

# ViewNyx

## Athermalized fixed focus

### o Molded LWIR Lens FL 12.0 mm f/1.0 (Model VN1210)

#### Introduction



- **Precision molded LWIR lenses using chalcogenide glass**  
High-volume, cost effective manufacturing  
Optimized for the 8~12 um wavelength range
- **High performance LWIR lenses**  
FL 12 mm, f/1.0 lens  
Use of diffractive-aspheric lens  
Ultralight, wide-angle, passively athermalized LWIR lens
- **Suitable for use with qVGA and qqVGA detectors and smaller**
- **Applications and capabilities**  
Thermal imaging and thermography  
Automotive vision enhancement

#### Optical Specifications

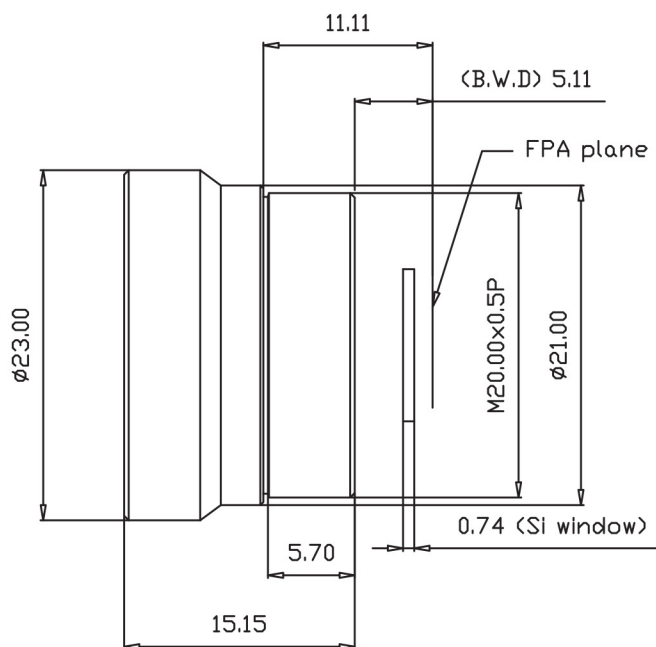
- **Focal length** 12.0 mm
- **Aperture-based f-number** f/1.0
- **Maximum image circle** 9.0 mm
- **Waveband** 8~12 um
- **Focus range** 1.8 m to infinity
- **Transmittance** > 95 % (AR coating)  
> 90 % (DLC coating)
- **Field of view (FOV)**

Sensor array	Pixel size (um)	FOV (deg)		
		H	V	D
640 X 480	12	35.8	27.1	44.5
	10	<b>30</b>	<b>22.6</b>	<b>37.2</b>
384 X 288	17	30.6	23.1	38
	12	21.8	16.4	27
320 X 240	17	25.6	19.3	31.8
	12	18.2	13.7	22.7

Note : Each lens is optimized for a specific detector format represented by bold values. This table shows values for other compatible detector formats with non-optimal performance.

## Mechanical Specifications

- **Lens mount** Threaded (M20 x P0.5)
- **Weight** 14.8 g
- **Sealing** IP67 / on front
- **Dimension**



## Environmental Specifications

- Operating temperature -35 ~ +60 °C
- Storage temperature -55 ~ +85 °C

# ViewNyx

## Athermalized fixed focus

### o Molded LWIR Lens FL 10.7 mm f/1.0 (Model VN1110)

#### Introduction



- **Precision molded LWIR lenses using chalcogenide glass**  
High-volume, cost effective manufacturing  
Optimized for the 8~12 um wavelength range
- **High performance LWIR lenses**  
FL 10.7 mm, f/1.0 lens  
Use of diffractive-aspheric lens  
Ultralight, wide-angle, VGA and qVGA lens
- **Suitable for use with VGA and qVGA detector and smaller**
- **Applications and capabilities**  
Thermal imaging and thermography  
Drone thermal imaging

