

GASIR® Infrared Lens
FL 75 mm f/1.1 MFX
Manual focus
P/N: 16024_140



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 **manual focus lens** offers superior performance from 10 m out to infinity. Its **lightweight and intuitive design** make it a prime choice for your application. This lens is compatible with **17 µm VGA** detectors and smaller.

Optical Specifications

Focal length	75.0 mm
Aperture-based f-number	f/1.12
Waveband	8-12 µm
Transmission	> 94% average over waveband
Focus range	10 m to infinity over 342° focus movement
Lateral magnification at 10 m	1:130
Assembly weight	367 g

Field of view

640 x 512	17 µm		8.1° (H) x 6.5° (V) - 10.1° (diagonal)
640 x 480	17 µm	VGA	8.1° (H) x 6.1° (V) - 9.9° (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) - 6.1° (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)
320 x 240	12 µm	qVGA	2.9° (H) x 2.2° (V) - 3.6° (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

Electro-Optic Materials is ISO certified: ISO 9001 & ISO 14001
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Coating

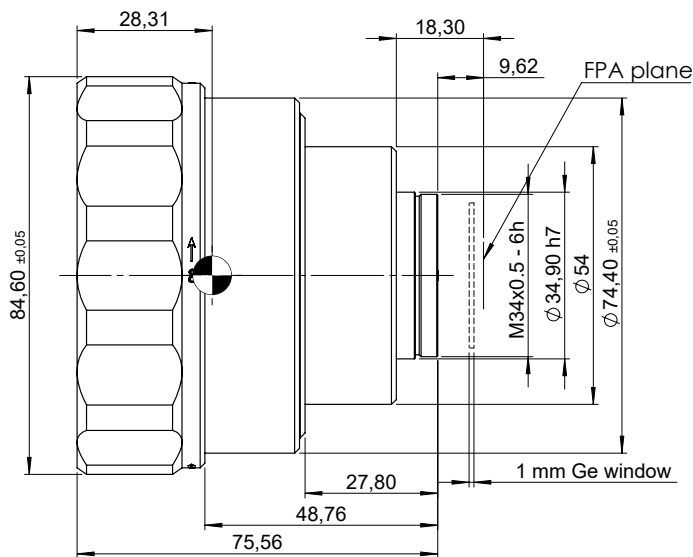
All surfaces

High efficiency anti-reflective coating @ 8-12 μm

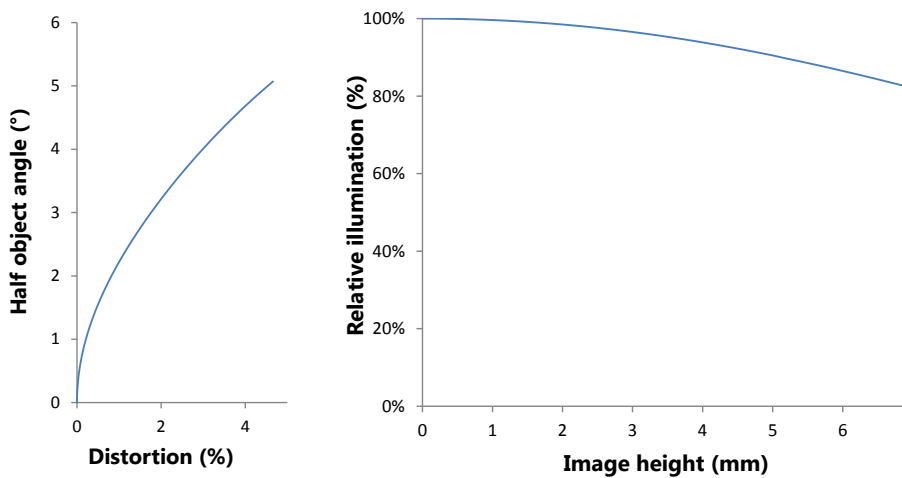
Assembly & Interface Specifications

Black anodized aluminium

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



Distortion and Relative Illumination



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