount lenses in c-mount cameras.
- 

AD03H
S-Mount to C-Mount Adapter High
Male c-mount thread and female M12x0.5 thread, for use of s-mount lenses in c-mount cameras.
- 

AD01S
S-Mount to C-Mount Adapter Standard
Male c-mount thread and female M12x0.5 thread, for use of s-mount lenses in c-mount cameras.
- 

AD04M
S-Mount to C-Mount Adapter Medium
Male c-mount thread and female M12x0.5 thread, H: 6mm, for s-mount lenses in c-mount cameras.
- 

AD05OH
Focussable s-mount to c-mount adapter
Adapter with a male c-mount thread and a 12mm hole for M12x0.5 (s-mount) lenses.
- 

LRICM
C-Mount Lock Ring Inside Thread
Material: Aluminium, Black anodized, Height: 2 mm, Outside diameter: 31mm
- 

LROCM
C-Mount Lock Ring Outside Thread
Material: Aluminium, Black anodized, Height: 2.5 mm, Outside diameter: 20mm

Telecentric Lenses

Double Side Telecentric Lenses

- These lenses are double side telecentric lens which are best choice for the accurate dimensional measurement of large part sample.
- No perspective error over the whole F.O.V.
- IRIS diaphragm for adjusting D.O.F.
- Apply High Mega Pixel CCD like 5M, 4M, 16M, 29M. (Diagonal length from 11mm to 43mm)
- Good for engine parts, metal parts, molding and casting semiconductor parts application.
- M58 Mount, C-mount, F-mount



T29M Series

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
T29M-024-400I	0.24X	400	28	0.012	10	7.64mm	0.05	0.03	43mm	M58
T29M-038-265I	0.38X	265	17.6	0.019	10	3.05mm	0.04	0.03	43mm	M58
T29M-0563-160I	0.563X	160	12	0.028	10	1.27mm	0.05	0.04	43mm	M58
T29M-0664-181I	0.664X	181	8.4	0.04	8.3	1.11mm	0.05	0.05	43mm	M58

T4M Series

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
T4M-01-470I	0.1X	470	51.6	0.0065	7.7	61.6mm	0.05	0.026	1.2"	F

TDC Series

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TDC-012-228	0.12X	228	40.91	0.0082	7.3	41.6	0.04	0.03	2/3" (11mm)	C
TDC-0138-183	0.138X	183	38.563	0.0095	7.5	30.7	0.05	0.03	2/3" (11mm)	C
TDC-0157-160	0.157X	160	32.259	0.0104	7.5	24.3	0.05	0.03	2/3" (11mm)	C
TDC-0184-135	0.184X	135	27.5	0.0122	7.5	17.7	0.04	0.05	2/3" (11mm)	C
TDC-024X-108	0.24X	108	20.96	0.016	7.5	10.4	0.04	0.04	2/3" (11mm)	C
TDC-035X-72	0.35X	72	14.399	0.0233	7.5	4.9	0.05	0.04	2/3" (11mm)	C

I = Manual Iris, C = Coaxial, IC = Both

Telecentric Lenses

Object Side Telecentric Lenses

T25M Series

- This telecentric lens supports up to 25 megapixel CCD cameras with 32mm diagonal length.
- It is compatible with 12M CCD camera according to the customer requirement
- High resolution lens & No perspective error over the whole F.O.V.
- Iris diaphragm adapted for adjusting D.O.F.
- Possible to change M48-Mount / F-Mount.



Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
T25M-033-347I	0.33X	347	16.8	0.0124	8	2.94	0.03	0.02	25M (32mm)	M48
T25M-035-213I	0.35X	213	14.39	0.0233	7.5	2.2	0.03	0.08	25M (32mm)	M48
T25M-045-270I	0.45X	270	9.31	0.036	6.25	1.11	0.03	0.08	25M (32mm)	F
T25M-046-150I	0.46X	150	10.2	0.033	7	1.2	0.03	0.04	25M (32mm)	M48
T25M-05-237I	0.5X	237	8.4	0.04	6.25	900um	0.03	0.08	25M (32mm)	M48
T25M-06-132I	0.6X	132	7	0.048	6.3	630um	0.03	0.04	25M (32mm)	M48
T25M-092-170I	0.92X	170	5.2	0.064	7.14	303um	0.04	0.03	25M (32mm)	M48
T25M-15-100I	1.5X	100	4.47	0.075	10	160um	0.03	0.03	25M (32mm)	F

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 18μm

T15M Series

- High telecentricity : no perspective error
- Telecentric lenses for large detector 15M
- upto 25mm diagonal length CCD.
- Good for semiconductor & SMT/PCB
- components measurement.
- F Mount



Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
T4M-01-470I	0.1X	470	51.6	0.0065	7.7	61.6mm	0.05	0.026	15M (25mm)	F
T15M-0409-237I	0.409X	237	9,3	0,036	6,25	1,49	0,03	0,06	15M (25mm)	F

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 20μm

Telecentric Lenses

TF8M Series

- High telecentricity: no perspective error.
- Telecentric lenses for large detectors 4M (15.2mm x 15.2mm) and 1.2"
- Iris diaphragm for adjusting D.O.F.
- Wide magnification range from 0.315X to 2.0X
- Good for semiconductor & SMT & PCB components measurement



Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TF8MHR-0315-130I	0.315X	130	13.3	0.0252	6.25	2.78	0.03	0.03	8M (23mm)	F
TF8MHR-0318-265I	0.318X	265	10.6	0.0318	5	2.18	0.03	0.08	8M (23mm)	F
TF8MHR-0348-130I	0.348X	130	12.1	0.0278	6.25	2.3	0.03	0.04	8M (23mm)	F
TF8MHR-0348-200I	0.348X	200	12	0.0289	6	2.18	0.03	0.02	8M (23mm)	F
TF8MHR-0385-130I	0.385X	130	12.4	0.027	7.1	2.1	0.015	0.03	8M (23mm)	F
TF8MHR-042-132I	0.42X	132	5.4	0.0627	3.35	835.6m	0.03	0.03	8M (23mm)	F
TF8M-042-130I	0.42X	130	16	0.021	10	2.5	0.023	0.1	8M (23mm)	F
TF8MHR-049-132I	0.49X	132	7.5	0.0446	5.5	1.01	0.03	0.05	8M (23mm)	F
TF8MHR-05-130I	0.5X	130	9.4	0.0357	7	1.23	0.03	0.05	8M (23mm)	F
TF8MHR-058-254I	0.58X	254	5.8	0.058	5	653.9 μm	0.03	0.08	8M (23mm)	F
TF8MHR-06-130I	0.6X	130	6.2	0.054	5.6	684.4 μm	0.03	0.06	8M (23mm)	F
TF8M-06-130I	0.6X	130	11.6	0.029	10.4	1.3	0.23	0.1	8M (23mm)	F
TF8MHR-06-258I	0.6X	258	5.6	0.06	5	611.1 μm	0.03	0.03	8M (23mm)	F
TF8MHR-064-130I	0.64X	130	5.8	0.0576	5.56	597.3 μm	0.02	0.06	8M (23mm)	F
TF8MHR-06-310I	0.6X	310	7	0.048	6.25	671.4 μm	0.03	0.08	8M (23mm)	F
TF8MHR-07-130I	0.7X	130	5.1	0.066	5.3	476 μm	0.03	0.05	8M (23mm)	F
TF8MHR-10-157I	1.0X	157	4.7	0.071	7	308 μm	0.03	0.06	8M (23mm)	F
TF8MHR-20-50	2.0X	50	3	0.112	8.93	98.2 μm	0.03	0.04	8M (23mm)	F
TF8MHR-20-50C	2.0X	50	3	0.112	8.93	98.2 μm	0.03	0.04	8M (23mm)	F

