

TECHNICAL DATA SHEET

GASIR[®] Infrared Lens

9 mm f/1.0

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 12 μm QVGA detectors. Its wide field of view makes it well-suited for thermal imaging applications.



OPTICAL SPECIFICATIONS


Effective focal length	9.0 mm
Radiometric f-number	f/1.0
Waveband	8 – 12 μm
Maximum field of view	24° × 18.3°
Image circle	4.8 mm

Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format	
	160 × 120	320 × 240
12 μm	12.2° × 9.2°	24° × 18.3°
17 μm	17.3° × 13.0°	—

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

LENS VARIANTS

Mechanical variant	Fixed Focus 
Mechanical interface	12 μm mount M18
Coating option	LWP
Part number	18056_100

COATING OPTIONS

	Transmission*	Lens coatings	Comments
LWP	> 89%	LWP on one internal surface HEAR on all other surfaces	Sunlight filter coating for use with uncoated detectors.

HEAR: High Efficiency Anti-Reflection; LWP: Long Wave Pass

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

*average transmission over waveband



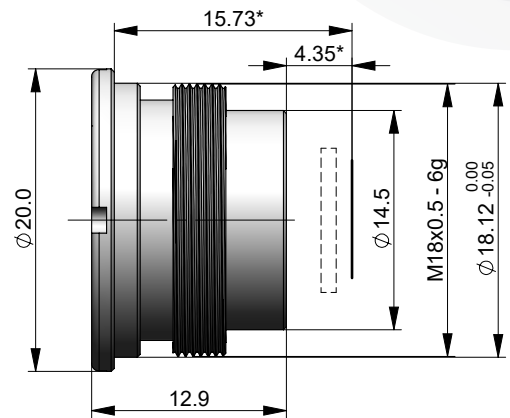
GASIR® Infrared Lens – 9 mm f/1.0

Fixed Focus

Part Number **LWP 18056_100**

Focus range	0.10 m to ∞ with 0.80 mm refocus
Operating temperature	-40 °C to +80 °C
Storage temperature	-57 °C to +105 °C
Weight	7.3 g
Housing material	Black anodized aluminium

*dimensions valid with 0.63 mm Si 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