

TECHNICAL DATA SHEET

# GASIR<sup>®</sup> Infrared Lens

## 6.8 mm f/1.4

Umicore's GASIR<sup>®</sup> 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 QVGA detectors. Its medium-wide field of view makes it well-suited for thermal imaging applications.



### OPTICAL SPECIFICATIONS


Effective focal length	6.8 mm
Radiometric f-number	f/1.4
Waveband	8 – 12 μm
Maximum field of view	48° × 36°
Image circle	7.0 mm

### Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format	
	160 × 120	320 × 240
17 μm	23° × 17.3°	47° × 35°
25 μm	34° × 26°	—

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 <sup>™</sup>
Part number	09109_110	10005_110

### COATING OPTIONS

	Transmission*	Lens coatings	Comments
HEAR	> 97%	HEAR on all surfaces	Maximum transmission performance.
iDLC <sup>™</sup>	> 90%	iDLC <sup>™</sup> 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

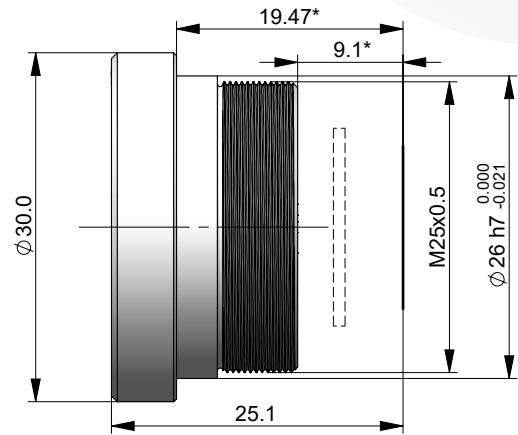


# GASIR® Infrared Lens – 6.8 mm f/1.4

## Fixed Focus

Part Number HEAR 09109\_110 iDLC™ 10005\_110

Focus range	0.08 m to ∞ with 0.49 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	21 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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