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 22μm Possible to change mount

Telecentric Lenses

TC4M Series

- High telecentricity: no perspective error.
- Telecentric lenses for large detectors 4M (15.2mm x 15.2mm) and 1.2"
- Iris diaphragm for adjusting D.O.F.
- Wide magnification range from 0.315X to 2.0X
- Good for semiconductor & SMT & PCB components measurement
- C Mount & F Mount



Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TC4MHR-015-255I	0.15X	255	31.4	0.0107	7	13.68	0.023	0.01	1" (16mm)	C
TC4MHR-016-240I	0.16X	240	30.5	0.011	7	12.03	0.03	0.01	1" (16mm)	C
TC4MHR-0234-130I	0.234X	130	15.97	0.021	5.6	4.5	0.03	0.031	1" (16mm)	C
TC4MHR-026-130I	0.26X	130	14.3	0.0234	5.6	3.644	0.03	0.031	1" (16mm)	C
TC4MHR-026-200I	0.26X	200	14.3	0.0234	5.6	3.644	0.03	0.031	1" (16mm)	C
TC4MHR-0275-240I	0.275X	240	16.8	0.02	6.87	4	0.025	0.04	1" (16mm)	C
TC4MHR-0312-130I	0.312X	130	7.21	0.0465	3.35	1.514	0.03	0.031	1" (16mm)	C
TC4MHR-037-240I	0.37X	240	12.1	0.0277	6.66	2.1	0.03	0.01	1" (16mm)	C
TC4MHR-0445-130I	0.445X	130	10.583	0.037	7	1.56	0.023	0.065	1" (16mm)	C
TC4MHR-22-40	2.2X	40	2.72	0.123	8.9	80.9 μm	0.03	0.02	1" (16mm)	C
TC4MHR-22-40C	2.2X	40	2.72	0.123	8.9	80.9 μm	0.03	0.02	1" (16mm)	C
TC4MHR-30-40 / C	3.0X	40	2.4	0.14	10.7	52.3 μm	0.03	0.03	1" (16mm)	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 22μm

Telecentric Lenses

TC5M Series Ultra High Resolution

In combination with Mega pixel cameras (up to 2/3" CCD), you can get high-quality images.

- Designed for 5M CCD camera. (3.45m/pixel)
- Ultra High resolution and contrast with high NA.
- Very low distortion in whole field.
- Compact design with coaxial illumination.
- High telecentricity, No perspective error



TC5M Series (WD: 65mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TC5M-05-65 / C	0.5X	65	8.4	0.04	6.25	1.0mm	0.02	0.17	2/3"	C
TC5M-08-65 / C	0.8X	65	5.25	0.064	6.25	390.6	0.02	0.13	2/3"	C
TC5M-10-65 / C	1.0X	65	4.8	0.07	7.14	285.6	0.022	0.16	2/3"	C
TC5M-20-65 / C	2.0X	65	2.8	0.12	8.3	83	0.03	0.02	2/3"	C
TC5M-20-65I / IC	2.0X	65	2.8	0.12	8.3	83	0.03	0.02	2/3"	C
TC5M-30-65 / C	3.0X	65	2.15	0.156	9.6	42.7	0.02	0.05	2/3"	C
TC5M-30-65I / IC	3.0X	65	2.15	0.156	9.6	42.7	0.02	0.05	2/3"	C
TC5M-40-65 / C	4.0X	65	2.09	0.16	12.5	31.3	0.02	0.03	2/3"	C
TC5M-40-65I / IC	4.0X	65	2.09	0.16	12.5	31.3	0.02	0.03	2/3"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 20μm

Telecentric Lenses

TC5M Series (WD: 110mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TC5M-03-110 / C	0.3X	110	15.3	0.0219	6.9	3.04mm	0.04	0.02	2/3"	C
TC5M-05-110 / C	0.5X	110	7.2	0.0465	5.38	861	0.02	0.02	2/3"	C
TC5M-05-110I / IC	0.5X	110	7.2	0.0465	5.38	861	0.02	0.02	2/3"	C
TC5M-07-110 / C	0.7X	110	5.15	0.0651	5.38	439	0.02	0.02	2/3"	C
TC5M-07-110I / IC	0.7X	110	5.15	0.0651	5.38	439	0.02	0.02	2/3"	C
TC5M-09-110 / C	0.9X	110	4.473	0.075	6	296	0.025	0.01	2/3"	C
TC5M-10-110 / C	1.0X	110	4.36	0.077	6.5	260	0.03	0.03	2/3"	C
TC5M-10-110I / IC	1.0X	110	4.36	0.077	6.5	260	0.03	0.03	2/3"	C
TC5M-20-110 / C	2.0X	110	3.7	0.09	11	110	0.05	0.03	2/3"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 20μm



TC5M Series (WD: 130-170mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TC5M-0315-130I	0.315X	130	13.3	0.0252	6.25	2.52mm	0.03	0.03	2/3"	C
TC5M-0348-130I	0.348X	130	12.1	0.0278	6.25	2.06mm	0.03	0.04	2/3"	C
TC5M-042-130I	0.42X	130	5.4	0.0627	3.35	759	0.03	0.03	2/3"	C
TC5M-07-130I	0.7X	130	5.33	0.063	5.5	449	0.03	0.05	2/3"	C

TC5M Series (WD: 150mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TC5M-026-150I	0.26X	150	13.7	0.0245	5.3	3.1mm	0.03	0.08	2/3"	C

TC5M Series (WD: 170mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TC5M-017-170I	0.17X	170	9.73	0.058	5	4.775mm	0.03	0.06	2/3"	C
TC5M-03-170I	0.3X	170	17.94	0.0187	8	3.55mm	0.03	0.01	2/3"	C
TC5M-065-170 / C	0.65X	170	5.78	0.058	5.6	530	0.02	0.06	2/3"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 20μm

Telecentric Lenses

TCHR Series

- Designed for mega-pixel CCD camera. (4.65µm/pixel)
- High Resolution and contrast design in F.O.V.
- W.D Lineup of 65, 110, 130mm
- Support up to 2/3" cell camera.
- Various magnification with low-distortion design.
- Uniform coaxial illumination over the whole F.O.V.



