

TECHNICAL DATA SHEET

GASIR® Infrared Lens 73 mm f/1.07

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. This high performance lens is optimised for minimum weight. Material choices allow a moderate temperature range with passive optical athermalisation.

This lens is compatible with 12 µm SXGA detectors and smaller.



OPTICAL SPECIFICATIONS

Effective focal length	73 mm
Radiometric f-number	f/1.1
Waveband	8 – 12 µm
Maximum field of view	$12.1^{\circ} \times 9.2^{\circ}$
Image circle	19.7 mm

Fields of view (HFOV \times VFOV)

Detector	Detector format	
pixel pitch	640 × 480	1280 × 1024
8 µm	4.0° × 3.0°	$8.0^{\circ} \times 6.4^{\circ}$
8.5 µm	4.3° × 3.2°	$8.5^{\circ} \times 6.8^{\circ}$
10 µm	5.0° × 3.8°	$9.9^{\circ} \times 8.0^{\circ}$
12 µm	6.0° × 4.5°	$11.9^{\circ} \times 9.5^{\circ}$
17 µm	8.5° × 6.4°	_

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

LENS VARIANTS

Mechanical variant	Fixed Focus	
Mechanical interface	Standard M34	
Coating option	iDLC™	
Part number	22033_100	

COATING OPTIONS

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

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

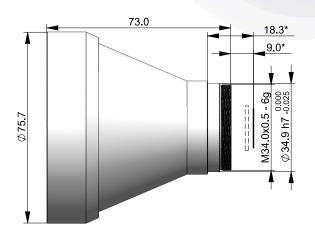


GASIR® Infrared Lens – 73 mm f/1.07

Fixed Focus

	Part Number	iDLC [™] 22033_100	
Focus range	7 m to ∞ with 0.74 mm refocus		
Operating temperature	-40 °C to +80 °C		
Storage temperature	-57 °C to +105 °C		
Sealing	IP67		
Weight	213 g		
Housing material	Black anodized aluminium		

^{*}dimensions valid with 0.725 mm Si detector window



USA