

HF-XA-1F series, 2/3"-1/1.2", 3.45μm, 5 MP

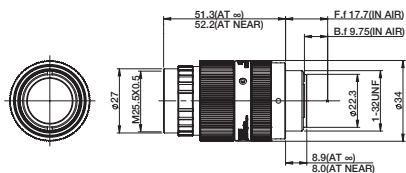


- Compact design
- Fix iris – with switchable iris plates Fopen, F4 and F8
- C-Mount locked focus system – no moving glass elements
- Extremely robust design, best suited for moving 3D cameras and Robot vision

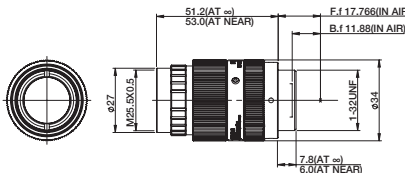


	Anti Shock & Vibration HF8XA-1F	Anti Shock & Vibration HF12XA-1F	Anti Shock & Vibration HF16XA-1F	Anti Shock & Vibration HF25XA-1F	Anti Shock & Vibration HF35XA-1F
Focal length [mm]	8	12	16	25	35
Iris range [F. no]	F1.6, F4, F8 (Selection)	F1.6, F4, F8 (Selection)	F1.6, F4, F8 (Selection)	F1.6, F4.6, F9.2 (Selection)	F1.9, F5.2, F10.4 (Selection)
Angle of view : 2/3"	58.4°×44.6°	40.1°×30.3°	31.4°×23.7°	20.0°×15.0°	14.2°×10.7°
Working Distance*1 [mm]	∞-100	∞-100	∞-100	∞-150	∞-300
Operation of focus	Fixed	Fixed	Fixed	Fixed	Fixed
Operation of iris	Fixed	Fixed	Fixed	Fixed	Fixed
Filter thread [mm]	M25.5 x 0.5	M25.5 x 0.5	M25.5 x 0.5	M25.5 x 0.5	M25.5 x 0.5
Mount	C-mount	C-mount	C-mount	C-mount	C-mount
Weight (approx.) [g]	97	99	94	87	75
Sensor size (std.)*2	2/3"(3.45μm)	2/3"(3.45μm)	2/3"(3.45μm)	2/3"(3.45μm)	2/3"(3.45μm)
Sensor size (max.)*3	2/3"(3.45μm)	1/1.2"(4.5μm)	1/1.2"(4.5μm)	1/1.2"(4.5μm)	1/1.2"(4.5μm)
TV distortion [%]	-1.99	-1.26	-0.60	-0.07	0.10
Dimension [mm]	ø34×60.2	ø34×58.7	ø34×54.0	ø34×55.4	ø34×50.3
Required maximum screw-in length*4 [mm]	8.9	7.8	7.8	9.2	9.2

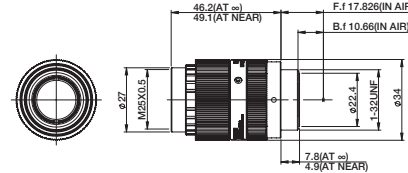
HF8XA-1F



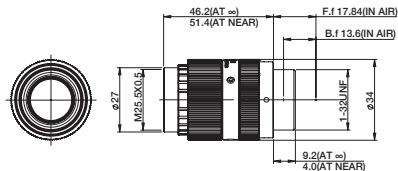
HF12XA-1F



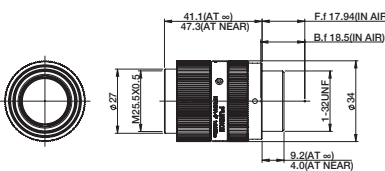
HF16XA-1F



HF25XA-1F



HF35XA-1F



*1 From front of lens barrel. *2 Sensor size(std.): Ideal size to maximize the target resolution.

*3 Sensor size(max.): Adaptable sensor size varies depending on the model. Please check the amount of light and resolution on the edges pertaining to your particular application.