TCHR Series (WD: 65mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (µm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCHR-013-60 I	0.13X	60	34.6	0.0097	6.7	31.7mm	0.03	0.08	1/2"	C
TCHR-05-65 / C	0.5X	65	11.2	0.03	8.3	2.6mm	0.02	0.17	2/3"	C
TCHR-08-65 / C	0.8X	65	6.7	0.05	8	1mm	0.02	0.134	2/3"	C
TCHR-10-65 / C	1.0X	65	6.7	0.05	10	800	0.022	0.16	2/3"	C
TCHR-15-65 / C	1.5X	65	4.8	0.07	10.7	380	0.022	0.07	1/2"	C
TCHR-20-65 / C	2.0X	65	4.5	0.074	13.4	268	0.05	0.03	2/3"	C
TCHR-24-65 / C	2.4X	63.6	4.8	0.07	17.2	239	0.015	0.1	2/3"	C
TCHR-30-65 / C	3.0X	65	4.04	0.083	18	120	0.02	0.14	1/2"	C
TCHR-40-65 / C	4.0X	65	3	0.11	18.18	90	0.05	0.03	2/3"	C
TCHR-60-65 / C	6.0X	65	3	0.11	27.2	61	0.05	0.03	2/3"	C
TCHR-100-65 / C	10.0X	65	2.2	0.15	33.3	27	0.01	0.14	1/2"	C
TCHR-120-65 / C	12.0X	65	2.1	0.161	37.3	21	0.004	0.1	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40µm

Telecentric Lenses

TCHR Series (WD: 110mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (µm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCHR-035-110-S12/C	0.35X	110	21.1	0.016	11	4.5mm	0.03	0.05	1/2"	C
TCHR-05-110-S13 / C	0.5X	110	11.2	0.03	8.3	2.6mm	0.03	0.02	1/3"	C
TCHR-05-110 / C	0.5X	110	14.9	0.0225	11.1	3.5mm	0.02	0.15	2/3"	C
TCHR-08-110 / C	0.8X	110	11.2	0.03	13.2	1.65mm	0.017	0.15	2/3"	C
TCHR-10-110 / C	1.0X	110	6.7	0.05	10	800	0.03	0.15	2/3"	C
TCHR-15-110 / C	1.5X	110	7	0.048	15.6	555	0.01	0.15	2/3"	C
TCHR-15-110-S12 / C	1.5X	110	5.6	0.06	12.5	444	0.02	0.06	1/2"	C
TCHR-20-110 / C	2.0X	110	4.4	0.077	13	260	0.02	0.03	2/3"	C
TCHR-30-110 / C	3.0X	110	3.7	0.09	10.6	148	0.02	0.11	2/3"	C
TCHR-40-110 / C	4.0X	110	3.72	0.09	22.2	111	0.05	0.03	2/3"	C
TCHR-60-110 / C	6.0X	110	3.72	0.09	33.4	74	0.05	0.03	2/3"	C
TCHR-80-110 / C	8.0X	110	3.72	0.09	44.4	56	0.05	0.19	2/3"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40µm



TCHR Series (WD: 130mm-190mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (µm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCHR-0165-130I	0.165X	130	28.2	0.012	7.1	20.8mm	0.017	0.13	1/2"	C
TCHR-023-130I	0.23X	130	20	0.016	7.1	10.7mm	0.01	0.13	2/3"	C
TCHR-03-130I	0.3X	130	17.6	0.019	7.9	7.0mm	0.04	0.08	2/3"	C
TCHR-035-130I	0.35X	130	14.1	0.0238	7.3	4.8mm	0.035	0.08	1/2"	C
TCHR-010-190I	1.0X	190	6.7	0.05	10	360	0.035	0.08	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40µm

Telecentric Lenses

TCST Series

Telecentric lens is good for the measurement without magnification change through over the D.O.F. and also good for even illumination (telecentric lighting) via coaxial illumination. We have several types of telecentric lenses like different working distance, magnification, CCD size & high resolution or standard resolution as follows.

- Fixed magnification lens
- Low optical distortion & good telecentricity
- High resolution and high contrast design
- Various W.D. & magnification
- Even coaxial illumination types

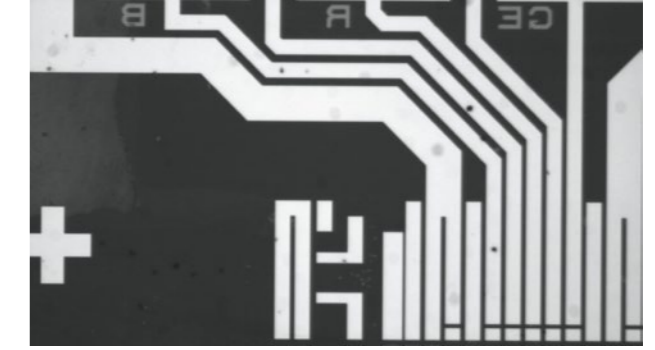
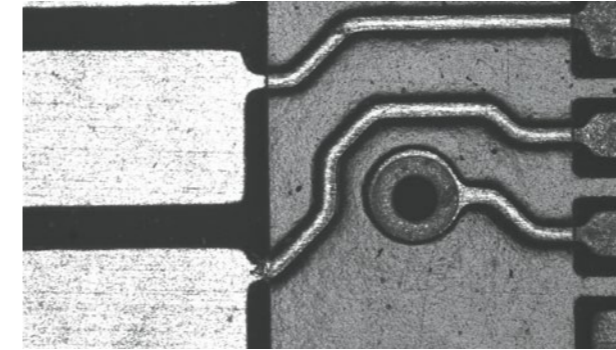


TCST Series (WD: 40mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCST-05-40 / C	0.5X	43	11.2	0.03	8.3	2.6mm	0.03	0.08	1/2"	C
TCST-10-40 / C	1.0X	40	6.21	0.054	9.26	740	0.03	0.08	1/2"	C
TCST-15-40 / C	1.5X	40	5.32	0.063	11.9	423	0.03	0.25	1/2"	C
TCST-20-40 / C	2.0X	40	4.8	0.07	14.28	286	0.03	0.03	1/2"	C
TCST-30-40 / C	3.0X	40	4.8	0.07	21.5	191	0.02	0.26	1/2"	C
TCST-40-40 / C	4.0X	40	4.8	0.07	28.6	143	0.02	0.2	1/2"	C
TCST-50-40 / C	5.0X	40	4.2	0.08	31.25	100	0.02	0.05	1/2"	C
TCST-60-40 / C	6.0X	40	4.2	0.08	37.4	83	0.02	0.02	1/2"	C
TCST-80-40 / C	8.0X	40	4.2	0.08	50	63	0.01	0.03	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40μm

Telecentric Lenses



TCST Series (WD: 65mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCST-08-65 / C	0.8X	65	12.4	0.027	14.8	1.85mm	0.03	0.03	1/2"	C
TCST-10-65 / C	1.0X	65	12.4	0.027	18.5	1.45mm	0.03	0.03	1/2"	C
TCST-15-65 / C	1.5X	65	7	0.048	15.6	554	0.05	0.06	1/2"	C
TCST-20-65 / C	2.0X	65	5.2	0.065	15.4	308	0.02	0.03	1/2"	C
TCST-30-65 / C	3.0X	65	4.8	0.07	21.5	191	0.02	0.16	1/2"	C
TCST-40-65 / C	4.0X	66	4.4	0.076	26.3	132	0.04	0.03	1/2"	C
TCST-50-65 / C	5.0X	65.5	4.4	0.076	32.9	105	0.04	0.05	1/2"	C
TCST-60-65 / C	6.0X	65.3	4.4	0.076	39.5	88	0.04	0.06	1/2"	C
TCST-80-65 / C	8.0X	64.9	4.4	0.076	52.6	66	0.05	0.05	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40μm

