

## TECHNICAL DATA SHEET

# GASIR<sup>®</sup> Infrared Lens 55 mm f/1.0

Umicore's GASIR<sup>®</sup> 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 12  $\mu\text{m}$  VGA detectors. Its narrow field of view makes it well-suited for thermal imaging applications.



### OPTICAL SPECIFICATIONS


Effective focal length	55 mm
Radiometric f-number	f/1.0
Waveband	8 – 12 $\mu\text{m}$
Maximum field of view	$8.2^\circ \times 6.2^\circ$
Image circle	9.8 mm

### Fields of view (HFOV $\times$ VFOV)

Detector pixel pitch	Detector format		
	160 $\times$ 120	320 $\times$ 240	640 $\times$ 480
12 $\mu\text{m}$	$2.0^\circ \times 1.5^\circ$	$4.0^\circ \times 3.0^\circ$	$8.0^\circ \times 6.0^\circ$
17 $\mu\text{m}$	$2.9^\circ \times 2.1^\circ$	$5.7^\circ \times 4.3^\circ$	—

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

### LENS VARIANTS

Mechanical variant	Fixed Focus 
Mechanical interface	12 $\mu\text{m}$ mount M34
Coating option	LWP
Part number	18060_100

### COATING OPTIONS

	Transmission*	Lens coatings	Comments
LWP	> 89%	LWP on one internal surface HEAR on all other surfaces	Sunlight filter coating for use with uncoated detectors.

HEAR: High Efficiency Anti-Reflection; LWP: Long Wave Pass

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

\*average transmission over waveband



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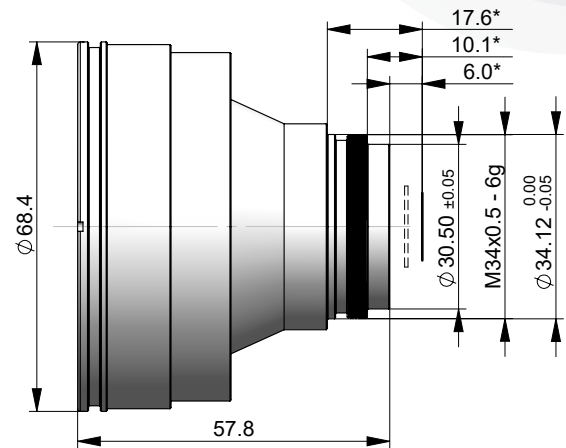
## GASIR<sup>®</sup> Infrared Lens – 55 mm f/1.0

### Fixed Focus

Part Number **LWP 18060\_100**

Focus range	6 m to $\infty$ with 0.48 mm refocus
Operating temperature	-40 °C to +80 °C
Storage temperature	-57 °C to +105 °C
Weight	178 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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