*4 This is the maximum screw-in length required when the object distance is used with INF. Be sure to check this lens can be attached to your camera before purchase.

HF-XA-5M / HF-XA-1F series

HF6XA-5M

Working Distance [mm]	Optical Magnification	Extension Tube [mm]	Field of View [mm]					
			2/3"		1/2"		1/3"	
			H	V	H	V	H	V
1000	0.006x	-	1548.2	1126.4	1089.5	802.1	802.1	594.9
950	0.006x	-	1471.8	1070.9	1035.7	762.5	762.5	565.6
900	0.007x	-	1395.5	1015.3	982.0	722.9	722.9	536.3
850	0.007x	-	1319.1	959.8	928.3	683.4	683.4	506.9
800	0.008x	-	1242.8	904.2	874.6	643.8	643.8	477.6
750	0.008x	-	1166.5	848.7	820.8	604.3	604.3	448.2
700	0.009x	-	1090.1	793.1	767.1	564.7	564.7	418.9
650	0.009x	-	1013.8	737.6	713.4	525.2	525.2	389.6
600	0.010x	-	937.4	682.0	659.6	485.6	485.6	360.2
550	0.011x	-	861.1	626.5	605.9	446.1	446.1	330.9
500	0.012x	-	784.8	570.9	552.2	406.5	406.5	301.5
450	0.013x	-	708.4	515.4	498.5	367.0	367.0	272.2
400	0.015x	-	632.1	459.8	444.7	327.4	327.4	242.9
350	0.017x	-	555.7	404.3	391.0	287.8	287.8	213.5
300	0.020x	-	479.4	348.7	337.3	248.3	248.3	184.2
250	0.024x	-	403.0	293.2	283.5	208.7	208.7	154.8
200	0.029x	-	326.7	237.6	229.8	169.2	169.2	125.5
150	0.038x	-	250.4	182.1	176.1	129.6	129.6	96.2
100	0.055x	-	174.0	126.5	122.4	90.1	90.1	66.8

HF8XA-5M / HF8XA-1F

Working Distance [mm]	Optical Magnification	Extension Tube [mm]	Field of View [mm]					
			2/3"		1/2"		1/3"	
			H	V	H	V	H	V
1000	0.008x	-	1130.4	830.5	803.9	595.5	595.5	443.3
950	0.009x	-	1074.6	789.5	764.2	566.1	566.1	421.4
900	0.009x	-	1018.8	748.5	724.5	536.6	536.6	399.5
850	0.010x	-	962.9	707.4	684.8	507.2	507.2	377.6
800	0.010x	-	907.1	666.4	645.1	477.8	477.8	355.7
750	0.011x	-	851.2	625.4	605.4	448.4	448.4	333.8
700	0.012x	-	795.4	584.3	565.7	419.0	419.0	311.9
650	0.013x	-	739.6	543.3	525.9	389.6	389.6	290.0
600	0.014x	-	683.7	502.3	486.2	360.1	360.1	268.1
550	0.015x	-	627.9	461.3	446.5	330.7	330.7	246.2
500	0.016x	-	572.0	420.2	406.8	301.3	301.3	224.3
450	0.018x	-	516.2	379.2	367.1	271.9	271.9	202.4
400	0.020x	-	460.3	338.2	327.4	242.5	242.5	180.5
350	0.023x	-	404.5	297.1	287.6	213.0	213.0	158.6
300	0.027x	-	348.7	256.1	247.9	183.6	183.6	136.7
250	0.032x	-	292.8	215.1	208.2	154.2	154.2	114.8
200	0.039x	-	237.0	174.1	168.5	124.8	124.8	92.9
150	0.051x	-	181.1	133.0	128.8	95.4	95.4	71.0
100	0.074x	-	125.3	92.0	89.1	66.0	66.0	49.1