TCST Series (WD: 110mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCST-05-110 / C	0.5X	110	20.21	0.0166	15	4.8mm	0.05	0.05	1/2"	C
TCST-08-110 / C	0.8X	110	12.4	0.027	14.8	1.85mm	0.05	0.05	1/2"	C
TCST-10-110 / C	1.0X	113	14	0.024	20.8	1.66mm	0.02	0.023	1/2"	C
TCST-20-110 / C	2.0X	110	7.4	0.045	22.2	444	0.02	0.02	1/2"	C
TCST-24-110 / C	2.4X	107	7.4	0.045	26.7	370	0.02	0.07	1/2"	C
TCST-30-110 / C	3.0X	110	6.1	0.055	27.3	243	0.01	0.14	1/2"	C
TCST-40-110 / C	4.0X	110	5.6	0.06	33.45	167	0.01	0.16	1/2"	C
TCST-50-110 / C	5.0X	110	5.6	0.06	41.77	134	0.01	0.14	1/2"	C
TCST-60-110 / C	6.0X	110	5.6	0.06	50	111	0.01	0.1	1/2"	C
TCST-80-110 / C	8.0X	110	5.6	0.06	66.7	85	0.015	0.25	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40μm

Telecentric Lenses

TCST Long WD Series

- Long working distance telecentric lenses. (up to 400mm)
- Good for the alignment application where long W.D is requested.
- 4 types of W.D (150, 220, 300, 400mm)
- Even-coaxial illumination on the whole area.
- High Resolution & low distortion



TCST Series (WD: 150-170mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCST-01-150I	0.1X	150	40.4	0.0083	6	48mm	0.04	0.05	1/2"	C
TCST-08-173 / C	0.8X	173	11.2	0.03	13.3	1.66mm	0.04	0.07	1/2"	C
TCST-10-156 / C	1.0X	156	8.8	0.038	13.1	1.0mm	0.04	0.07	1/2"	C
TCST-12-173 / C	1.2X	173	11.2	0.03	20	1.11mm	0.04	0.13	1/2"	C
TCST-15-156 / C	1.5X	156	8.83	0.038	19.7	700	0.04	0.16	1/2"	C
TCST-16-173 / C	1.6X	173	11.2	0.03	26.7	834	0.04	0.18	1/2"	C
TCST-20-156 / C	2.0X	156	8.83	0.038	26.3	526	0.04	0.19	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40μm

Telecentric Lenses

TCST Series (WD: 200-250mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCST-075-220 / C	0.75X	220	8.9	0.0375	10	1.4mm	0.03	0.08	1/2"	C
TCST-075-220-S23 / C	0.75X	220	9.06	0.037	10	502	0.03	0.02	2/3"	C
TCST-10-220 / C	1.0X	220	7.4	0.045	11	880	0.03	0.01	2/3"	C
TCST-10-250-S118 / C	1.0X	250	7.45	0.045	11	484	0.03	0.081	1/1.8"	C
TCST-15-220-S12 / C	1.5X	220	7.45	0.045	16.6	590	0.03	0.13	1/2"	C
TCST-15-200 / C	1.5X	200	5	0.067	11.2	398	0.03	0.08	2/3"	C
TCST-20-200 / C	2.0X	200	4.2	0.08	12.5	250	0.03	0.02	1/2"	C
TCST-30-200 / C	3.0X	200	4.2	0.08	18.7	166	0.02	0.1	1/2"	C
TCST-40-200 / C	4.0X	200	4.19	0.08	25	125	0.015	0.13	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40μm



TCST Series (WD: 300mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCST-10-300 / C	1.0X	300	9.6	0.035	14.2	1100	0.02	0.03	1/2"	C
TCST-15-300 / C	1.5X	300	9.6	0.035	21.4	762	0.02	0.13	1/2"	C
TCST-20-300 / C	2.0X	300	9.6	0.035	28.5	571	0.01	0.17	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40μm



TCST Series (WD: 400mm)

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TCST-05-400 / C	0.5X	402	12.9	0.026	9.6	3.07mm	0.03	0.05	1/2"	C

I = Manual Iris, C = Coaxial, IC = Both / D.O.F Calculation: Permissible of circle of confusion : 40μm

Telecentric Lenses

Telecentric Zoom Lenses

Features

- Telecentricity at any magnification
- Suitable for high resolution megapixel cameras
- Magnification can be converted from 0.25 x to 2.6x by using front converter
- Less shading and keeps uniformity of intensity
- TV distortion less than 0.01%



Lensagon No.	Mag.	WD	Depth of Field	Resolution	NA	CCD	Mount
TZ0510	0.5x-1.0x	174mm-114mm	1.20mm-0.47mm	12.5µm-9.8µm	0.066-0.085	2/3"	C
TZ0513	0.5x-1.3x	173mm-97mm	1.84mm-0.52mm	8µm-6.4µm	0.044-0.059	2/3"	C

Values when the converter is attached to TZ0513:

Lensagon No.	Mag.	WD	Application
FC02510	0.25x-1.0x	323.2mm-115.6mm	Front converter for TZ0513
FC1426	1.4x-2.6x	56.2mm-42.6mm	Front converter for TZ0513

Depth of field is calculated assuming a horizontal 320 TV resolution using 1/2" CCD camera (permissible circle of confusion, 40µ)

Sensor Size Extender

When this extender is mounted between a lens and CCD camera, the magnification can be doubled without changing the working distance.

The advantage of our RCN15 and RCN20 is that they make the FOV stay constant, while the image circle enlarges. For example RCN20 on 1/2" sensor will work like a 1" sensor.



RCN20

RCN15

Lensagon No.	Magnification	Mount
RCN15	1.5x	C-Mount
RCN20	2.0x	C-Mount

Telecentric Linescan Lenses

TL4K Series 4K Line CCD's Telecentric Lens

- We have several telecentric lenses for 4K line CCD camera.(7µm/Pixel)
- High accuracy lens for 4K line CCD camera.
- Very good telecentricity and high contrast image.
- Low distortion over the whole field of view.
- IRIS diaphragm for adjusting D.O.F.
- Object-side telecentric lens



Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (µm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TL4K-05-237I	0.5X	237	8.4	0.04	6.25	700	0.02	0.08	4K(7µm)	F
TL4K-07-130I	0.7X	130	5.1	0.066	5.3	303	0.04	0.05	4K(7µm)	F
TL4K-077-140I	0.77X	140	7	0.0477	8	544	0.03	0.06	4K(10µm)	M72
TL4K-092-170I	0.92X	170	5.2	0.064	7.14	250	0.01	0.03	4K(7µm)	F
TL4K-10-138I	1.0X	138	6.1	0.055	9.1	364	0.04	0.02	4K(10µm)	F
TL4K-20-102	2.0X	102	3.7	0.09	11.1	111	0.03	0.07	4K(10µm)	F

I = Manual Iris, C = Coaxial, IC = Both / Possible to change mount

Telecentric Linescan Lenses

TL8K Series 8K Line CCD's Telecentric Lens

- High accuracy lens for 8K line CCD camera.
- Very good telecentricity and high contrast image.
- Low distortion over the whole field of view.
- Uniform coaxial illumination with LED coaxial guide.
 - Provides easy alignment with CCD camera and illumination.
 - Inner coaxial illumination, not external coaxial illumination.
- Good for 8K TDI & general line CCD



Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TL8K-0467-278 / C	0.467X	278	12	0.028	8	1	0.04	0.03	8K(7μm)	M72

TL12K Series 12K Line CCD's Telecentric Lenses



- High resolution & High contrast optical design.
- Can be applied from 8K to 12K line CCD.
- Almost perfect telecentric design. (telecentricity: < 0.04 degree)
- Low distortion over the whole field of view.
- Support upto 5um/pixel (12K Line CCD)
- Uniform coaxial illumination with LED coaxial guide.
 - Provides easy alignment with CCD camera and illumination.
 - Inner coaxial illumination, not external coaxial illumination.

