

MWIR Continuous zoom – Commercial off the shelf lens

# MERCURY O x BE

MWIR 25-460mm, 30–660mm, 40– 825 mm F/4.0  
 Continuous zoom Lens for 640 x 512 x 15μ cooled detectors



## FEATURES / APPLICATIONS / CAPABILITIES

- Special lens for low boresight and retention error
- Rugged and robust built for harsh environmental conditions
- Constant F# 4.0

	HFOV for Wide						HFOV for Narrow					
	25mm		30mm		40mm		460mm		660mm		825mm	
	640x512	IFOV*	640x512	IFOV*	640x512	IFOV*	640x512	IFOV*	640x512	IFOV*	640x512	IFOV*
10u	14.5°	0.023	12.1°	0.019	9.15°	0.014	0.8°	0.0012	0.6°	0.0087	0.44°	0.007
12u	17.4°	0.027	14.5°	0.023	10.9°	0.017	0.96°	0.0015	0.7°	0.001	0.53°	0.0083
15u	21.7°	0.034	18.1°	0.029	13.7°	0.021	1.2°	0.0019	0.85°	0.0013	0.7°	0.001

\*IFOV is indicated in mrad

PARAMETER		VALUE
Main	Sub	

OPTICAL		MERCURY O 460	MERCURY O 660	MERCURY O 825
Focal Length / F#		25-460mm F/4.0	30-660mm F/4.0	40-825mm F/4.0
Detector (FPA) type / size		Up to 640 x 512 x 15μ		
Working Spectral Range		3.6 – 4.8μ		
Optical Coatings	All internal surfaces	High efficiency AR coating		
	Front surface	DLC coating (please note: HDAR is available upon request)		
CSH		19-22mm		
MECHANICAL				
Focus / Zoom mechanism		Motorized		
Through zoom boresight		≤0.075 mm radius at the focal plane		
NFOV boresight retention		≤0.03 mm radius at the focal plane		
Focus Range		30m - Infinity	50m – Infinity	100m - Infinity
Total Weight		2.5Kg	2.9Kg	4.95Kg
Ext. Dimensions ø x length (mm)		135 x 192	188 x 225.5	228 x 272.5
ELECTRICAL				
Power Input		12VDC, 1.0 A		
Communication Protocol		RS-422/232 Full Duplex		
ENVIRONMENTAL				
Operating / Storage Temperature		-25°C to +55°C / -40°C to +70°C		
Shock and Vibrations		Per applicable standard		
Front lens sealing		IP67		

\*All values are nominal: to within ±5%