HF12XA-5M / HF12XA-1F

Working Distance [mm]	Optical Magnification	Extension Tube [mm]	Field of View [mm]					
			1/1.2"		2/3"		1/2"	
			H	V	H	V	H	V
1000	0.012x	-	913.0	673.6	740.5	548.9	531.8	396.2
950	0.013x	-	868.0	640.4	704.0	521.9	505.6	376.7
900	0.014x	-	823.0	607.2	667.5	494.8	479.4	357.2
850	0.014x	-	778.0	574.0	631.0	467.8	453.2	337.7
800	0.015x	-	733.0	540.8	594.5	440.7	427.0	318.1
750	0.016x	-	688.0	507.6	558.0	413.7	400.8	298.6
700	0.017x	-	643.1	474.5	521.6	386.6	374.6	279.1
650	0.019x	-	598.1	441.3	485.1	359.6	348.3	259.6
600	0.020x	-	553.1	408.1	448.6	332.5	322.1	240.0
550	0.022x	-	508.1	374.9	412.1	305.5	295.9	220.5
500	0.024x	-	463.1	341.7	375.6	278.4	269.7	201.0
450	0.027x	-	418.2	308.5	339.1	251.4	243.5	181.5
400	0.030x	-	373.2	275.3	302.6	224.3	217.3	161.9
350	0.034x	-	328.2	242.1	266.2	197.3	191.1	142.4
300	0.039x	-	283.2	208.9	229.7	170.2	164.9	122.9
250	0.047x	-	238.2	175.7	193.2	143.2	138.7	103.4
200	0.058x	-	193.2	142.5	156.7	116.1	112.5	83.8
150	0.075x	-	148.3	109.3	120.2	89.1	86.3	64.3
100	0.108x	-	103.3	76.1	83.7	62.0	60.1	44.8

HF16XA-5M / HF16XA-1F

Working Distance [mm]	Optical Magnification	Extension Tube [mm]	Field of View [mm]					
			1/1.2"		2/3"		1/2"	
			H	V	H	V	H	V
1000	0.016x	-	701.9	522.1	572.8	427.0	413.9	309.3
950	0.016x	-	667.5	496.5	544.7	406.0	393.6	294.2
900	0.017x	-	633.1	470.9	516.6	385.1	373.2	279.0
850	0.018x	-	598.7	445.3	488.4	364.1	352.9	263.8
800	0.019x	-	564.2	419.7	460.3	343.2	332.6	248.6
750	0.021x	-	529.8	394.0	432.2	322.2	312.3	233.4
700	0.022x	-	495.4	368.4	404.1	301.3	292.0	218.2
650	0.024x	-	461.0	342.8	376.0	280.3	271.7	203.0
600	0.026x	-	426.5	317.2	347.9	259.3	251.4	187.9
550	0.028x	-	392.1	291.5	319.8	238.4	231.0	172.7
500	0.031x	-	357.7	265.9	291.7	217.4	210.7	157.5
450	0.034x	-	323.3	240.3	263.6	196.5	190.4	142.3
400	0.038x	-	288.8	214.7	235.5	175.5	170.1	127.1
350	0.043x	-	254.4	189.1	207.4	154.6	149.8	111.9
300	0.050x	-	220.0	163.4	179.3	133.6	129.5	96.7
250	0.059x	-	185.6	137.8	151.2	112.6	109.2	81.6
200	0.073x	-	151.1	112.2	123.1	91.7	88.9	66.4
150	0.094x	-	116.7	86.6	95.0	70.7	68.5	51.2
100	0.134x	-	82.3	60.9	66.9	49.8	48.2	36.0