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Telecentricity (<degree)	Optical Distort. (%)	CCD size (max.)	Mount
TL12K-064-170I	0.64X	170	8.4	0.04	8	390	0.04	0.06	12K(5μm)	M72
TL12K-07-117I	0.7X	117	7.7	0.044	8	326	0.04	0.07	12K(5μm)	M72
TL12K-087-137I	0.87X	137	6.5	0.052	8.3	219	0.04	0.07	12K(5μm)	M72
TL12K-10-122 / C	1.0X	122	6.7	0.05	10	200	0.04	0.02	12K(5μm)	M72
TL12K-20-107I	2.0X	107	3.9	0.085	11.8	59	0.04	0.03	12K(5μm)	M72
TL12K-35-78 / C	3.5X	78	3.05	0.11	15.9	25.9	0.04	0.05	12K(5μm)	M72
TL12K-50-78/C	5.0X	78	2.58	0.13	19.2	15.2	0.04	0.08	12K(5μm)	M72
TL12K-70-15 / C	7.0X	15	1.5	0.23	15.2	62	0.03	0.32	12K(5μm)	M72
TL12K-100-13/C	10.0X	13.5	1.68	0.2	25	5	0.04	0.02	12K(5μm)	M72

Linescan Lenses

Line Scan Lenses for Wide Field of View

Our large format lens series has been specifically designed for the line-scan and large area sensor market. Covering up to 62mm sensors, these low distortion lenses are ready for challenging applications.

Features:

- Working distance and magnification are adjustable
- Suitable for long working distance
- Designed for machine vision application
- FLS8528 is compatible with M72 mount
- Suitable for various applications such as printing, PC, glass, textile etc..



Lensagon No.	F No.	Focal length	Range of WD	Magnification	Distortion	Max. comp. CCD	Mount
FLS2528	2.8	25mm	140mm ~ ∞	0.15x	0.66%	Ø 44mm	F
FLS3528	2.8	35mm	230mm ~ ∞	0.15x	-0.31%	Ø 44mm	F
FLS5026	2.6	50mm	0.32m ~ ∞	0.18x	0.23%	Ø 45mm	F
FLS5014HS	1.4	50mm	0.27m ~ ∞	0.2x	0.17%	Ø 45mm	F
FLS5028CW	2.8	50mm	190mm ~ ∞	0.3x	-0.40%	Ø 44mm	F
FLS8528	2.8	85mm	0.46m ~ ∞	0.2x	0.04%	Ø 62mm	F or M72

Indicated specifications are design values

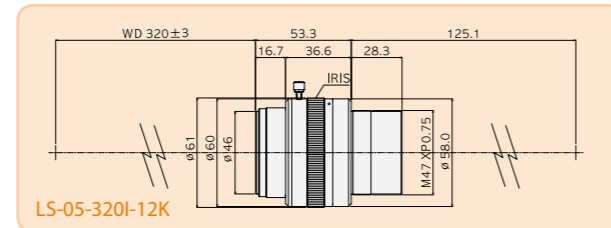
LS-12K Series: Line Scan Lenses for 8K to 12K line CCD

WD 50 mm - 320 mm

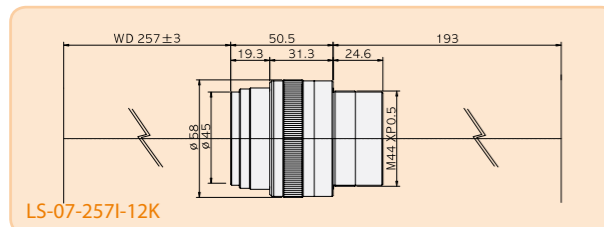
Lensagon No.	Mag.	WD	D.O.F	Res. (Obj.)	NA	CCD size	F No.	Optical Distort (%)	Mount
LS-05-320I-12K	0.5X	320 mm	480	8.1 μm	0.045	12k (5u)	6	0.08	M47
LS-07-257I-12K	0.7X	257 mm	408	9.6 μm	0.035	12k (5u)	10	0.01	M47
LS-10-202I-12K	1.0X	202 mm	100	6.7 μm	0.05	12k (5u)	10	0.04	M47
LS-14-168I-12K	1.4X	168 mm	113	5.4 μm	0.063	12k (5u)	11.1	0.02	M47
LS-20-50I-12K	2.0X	50 mm	45	3.1 μm	0.11	12k (5u)	9.1	0.03	M47
LS-20-133I-12K	2.0X	133 mm	60.3	4.04 μm	0.0832	12k (5u)	12.06	0.03	M47
LS-35-88I-12K	3.5X	88 mm	41	2.4 μm	0.14	12k (5u)	12.5	0.05	M47

Possible to change mount

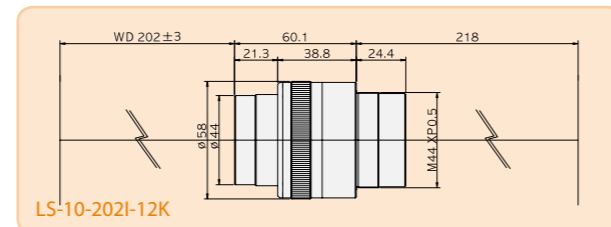
- High resolution & high contrast optical design
- Can be applied from 8K to 12K line CCD
- Low distortion for excellent image quality
- Large image circle up to 61.4mm(12K @ 5um)
- Magnification varies from 0.5X to 3.5X



