



**GASIR® Infrared Lens  
FL 3.9 mm f/1.1**

**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 **athermalized lens** offers superior performance from -40 °C to +80 °C. Its **lightweight and compact design** make it a prime choice for your application. This lens is compatible with **12 μm QVGA** detectors and smaller.

**Optical Specifications**

Focal length	3.9 mm
Aperture-based f-number	f/1.1
Waveband	8-12 μm
Transmission	> 97% average over waveband
Focus range	0.1 m to infinity with 0.12 mm refocus
Assembly weight	5.9 g

**Field of view**

320 x 240	12 μm	qVGA	59.6° (H) x 44.1° (V) - 76.1° (diagonal)
160 x 120	17 μm	qqVGA	41.6° (H) x 31.0° (V) - 52.4° (diagonal)
160 x 120	12 μm	qqVGA	29.1° (H) x 21.8° (V) - 36.6° (diagonal)
80 x 80	17 μm		20.6° (H) x 20.6° (V) - 29.2° (diagonal)

**Environmental Specifications**

Operating temperature	-40 °C to +80 °C
Storage temperature	-57 °C to +105 °C

## 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 0.63 mm Si detector window (not included)

