

Product number:

18058_100

**Athermalized
Fixed focus**

GASIR® Infrared Lens FL 18 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, athermalized infrared lens** offers superior performance and is suitable for use with **12 µm VGA** detectors or smaller. It is adapted to the latest FLIR Boson® interface. Its **low distortion** makes it ideally suited for use in thermal imaging applications.

Optical Specifications

Focal length	18.0 mm
Aperture-based f-number	f/1.0
Waveband	8-12 µm
Transmission	> 89% average over waveband
Focus range	0.5 m to infinity with 0.60 mm refocus
Assembly weight	25.4 g

Field of view

640 x 512	12 µm		24.3° (H) x 19.5° (V) - 31.1° (diagonal)
640 x 480	12 µm	VGA	24.3° (H) x 18.3° (V) - 30.4° (diagonal)
336 x 256	17 µm		18.1° (H) x 13.9° (V) - 22.8° (diagonal)
320 x 240	17 µm	qVGA	17.3° (H) x 13.0° (V) - 21.6° (diagonal)
320 x 240	12 µm	qVGA	12.2° (H) x 9.2° (V) - 15.3° (diagonal)
160 x 120	17 µm	qqVGA	8.7° (H) x 6.5° (V) - 10.8° (diagonal)

Environmental Specifications

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

Coating

Last internal surface
All other surfaces

Long Wave Pass coating @ 8-12 μm
High efficiency anti-reflective coating @ 8-12 μm

Assembly & Interface Specifications

Black anodized aluminium

Image plane-related dimensions valid with 0.63 mm Si detector window (not included)

