

MWIR Continuous zoom – Commercial off the shelf lens

MERCURY SERIES

MWIR 15-330mm, 18-430mm, 18 – 330 mm F/4.0

High Accuracy Continuous Zoom Zero Boresight Lens series
for up to 640 x 512 x 15 μ cooled detectors

Features:

- Special lens for low boresight and retention error
- Rugged and robust built for harsh environmental conditions
- Available with different types of front Beam Expander (x1.5, x2, x2.5)



	HFOV for Wide				HFOV for Narrow			
	15mm		18mm		330mm		430mm	
	640x512	IFOV	640x512	IFOV	640x512	IFOV	640x512	IFOV
10u	24.1°	0.66	20.1°	0.56	1.11°	0.03	0.85°	0.023
12u	28.7°	0.8	24.1°	0.66	1.33°	0.036	1.05°	0.028
15u	35.4°	1	29.8°	0.83	1.7°	0.045	1.3°	0.035

Optical	MERCURY O	MERCURY I	MERCURY D
Focal Length / F#	15-330mm F/4.0	18-330mm F/4.0	18-430mm F/5.5
Detector (FPA) type / size	Up to 640 x 512 x 15 μ		
Working Spectral Range	3 - 5 μ		
Optical Coatings	All internal surfaces		High efficiency AR coating
	Front surface		HDAR coating (DLC by request)
CSH	19-22mm		
Mechanical			
Focus / Zoom mechanism	Motorized, Single motor		
Through Zoom Boresight	≤ 0.075 mm radius at the focal plane		
NFOV Boresight Retention	≤ 0.03 mm radius at the focal plane		
Focus Range	10m / 50m - Infinity	10m / 100m - Infinity	1m / 30m - Infinity
Total Weight	945gr	940gr	930gr
Ext. Dimensions ϕ x length (mm)	96 x 127.65	96 x 131.45	96 x 124.82
Electrical			
Power Input	12VDC, 1.0 A		
Communication Protocol	RS-422/232 Full Duplex		
Environmental			
Operating / Storage Temperature	-25 $^{\circ}$ C to +55 $^{\circ}$ C / -40 $^{\circ}$ C to +70 $^{\circ}$ C		
Shock and Vibrations	Per applicable standard		
Front lens sealing	IP67		

*IFOV is indicated in mrad

**All values are nominal: to within $\pm 5\%$