

HF-HA series

DF6HA-1B

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	-	-	-	1109.3	816.0	816.0	604.3
950	0.006x	-	-	-	1054.7	775.8	775.8	574.6
900	0.007x	-	-	-	1000.1	735.6	735.6	544.8
850	0.007x	-	-	-	945.4	695.3	695.3	515.0
800	0.008x	-	-	-	890.8	655.1	655.1	485.2
750	0.008x	-	-	-	836.2	614.9	614.9	455.4
700	0.009x	-	-	-	781.6	574.7	574.7	425.6
650	0.009x	-	-	-	726.9	534.5	534.5	395.8
600	0.010x	-	-	-	672.3	494.3	494.3	366.1
550	0.011x	-	-	-	617.7	454.1	454.1	336.3
500	0.012x	-	-	-	563.1	413.9	413.9	306.5
450	0.013x	-	-	-	508.4	373.7	373.7	276.7
400	0.015x	-	-	-	453.8	333.5	333.5	246.9
350	0.017x	-	-	-	399.2	293.3	293.3	217.1
300	0.020x	-	-	-	344.6	253.1	253.1	187.3
250	0.023x	-	-	-	289.9	212.9	212.9	157.5
200	0.029x	-	-	-	235.3	172.7	172.7	127.8
150	0.037x	-	-	-	180.7	132.5	132.5	98.0
100	0.054x	-	-	-	126.0	92.3	92.3	68.2

HF9HA-1B

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	0.009x	-	1018.3	747.5	723.6	535.9	535.9	399.0
950	0.010x	-	968.1	710.6	687.9	509.4	509.4	379.3
900	0.010x	-	917.9	673.8	652.2	483.0	483.0	359.6
850	0.011x	-	867.7	636.9	616.5	456.5	456.5	339.9
800	0.011x	-	817.4	600.0	580.8	430.1	430.1	320.2
750	0.012x	-	767.2	563.1	545.1	403.6	403.6	300.5
700	0.013x	-	717.0	526.2	509.4	377.2	377.2	280.8
650	0.014x	-	666.8	489.3	473.7	350.8	350.8	261.1
600	0.015x	-	616.6	452.5	438.0	324.3	324.3	241.4
550	0.016x	-	566.4	415.6	402.2	297.9	297.9	221.7
500	0.018x	-	516.2	378.7	366.5	271.4	271.4	202.0
450	0.020x	-	465.9	341.8	330.8	245.0	245.0	182.3
400	0.022x	-	415.7	304.9	295.1	218.5	218.5	162.7
350	0.025x	-	365.5	268.0	259.4	192.1	192.1	143.0
300	0.029x	-	315.3	231.1	223.7	165.6	165.6	123.3
250	0.035x	-	265.1	194.3	188.0	139.2	139.2	103.6
200	0.043x	-	214.8	157.4	152.3	112.7	112.7	83.9
150	0.057x	-	164.6	120.5	116.6	86.3	86.3	64.2
100	0.082x	-	114.4	83.6	80.9	59.8	59.8	44.5

HF12.5HA-1B

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	0.013x	-	723.3	532.3	515.4	382.7	382.7	285.4
950	0.013x	-	687.6	506.1	490.0	363.8	363.8	271.3
900	0.014x	-	652.0	479.8	464.6	344.9	344.9	257.2
850	0.015x	-	616.3	453.6	439.2	326.1	326.1	243.2
800	0.016x	-	580.7	427.3	413.8	307.2	307.2	229.1
750	0.017x	-	545.0	401.1	388.4	288.3	288.3	215.0
700	0.018x	-	509.4	374.8	363.0	269.5	269.5	200.9
650	0.019x	-	473.7	348.6	337.5	250.6	250.6	186.9
600	0.021x	-	438.1	322.4	312.1	231.7	231.7	172.8
550	0.023x	-	402.4	296.1	286.7	212.8	212.8	158.7
500	0.025x	-	366.8	269.9	261.3	194.0	194.0	144.6
450	0.028x	-	331.1	243.6	235.9	175.1	175.1	130.6
400	0.031x	-	295.5	217.4	210.5	156.2	156.2	116.5
350	0.035x	-	259.8	191.1	185.0	137.3	137.3	102.4
300	0.041x	-	224.2	164.9	159.6	118.5	118.5	88.3
250	0.049x	-	188.5	138.6	134.2	99.6	99.6	74.3
200	0.060x	-	152.9	112.4	108.8	80.7	80.7	60.2
150	0.079x	-	117.2	86.1	83.4	61.9	61.9	46.1
100	0.113x	-	81.5	59.8	57.9	43.0	43.0	32.0

