

# LWIR Continuous Zoom – Commercial off the shelf lens

## YARKON

LWIR 24–90mm F/0.9 Continuous zoom Lens  
for 1024 x 768 x 12 $\mu$  uncooled detectors



### Features:

- Very high sensitivity zoom lens F/0.9
- Cost effective solution for HLS
- Compact light & small design

	HFOV for Wide (24mm)				HFOV for Narrow (90mm)			
	640x512	1024x768	1280x1024	IFOV (mrad)	640x512	1024x768	1280x1024	IFOV (mrad)
<b>12u</b>	18.1°	28.7°		0.5	4.9°	7.81°		0.13
<b>17u</b>	25.5°			0.71	6.92°			0.19

### Optical

<b>Focal Length / F#</b>	24-90mm F/0.9
<b>Detector (FPA) type / size</b>	Up to 1024 x 768 x 12 $\mu$
<b>Working Spectral Range</b>	8 – 14 $\mu$
<b>Optical Coatings</b>	All internal surfaces High efficiency AR coating
	Front surface High durability AR coating (DLC by request)

### Mechanical

<b>Focus / Zoom mechanism</b>	Motorized
<b>Through Zoom Boresight</b>	$\leq 0.15$ mm radius at focal plane
<b>NFOV Boresight Retention</b>	$\leq 0.045$ mm radius at focal plane
<b>Focus Range</b>	WOFV 30m - Infinity NFOV 50m - Infinity
<b>Total Weight</b>	1.2Kg
<b>Ext. Dimensions <math>\phi</math> x length (mm)</b>	113 x 120

### Electrical

<b>Power Input</b>	12VDC, 1.0 A
<b>Communication Protocol</b>	RS-422/232 Full Duplex

### Environmental

<b>Operating / Storage Temperature</b>	-25 $^{\circ}$ C to +55 $^{\circ}$ C / -40 $^{\circ}$ C to +70 $^{\circ}$ C
<b>Shock and Vibrations</b>	Per applicable standard
<b>Front lens sealing</b>	IP66 (IP67 by request)

\*IFOV is indicated in mrad

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