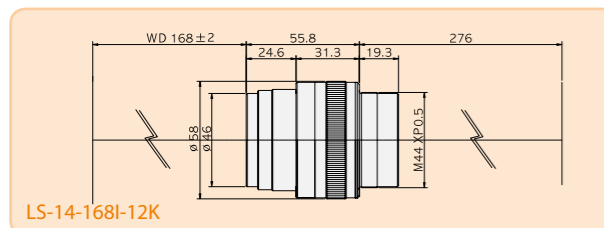
LS-05-320I-12K



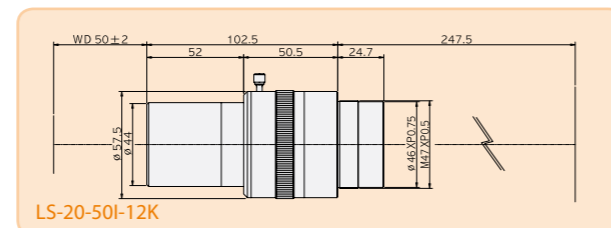
LS-07-257I-12K



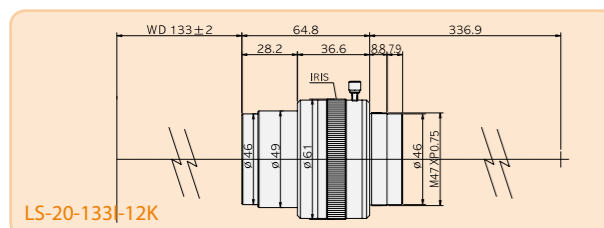
LS-10-202I-12K



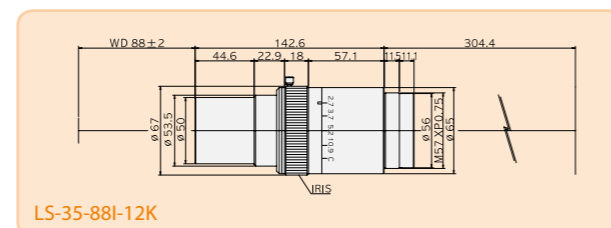
LS-14-168I-12K



LS-20-50I-12K



LS-20-133I-12K

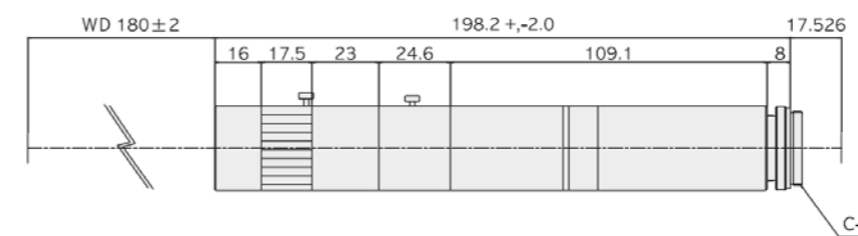
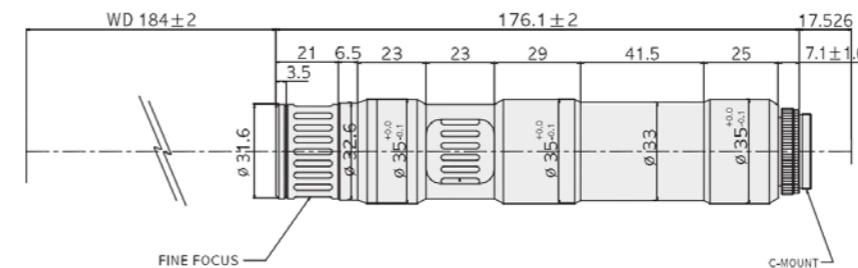


LS-35-88I-12K

Macro Zoom Lens

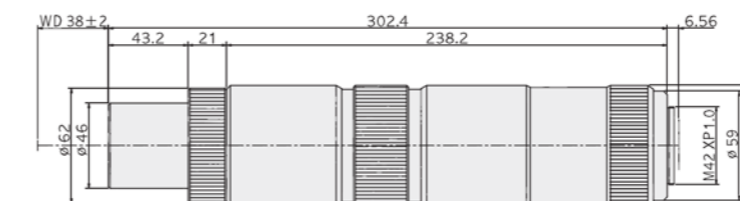
Lensagon No.	Mag.	WD	Resolution (μm)	NA	F/#	D.O.F. (μm)	Optical Distort. (%)	CCD size (max.)	Mount
MZC0515	0.5X	184	11.25	0.0298	8.3	2.6mm	0.2	1/2"	C
	1.5X	184	6.7	0.05	15	533	0.15	1/2"	
MZC0530S12	0.5X	180	21	0.016	15.6	4.99	0.6	1/2"	C
	3.0X	180	7.8	0.043	34.9	310	0.2	1/2"	
MZC0530S13	0.5X	180	18.6	0.018	13.9	4.45	0.25	1/3"	C
	3.0X	180	7	0.048	31.3	278	0.14	1/3"	

- This zoom lens has high resolution to get high contrast image compared to the general zoom lens.
- Magnification ranges: 0.5 ~ 1.5X, 0.5X ~ 3.0X
- W.D: 184mm, 180mm
- Support upto 1/2" or 1/3" CCD camera
- Fine focus adjustment



Lensagon No.	Mag.	WD	Resolution (μm)	NA	F/#	D.O.F. (μm)	Optical Distort. (%)	CCD size (max.)	Mount
MZ3050	3.0X	38	3.6	0.093	16.1	93.6	0.046	2K(13u)	M42
	4.0X	38	2.92	0.115	17.4	56.5	0.032	2K(13u)	
	5.1X	38	2.6	0.13	19.6	39.1	0.044	2K(13u)	

- This zoom lens is designed specially for large CCD cameras like 2K Line CCD, 4M CCD cameras, etc
- This lens also has the high resolution and low distortion for over full range of magnification
- IRIS diaphragm adapted 26mm diagonal

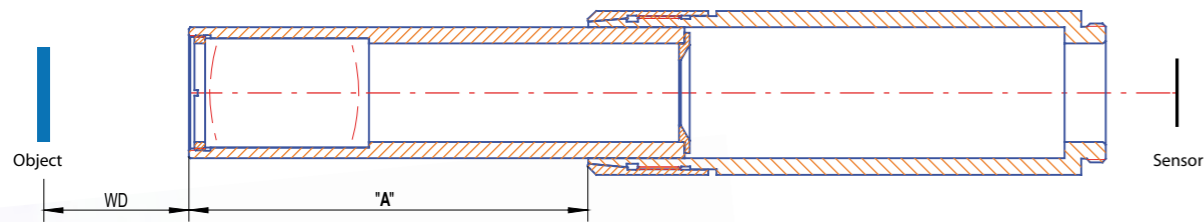


Macro Zoom Lenses

MCV5M Varifocal Macro Zoom Lens

Lensation presents the classy new MCV5M, a variable 5-Megapixel macro lens. It is particularly characterised by its excellent image quality at a very high depth of field.

The easy-to-use locking mechanism allows freely adjustable magnification. This alleviates the need for system vendors to keep a larger selection of lenses with a fixed setting in stock continuously. A special highlight is the near distortion-free optics, which makes the MCV5M ideal for use in precise measuring applications. Our new C-Mount lens is suitable for 1/2.5" sensors (max. 2/3") and provides magnification from 0.58x at 146mm working distance (WD) to 1.725x at 75mm WD.



For more information and instructions on how to calculate the working distance, please visit our website and click on "download data sheet":

www.lensation.de/mcv5m

Macro Lenses for 1" Sensors

Non-telecentric lenses for machine vision applications like factory automation. The lenses support 1" sensor cameras with high resolution and low distortion quality.

- Features:**
- Fixed magnification
 - Mount: C-mount
 - Designed for 106mm working distance with various magnification



For 4 Megapixel 1" Sensors

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (µm)	Optical Distort. (%)	CCD size (max.)	Mount
MC4M-07-106GS	0.7X	106	7.72	0.0453	7.69	3.09	0.02	1" (4M)	C
MC4M-10-106GS	1.0X	106	4.7	0.0713	7.01	1.13	0.00	1" (4M)	C
MC4M-15-106GS	1.5X	106	4.7	0.0713	10.50	0.57	0.016	1" (4M)	C
MC4M-20-106GS	2.0X	106	4.7	0.0713	14.00	0.35	0.012	1" (4M)	C

Macro Lenses

Macro Lenses

These series are non-telecentric lenses for machine vision applications like factory automation. For many types of CCD cameras like 1/2", 2/3", 2M, 4M, 5M, 8M, 12M & 15M, with high resolution and low distortion quality.

