



HTPA Series Standard Optics

Heimann Sensor offers several kind of standard optics. We offer high performance dual germanium lens optics, as well as low cost uncoated, single silicon lenses. Naturally, it is possible to create new solutions, which fit to the individual needs of the customer.

	Effective focal length*	Image space F/#	Cap height & Ø _A *	Coating	Lens material	HTPA 8x8 (FOV)	HTPA 16x4 (FOV)	HTPA 32x31 (FOV)	HTPA 64x62 (FOV)
	L2.85	0.90	5.44 x Ø8.15	uncoated	Si	(45.7°x45.7°) ¹⁾	(63.4° x 17.6°) ¹⁾		
	L3.6	0.90	6.25 x Ø8.15	uncoated	Si	(36.9°x36.9°) ¹⁾	(52.1°x13.9°) ¹⁾		
	L5.5	1.00	7.87 x Ø8.15	uncoated	Si	(24.6°x24.6°) ¹⁾	(35.5°x9.1°) ¹⁾		
	L7.0	1.20	9.05 x Ø8.15	uncoated	Si	(19.5°x19.5°) ¹⁾	(28.2°x7.2°) ¹⁾		
	L4.7	0.90	14.5 x Ø20.0	ARC	Ge			(91.0°x88.2°) ²⁾	
	L5.8	1.10	14.5 x Ø20.0	ARC	Ge			(76.6°x74.0°) ¹⁾	
	L7.5	1.00	16.0 x Ø20.0	ARC	Ge			(56.8°x55.0°) ¹⁾	
	L10.0	0.80	19.5 x Ø20.0	ARC	Ge			(40.2°x39.0°) ¹⁾	(40.2°x39.0°) ¹⁾
	L10.0	1.00	19.5 x Ø20.0	ARC	Si / Ge			(41.2°x40.0°) ¹⁾	
	L17.0	0.80	26.7 x Ø27.9	ARC	Ge			(23.6°x22.8°) ¹⁾	(23.6°x22.8°) ¹⁾

* values in mm

¹⁾ FOV ascertained from simulation; ²⁾ FOV measured

The FOV can be easily calculated, according to the ray law

$$FOV = 2 \cdot \arctan\left(\frac{N_{Col/Row} \cdot P}{2 \cdot f}\right)$$

f= focal length of the lens

P=Pitch of the sensitive elements

NCol/Row=Number of elements in Column or Row, depending if the FOV in horizontal or vertical direction should be calculated

Due to spherical aberrations we will provide detailed information concerning field curvature and distortion, if required.

If the application requires different types of coatings, we can also provide these, including LWP and band pass filters.