HF16HA-1B

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	0.016x	-	555.0	412.2	399.4	297.9	297.9	222.7
950	0.017x	-	527.7	391.9	379.8	283.2	283.2	211.7
900	0.018x	-	500.4	371.7	360.1	268.6	268.6	200.8
850	0.019x	-	473.1	351.4	340.5	253.9	253.9	189.8
800	0.020x	-	445.8	331.1	320.8	239.3	239.3	178.9
750	0.022x	-	418.6	310.8	301.2	224.6	224.6	167.9
700	0.023x	-	391.3	290.6	281.5	209.9	209.9	156.9
650	0.025x	-	364.0	270.3	261.9	195.3	195.3	146.0
600	0.027x	-	336.7	250.0	242.2	180.6	180.6	135.0
550	0.029x	-	309.4	229.7	222.6	166.0	166.0	124.1
500	0.032x	-	282.1	209.4	202.9	151.3	151.3	113.1
450	0.035x	-	254.8	189.2	183.3	136.7	136.7	102.2
400	0.040x	-	227.6	168.9	163.6	122.0	122.0	91.2
350	0.045x	-	200.3	148.6	144.0	107.4	107.4	80.2
300	0.052x	-	173.0	128.3	124.3	92.7	92.7	69.3
250	0.062x	-	145.7	108.1	104.7	78.0	78.0	58.3
200	0.076x	-	118.4	87.8	85.0	63.4	63.4	47.4
150	0.099x	-	91.1	67.5	65.4	48.7	48.7	36.4
100	0.142x	-	63.8	47.2	45.7	34.1	34.1	25.5

HF25HA-1B

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	0.026x	-	344.7	257.9	250.1	187.3	187.3	140.4
950	0.027x	-	327.6	245.1	237.6	178.0	178.0	133.4
900	0.029x	-	310.5	232.3	225.2	168.7	168.7	126.4
850	0.030x	-	293.4	219.5	212.8	159.4	159.4	119.4
800	0.032x	-	276.3	206.7	200.4	150.1	150.1	112.5
750	0.034x	-	259.1	193.8	187.9	140.8	140.8	105.5
700	0.037x	-	242.0	181.0	175.5	131.4	131.4	98.5
650	0.039x	-	224.9	168.2	163.1	122.1	122.1	91.5
600	0.043x	-	207.8	155.4	150.6	112.8	112.8	84.5
550	0.046x	-	190.6	142.6	138.2	103.5	103.5	77.6
500	0.051x	-	173.5	129.8	125.8	94.2	94.2	70.6
450	0.057x	-	156.4	116.9	113.4	84.9	84.9	63.6
400	0.064x	-	139.3	104.1	100.9	75.6	75.6	56.6
350	0.073x	-	122.1	91.3	88.5	66.3	66.3	49.6
300	0.084x	-	105.0	78.5	76.1	56.9	56.9	42.7
250	0.101x	-	87.9	65.6	63.6	47.6	47.6	35.7
200	0.126x	-	70.7	52.8	51.2	38.3	38.3	28.7
150	0.166x	-	53.6	40.0	38.8	29.0	29.0	21.7
100	0.245x	5	36.4	27.2	26.3	19.7	19.7	14.7

HF35HA-1B

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	0.036x	-	247.6	185.7	180.1	135.1	135.1	101.4
950	0.037x	-	235.0	176.3	171.0	128.3	128.3	96.2
900	0.040x	-	222.5	166.9	161.9	121.4	121.4	91.1
850	0.042x	-	209.9	157.5	152.7	114.6	114.6	85.9
800	0.045x	-	197.4	148.1	143.6	107.7	107.7	80.8
750	0.048x	-	184.8	138.7	134.5	100.9	100.9	75.7
700	0.051x	-	172.3	129.2	125.3	94.0	94.0	70.5
650	0.055x	-	159.7	119.8	116.2	87.2	87.2	65.4
600	0.060x	-	147.2	110.4	107.0	80.3	80.3	60.2
550	0.065x	-	134.6	101.0	97.9	73.4	73.4	55.1
500	0.072x	-	122.1	91.6	88.8	66.6	66.6	49.9
450	0.080x	-	109.5	82.1	79.6	59.7	59.7	44.8
400	0.091x	-	97.0	72.7	70.5	52.9	52.9	39.7
350	0.104x	-	84.4	63.3	61.4	46.0	46.0	34.5
300	0.123x	-	71.9	53.9	52.2	39.2	39.2	29.4
250	0.149x	-	59.3	44.4	43.1	32.3	32.3	24.2
200	0.189x	1.5	46.7	35.0	34.0	25.5	25.5	19.1
150	0.258x	5	34.1	25.6	24.8	18.6	18.6	13.9
100	0.409x	10	21.6	16.1	15.7	11.7	11.7	8.8

HF50HA-1B

Working Distance [mm]	Optical Magnification	Extension tube [mm]	Field of View [mm]					
			2/3"		1/2"		1/3"	
			H	V	H	V	H	V
1500	0.034x	-	254.8	191.2	185.4	139.1	139.1	104.4
1450	0.036x	-	245.9	184.5	179.0	134.3	134.3	100.7
1400	0.037x	-	237.1	177.9	172.5	129.4	129.4	97.1
1350	0.039x	-	228.2	171.2	166.1	124.6	124.6	93.5
1300	0.040x	-	219.4	164.6	159.6	119.8	119.8	89.8
1250	0.042x	-	210.5	157.9	153.2	114.9	114.9	86.2
1200	0.044x	-	201.7	151.3	146.7	110.1	110.1	82.6
1150	0.046x	-	192.8	144.7	140.3	105.2	105.2	78.9
1100	0.048x	-	183.9	138.0	133.8	10		