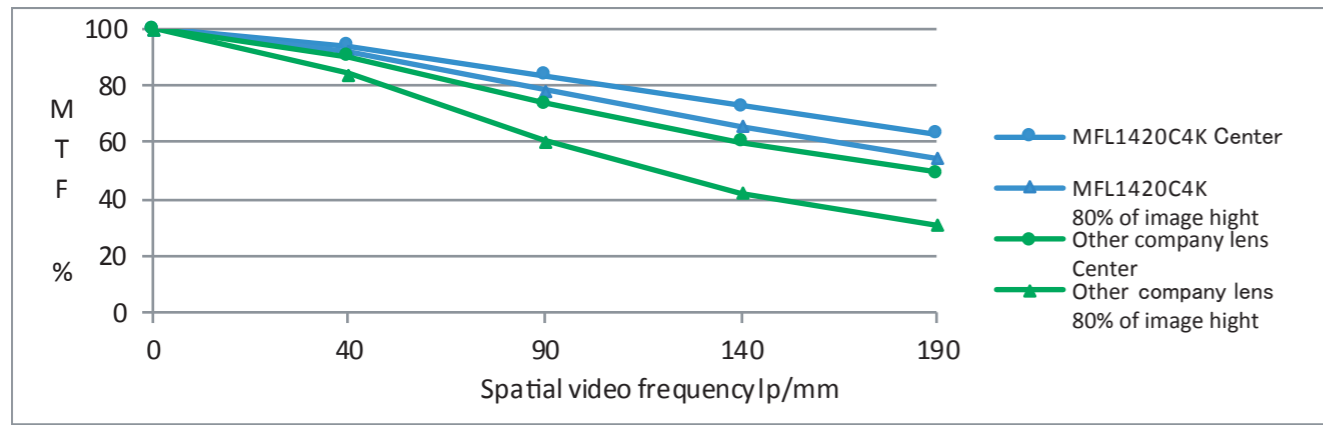


◆ High resolution characteristics of MFL1420C4K(Focal length 14mm)



High resolution, High contrast realization
 Optimizing optics design engineering has made 3CMOS camera prism optical system possible which realizes high resolution, high contrast of image from center area to the corners.
 Suitable not only for industrial application use, but for broadcast, medical applications

◆ 4K/8.3M lens shooting range table

MFL620C4K(Focal length 6mm)

Shooting range [mm]	Magnification	Shooting range [mm]					
		1/1.8"		1/2"		1/3"	
		H	V	H	V	H	V
2000	0.003	2655.4	1466.5	2356.0	1299.0	1749.3	968.3
1500	0.004	1998.3	1103.3	1772.9	977.2	1316.1	728.5
1000	0.006	1341.2	740.1	1189.7	655.5	882.9	488.6
950	0.006	1275.5	703.8	1131.3	623.3	839.6	464.6
900	0.007	1209.8	667.4	1073.0	591.2	796.3	440.6
850	0.007	1144.1	631.1	1014.7	559.0	753.0	416.6
800	0.008	1078.4	594.8	956.4	526.8	709.7	392.7
750	0.008	1012.7	558.5	898.1	494.6	666.3	368.7
700	0.009	947.0	522.2	839.7	462.5	623.0	344.7
650	0.009	881.3	485.8	781.4	430.3	579.7	320.7
600	0.010	815.6	449.5	723.1	398.1	536.4	296.7
550	0.011	749.9	413.2	664.8	365.9	493.1	272.7
500	0.012	684.2	376.9	606.5	333.8	449.7	248.7
450	0.013	618.5	340.6	548.2	301.6	406.4	224.7
400	0.015	552.8	304.2	489.8	269.4	363.1	200.8
350	0.017	487.0	267.9	431.5	237.2	319.8	176.8
300	0.019	421.3	231.6	373.2	205.1	276.4	152.8
250	0.023	355.6	195.3	314.9	172.9	233.1	128.8
200	0.028	289.9	158.9	256.5	140.7	189.8	104.8
150	0.037	224.2	122.6	198.2	108.5	146.4	80.8
100	0.052	158.4	86.2	139.8	76.3	103.1	56.8

MFL1420C4K(Focal length 14mm)

