

Very Precise Focusing

Aspherical Optics for the Far Infrared Range

Spherical lenses are normally used to focus laser beams. The shorter the focal length, the stronger the influence of the spherical aberration. Light rays that pass through the lens do not have the same focal length; thus, the focal point "drifts."

Aspherical lenses with at least one free-form surface produced using CNC polishing techniques (diamond turning) help. Ideally, aspherical lenses replace a system of several spherical lenses, thereby reducing weight and losses through surface scattering.

Aspherical optics in the FIR range are required for industrial applications and the aerospace and defense industries.

LASER COMPONENTS offers these components with a diameter of up to 400 mm in the following materials: ZnSe, Ge, Si, CaF₂, Cu, Al, or Cleartran™ for thermal imaging.

For a substrate with a diameter of 150 mm, the shape deviation is a ½ fringe and the surface roughness is < 30 Å RMS.

The aspheres can be coated according to customer request for all wavelengths from 2 µm to 16 µm. For use with CO₂ lasers, they are usually equipped with an AR coating for 10.6 µm or 9.3 µm; this has a low absorption and is suited for high-power applications.

More Information

<http://www.lasercomponents.com/lc/product/znse-lenses-for-co2-lasers/>

Trade Shows

Photon 16, September 06-07, 2016, University of Leeds UK, **Booth 5**
ECOC 2016, September 19-21, 2016, Düsseldorf, **Booth 102**
SPIE Security + Defence 2016, September 27-28, 2016 Edinburgh, UK, **Booth 405**
Photonex Coventry 2016, October 1-13, 2016, Ricoh Arena UK, **Booth D15**
VISION 2016, November 08-10, 2016, Messe Stuttgart, **Booth 1C33**
Electronica 2016, November 08-11, 2016, Messe München, **Booth B1.306**

The Company

LASER COMPONENTS specializes in the development, manufacture, and sale of components and services in the laser and optoelectronics industry. At LASER COMPONENTS, we have been serving customers since 1982 with sales branches in five different countries. We have been producing in house since 1986 with production facilities in Germany, Canada, and the United States. In-house production makes up approximately half of our sales revenue. A family-run business, we have more than 200 employees worldwide.