



	B.1		B1.2		B.2			B.3			B.4		B.5				B.6		C.1			C.2		C.3		C.4			
Magnification	8x	10x	8x	10x	7x	9x	11x	6x	8x	10x	10x	12x	10x	12x	15x	18x	10x	12x	8x	10x	12x	7x	10x	10x	12x	15x	18x		
Obj. lens diameter	42mm	42mm	42mm	42mm	45mm	45mm	45mm	30mm	30mm	30mm	56mm	56mm	56mm	56mm	56mm	56mm	50mm	50mm	42mm	42mm	42mm	28mm	28mm	50mm	50mm	56mm	56mm		
Exit pupil	5.25mm	4.2mm	5.25mm	4.2mm	6.4mm	5mm	4.1mm	5mm	3.75mm	3mm	5.6mm	4.7mm	5.6mm	4.7mm	3.7mm	3.1mm	5mm	4.2mm	5.25mm	4.2mm	3.5mm	4mm	2.8mm	5mm	4.1mm	3.73mm	3.11mm		
FOV	7.4°	6.5°	8.0°	6.6°	7.4°	7.2°	6°	8.5°	8.2°	6.5°	6.7°	5.5°	6.5°	5.5°	4.5°	3.7°	6.5°	5.5°	6.5°	6°	5°	6.5°	5°	5°	4.8°	4.1°	3.7°		
Apparent FOV (FOV x Power)	59.2°	65°	64°	66°	51.8°	64.8°	66°	51°	65.5°	65°	67°	66°	65°	66°	67.5°	66.6°	65°	66°	52°	60°	60°	45.5°	50°	50°	57°	56.5°	66°		
Field of view (ft/1000yds)	388	341	420	362	388	377	314	446	430	341	352	289	341	289	236	194	341	289	341	314	262	341	262	262	251	215	194		
Brightness	27.6	17.6	27.6	17.6	41	25	16.7	25	14.1	9	31.4	21.8	31.4	21.8	13.9	9.6	25	17.6	27.6	17.6	12.3	16	7.8	25	16.8	17	9.7		
Light transmission (%)	91.90%	90.90%	93.95%	94.50%	93.70%	93.70%	94.80%	94.60%	95.20%	94.60%	93.70%	94.20%	92.90%	92.90%	92.90%	92.90%	94.75%	93.80%	90.00%	89.00%	89.00%	90.00%	89.00%	90.00%	89.00%	92.07%	92.68%		
Twilight Factor	18.3	20.5	18.3	20.5	17.7	20.1	22.2	13.4	15.5	17.3	23.7	25.9	23.7	25.9	29	31.7	22.4	24.5	18.3	20.5	22.4	14	16.7	22.4	24.5	29	31.75		
Multi Position Eyecups Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Eye Relief	18.6mm	16mm	18.1mm	17.8mm	18mm	17.3mm	16.7mm	18.3mm	15.1mm	15.3mm	17mm	18mm	19mm	17.4mm	17.8mm	18mm	18.1mm	17.5mm	19.5mm	16mm	15mm	16mm	15mm	19.5mm	15mm	17.4mm	16.4mm		
Near Focus	6.6ft	6.6ft	4.9ft	4.9ft	6.5ft	4.9ft	4.9ft	8.2ft	8.2ft	8.2ft	9.8ft	9.8ft	9.8ft	9.8ft	9.8ft	9.8ft	7.5ft	7.5ft	5.9ft	5.9ft	5.9ft	9.8ft	9.8ft	8.2ft	8.2ft	16.4ft	16.4ft		
Eye Width Adjustment	56~73mm	56~73mm	56~74mm	56~74mm	56~75mm	56~75mm	56~75mm	56~73mm	56~73mm	56~73mm	56~74mm	56~74mm	56~75mm	56~75mm	56~75mm	56~75mm	58~74mm	58~74mm	58~72mm	58~72mm	58~72mm	58~72mm	58~72mm	58~72mm	58~72mm	58~72mm	60~75mm	60~75mm	
Dimension WxHxD	5x6.2x2.1	5x6.2x2.1	5.2x5.7x2.2	5.2x5.7x2.2	5.7x7.1x2.1	5.7x7.1x2.1	5.7x7.1x2.1	4.7x4.6x1.6	4.7x4.6x1.6	4.7x4.6x1.6	6.1x8.2x2.6	6.1x8.2x2.6	6.1x8.2x2.6	6.1x8.2x2.6	6.1x8.2x2.6	6.1x8.2x2.6	5.2x6.6x2.3	5.2x6.6x2.3	5x5.7x2.1	5x5.7x2.1	5x5.7x2.1	4.5x4.6x1.4	4.5x4.6x1.4	5.3x6.6x2.4	5.3x6.6x2.4	5.78x7.75x2.6	5.78x7.75x2.6		
Weight	29.125oz	29.75oz	26.808oz	26.808oz	33.25oz	33.25oz	33.25oz	16.25oz	16.25oz	16.25oz	48oz	48oz	45oz	45oz	45oz	45oz	30.688oz	30.688oz	24oz	24.5oz	24.5oz	12.4oz	12.6oz	28oz	28oz	45.1oz	44.8oz		
Lens Constr. Obj.	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	3 groups 2 elements (ED)	3 groups 2 elements (ED)	3 groups 4 elements (ED)	3 groups 4 elements (ED)	7 groups 5 elements (ED)	6 groups 4 elements (ED)		
