

TECHNICAL DATA SHEET

GASIR[®] Infrared Lens

6.8 mm f/1.3

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 17 μm QVGA detectors. Its wide field of view makes it well-suited for thermal imaging applications.



OPTICAL SPECIFICATIONS

Effective focal length	6.8 mm
Radiometric f-number	f/1.3
Waveband	8 – 12 μm
Maximum field of view	47° × 35°
Image circle	6.8 mm

Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format		
	80 × 80	160 × 120	320 × 240
17 μm	11.5° × 11.5°	23° × 17.3°	47° × 35°
25 μm	17.0° × 17.0°	34° × 25°	—
34 μm	23° × 23°	47° × 35°	—

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

LENS VARIANTS

Mechanical variant	Fixed Focus 
Mechanical interface	Standard M10
Coating option	HEAR
Part number	16083_100

COATING OPTIONS

	Transmission*	Lens coatings	Comments
HEAR	> 97%	HEAR on all surfaces	Maximum transmission performance.

HEAR: High Efficiency Anti-Reflection

Additional specifications are provided in the coatings Technical Data Sheets available on our website.

*average transmission over waveband

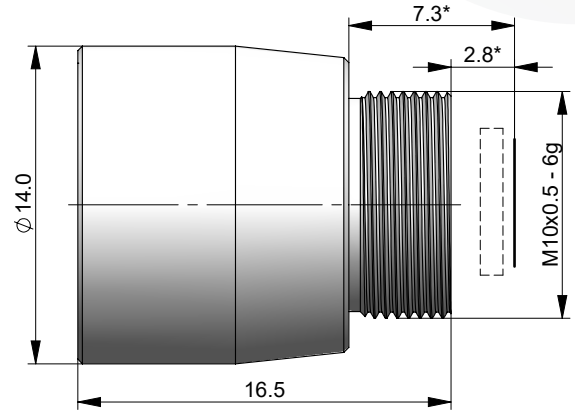


GASIR® Infrared Lens – 6.8 mm f/1.3

Fixed Focus

Part Number HEAR 16083_100

Focus range	0.07 m to ∞ with 0.57 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	7.0 g
Housing material	Black anodized aluminium



*dimensions valid with 0.725 mm Si detector window

Electro-Optic Materials is ISO certified: ISO 9001 & ISO 14001

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