



**GASIR® Infrared Lens
FL 19.0 mm f/1.0**



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 detectors** as well as the newer generation **12 μm** detectors.

Optical Specifications

Focal length	19.0 mm
Aperture-based f-number	f/1.03
Waveband	8-12 μm
Transmission	> 94% average over waveband
Focus range	2.4 m to infinity with 0.14 mm refocus
Assembly weight	31.2 g

Field of view

640 x 512	17 μm		32.3° (H) x 26.0° (V) - 41.1° (diagonal)
640 x 480	17 μm	VGA	32.3° (H) x 24.4° (V) - 40.1° (diagonal)
640 x 480	12 μm	VGA	23.0° (H) x 17.3° (V) - 28.6° (diagonal)
320 x 240	17 μm	qVGA	16.4° (H) x 12.3° (V) - 20.4° (diagonal)
320 x 240	12 μm	qVGA	11.6° (H) x 8.7° (V) - 14.4° (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 μm

Assembly & Interface Specifications

Black anodized aluminium

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