Lens Constr. Ocular	4 groups 5 elements	4 groups 6 elements	4 groups 5 elements	4 groups 6 elements	4 groups 4 elements	5 groups 6 elements	4 groups 6 elements	4 groups 5 elements	4 groups 5 elements	4 groups 5 elements	4 groups 5 elements	5 groups 6 elements	4 groups 5 elements	4 groups 6 elements	4 groups 6 elements	4 groups 6 elements	4 groups 5 elements	4 groups 6 elements	3 groups 4 elements	3 groups 4 elements	3 groups 5 elements	2 groups 3 elements	4 groups 5 elements	2 groups 3 elements	3 groups 4 elements	4 groups 3 elements	4 groups 3 elements		
Prisms Type	Schmidt-Pechan	Schmidt-Pechan	Wide Angle Schmidt-Pechan	Wide Angle Schmidt-Pechan	Abbe-Koenig	Abbe-Koenig	Abbe-Koenig	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Abbe-Koenig	Abbe-Koenig	Abbe-Koenig	Abbe-Koenig	Abbe-Koenig	Abbe-Koenig	Wide Angle Schmidt-Pechan	Wide Angle Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	Schmidt-Pechan	
Prism Reflective Coating Type	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating	N/A	N/A	N/A	Dielectric coating	Dielectric coating	Dielectric coating	N/A	N/A	N/A	N/A	N/A	N/A	Dielectric Coating	Dielectric Coating	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating	Dielectric coating
ED Glass	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Fluorite	Fluorite	Fluorite	Fluorite	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lens Coating	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	Scratch and Oil Resistant	
Diopter Correction (dpt)	+/-3	+/-3	+/-3	+/-5	+/-2	+/-4	+/-4	+/-2	+/-4	+/-4	+/-2	+/-2	more than +/-2	more than +/-2	more than +/-2	more than +/-2	+/-3	+/-5	+/-3	+/-3	+/-4	+/-3	+/-3	+/-4	+/-4	+/-5	+/-6		
Pressure Tested to What Pressure	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 30 min. (IPX7)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	1m for 5 min. (IPX6)	
Storage Temperature	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	-40°~158°F	
Functional Temperature	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	-13°~140°F	
Frame Material	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium	Polymer	Polymer	Polymer	Polymer	Polymer	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium	Magnesium	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	
Internal Gas Purged	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	Nitrogen	
Tripod Adaptable Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes		
Origin	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese Components Assembled in the US	Japanese and Chinese Components Assembled in the Philippines	Japanese and Chinese Components Assembled in the Philippines	Japanese and Chinese Components Assembled in the Philippines	Japanese and Chinese Components Assembled in the Philippines	Japanese and Chinese Components Assembled in the Philippines	Japanese and Chinese Components Assembled in the Philippines	Japanese and Chinese Components Assembled in the Philippines	Japanese and Chinese Components Assembled in the Philippines	China	China	