

GASIR® Infrared Lens
FL 75 mm f/1.1 MFX
Manual focus
 P/N: 16025_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 | > 87% 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 |

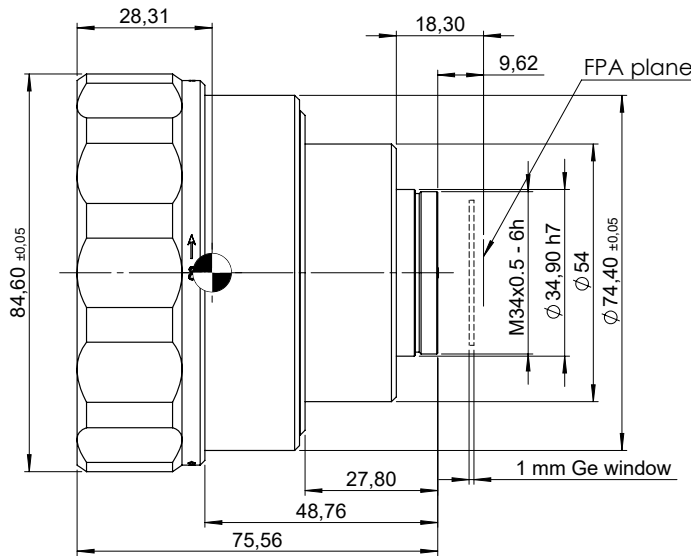
Coating

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)



Distortion and Relative Illumination

