

MWIR Continuous zoom – commercial off the shelf lens

# MERCURY Line O,D,I

**High Accuracy** - Continuous zoom Lens with DSP controller



## FEATURES / APPLICATIONS / CAPABILITIES

- Special lens for low boresight and retention error
- Rugged and robust built for harsh environmental conditions
- Focus is maintained throughout the entire zoom range, with fast zoom and focus response
- Available with different types of front Beam Expander (x1.5, x2, x2.5)

PARAMETER	Mercury O	Mercury D	Mercury I	NOTES
<b>OPTICAL</b>				
<b>Focal Length / F#</b>	15-330mm F/4	18-430mm F/5.5	18-330mm F/4	Nominal values.
<b>Cooled Detector - Size / Cold Shield Height (CSH)</b>	Up to 16.4mm diagonal	9.6 x 7.68mm / 19 -22mm	9.6 x 7.68mm / 19-22mm	
<b>Spectral Range</b>	3 – 5 $\mu$			
<b>FOV (degrees)</b>	35.7°x 29°	29.8° x 24.1°	29.8°x 24.1°	
Wide / Narrow H x V	1.7° x 1.4°	1.28° x 1.02°	1.7°x1.4°	
<b>Optical Coatings</b>				
<b>All internal surfaces</b>	High Efficiency AR coating			Average transmission: 90%
<b>Front surface</b>	High Durability AR coating			DLC upon request
<b>Optical Total Lens Track</b>	138 mm	130 mm	153 mm	Nominal
<b>Optical Back Focal Length</b>	~ 26 mm	24.7 mm	~ 34 mm	Nominal
<b>Boresight Error</b>	Less than 3 Pixels Radii			
<b>MECHANICAL</b>				
<b>Mechanical BFL</b>	~ 15 mm	22 mm	~ 30 mm	Nominal for standard MICD.
<b>Zoom mechanism</b>	Motorized			2 motors
<b>Focus Range</b>	5m – Infinity			
<b>Total Weight</b>	850 grams	930 grams	900 grams	Nominal
<b>External Dimensions</b> Diameter x Length (mm)	96 x 123	96 x 125	96 x 128	Please refer to MICD for details
<b>ELECTRICAL</b>				
<b>Power Input</b>	12VDC, 1.0 A			Nominal
<b>Communication Protocol</b>	RS-422/232 Full Duplex			Baud rate 19,200, n, 8, 1
<b>ENVIRONMENTAL</b>				
<b>Operating/Storage</b>	-30°C to +70°C/ -40°C to +70°C			
<b>Shock and Vibrations</b>	Per applicable standard			
<b>Front lens sealing</b>	IP66 By request			