Shooting range [mm]	Magnification	Shooting range [mm]					
		1/1.8"		1/2"		1/3"	
		H	V	H	V	H	V
2000	0.007	1111.8	623.3	987.5	553.8	739.3	415.0
1500	0.009	836.0	468.7	742.6	416.4	555.9	312.0
1000	0.014	560.3	314.0	497.6	279.0	372.5	209.0
950	0.015	532.7	298.5	473.1	265.2	354.1	198.7
900	0.016	505.1	283.1	448.6	251.5	335.8	188.4
850	0.017	477.6	267.6	424.1	237.7	317.4	178.1
800	0.018	450.0	252.1	399.6	224.0	299.1	167.8
750	0.019	422.4	236.7	375.1	210.3	280.7	157.5
700	0.020	394.8	221.2	350.6	196.5	262.4	147.2
650	0.021	367.3	205.7	326.1	182.8	244.1	136.9
600	0.023	339.7	190.3	301.6	169.0	225.7	126.7
550	0.025	312.1	174.8	277.1	155.3	207.4	116.4
500	0.028	284.5	159.3	252.6	141.5	189.0	106.1
450	0.031	256.9	143.9	228.1	127.8	170.7	95.7
400	0.034	229.3	128.4	203.6	114.1	152.3	85.4
350	0.039	201.7	112.9	179.1	100.3	134.0	75.1
300	0.045	174.1	97.4	154.6	86.5	115.6	64.8
250	0.054	146.5	81.9	130.0	72.8	97.2	54.5
200	0.067	118.9	66.4	105.5	59.0	78.9	44.2
150	0.087	91.2	50.9	80.9	45.2	60.5	33.9
100	0.125	63.5	35.4	56.3	31.4	42.0	23.5

MFL2520C4K(Focal length 25mm)

Shooting range [mm]	Magnification	Shooting range [mm]					
		1/1.8"		1/2"		1/3"	
		H	V	H	V	H	V
2000	0.013	623.9	350.3	554.3	311.3	415.3	233.4
1500	0.017	470.3	264.0	417.8	234.6	313.0	175.9
1000	0.025	316.7	177.7	281.3	157.9	210.7	118.4
950	0.026	301.4	169.1	267.7	150.3	200.5	112.6
900	0.028	286.0	160.5	254.0	142.6	190.2	106.9
850	0.029	270.6	151.8	240.4	134.9	180.0	101.1
800	0.031	255.3	143.2	226.7	127.2	169.8	95.4
750	0.033	239.9	134.6	213.0	119.6	159.5	89.6
700	0.035	224.5	125.9	199.4	111.9	149.3	83.9
650	0.038	209.1	117.3	185.7	104.2	139.1	78.1
600	0.041	193.8	108.6	172.1	96.5	128.8	72.4
550	0.044	178.4	100.0	158.4	88.8	118.6	66.6
500	0.048	163.0	91.3	144.7	81.2	108.3	60.8
450	0.053	147.6	82.7	131.0	73.5	98.1	55.1
400	0.060	132.2	74.0	117.3	65.8	87.8	49.3
350	0.068	116.7	65.4	103.6	58.1	77.5	43.5
300	0.078	101.3	56.7	89.9	50.4	67.3	37.8
250	0.092	85.8	48.0	76.1	42.6	56.9	32.0
200	0.113	70.3	39.3	62.3	34.9	46.6	26.1

※Referred data are simulated data only.

※Assumed sensor size is as follows.

Aspect ratio 16:9

1/1.8"	7.84 x 4.41
1/2"	6.97 x 3.92
1/3"	5.23 x 2.94

⚠ Caution To ensure safe operation, please read the instruction manual before using this product.

※All characteristics and/or specification of products contained herein are subject to change without notification.
 ※Please be noticed that actual product and product shown in the catalog's color may differ due to the condition of photos and printing process.

Contact information

MUSASHI OPTICAL SYSTEM CO., LTD.

5-18-2, HIGASHIOMIYA, MINUMA-KU, SAITAMA-CITY SAITAMA 337-0051, JAPAN
 TEL +81-48-812-7700 FAX +81-48-812-7760
<http://www.musashi-opt.co.jp/global/index.html>



Our home page URL address is above.



This catalog's described content are as of April, 2020. CP04-2200402

MUSASHI-OPT

4K/8.3M compatible for 3CMOS
 1/1.8" fixed focal length lens series
 (Three models available 6mm, 14mm, 25mm)

NEW



3CMOS Camera C mount lens for machine vision
 Compatible to 1/1.8" 4K/8.3M resolution pixel size 2 μm
 Compatible to 1/2", 1/3" 4K camera

