

1064nm, 25.4mm Dia., Diffractive Axicon



HOLO/OR Diffractive Axicons

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SPECIFICATIONS

General

Axicon Type:

Positive

Physical & Mechanical Properties

Clear Aperture CA (mm):

22.9

Diameter (mm):

25.40 ±0.05/-0.15

Thickness (mm):

3.00 ±0.1

Optical Properties

Coating:

Laser V-Coat (1064nm)

Design Wavelength DWL (nm):

1064

Substrate:

Fused Silica (Corning 7980)

Input Beam Mode:

SM or MM

Minimum Beam Diameter (mm):

0.27

Overall Efficiency (%):

92

Zero Order, Relative to the Incident Beam (%):

<1

Ring Angle P2P (°):

1.35

Damage Threshold, Reference:

[See Link for More Details](#)

Regulatory Compliance

RoHS 2015:

Compliant

Certificate of Conformance:

[View](#)

Reach 233:

Compliant

PRODUCT DETAILS

- Transform Input Beam into a Bessel-like Beam
- Thinner Design than Refractive Axicons
- Designed for 1064nm Nd:YAG Lasers
- Compatible with Single Mode or Multimode Beams

HOLO/OR Diffractive Axicons are diffractive optical elements (DOE) that transform an input laser beam into a Bessel-like beam that can then be focused to a ring. Unlike refractive axicons, diffractive axicons do not have an apex, enabling consistent performance even with small cone angles. Additionally, their diffractive design enables thinner, more compact form factors than standard refractive axicons. HOLO/OR Diffractive Axicons are used in materials processing applications including laser cutting, drilling, and welding, as well as in laser systems as axicon resonators.

Note: Diffractive optical elements are not intended for use outside of their design wavelength. Diffractive optical elements will have decreased performance if their surfaces become dirty from oil or other substances. It is recommended to always use [gloves or finger cots](#) when handling these optics.

Edmund Optics offers a range of diffractive optical elements from HOLO/OR for laser applications, including:

- Diffractive Diffusers:** used to convert an input laser beam to a defined shape with homogenized distribution
- Diffractive Beamsplitters:** used to split an input laser beam into a 1D array or 2D matrix output
- Diffractive Beam Shapers:** used to transform a nearly-Gaussian laser beam into a defined shape with uniform flat top intensity distribution
- Diffractive Beam Samplers:** used to transmit an input laser beam while producing two higher order beams that can be used to monitor high power lasers
- Diffractive Axicons: used to transform an input laser beam to a Bessel beam that can be focused to a ring
- Diffractive Vortex Phase Plates:** used to convert a Gaussian profile beam to a donut-shaped energy ring

CUSTOM

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).