

SirZ

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## SirZ 75 SWIR 75mm F/1.4 Fixed Focal Lens

SirZ Series, Suitable for 0.9 – 1.7 $\mu$ m Detectors (SWIR)



### Key Features:

- SWIR lenses deliver higher performance than standard visible lenses when using SWIR cameras
- Fits 20.5mm Diagonal
- The SWIR spectrum is an ideal choice for a variety of applications, including:
  - Solar cell inspection
  - Imaging through fog
  - Glass processing
  - Security
  - Biomedical imaging

## SirZ 75 Specifications:

### Optical Specifications (nominal values)

<b>Focal Length</b>	75mm
<b>F/#</b>	f/1.4
<b>Spectral Range</b>	0.9-1.6 $\mu\text{m}$
<b>Image Format</b>	640 x 512 pixels, 25 $\mu\text{m}$ pixel size
<b>Image Diagonal</b>	20.5mm
<b>Back Focal Length</b>	11.5mm
<b>Cold Stop to FPA Distance</b>	N/A
<b>Average Transmission (All elements AR coated)</b>	$\geq 95\%$
<b>Horizontal FOV</b>	12.17°
<b>Distortion</b>	< 1%
<b>On-Axis MTF</b>	$\geq 58\%$ at 20 lp/mm theoretical
<b>MOD</b>	40 meters

### Mechanical Specifications

<b>Max Dimensions</b>	Length = 112mm, Front OD = 68mm
<b>Focus/Zoom Mechanisms</b>	Manual
<b>Zoom Time (WFOV to NFOV)</b>	N/A
<b>Through-Zoom Boresight</b>	N/A
<b>Weight</b>	621 grams
<b>Mount</b>	M42 Mount
<b>Operating Temperature</b>	-40 °C to +60°C
<b>Storage Temperature</b>	-40°C to + 80°C

## SirZ 75 Field Of View Data:

### FOV (75mm)

<b>HFOV</b>	320x240	480x384	640x512
<b>30 microns</b>	7.29		
<b>20 microns</b>	6.09	9.09	12.04
<b>15 microns</b>	3.66	5.48	7.29