

TECHNICAL DATA SHEET

GASIR[®] Infrared Lens

6.2 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 compact design** makes it a prime choice for your application.

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



OPTICAL SPECIFICATIONS



Effective focal length	6.2 mm
Radiometric f-number	f/1.0
Waveband	8 – 12 μm
Maximum field of view	79° × 57°
Image circle	10.0 mm

Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format		
	160 × 120	320 × 240	640 × 480
12 μm	17.8° × 13.3°	36° × 27°	75° × 55°
17 μm	25° × 18.9°	52° × 38°	—

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

LENS VARIANTS

Mechanical variant	Fixed Focus 12 μm mount 	Fixed Focus 	
Mechanical interface	12 μm mount M24	Standard M25	
Coating option	LWP	iDLC [™]	HEAR
Part number	18055_100	17055_100	19049_100

COATING OPTIONS

	Transmission*	Lens coatings	Comments
iDLC [™]	> 84%	iDLC [™] on front surface HEAR on all other surfaces	Durable coating for unprotected exterior use. Salt fog rated.
LWP	> 89%	LWP on one internal surface HEAR on all other surfaces	Sunlight filter coating for use with uncoated detectors.
HEAR	> 91%	HEAR on all surfaces	Maximum transmission performance.

HEAR: High Efficiency Anti-Reflection; DLC: Diamond-Like Carbon; LWP: Long Wave Pass
Additional specifications are provided in the coatings Technical Data Sheets available on our website.

*average transmission over waveband

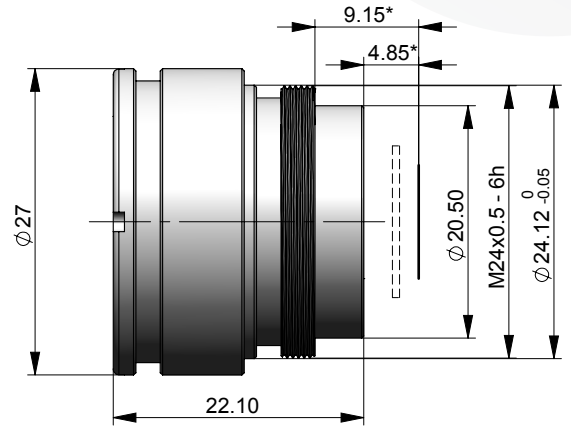


GASIR® Infrared Lens – 6.2 mm f/1.0

Fixed Focus 12 μm mount

Part Number **LWP 18055_100**

Focus range	0.5 m to ∞ with 0.06 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	26 g
Housing material	Black anodized aluminium

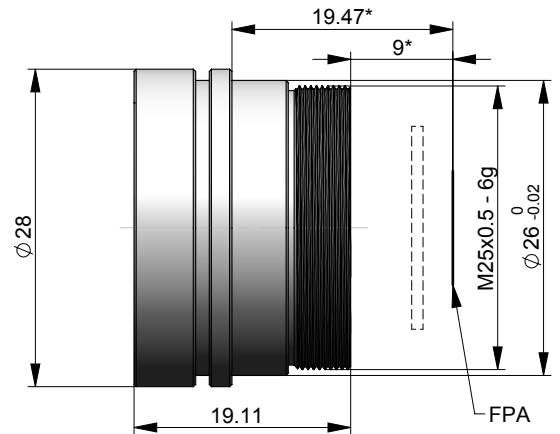


*dimensions valid with 0.63 mm Si detector window

Fixed Focus

Part Number **iDLC™ 17055_100** **HEAR 19049_100**

Focus range	0.5 m to ∞ with 0.06 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
Sealing	IP67
Weight	26 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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