

Tunable Polymer Lenses Provide Versatility to Replace Multiple Optical Elements

January 10, 2011, Barrington, N.J. – Edmund Optics® (EO), the premier provider of optical components, introduces two new liquid-filled lenses from Optotune, Inc of Switzerland – the [Electrically Focus-Tunable Lens](#) and the [Manually Focus-Tunable Lens](#). These versatile lenses will be demonstrated at SPIE Photonics West, Booth 1214, January 25-27, 2011 in San Francisco, CA.

Simplify complex lens systems

Electrically Focus- and Manually Focus-Tunable Lenses can replace the functionality of a complete lens kit. “They provide the on-demand adaptability needed to avoid complex alignment and opto-mechanical issues associated with multi-lens systems. This flexibility allows the user to save time and money while simplifying their optical system,” said Gregory Fales, Senior Product Line Manager, Optical Components, Edmund Optics.

Single-lens solution for focus and zoom objectives

Electrically Focus-Tunable Lenses provide a single-lens solution for focus and zoom objectives. When the user applies a voltage to each compact, plano-convex lens, the lens changes effective focal length. Each lens is filled with a proprietary optical liquid, and the change in voltage alters the pressure profile of the liquid, resulting in a change in radius of curvature. This electrical manipulation of the radius allows for a focal range of +15 to +100 mm and, along with an aperture of 10 mm, provides an impressive variety of applications and can replace multiple elements in an optical system. These robust lenses are available in high refractive index or low dispersion options for research and for OEM integration. Cover glasses for the Electrically Focus-Tunable Lenses are available with either a VIS or NIR coating.

Manually Focus offers 20 mm diameter large aperture

Manually Focus-Tunable Lenses use a rotating outer ring to manipulate their focus length and change the shape of the lens from convex to concave. Using proprietary liquid-filled lens technology, they offer a wide focal tuning range of –40 mm to infinity to +40 mm. With a large aperture diameter of 20 mm, manually focus-tunable lenses are ideal for education and research applications and they are perfectly suited for lighting systems, where the option to adjust the focal length allows for expanded control of the light source. These durable lenses are available in high refractive or low dispersion options. Cover glasses are available with a VIS coating.

Continuous Focusability for optimum performance

The lenses provide continuous focusability over a specific focal range, permitting the user to custom-tune the lenses for optimum performance. With a wide variety of materials and coating options, Electrically Focus - and Manually Focus - Tunable Lenses offer the focal adaptability and versatility that makes them perfect for numerous research and OEM applications. Lenses are in-stock and available for immediate delivery for fast turnaround and excellent value.

About Optotune:

Optotune®, Inc, develops and manufactures adaptive optical components based on elastic polymers. Optotune's focus-tunable lenses and laser speckle reducers offer new solutions for several industries including mobile phone cameras, machine vision, laser processing, professional lighting and laser projection. www.optotune.com

About EO:

Edmund Optics® (EO) is a leading producer of optics, imaging, and photonics technology for R&D, electronics, semiconductor, pharmaceutical, biomedical, and military markets around the globe. EO is the world's largest supplier of [off-the-shelf optical components](#). Customers can purchase items by contacting EO at 1-800-363-1992, via the catalog, or via the website at www.edmundoptics.com

Editorial Contact:

James Liolin
Lion Advertising
550 Mamaroneck Avenue
Harrison, NY 10528
Phone: 914-670-0138
Fax: 914-670-0596
email: jlolin@lionadv.com

Company Contact:

Kirsten Bjork-Jones
Director Global Marketing Communications
Edmund Optics®, Inc.
101 East Gloucester Pike
Barrington, NJ 08007 U.S.A.
Phone: 1-800-363-1992
Fax: 1-856-573-6295
email: kbjork-jones@edmundoptics.com