#### Optical Specifications

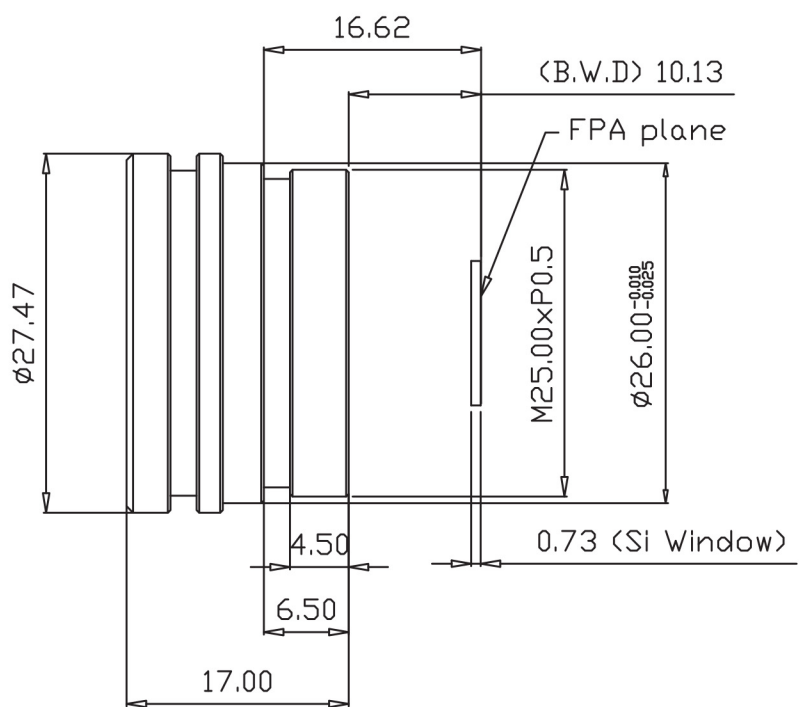
- **Focal length** 10.7 mm
- **Aperture-based f-number** f/1.0
- **Maximum image circle** 11 mm
- **Waveband** 8~12 um
- **Focus range** 1.2 m to infinity
- **Transmittance** > 95 % (AR coating)  
> 90 % (DLC coating)
- **Field of view (FOV)**

Sensor array	Pixel size (um)	FOV (deg)		
		H	V	D
640 X 480	17	61.4	44.8	81.2
	12	<b>42.0</b>	<b>31.2</b>	<b>53.3</b>
384 X 288	17	35.5	26.4	44.8
	12	24.8	18.6	31.2
320 X 240	17	29.4	21.9	37.0
	12	20.6	15.4	25.9

Note : Each lens is optimized for a specific detector format represented by bold values.  
This table shows values for other compatible detector formats with non-optimal performance.

Mechanical Specifications

- Lens mount Threaded (M25 x P0.5)
- Weight 25.6 g
- Sealing IP67 / on front
- Dimension



Environmental Specifications

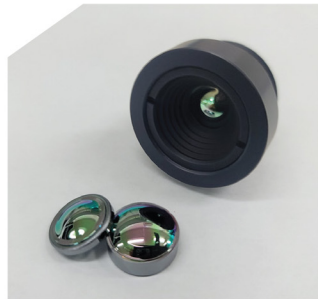
- Operating temperature  $-35 \sim +60^{\circ}\text{C}$
- Storage temperature  $-55 \sim +85^{\circ}\text{C}$

# ViewNyx

## Athermalized fixed focus

### o Molded LWIR Lens FL 8.0 mm f/1.0 (Model VN8.010)

#### Introduction



- **Precision molded LWIR lenses using chalcogenide glass**  
High-volume, cost effective manufacturing  
Optimized for the 8~12  $\mu\text{m}$  wavelength range
- **High performance LWIR lenses**  
FL 8.0 mm, f/1.0 lens  
Use of diffractive-aspheric lens  
Ultralight, wide-angle, passively athermalized LWIR lens
- **Suitable for use with qVGA and qqVGA detectors and smaller**
- **Applications and capabilities**  
Thermal imaging and thermography  
Automotive vision enhancement

#### Optical Specifications

- **Focal length** 8.0 mm
- **Aperture-based f-number** f/1.0
- **Maximum image circle** 8.7 mm
- **Waveband** 8~12  $\mu\text{m}$
- **Focus range** 0.48 m to infinity
- **Transmittance** > 95 % (AR coating)  
> 90 % (DLC coating)
- **Field of view (FOV)**

Sensor array	Pixel size ( $\mu\text{m}$ )	FOV (deg)		
		H	V	D
640 X 480	12	58.3	42.5	76.5
	10	47.6	35.1	61.1
384 X 288	17	<b>48.6</b>	<b>35.8</b>	<b>62.5</b>
	12	33.6	25.0	42.5
320 X 240	17	40.0	29.6	50.8
	12	27.8	20.8	35.0

Note : Each lens is optimized for a specific detector format represented by bold values.  
This table shows values for other compatible detector formats with non-optimal performance.