

# GASIR® Infrared Lens

## 35 mm f/1.1

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 lens may be offered with other coating variants upon request. Its **optically athermalised, compact and lightweight design** makes it a prime choice for your application.

This lens is compatible with **17 µm VGA** detectors and smaller.



### OPTICAL SPECIFICATIONS



Effective focal length	35 mm
Radiometric f-number	f/1.1
Waveband	8 – 12 µm
Maximum field of view	17.4° × 13.3°
Image circle	14.0 mm

### Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format	
	320 × 240	640 × 480
12 µm	6.2° × 4.7°	12.2° × 9.3°
17 µm	8.8° × 6.6°	16.9° × 12.9°
25 µm	12.7° × 9.6°	—

Other detectors may be possible. Please contact us for more information.

### LENS VARIANTS

Mechanical variant	Fixed Focus 12 µm mount 		Fixed Focus 	
Mechanical interface	12 µm mount M24		Standard M25	
Coating option	LWP	iDLC™-LWP	HEAR	iDLC™
Part number	18059_100	19012_100	14054_100	14055_100



## GASIR<sup>®</sup> Infrared Lens – 35 mm f/1.1

### COATING OPTIONS

	Transmission*	Lens coatings	Comments
<b>HEAR</b>	> 94%	HEAR on all surfaces	Maximum transmission performance.
<b>iDLC<sup>™</sup></b>	> 87%	iDLC <sup>™</sup> on front surface HEAR on all other surfaces	Durable coating for unprotected exterior use. Salt fog rated.
<b>LWP</b>	> 89%	LWP on one internal surface HEAR on all other surfaces	Sunlight filter coating for use with uncoated detectors.
<b>iDLC<sup>™</sup>-LWP</b>	> 83%	iDLC <sup>™</sup> on front surface LWP on one internal surface HEAR on all other surfaces	Durable coating, salt fog rated, together with a sunlight filter coating for unprotected exterior use.

HEAR: High Efficiency Anti-Reflection; DLC: Diamond-Like Carbon; LWP: Long Wave Pass

Additional specifications are provided in the coatings Technical Data Sheets available on our website.

\*average transmission over waveband



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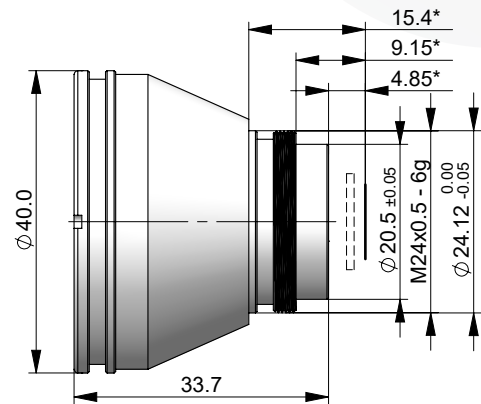
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### Fixed Focus 12 µm mount

Part Number **LWP 18059\_100** **iDLC™-LWP 19012\_100**

Focus range	3.5 m to ∞ with 0.37 mm refocus
Operating temperature	−40 °C to +80 °C
Storage temperature	−57 °C to +105 °C
Weight	45 g
Housing material	Black anodized aluminium

\*dimensions valid with 0.63 mm Si detector window

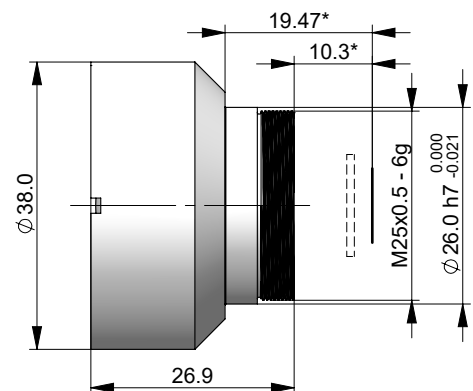


### Fixed Focus

Part Number **HEAR 14054\_100** **iDLC™ 14055\_100**

Focus range	3.5 m to ∞ with 0.37 mm refocus
Operating temperature	−40 °C to +80 °C
Storage temperature	−57 °C to +105 °C
Solar radiation	MIL-STD-810G Method 505.5
Vibration	MIL-STD-810G Method 514.6C-II / Cat. 4
Mechanical shock	MIL-E-5400T
Sealing	IP67
Weight	46 g
Housing material	Black anodized aluminium

\*dimensions valid with 1.0 mm Ge detector window



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

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