- Features:**
- Various working distance and magnification
 - Fixed magnification (can be modified to another magnification)
 - Mount: C-mount, F-mount & M48-P0.75
 - IRIS diaphragm adapted (some lenses)



Standard

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (µm)	Optical Distort. (%)	CCD size (max.)	Mount
MCST-034-120	0.34X	120	15.80	0.0212	8.00	5.50 mm	0.07	1/2"	C
MCST-053-110	0.53X	110	11.18	0.0300	9.00	2.56 mm	0.06	1/2"	C
MCST-06-117	0.6X	117	9.30	0.0360	8.30	1.80 mm	0.02	1/2"	C
MCST-06-120	0.6X	120	9.30	0.0360	8.30	1.80 mm	0.04	1/2"	C
MCST-08-100	0.8X	100	8.20	0.0410	9.70	1.20 mm	0.03	1/2"	C
MCST-12-100	1.2X	100	7.80	0.0430	13.90	772	0.03	1/2"	C
MCST-20-100	2.0X	100	7.10	0.0470	21.20	424	0.04	1/2"	C
MCST-40-92	4.0X	92	6.10	0.0550	36.40	180	0.01	1/2"	C
MCST-019-240	0.19X	240	28.00	0.0120	7.77	17 mm	0.13	2/3"	C
MCST-03-240	0.3X	240	17.66	0.0190	7.80	6.9 mm	0.135	2/3"	C
MCST-057-200	0.57X	200	11.57	0.0290	10.00	2.46 mm	0.04	2/3"	C

D.O.F. Calculation: Permissible of circle of confusion : 40µm

For 2 Megapixel sensors

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (µm)	Opt. Distort. (%)	CCD size (max.)	Mount
MC2M-0198-185	0.198X	185	21.20	0.0158	6.25	9.57 mm	0.06	1/1.8"	C
MC2M-025-194I	0.25X	194	8.50	0.0395	3.16	3.03 mm	0.01	2M	C
MC2M-047-176	0.47X	176	10.17	0.0330	7.14	1.9 mm	0.28	2M	C
MC2M-055-164	0.55X	164	9.80	0.0342	8.10	2.1 mm	0.06	2M	C
MC2M-05-253	0.5X	253	11.18	0.0300	8.33	2.0 mm	0.06	2M	C
MC2M-075-164	0.75X	164	8.90	0.0376	10.00	1.07 mm	0.06	2M	C

D.O.F. Calculation: Permissible of circle of confusion : 30µm

Macro Lenses



For 4 Megapixel sensors

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Opt. Distort. (%)	CCD size (max.)	Mount
MC4M-0185-225I	0.185X	225	18.10	0.0185	5.00	8.77 mm	0.01	4M	C
MC4M-0215-226I	0.215X	226	20.00	0.0170	6.25	8.12 mm	0.01	4M	C
MF4M-0247-267	0.247X	267	13.60	0.0247	5.00	4.90 mm	0.01	4M	F
MC4M-025-194I	0.25X	194	14.80	0.0230	5.50	5.28 mm	0.01	4M	C
MF4M-037-261	0.37X	261	9.10	0.0370	5.00	2.19 mm	0.01	4M	F
MF4M-055-210	0.55X	210	10.20	0.0330	8.30	1.65 mm	0.04	4M	F
MF4M-075-193	0.75X	193	8.90	0.0376	10.00	1.06 mm	0.06	4M	F
MC4M-015-255I	0.15X	255	29.8	0.01125	6.7	17.87	0.08	4M	C
MF4M-0296-267	0.296X	267	12	0.028	5.3	3.6	0.01	4M	F
MC4M-03-170I	0.3X	170	17.2	0.02	7.7	5.13	0.06	4M	C
MF4M-043-161	0.43X	261	7.8	0.043	5	1.62	0.01	4M	F
MF4M-063-310I	0.63X	310	6.9	0.0485	6.5	983um	0.08	4M	F
MF4M-074-247	0.74X	247	6.5	0.0518	7.1	778um	0.06	4M	F

D.O.F Calculation: Permissible of circle of confusion : 30μm

For 5 Megapixel sensors

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Opt. Distort. (%)	CCD size (max.)	Mount
MC5M-019-240	0.19X	240	17.70	0.0190	5.00	5.5 mm	0.03	2/3"	C
MC5M-0257-185	0.257X	185	16.80	0.0200	6.25	3.8 mm	0.01	2/3"	C

D.O.F Calculation: Permissible of circle of confusion : 20μm

For 8 Megapixel sensors

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Opt. Distort. (%)	CCD size (max.)	Mount
MF8M-035-300	0.35X	300	9.6	0.035	5.00	2.4 mm	0.08	8M (23mm)	F
MF8M-05-300	0.5X	300	6.7	0.05	5.00	1.2 mm	0.08	8M (23mm)	F
MF8M-08-260	0.8X	260	5.9	0.0568	7.00	660	0.05	8M (23mm)	F

D.O.F Calculation: Permissible of circle of confusion : 20μm

For 12 Megapixel sensors

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Opt. Distort. (%)	CCD size (max.)	Mount
MD12M-054-235I	0.54X	235	7.80	0.0430	6.25	1.28 mm	0.05	12M	M48

D.O.F Calculation: Permissible of circle of confusion : 30μm

For 15 Megapixel sensors

Lensagon No.	Mag.	WD	Res. (Obj.)	NA	F No.	D.O.F. (μm)	Opt. Distort. (%)	CCD size (max.)	Mount
MF15M-042-300	0.42X	300	8.6	0.039	5.37	1.2	0.08	15M	F
MF15M-0789-260	0.789X	260	5.95	0.056	7	674μm	0.06	15M	F

D.O.F Calculation: Permissible of circle of confusion : 20μm

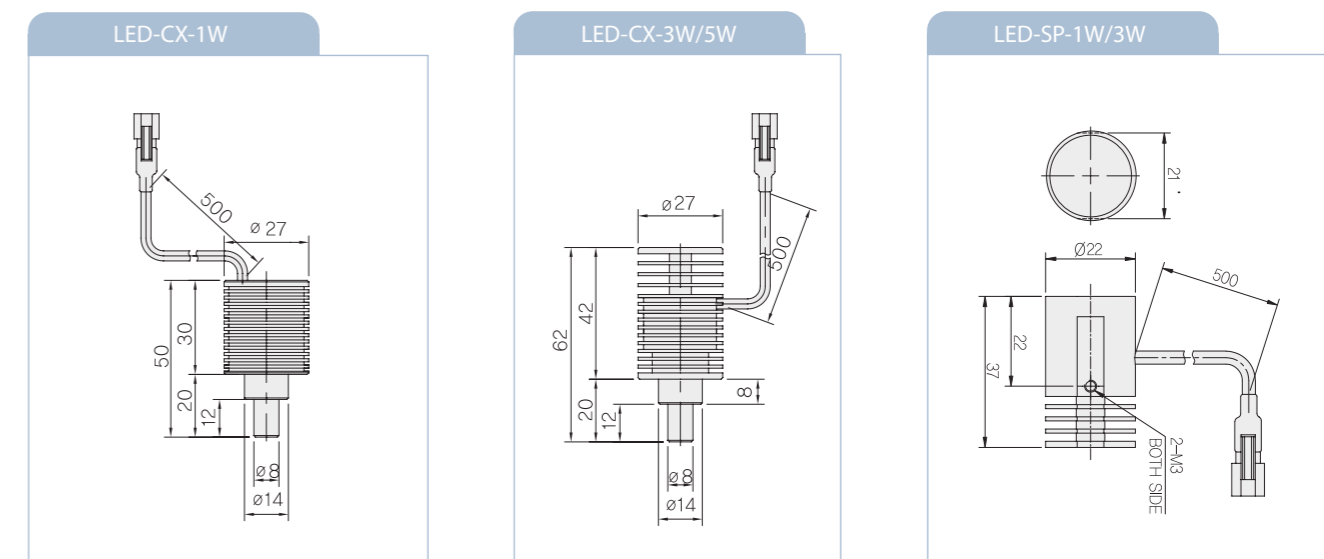
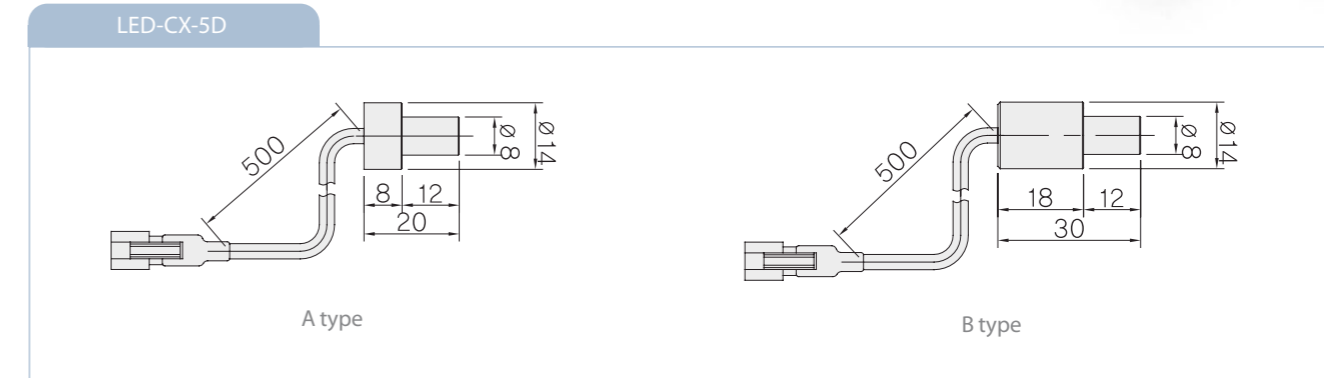
LED Illumination

