

MWIR Continuous zoom – Commercial off the shelf lens

NEPTUNE

MWIR 40-1000mm F/4.0 Continuous zoom Lens
for 1280 x 1024 x 10 μ HD cooled detectors



FEATURES / APPLICATIONS / CAPABILITIES

- X25 optical zoom lens for HD 10 μ sensors
- Focus is maintained through the entire zoom range providing extremely fast zoom and focus response
- Actively Athermalized to maintain focus to infinity through temperature changes

	HFOV for Wide (40mm)				HFOV for Narrow (1000mm)			
	640x512	1024x768	1280x1024	IFOV (mrad)	640x512	1024x768	1280x1024	IFOV (mrad)
10u	9.1°	14.6°	18.2°	0.014	0.37°	0.6°	0.7°	0.0057
12u	11°			0.017	0.44°			0.0069
15u	13.7°			0.021	0.55°			0.0086
16u	14.6°			0.023	0.6°			0.0092

PARAMETER		VALUE	NOTES
Main	Sub		

🕒 OPTICAL			
Focal Length / F#		40-1000mm F/4.0	
Detector (FPA) type / size		Up to 1,280 x 1,024 x 10 μ	
Working Spectral Range		3.6 – 4.8 μ	
Optical Coatings	All internal surfaces	High Efficiency AR coating	
	Front surface	High Durability AR coating	DLC is available upon request
CSH		19-22mm	
⚙️ MECHANICAL			
Focus / Zoom mechanism		Motorized	
Focus Range		30m / 250m – Infinity	For WOFV / NFOV accordingly
Through zoom boresight		\leq 0.15mm radius at the focal plane	
NFOV boresight retention		\leq 0.045 mm at the focal plane	
Total Weight		8 kg	
Ext. Dimensions \varnothing x length (mm)		285 x 300	
💡 ELECTRICAL			
Power Input		12VDC, 3.0A	
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		IP66	IP67 By request

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

