TECHNICAL DATA SHEET

umicore
Electro-Optic Materials

GASIR® Infrared Lens 75 mm f/1.1

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 comes with several available coating options and mechanical variants. The **manual focus lens** offers superior performance from 10 m out to infinity. Its **lightweight and intuitive design** makes it a prime choice for your application.

This lens is compatible with **17 µm VGA** detectors and smaller.

OPTICAL SPECIFICATIONS

Effective focal length	75 mm
Radiometric f-number	f/1.1
Waveband	8 – 12 µm
Maximum field of view	8.3° × 6.3°
Image circle	14.0 mm

Fields of view (HFOV × VFOV)

Detector pixel pitch	Detector format	
	320 × 240	640 × 480
12 µm	2.9° × 2.2°	5.8° × 4.4°
17 µm	4.1° × 3.1°	8.1° × 6.1°

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

LENS VARIANTS

Mechanical variant	Fixed Focus 		Manual Focus 	
Mechanical interface	Standard M34		Standard M34	
Coating option	HEAR	iDLC™	HEAR	iDLC™
Part number	16126_100	17017_100	16024_140	16025_140

COATING OPTIONS

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

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 – 75 mm f/1.1

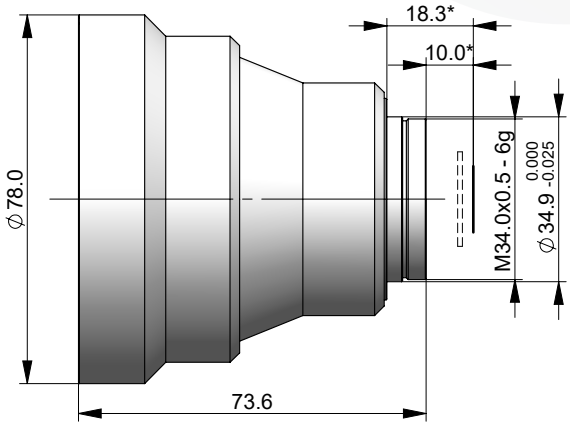
umicore
Electro-Optic Materials

Fixed Focus

Part Number	HEAR 16126_100	iDLC™ 17017_100

Focus range	20 m to ∞ with 0.29 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	257 g
Housing material	Black anodized aluminium

*dimensions valid with 1.0 mm Ge detector window

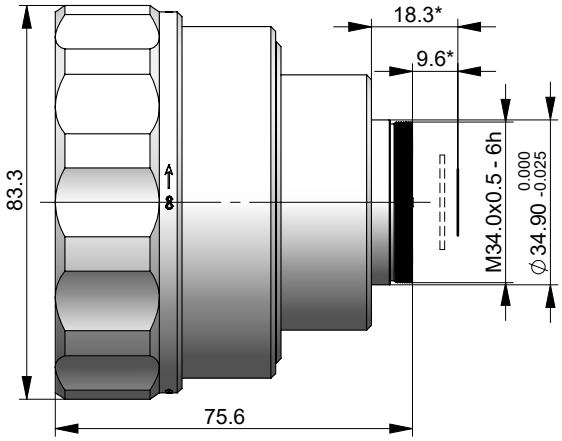


Manual Focus

Part Number	HEAR 16024_140	iDLC™ 16025_140

Manual focus range	10 m to ∞ with 342° ring rotation
Lateral magnification	1:125 at 10 m
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	368 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

Umicore IR Glass
Z.A. du Boulais
35690 Acigné
FRANCE

Tel: +33 2 99 04 32 26
Fax: +33 2 99 04 32 29
optics@umicore.com

Tel: +1 918-673-1650
Fax: +1 918-673-2121
optics.na@umicore.com

Umicore Optical Materials Inc.
PO Box 737
Quapaw, OK 74363
USA