Coaxial LED Illumination

LED illumination is more popular in machine vision application instead of Halogen source by means of the life time and compact size. The brightness of LED is increasing so fast. Therefore most of application in machine vision illumination can be covered by LED illumination.

- Ultra high bright spot illumination
- Enough for coaxial illumination of most of the telecentric lens
- High contrast compared to halogen source
- Long lifetime and low power consumption
- Several illumination colors(R, G, B, White)
- 4 type's coaxial LED guide(5mm dia, 1W, 3W, 5W)

Lensagon No.	Color	Power Consumption
LED-CX-5D	W,R,G,B	-
LED-CX-1W	W,R,G,B	1W
LED-CX-3W	W,R,G,B	3W
LED-CX-5W	W,R,G,B	5W
LED-SP-1W	W,R,G,B	1W
LED-SP-3W	W,R,G,B	3W



LED Illumination

Analog LED Controller

It can control the LED guide which is commonly used in machine vision.
It is constant current control type instead of voltage control.

- Basic channel: 2 up to 9channel
- Constant current control type optimized for LED lamp
- External 0~5V voltage to control the volume
- On/Off control by DC voltage (Ex, Off@ 5V)



Lensagon No.	Channel	Output	Volume Control	Input Voltage	RC Connector
LED-CONT-2CA	2	700mA@5V or 12V (max : 24W)	Volume control by front knob	AC 100 ~240V/50/60Hz	D-Sub. 15-pin (male)
LED-CONT-4CA	4	700mA@5V or 12V (max : 50W)	Volume control by front knob	AC 100 ~240V/50/60Hz	D-Sub. 15-pin (male)
LED-CONT-9CA	9	1.2A @40V (max : 500W)	Volume control by front knob	AC 220V±15%	D-Sub. 15-pin (male)

Digital LED Controller

This controller is digital control type instead of analog via RS-232 communication to give customers convenient.

- Basic channel: 2 up to 8channel
- Constant current control type optimized for LED lamp
- Rs-232 communication control for volume
- I/O control for On/Off function
- Volume display on the front panel of the controller



Lensagon No.	Channel	Output	Volume Control	Input Voltage	RC Connector
LED-CONT-2CD	2	700mA@5V or 12V (max : 50W)	0-255 level by Jog Dial	AC 100 ~240V/50/60Hz	RS-232 D-Sub 15pin (male)
LED-CONT-4CD	4	700mA@5V or 12V (max : 50W)	0-255 level by Jog Dial	AC 100 ~240V/50/60Hz	RS-232 D-Sub 15pin (male)
LED-CONT-8CD	8	700mA@5V or 12V (max : 100W)	0-255 level by Jog Dial	AC 220V±15%	RS-232 D-Sub 15pin (male)

Theia Technologies

Super Wide Angle No Distortion Lenses



Theia's patented **Linear Optical Technology**® gives an ultra wide field of view without barrel distortion. All lenses are multimegapixel resolution and for cameras up to 1/2".

SY110 series: 1.67mm ultra wide. Up to 120° HFOV. Day/Night corrected. CS-mount and C-mount. Manual and autoiris.

SL183 series: Varifocal 1.8 - 3mm TrueZoom™. Up to 115° HFOV. Day/Night corrected. CS-mount. Manual and autoiris.

SY125 series: 1.28mm ultra wide. **Widest** no distortion lens. Up to 135° HFOV. CS-mount and C-mount. Manual and autoiris.

SL940 series: 9-40mm tele-photo lens for long reach and F.O.V. optimization. Day/Night corrected. CS-mount. Manual and autoiris.



Theia No.	F.No.	Focal length	Resolution	Iris	D.O.F	Distortion	Weight	Mount	F.O.V. 1/4"	F.O.V. 1/3"	F.O.V. 1/2.5"
SY110M	1.8	1.67mm	3 MP	Man.	10cm	<1%	70g	CS	H: 94° V: 78° D: 107°	H: 110° V: 94° D: 122°	H: 120° V: 104° D: 130°
SY110A	1.8	1.67mm	3 MP	Auto	10cm	<1%	70g	CS			
MY110M	1.8	1.67mm	3 MP	Man.	10cm	<1%	110g	C			

Theia No.	F.No.	Focal length	Resolution	Iris	D.O.F	Distortion	Weight	Mount	F.O.V. 1/4"	F.O.V. 1/3"	F.O.V. 1/2.5"
SY125M	1.8	1.28mm	5 MP	Man.	10cm	<3%	100g	CS	H: 109° V: 93° D: 122°	H: 125° V: 109° D: 137°	H: 135° V: 119° D: 141°
SY125A	1.8	1.28mm	5 MP	Auto	10cm	<3%	100g	CS			
MY125M	1.8	1.28mm	5 MP	Man.	10cm	<3%	150g	C			

Theia No.	F.No.	Focal length	Resolution	Iris	D.O.F	Distortion	Weight	Mount	F.O.V. 1/3"	F.O.V. 1/2.7"	F.O.V. 1/2.5"
SL183M	1.8	1.8-3.0mm	5 MP	Man.	0.5m	<1%	70g	CS	H: 105°-77° V: 90° - 62° D: 117°-90°	H: 111°-84° V: 92° - 64° D: 123°-96°	H: 115°-88° V: 99° - 71° D: 126°-100°
SL183A	1.8	1.8-3.0mm	5 MP	Auto	0.5m	<1%	70g	CS			

Theia No.	F.No.	Focal length	Resolution	Iris	Length	Distortion	Weight	Mount	F.O.V. 1/3"	F.O.V. 1/2.7"	F.O.V. 1/2.5"
SL940M	1.5	9 - 40mm	5 MP	Man.	<50mm	<1%	-	CS	H: 30°-7.1° V: 22°-5.3° D: 38°-8.8°	H: 37°-8.6° V: 20°-4.8° D: 42°-9.9°	H: 36° - 8.5° V: 27° - 6.3° D: 46°-10.6°
SL940A	1.5	9 - 40mm	5 MP	Auto	<50mm	<1%	-	CS			

