umicore
Electro-Optic Materials

GASIR® Infrared Lens
8.5 mm f/1.2

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 suitable for use with detectors up to 17 µm VGA detectors. Its wide field of view makes it well-suited for thermal imaging applications.

OPTICAL SPECIFICATIONS

Effective focal length	8.5 mm
Radiometric f-number	f/1.2
Waveband	8 – 12 µm
Maximum field of view	75° × 56°
Image circle	14.0 mm

Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format	
	320 × 240	640 × 480
12 µm	26° × 19.3°	51° × 38°
17 µm	36° × 27°	73° × 54°
25 µm	53° × 40°	—

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

LENS VARIANTS

Mechanical variant	Fixed Focus	
Mechanical interface	Standard M25	
Coating option	HEAR	iDLC™
Part number	11095_100	11121_100

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.

HEAR: High Efficiency Anti-Reflection; DLC: Diamond-Like Carbon
Additional specifications are provided in the coatings Technical Data Sheets available on our website.

*average transmission over waveband

GASIR® Infrared Lens – 8.5 mm f/1.2

Fixed Focus

Part Number | HEAR 11095_100 | iDLC™ 11121_100

Focus range	0.29 m to ∞ with 0.22 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-810E Method 514.4 / procedure I, Cat. 8
Mechanical shock	MIL-E-5400T
Sealing	IP67
Weight	34 g
Housing material	Black anodized aluminium
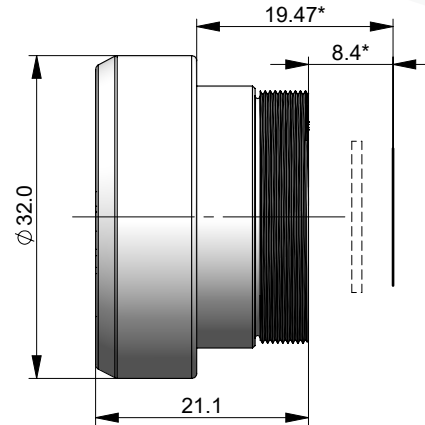
*dimensions valid with 1.0 mm Ge detector window

19.47*
8.4*
⌀ 32.0
21.1