HF25XA-5M / HF25XA-1F

Working Distance [mm]	Optical Magnification	Extension Tube [mm]	Field of View [mm]					
			1/1.2"		2/3"		1/2"	
			H	V	H	V	H	V
1000	0.025x	-	436.0	326.6	357.6	267.9	259.8	194.7
950	0.026x	-	414.6	310.5	340.0	254.7	247.0	185.1
900	0.027x	-	393.1	294.4	322.4	241.5	234.2	175.5
850	0.029x	-	371.7	278.4	304.8	228.4	221.4	166.0
800	0.031x	-	350.3	262.3	287.2	215.2	208.6	156.4
750	0.033x	-	328.8	246.2	269.6	202.0	195.9	146.8
700	0.035x	-	307.4	230.2	252.0	188.8	183.1	137.2
650	0.038x	-	285.9	214.1	234.5	175.6	170.3	127.6
600	0.041x	-	264.5	198.1	216.9	162.5	157.5	118.1
550	0.044x	-	243.1	182.0	199.3	149.3	144.7	108.5
500	0.049x	-	221.6	165.9	181.7	136.1	132.0	98.9
450	0.054x	-	200.2	149.9	164.1	122.9	119.2	89.3
400	0.060x	-	178.8	133.8	146.5	109.7	106.4	79.7
350	0.068x	-	157.3	117.7	128.9	96.6	93.6	70.2
300	0.079x	-	135.9	101.7	111.4	83.4	80.8	60.6
250	0.094x	-	114.4	85.6	93.8	70.2	68.1	51.0
200	0.116x	-	93.0	69.5	76.2	57.0	55.3	41.4
150	0.151x	-	71.5	53.5	58.6	43.8	42.5	31.8
100	0.216x	-	50.1	37.4	41.0	30.7	29.7	22.3

HF35XA-5M / HF35XA-1F

Working Distance [mm]	Optical Magnification	Extension Tube [mm]	Field of View [mm]					
			1/1.2"		2/3"		1/2"	
			H	V	H	V	H	V
1000	0.035x	-	304.5	228.5	250.1	187.6	182.0	136.5
950	0.037x	-	289.3	217.1	237.6	178.3	172.9	129.7
900	0.039x	-	274.1	205.7	225.1	168.9	163.8	122.9
850	0.041x	-	258.9	194.3	212.6	159.5	154.7	116.0
800	0.044x	-	243.7	182.8	200.1	150.1	145.6	109.2
750	0.047x	-	228.4	171.4	187.6	140.8	136.5	102.4
700	0.050x	-	213.2	160.0	175.1	131.4	127.4	95.6
650	0.054x	-	198.0	148.6	162.6	122.0	118.3	88.7
600	0.059x	-	182.8	137.2	150.1	112.6	109.2	81.9
550	0.064x	-	167.6	125.7	137.6	103.2	100.1	75.1
500	0.070x	-	152.4	114.3	125.1	93.9	91.0	68.3
450	0.078x	-	137.2	102.9	112.6	84.5	81.9	61.4
400	0.088x	-	122.0	91.5	100.1	75.1	72.8	54.6
350	0.100x	-	106.8	80.1	87.6	65.7	63.7	47.8
300	0.117x	-	91.5	68.6	75.1	56.3	54.6	41.0
250	0.141x	-	76.3	57.2	62.6	47.0	45.5	34.1
200	0.176x	-	61.1	45.8	50.1	37.6	36.4	27.3
150	0.234x	5	45.9	34.4	37.6	28.2	27.3	20.5
100	0.352x	10	30.6	22.9	25.1	18.8	18.2	13.7

HF50XA-5M

Working Distance [mm]	Optical Magnification	Extension Tube [mm]	Field of View [mm]					
			1.1"		2/3"		1/2"	
			H	V	H	V	H	V
1000	0.048x	-	293.1	219.7	183.1	137.3	133.1	99.8
950	0.051x	-	278.6	208.9	174.0	130.5	126.5	94.9
900	0.053x	-	264.1	198.0	164.9	123.7	119.9	89.9
850	0.056x	-	249.6	187.1	155.9	116.9	113.3	85.0
800	0.060x	-	235.1	176.2	146.8	110.1	106.7	80.0
750	0.064x	-	220.6					

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For your safety
Be certain to read the instructions for use before using any equipment.

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