



Discover how we can improve your
instrumentation and supply chain
experience today!

KO | BRINGING QUALITY INTO FOCUS

www.knightoptical.com | Tel: +1 401 583 7846 | Fax: +1 401 583 7851
Knight Optical (USA) LLC | 1130 Ten Rod Road, Suite D102 | North Kingsdown RI 02852 USA
www.knightoptical.com | Tel: +44 (0) 1622 859444 | Fax +44 (0) 1622 859555
Knight Optical (UK) Ltd | Roebuck Business Park | Harrietsham | Kent ME17 1SB UK

Ball and Half Ball Lenses for Microscopes

We offer you [Stock and Custom Ball Lenses](#), for use within [Microscope Applications](#) in a range of materials such as Sapphire, Ruby, Quartz and BK7 or equivalent.

Our uncoated Precision Ball Lenses can achieve a very high level of yield of magnification & are widely used for focusing & coupling light into and out of Microscopes. We can offer these in Sapphire, made from Al_2O_3 , and BK7 or equivalent material. Sapphire allows for superior optical transmission qualities

The key feature of ball lenses is their **short back focal length** allowing for precision coupling where size or space is a limiting factor in the system & therefore ideal in the use of Microscopes or microscopic attachments onto devices such as mobile phones.

Ball Lenses are manufactured from a single substrate of glass and therefore, depending on the geometry of the input source, can focus or collimate light. [Half Ball Lenses](#) can also be used as an interchange with a full ball lens for more compact designs.

In addition to our stock Ball and Half Ball Lenses, we can offer a full range of custom lenses in a variety of materials such as ceramic, UV and NIR materials at custom sizes and focal lengths to suit your application.

Typical specs:

Material:	BK7 or equivalent , Sapphire , Ruby , Quartz
Diameter Tolerance:	±2.5
Figure (sphericity):	1λ
Focal Length (@587nm):	± 0.2% (<10mm), ±2.0% (10-1000mm), ±5.0% (>1000mm)
Surface Quality:	<40-20 Scratch/Dig
Back Focal Length (mm):	0.05 up to 2.34 for stock parts
Focal Length (mm):	0.345 up to 7.34 for stock parts
Options available:	

- Antireflective coating of stock lenses
- Stock ball lenses can be edged down to produce a drum lens.
- Mounting into cells.

All our Ball Lenses are fully inspected on their quality in our ISO 9001 certified, state-of-the-art Metrology laboratory, using our Trioptics Optispheric 2000AF equipped for precise EFL and BFL measurements, and Starrett AV300 video microscope for high accurate diameter testing. This allows us to work to the highest [QA standards](#) and meet the tolerance specifications on these **precision components**.

[Contact our technical sales team](#) to discover how Knight Optical's high quality Ball Lenses and superior service can improve your instrumentation and supply chain experience.

UK, Europe, Asia & RoW: E-Mail info@knightoptical.co.uk Tel +44 (0)1622 859444

USA & Canada: E-Mail usasales@knightoptical.com Tel +001 401-583-7846

- View our [QA and metrology information](#)
- Watch our [Corporate Video](#)

[View Our Corporate Brochure](#)