

# MWIR Continuous zoom – Commercial off the shelf lens

## MERCURY 0 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 0 460	MERCURY 0 660	MERCURY 0 825
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 Front surface	High efficiency AR coating DLC coating (please note: HDAR is available upon request)	
CSH	Continuous zoom Lens for 640 x 512 x 15µ cooled detectors		

### MECHANICAL

Focus / Zoom mechanism	Motorized		
Through zoom boresight	Constant F# 4.0		
Through zoom boresight	Designed to fit various applications		
NFOV boresight retention	Focus is maintained throughout the entire zoom range with		
Focus Range	extremely fast zoom and focus response		
Total Weight	HFOV for Wide	HFOV for Narrow	
	2.5Kg	2.7Kg	4.95Kg
Ext. Dimensions	25mm	30mm	40mm
	135 x 192	135 x 192	135 x 192
	188 x 225.5	188 x 225.5	188 x 225.5
	228 x 272.5	228 x 272.5	228 x 272.5

### ELECTRICAL

Power Input	12u	17.5°	0.027	14.6°	0.023	11°	0.017	2VDC	1.0	A0.0015	0.7°	0.001	0.5°	0.0083
Communication Protocol	15u	21.7°	0.034	18.2°	0.029	13.7°	0.021	RS-422/232	Full Duplex		0.8°	0.0013	0.7°	0.001

### ENVIRONMENTAL

Operating / Storage Temperature	PARAMETER	VALUE	-25°C to +55°C / -40°C to +70°C
Shock and Vibrations	Main	Sub	Per applicable standard
Front lens sealing	IP67		

OPTICAL	ODEM460	ODEM660	ODEM825
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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)	
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\*All values are nominal, to within ±5%