

# MWIR Continuous zoom – Commercial off the shelf lens

## FOLDED-D300

MWIR 20-300mm F/4.0 Continuous zoom Lens  
for 640 x 512 x 15μ cooled detectors

### Features:

- 180° double Folded, Compact & light weight design
- Intended for various volume restricted applications
- Focus is maintained through the entire zoom range providing extremely fast zoom and focus response



HFOV for Wide (20mm)		HFOV for Narrow (300mm)	
640x512	IFOV*	640x512	IFOV*
<b>15u</b>	26°	1.83°	0.05
Capable of clearly resolving a 4-bar target with a bar width of 2 mm on an Off-Axis Parabolic (OAP) mirror with a focal length of 2489 mm		Capable of clearly resolving a 4-bar target with a bar width of 10.47 mm on an Off-Axis Parabolic (OAP) mirror with a focal length of 2489 mm	

Optical		
Focal Length / F#	20-300mm F/4.0 Continuous Zoom - Setting for 4 FOVs: 290 mm (HFOV 1.9° ±5%), 110 mm (HFOV 5.0° ±5%), 60 mm (HFOV 9.1° ±5%), 40 mm (13.6° ±5%)	
Detector (FPA) type / size	Up to 640 x 512 x 15μ	
Working Spectral Range	3.6 – 4.9μ	
Optical Coating	All internal surfaces	High efficiency AR
	Front surface	High Durability AR
CSH	19.5 mm / Supports 19-21 mm	
Mechanical		
Focus mechanism	Motorized	
Optical Axis Offset during Wide-to-Narrow FOV Switching (Through zoom boresight)	≤ 1 mrad	
Optical Axis Repeatability between Narrow and Sub-Narrow FOV (290/110) (NFOV boresight retention)	≤ 0.1 mrad	
Optical Axis Stability during Narrow FOV Focusing (+/-)	≤ 0.1 mrad	
Focus range	20 m / 100 m – Infinity For WFOV / NFOV accordingly	
Adjacent FOV Switching Time (290/110/60/40)	≤ 1 sec	
Total Weight	≤ 920 gr	
Ext. Dimensions ø x length (mm)	140 x 92 x 144	
Electrical		
Power Input	12VDC, 1.0 A- Rush in current 3A	
Communication Protocol	RS-422/232 Full Duplex	
Environmental		
Operating Temperature	-32°C to +60°C	
Storage Temperature	-40°C to +70°C	
Shock and Vibrations	Per applicable standard	
Front lens sealing	IP66	

\*IFOV is indicated in mrad

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