



**GASIR® Infrared Lens  
FL 7.5 mm f/1.2**

**Introduction**



Umicore's GASIR® infrared lenses have been developed for an easy fit with a wide range of camera cores. Our catalog lenses provide a cost-effective solution for high-resolution thermal imaging and sensing applications.

This **lightweight, wide-angle, passively athermalized infrared lens** offers superior performance and is suitable for use with **17 μm VGA detectors** as well as the newer generation **12 μm detectors**.

**Optical Specifications**

Focal length	7.48 mm
Aperture-based f-number	f/1.23
Waveband	8-12 μm
Transmission	> 94% average over waveband
Focus range	1.0 m to infinity with 0.05 mm refocus
Assembly weight	32.2 g

**Field of view**

640 x 512	17 μm		91° (H) x 70° (V) - 129° (diagonal)
640 x 480	17 μm	VGA	91° (H) x 65° (V) - 124° (diagonal)
640 x 480	12 μm	VGA	61° (H) x 45° (V) - 78° (diagonal)
320 x 240	17 μm	qVGA	42° (H) x 31° (V) - 53° (diagonal)
320 x 240	12 μm	qVGA	30° (H) x 22° (V) - 37° (diagonal)

**Environmental Specifications**

Operating temperature	-40 °C to +80 °C
Storage temperature	-57 °C to +105 °C
Vibration	MIL-STD-810G Method 514.6C-II / Cat. 4
Mechanical shock	MIL-E-5400T
Solar radiation	MIL-STD-810G Method 505.5
Sealing	IP67

## Coating

All surfaces

High efficiency anti-reflective coating @ 8-12  $\mu\text{m}$

## Assembly & Interface Specifications

Black anodized aluminium

Image plane-related dimensions valid with 1 mm Ge detector window (not included)

