

TECHNICAL DATA SHEET

GASIR[®] Infrared Lens

19 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	19.0 mm
Radiometric f-number	f/1.0
Waveband	8 – 12 μm
Maximum field of view	33° × 25°
Image circle	14.0 mm

Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format	
	320 × 240	640 × 480
12 μm	11.6° × 8.7°	23° × 17.3°
17 μm	16.3° × 12.3°	32° × 24°

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	15056_100	15057_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

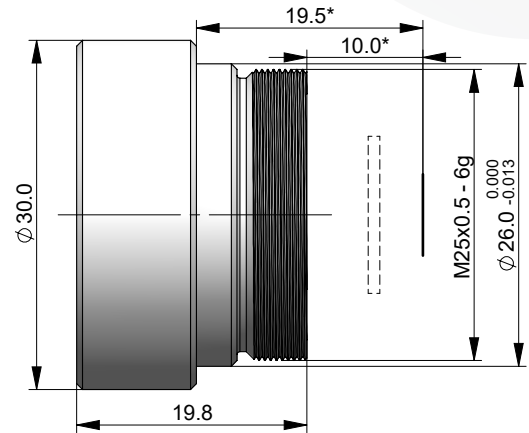


GASIR® Infrared Lens – 19 mm f/1.0

Fixed Focus

Part Number HEAR 15056_100 iDLC™ 15057_100

Focus range	1.4 m to ∞ with 0.23 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	31 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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