

Lightpath 7100305 | 7.7mm FL, f/1.3, Thermal Imaging Lens Assembly

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€265^{.00}

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Product Downloads

General	
Thickness: 0.76mm Material: Si	Compatible Window:
7100305	Lightpath Lens Code:

Physical & Mechanical Properties	
5.99	Clear Aperture CA (mm):

	Construction:
Matte Black Anodized Aluminum Housing	
	Length (mm):
11.50	
	Front Diameter (mm):
18.00	

Optical Properties

	Effective Focal Length EFL (mm):
7.70	
	Substrate: ☐
Black Diamond™ BD-6	
	f##:
1.3	
	Coating:
BBAR (8000-12000nm)	
	Wavelength Range (nm):
8000 - 12000	
	Coating Specification:
R _{avg} <0.75% @ 8000 - 12,000nm	
	Index of Refraction (n _d) @ 10μm:
2.7816	
	Index of Refraction (n _d) @ 14μm:
2.7683	
	Index of Refraction (n _d) @ 4μm:
2.7978	
	Working Distance (mm):
10.06	

Sensor

	Recommended Detector Format (H x V/Pixel Size):
320 x 240 / 17μm	

Threading & Mounting

	Mounting Threads:
M19 x 0.5	
	Thread Length (mm):
6.25	

Material Properties

	Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):
22.5	
	Thermo-optic coefficient dn/dT:
30.5 x 10 ⁻⁶ @ 10μm	

Regulatory Compliance

	RoHS 2015:
Compliant	
	Certificate of Conformance:
View	
	Reach 247:
Compliant	

Product Details

- Precision Molded Chalcogenide Lenses
- Compact Designs for Thermal Imaging Cameras
- Focal Lengths from 2.7 to 24mm

Lightpath® Thermal Imaging Assemblies are a cost-effective alternative to diamond turned infrared lenses for applications in the mid-wave infrared (MMIR) or long-wave infrared (LWIR). These lenses are molded from BD6™, a chalcogenide glass that offers high transmission from 1 to 15μm and is also optically athermalized from -40 to +85°C. These lenses feature a broadband antireflection coating from 8 to 12μm and are mounted in compact black anodized aluminum housings that are threaded to allow for adjustable focus. Lightpath Thermal Imaging Assemblies are ideal for medical diagnostics, gas sensing, thermography, thermal imaging, security, and manufacturing process control applications. Lenses with focal lengths from 2.7 to 24mm are available, covering detector sizes from 80 x 80 to 640 x 480 pixels.