

TECHNICAL DATA SHEET

GASIR[®] Infrared Lens

3.7 mm f/1.3

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 **lightweight and cost-effective design** makes it a prime choice for your application.

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



OPTICAL SPECIFICATIONS

Effective focal length	3.7 mm
Radiometric f-number	f/1.3
Waveband	8 – 12 μm
Maximum field of view	90° × 65°
Image circle	6.8 mm

Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format		
	80 × 80	160 × 120	320 × 240
12 μm	14.9° × 14.9°	30° × 22°	61° × 45°
17 μm	21° × 21°	43° × 32°	90° × 65°

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

LENS VARIANTS

Mechanical variant	Fixed Focus 	
Mechanical interface	Standard M12	
Coating option	HEAR	iDLC [™]
Part number	15007_100	15008_100

COATING OPTIONS

	Transmission*	Lens coatings	Comments
HEAR	> 97%	HEAR on all surfaces	Maximum transmission performance.
iDLC [™]	> 90%	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

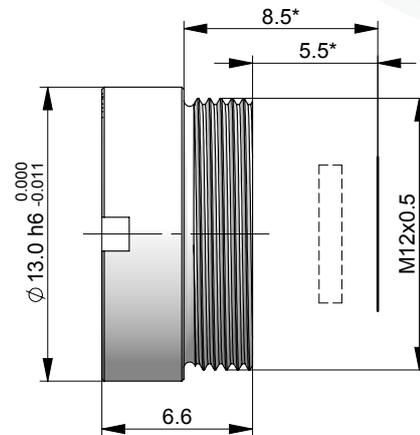


GASIR® Infrared Lens – 3.7 mm f/1.3

Fixed Focus

Part Number **HEAR 15007_100** **iDLC™ 15008_100**

Focus range	0.15 m to ∞ with 0.06 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	IP55
Weight	2.3 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

Umicore IR Glass
Z.A. du Boulais
35690 Acigné
FRANCE

Tel: +33 2 99 04 32 26
Fax: +33 2 99 04 32 29
optics@umicore.com

Tel: +1 918-673-1650
Fax: +1 918-673-2121
optics.na@umicore.com

Umicore Optical Materials Inc.
PO Box 737
Quapaw, OK 74363
USA