

**GASIR® Infrared Lens
FL 75 mm f/1.1**



Product number:
14057_100
**Athermalized
Fixed focus**

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 **ultralight, passively athermalized infrared lens** offers superior performance and is suitable for use with **17 µm VGA** and **12 µm XGA** detectors or smaller. Its **low distortion** makes it ideally suited for use in thermal imaging applications.

Optical Specifications

Focal length	75.0 mm
Aperture-based f-number	f/1.13
Waveband	8-12 µm
Transmission	> 87% average over waveband
Focus range	7.5 m to infinity with 0.75 mm refocus
Assembly weight	274 g

Field of view

640 x 480	25 µm	VGA	11.9° (H) x 9.0° (V) - 14.7° (diagonal)
640 x 480	17 µm	VGA	8.2° (H) x 6.2° (V) - 10.2° (diagonal)
384 x 288	25 µm	qVGA+	7.2° (H) x 5.4° (V) - 9.0° (diagonal)
320 x 240	25 µm	qVGA	6.0° (H) x 4.5° (V) - 7.5° (diagonal)
640 x 480	12 µm	VGA	5.8° (H) x 4.4° (V) - 7.2° (diagonal)
384 x 288	17 µm	qVGA+	4.9° (H) x 3.7° (V) - 6.2° (diagonal)
320 x 240	17 µm	qVGA	4.1° (H) x 3.1° (V) - 5.1° (diagonal)
384 x 288	12 µm	qVGA+	3.5° (H) x 2.6° (V) - 4.4° (diagonal)

Environmental Specifications

Operating temperature	-40 °C to +80 °C
Storage temperature	-57 °C to +105 °C
Vibration	MIL-STD-810E Method 514.4 Proc I Cat 8
Mechanical shock	MIL-E-5400T
Solar radiation	MIL-STD-810G Method 505.5
Sealing	IP67

Front surface
Internal surfaces

iDLC @ 8-12 μm
High efficiency anti-reflective coating @ 8-12 μm

Assembly & Interface Specifications

Black anodized aluminium

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

