

TECHNICAL DATA SHEET

GASIR® Infrared Lens

7.2 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 lens may be offered with other coating variants upon request. Its **lightweight and distortion-free design** makes it a prime choice for your application.

This lens is compatible with **12 µm QVGA** detectors and smaller.



OPTICAL SPECIFICATIONS


Effective focal length	7.2 mm
Radiometric f-number	f/1.0
Waveband	8 – 12 µm
Maximum field of view	31° × 24°
Image circle	5.0 mm

Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format		
	80 × 80	160 × 120	320 × 240
12 µm	7.6° × 7.6°	15.2° × 11.4°	30° × 23°
17 µm	10.8° × 10.8°	21° × 16.2°	—
34 µm	21° × 21°	—	—

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	iDLC™	HEAR
Part number	18070_100	19064_100

COATING OPTIONS

	Transmission*	Lens coatings	Comments
iDLC™	> 87%	iDLC™ on front surface HEAR on all other surfaces	Durable coating for unprotected exterior use. Salt fog rated.
HEAR	> 94%	HEAR on all surfaces	Maximum transmission performance.

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

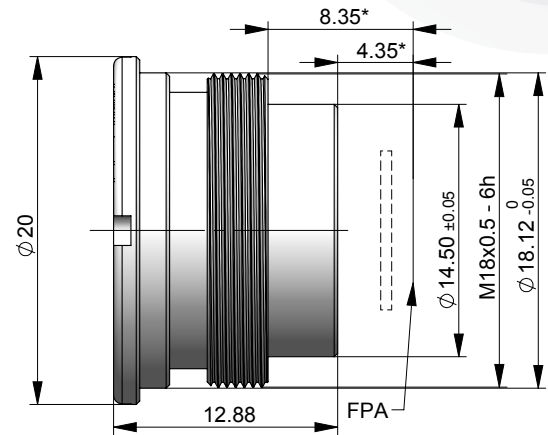


GASIR® Infrared Lens – 7.2 mm f/1.0

Fixed Focus

Part Number iDLC™ 18070_100 HEAR 19064_100

Focus range	0.14 m to ∞ with 0.34 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
Weight	7.9 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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