SENSOFAR



S NEOX 6

Objectives

OBJECTIVE LENSES

Brightfield | Standard

MAG [1]	NA	WD (mm)	FOV [2] (µm)	Spatial sampling [3] (µm)	Optical resolution [4] Green (µm)	Optical resolution Blue (µm)	Optical resolution Red (µm)	Measurement noise [5] (nm)	Maximum slope (°)
2.5X EPI	0.075	8.8	6708 x 5612	2.74	2.11	1.83	2.52	300	4
5X BF	0.15	20.00	3354 x 2806	1.37	1.06	0.92	1.26	115	6
10X BF	0.30	15.80	1677 x 1403	0.68	0.53	0.46	0.63	30	17
20X BF	0.45	3.00	838 x 701	0.34	0.35	0.31	0.42	8	27
22X EPI	0.60	3.00	838 x 701	0.34	0.26	0.23	0.32	6	37
50X BF	0.80	1.00	335 x 281	0.14	0.20	0.17	0.24	4	53
50X EPI	0.80	2.00	335 x 281	0.14	0.20	0.17	0.24	4	53
50X EPI	0.95	0.35	335 x 281	0.14	0.17	0.14	0.20	3	72
100X BF	0.90	1.00	168 x 140	0.07	0.18	0.15	0.21	3	64
100X EPI	0.90	2.00	168 x 140	0.07	0.18	0.15	0.21	3	64
100X EPI	0.95	0.32	168 x 140	0.07	0.17	0.14	0.20	2	72
150X EPI	0.90	1.50	112 x 94	0.05	0.18	0.15	0.21	2	64
150X EPI	0.95	0.20	112 x 94	0.05	0.17	0.14	0.20	1	72

OBJECTIVE LENSES

Brightfield | Extra Long Working Distance

MAG [1]	NA	WD (mm)	FOV [2] (µm)	Spatial sampling [3] (µm)	Optical resolution [4] Green (µm)	Optical resolution Blue (µm)	Optical resolution Red (µm)	Measurement noise [5] (nm)	Maximum slope (°)
20X ELWD	0.40	19.00	838 x 701	0.34	0.40	0.34	0.47	10	24
50X ELWD	0.60	11.00	335 x 281	0.14	0.26	0.23	0.32	5	37
100X ELWD	0.80	4.50	168 x 140	0.07	0.20	0.17	0.24	3	53

Brightfield | Super Long Working Distance

MAG [1]	NA	WD (mm)	FOV [2] (µm)	Spatial sampling [3] (µm)	Optical resolution [4] Green (µm)	Optical resolution Blue (µm)	Optical resolution Red (µm)	Measurement noise [5] (nm)	Maximum slope (°)
10X SLWD	0.20	37.00	1677 x 1403	0.68	0.79	0.69	0.95	50	12
20X SLWD	0.30	30.00	838 x 701	0.34	0.53	0.46	0.63	20	17
50X SLWD	0.40	22.00	335 x 281	0.14	0.40	0.34	0.47	15	24
100X SLWD	0.60	10.00	168 x 140	0.07	0.26	0.23	0.32	12	37

Brightfield | Water Immersion

MAG [1]	NA	WD (mm)	FOV [2] (µm)	Spatial sampling [3] (µm)	Optical resolution [4] Green (µm)	Optical resolution Blue (µm)	Optical resolution Red (µm)	Measurement noise [5] (nm)	Maximum slope (°)
22X WI	0.50	3.50	749 x 626	0.31	0.32	0.27	0.38	15	–

OBJECTIVE LENSES

Interferometric | Standard

MAG [1]	NA	WD (mm)	FOV [2] (µm)	Spatial sampling [3] (µm)	Optical resolution [4] Green (µm)	Optical resolution Blue (µm)	Optical resolution Red (µm)	Optical resolution White (µm)	Measurement noise [5] (nm)	Maximum slope (°)
2.5X TI	0.075	10.30	6708 x 5612	2.74	2.11	1.83	2.52	2.40	PSI/ePSI 0.1 nm (0.01 nm with PZT) CSI 1 nm	4
5X MC	0.14	13.00	3354 x 2806	1.37	1.13	0.98	1.35	1.29		8
10X MC	0.10	25.00	1677 x 1403	0.68	1.59	1.37	1.89	1.80		6
10X MR	0.28	8.00	1677 x 1403	0.68	0.57	0.49	0.68	0.64		16
20X MC	0.10	16.70	838 x 701	0.34	1.59	1.37	1.89	1.80		6
20X MR	0.38	6.00	838 x 701	0.34	0.42	0.36	0.50	0.47		22
50X MR	0.50	3.60	335 x 281	0.14	0.32	0.27	0.38	0.36		30
100X MR	0.70	2.00	168 x 140	0.07	0.23	0.20	0.27	0.26		44

1 BF: Sensofar, EPI: Nikon, MC: Michelson and MR: Mirau. **2** Maximum field of view with 1/1.8" camera and 0.5X optics. **3** Pixel size on the surface. **4** L&S: Line and Space. Values for blue LED. **5** Measurement noise measured as the difference between two consecutive measures on a calibration mirror placed perpendicular to the optical axis. For interferometry objectives, PSI, 10 phase averages, values obtained in a VC-E vibration environment. The 0.01 nm are achieved with Piezoelectric scanner and temperature controlled room. Values for green LED (white LED for CSI/ePSI, red LED for PSI). Resolution HD. **6** On smooth surfaces, up to 71°. On scattering surfaces, up to 86°.