

TECHNICAL DATA SHEET

GASIR[®] Infrared Lens 8.8 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 | 8.8 mm |
|------------------------|-------------------------------|
| Radiometric f-number | f/1.0 |
| Waveband | 8 – 12 µm |
| Maximum field of view | $53^{\circ} 	imes 39^{\circ}$ |
| Image circle | 10.0 mm |

Fields of view (HFOV \times VFOV)

| Detector | Detector format | | |
|-------------|-----------------|----------------------------------|---------------------------|
| pixel pitch | 160 × 120 | 320 × 240 | 640×480 |
| 12 µm | 12.5° × 9.3° | $25^{\circ} \times 18.7^{\circ}$ | $50^\circ 	imes 38^\circ$ |
| 17 µm | 17.7° × 13.2° | $35^\circ \times 27^\circ$ | |

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

LENS VARIANTS

| Mechanical variant | Fixed Focus | | |
|----------------------|-------------------------|--|--|
| Mechanical interface | 12 μm mount M24 | | |
| Coating option | iDLC TM -LWP | | |
| Part number | 19004_100 | | |

COATING OPTIONS

| | Transmission* | Lens coatings | Comments |
|------------------------|---------------|---|--|
| iDLC [™] -LWP | > 80% | iDLC [™] on front surface LWP on one internal surface HEAR on all other surfaces | Durable coating, salt fog rated, together with a sunlight filter coating for unprotected exterior use. |

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

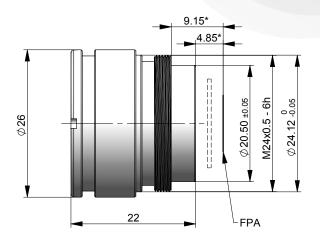


GASIR[®] Infrared Lens – 8.8 mm f/1.0

Fixed Focus

| | Part Number iDLC TM -LWP 19004_100 | |
|-----------------------|---|--|
| Focus range | 0.5 m to ∞ with 0.13 mm refocus | |
| Operating temperature | -40 °C to +80 °C | |
| Storage temperature | -57 °C to +105 °C | |
| Weight | 27 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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