

--- MWIR Continuous zoom – commercial off the shelf lens

DIAMOND+ Beam Expander

 +Beam Expander*

MWIR 36 - 860mm, 45 – 1075mm
F/5.5 Continuous zoom Lens with DSP controller

FEATURES / APPLICATIONS / CAPABILITIES

- Ultra long focal length zoom lens with highest zoom ratio
- Outstanding performance over entire zoom range
- Rugged design to comply with various applications
- Focus is maintained through the entire zoom range providing Fast zoom and focus response



PARAMETER		VALUE	NOTES
Main	Sub		

🔍 OPTICAL			
Focal Length / F#	36-860, 45–1075 mm		Nominal. F/5.5 const. over zoom range
Detector (FPA) type / size	For 9.6 mm x 7.68 mm F/5.5 Cooled detectors with 19 - 22 mm cold shield		
Working Spectral Range	3 – 5 μ		
FOV (degrees) of the DIAM860 (DIAMOND + X2 BE)	Wide FOV:15.2° (H) x 12.2°(V) Narrow FOV:0.64°(H) x 0.5°(V)		For detector size of 9.6 x 7.68 mm All values are nominal: to within +/- 5%
FOV (degrees) of the DIAM1075 (DIAMOND + X2.5 BE)	Wide FOV:12.2° (H) x 9.75°(V) Narrow FOV:0.5°(H) x 0.4°(V)		
🌞 Optical Coatings			
	All internal surfaces	High efficiency AR coating	Average transmission: 88% for base lens
	Front surface	DLC	
LENS		DIAM860	DIAM1075
Transmission with HDAR/ DLC		82% / 77%	82% / 77%
Optical Total lens track		~260mm	~305mm
Optical Back Focal Length		24.7 mm Nominal	
⚙️ MECHANICAL			
Mechanical Back Focal Length	~ 15mm Nominal for standard MICD. (Customized lengths are available)		
Zoom mechanism	Motorized		
Focus Range	60m – Infinity	100m - Infinity	
Total Weight (Nominal)	~3,000 gr.	~4,850 gr.	
Ext. Dimensions (DiamxLength)	206mm X 250mm	230mm X 270mm	
💡 ELECTRICAL			
Power Input	12VDC, 1.0 A	Nominal	
Communication Protocol	RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1	
🌿 ENVIRONMENTAL			
Operating/Storage Temperature	-30°C to +50°C / -40°C to +70°C		
Shock and Vibrations	Per applicable standard		
Front lens sealing	IP67 By default		

