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1.8mm Dia, 810nm DWL, 0.23mm WD, NIR Coated, GRIN Lens



Stock #64-544 **20+ In Stock**

- 1 + £61⁰⁰

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Volume Pricing	
Qty 1-10	£61.20 each
Qty 11-49	£53.20 each
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Product Downloads

General

Gradient Index Lens **Type:**

Physical & Mechanical Properties

1.80 +0.00/-0.01 **Diameter (mm):**

90.00 **Clear Aperture (%):**

Length (mm):
3.98

Pitch:
0.23

Length Tolerance (%):
±5

Optical Properties

Effective Focal Length EFL (mm):
1.74

Substrate:
Aluminosilicate Glass Embedded with Silver Ions

f#:
0.95

Numerical Aperture NA:
0.51

Coating:
BBAR (800-1000nm)

Wavelength Range (nm):
800 - 1000

Coating Specification:
 $R_{avg} < 0.5\%$, 0-30°

Focal Length Specification Wavelength (nm):
810.00

Gradient Constant (mm^{-1}):
0.360

Index of Refraction (n_d) - Center of Lens:
1.624

Surface Quality:
40-20

Working Distance (mm):
0.23

Working Distance Tolerance (mm):
±0.02

Regulatory Compliance

RoHS 2015:
[Compliant](#)

Reach 219:
[Compliant](#)

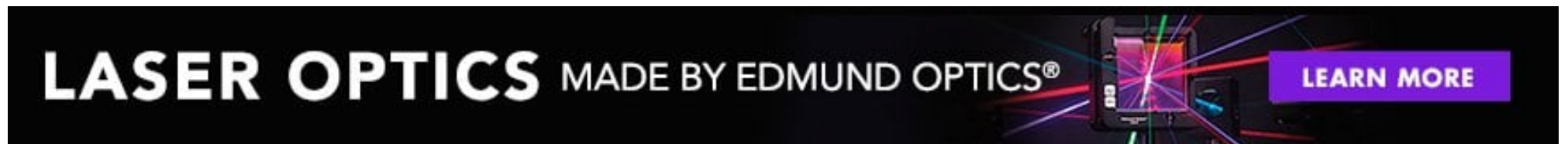
Certificate of Conformance:
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Product Details

- Ideal for Fiber Coupling and Laser Diode Applications
- Comparable Performance to Conventional Aspherical Singlets
- Multiple Sizes and Wavelength Options
- [GRIN Lens Grippers and Table Mounts](#) Available

Gradient Index (GRIN) Rod Lenses feature plane optical surfaces and achieve focus via a continuous change of the refractive index within the lens material. By eliminating complex geometries (such as aspherical surface figures) and carefully designing the lenses for specific working distances, these microlenses are comparatively easy to handle and integrate into optical systems. Gradient Index (GRIN) Rod Lenses are designed to provide a 0.55 numerical aperture. These Rod Lenses are available for purchase in 2 working distance options: 0 and 0.23 mm.

Lenses with a 0mm working distance are ideal for the collimation of single and multi-mode optical fibers and laser diodes because the lens can be positioned and glued directly to the emission source. For focusing applications, or in instances where the lens can't be in direct contact with the emission source, all lenses are available with a small working distance as well. Each lens is available uncoated (approximately 12% reflection loss), or with a BBAR coating option for $R < 0.5\%$.



Technical Information