Main features

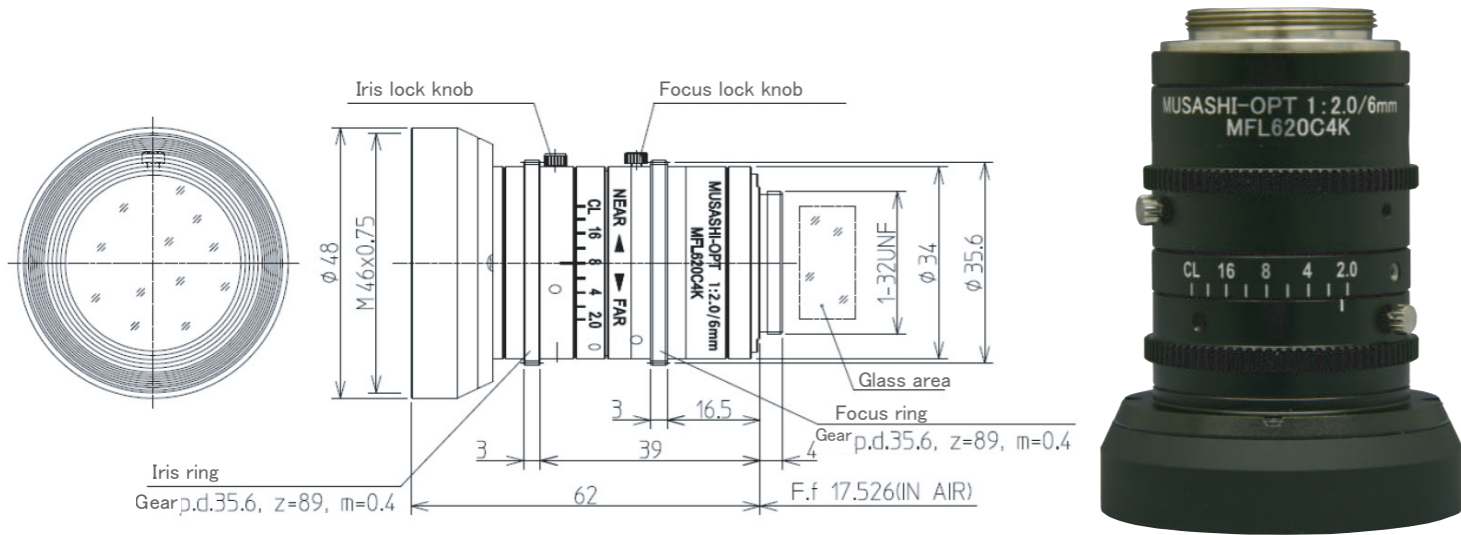
- ◆ Pursuance of picture quality of close up
 Achieving high quality of picture resolution at machine visions' close up view
- ◆ Operation, Handling
 Satisfying focus preciseness by realizing view of angle 340°
 Mechanical structure does not change its lens length during focusing
- ◆ Ridgid structure
 Adapting mechanical barrel mount considering its reliability and preciseness
- ◆ Gear at focus and iris
 Utilizing gear enables remote operation
 During remote operation requires motor separately
- ◆ Product made in Japan



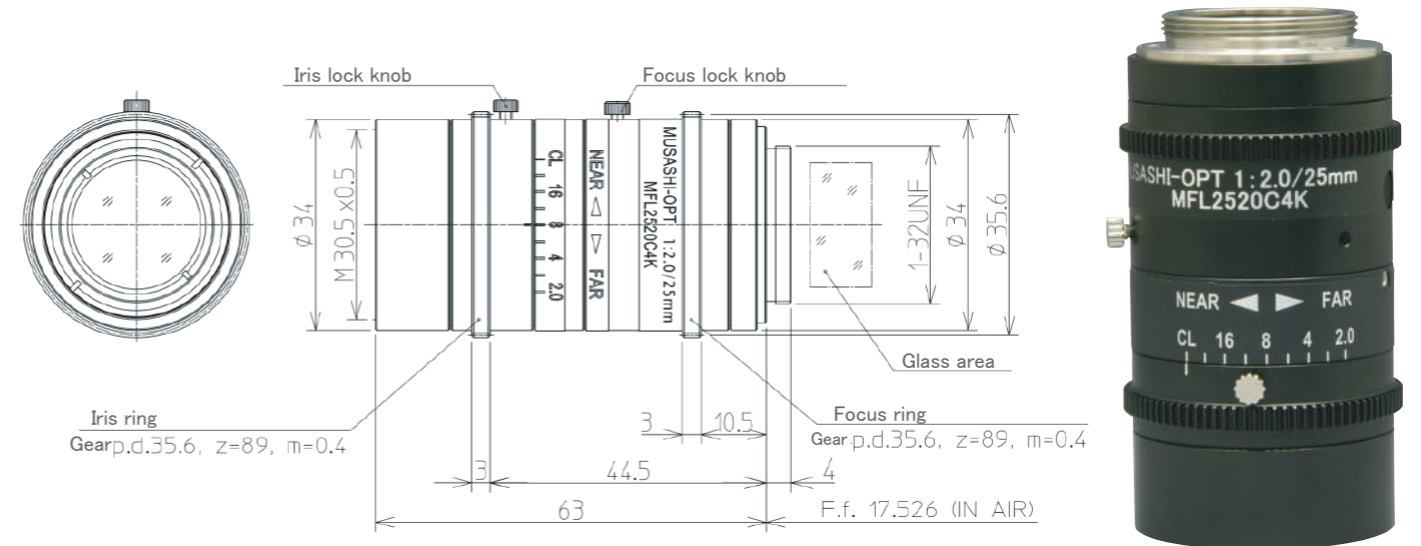
MUSASHI OPTICAL SYSTEM CO., LTD.

