

MWIR Continuous zoom – Commercial off the shelf lens

ZENITH

MWIR 18-400mm F/3.4-4.0 Continuous zoom Lens
for 1280 x 1024 x 10 μ cooled detectors



FEATURES / APPLICATIONS / CAPABILITIES

- Very high zoom ratio X22 for HD 10 μ sensors
- Great MTF performance
- Optional front focal length extender X2
- Actively Athermalized to maintain focus to infinity through temperature changes

	HFOV for Wide (18mm)				HFOV for Narrow (400mm)			
	640x512	1024x768	1280x1024	IFOV (mrad)	640x512	1024x768	1280x1024	IFOV (mrad)
10u	20.2°	31.7°	39°	0.032	0.9°	1.5°	1.8°	0.0014
15u	29.9°			0.048	1.4°			0.0021

PARAMETER		VALUE	NOTES
Main	Sub		

OPTICAL

Focal Length / F#		18-400mm F/3.4-4.0	F# determined by the detector. ≤ 340 mm F/3.4, ≤ 360 mm F/3.6, ≤ 400 mm F/4.0
Detector (FPA) type / size		Up to 1280 x 1024 x 10 μ	
Working Spectral Range		3 – 5 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		10m / 30m – Infinity	For WOFV / NFOV accordingly
Trough zoom boresight		≤ 0.15 mm radius at focal plane	
NFOV boresight retention		≤ 0.045 mm radius at focal plane	
Total Weight		1.35Kg	
Ext. Dimensions \varnothing x length (mm)		129 x 152.5	

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