

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	HEAR
Part number	18056_100	21070_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	> 94%	HEAR on all surfaces	Maximum transmission performance.

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

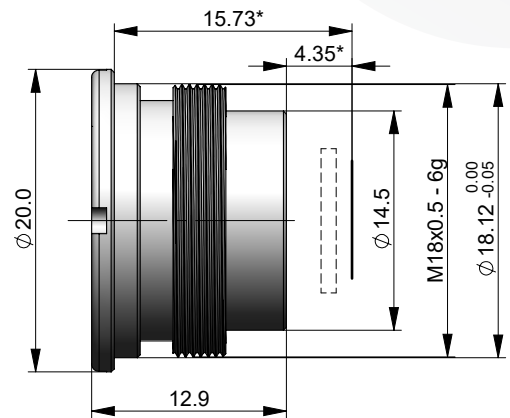


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Fixed Focus

Part Number

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
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	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

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