TECHNICAL DATA SHEET

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Electro-Optic Materials

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

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COATING OPTIONS

	Transmission*	Lens coatings	Comments
HEAR	> 94%	HEAR on all surfaces	Maximum transmission performance.
iDLC™	> 87%	iDLC™ on front surface HEAR on all other surfaces	Durable coating for unprotected exterior use. Salt fog rated.
LWP	> 89%	LWP on one internal surface HEAR on all other surfaces	Sunlight filter coating for use with uncoated detectors.
iDLC™-LWP	> 83%	iDLC™ 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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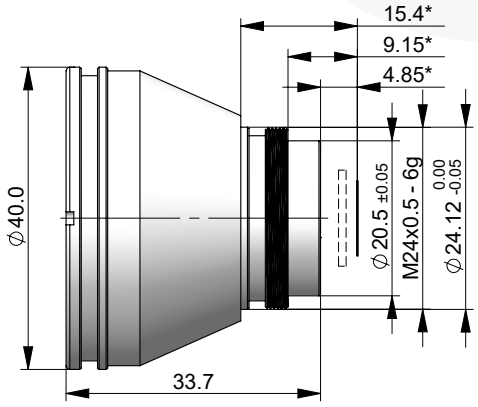
Fixed Focus 12 µm mount

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
Solar radiation	MIL STD 810H Method 505.7 Procedure I-A1
Vibration	MIL STD 810H Method 514.8 / Procedure-I Cat. 20
Sealing	IP67
Weight	45 g
Housing material	Black anodized aluminium

*dimensions valid with 0.63 mm Si detector window

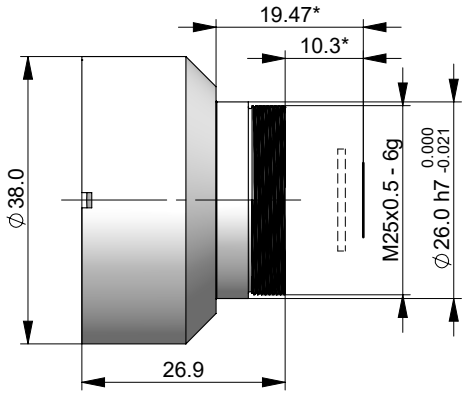


Fixed Focus

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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