

**GASIR® Infrared Lens
FL 10 mm f/1.2**



Product number:

11165_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 **passively athermalized infrared lens** is suited for **25 µm qVGA+** uncooled detectors and smaller. Its **athermalized** design ensures performance over a very wide temperature range.

Optical Specifications

Focal length	10.3 mm
Aperture-based f-number	f/1.25
Waveband	8-12 µm
Transmission	> 87% average over waveband
Focus range	1.2 m to infinity with 0.07 mm refocus
Assembly weight	28 g

Field of view

384 x 288	25 µm	qVGA+	55.1° (H) x 40.5° (V) - 71.8° (diagonal)
320 x 240	25 µm	qVGA	45.3° (H) x 33.6° (V) - 57.7° (diagonal)
640 x 480	12 µm	VGA	43.3° (H) x 32.2° (V) - 55.1° (diagonal)
320 x 240	17 µm	qVGA	30.3° (H) x 22.7° (V) - 38.1° (diagonal)
160 x 120	25 µm	qqVGA	22.2° (H) x 16.6° (V) - 27.8° (diagonal)
320 x 240	12 µm	qVGA	21.3° (H) x 15.9° (V) - 26.7° (diagonal)
160 x 120	17 µm	qqVGA	15.0° (H) x 11.3° (V) - 18.8° (diagonal)

Environmental Specifications

Operating temperature	-40 °C to +60 °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 detector window (not included)