1/1.8" fixed focal length lens for 3CMOS camera

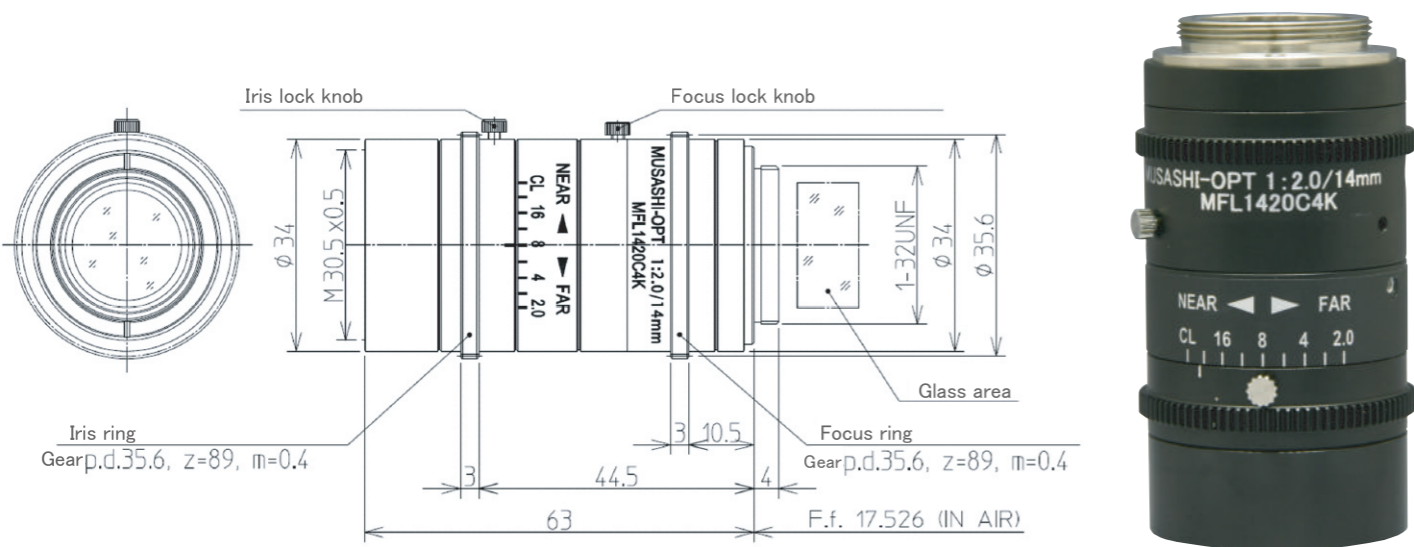
MFL620C4K (Focal length 6mm)



MFL2520C4K (Focal length 25mm)



MFL1420C4K (Focal length 14mm)



Main features

Model	MFL620C4K	MFL1420C4K	MFL2520C4K	
Focal length	6mm	14mm	25mm	
Iris area (F no)	F2~22, Close			
Mount	C mount			
Angle ratio (16:9)	1/1.8"	66.6° × 39.9°	30.8° × 17.6°	17.5° × 9.9°
	1/2"	60.5° × 35.7°	27.5° × 15.7°	15.5° × 8.8°
	1/3"	46.8° × 27.0°	20.8° × 11.8°	11.7° × 6.6°
Angle ratio (4:3)	1/1.8"	62.2° × 48.2°	28.4° × 21.5°	16.0° × 12.1°
	1/2"	56.2° × 43.2°	25.3° × 19.1°	14.3° × 10.7°
	1/3"	43.2° × 32.9°	19.1° × 14.4°	10.7° × 8.1°
TV distortion ※1	1/1.8"	-0.48%	-0.20%	-0.21%
	1/2"	-0.92%	-0.20%	-0.17%
	1/3"	-0.89%	-0.15%	-0.10%
Focus area	∞~100mm	∞~100mm	∞~200mm	
Filter screw diameter	M46 × 0.75	M30.5 × 0.5	M30.5 × 0.5	
Operation method	Focus	manual•with lock screw		
	Iris	manual•with lock screw		
Weight	approx.150g	approx.140g	approx.140g	
Outer dimension	Φ48mm × 62mm	Φ34mm × 63mm	Φ34mm × 63mm	
Operation at temperature range	-10°C ~ +50°C			
Accessory	Front cap, Rear cap, Lock knob, Instruction manual			

※1 When shooting range 500mm, aspect ratio 4:3