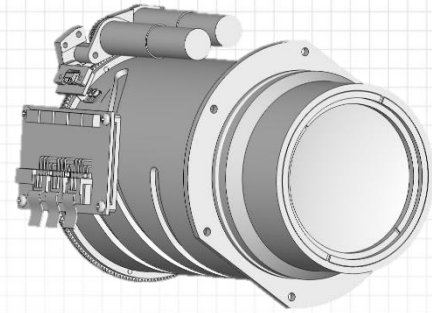


SWIR continuous zoom – commercial off the shelf lens

# CAMELLIA

SWIR 20 - 140mm F/3.8 Continuous zoom  
 Lens for 12.8 x 9.6mm detectors



## FEATURES / APPLICATIONS / CAPABILITIES

- Compact design with superb performances
- True high performance zoom lens built for SWIR detectors

PARAMETER		VALUE	NOTES
Main	Sub		
<b>OPTICAL</b>			
Focal Length / F#		20 – 140 mm / F3.8	F/3.8 constant
Working spectral band		0.9 – 1.7 $\mu$	
Detector (FPA) type / size		Up to 12.8 x 9.6mm	
HFOV (degrees)		4° x 27°	640 x 512 x 15 $\mu$
		5.5° x 35°	1280 x 720 x 10 $\mu$
Optical Coatings	All internal	High Efficiency AR coating	Average transmission: > 85%
	Front surface	High Efficiency AR coating	Other coatings available on request.
Optical Back Focal Length		16.25 mm	Nominal, to FPA
<b>MECHANICAL</b>			
Mechanical Back Focal Length		17.5	C-Mount standard
Focus / Zoom mechanism		Motorized	Including motorized Iris
LOS shift during focusing		0.15 mm on PFA (10 pixels)	Typical value
Focus / Zoom indication position		Included	Through encoder of motor and opto-switch.
Thru zoom boresight		Better than 0.15 mm	
NFOV boresight retention		Better than 0.045 mm	
Total Weight		~ 1.4 kg	
Structure		Open frame, Front element sealed to front element flange.	
Ext. Dimensions $\phi$ x length (mm)		109 x 187	
<b>ELECTRICAL</b>			
Power Input		12VDC, 1.0 A	Nominal
Communication Protocol		RS-422 or 232	
<b>ENVIRONMENTAL</b>			
Operating Temperature		-20°C to +50°C	
Storage Temperature		-30°C to +70°C	
Shock and Vibrations		Per applicable standard	
Front lens sealing		IP67	By request

