



14/15 October 2015 · Ricoh Arena Coventry

Next week sees the opening of the UK's premier show dedicated to the technology of light. **Photonex** brings together all aspects of industry and research, developing strong business relationships, exploring research solutions, and examining applications for photonics in academia, research and manufacturing.

Elliot Scientific will have printed copies of our brand new **2016 Product Overview** brochure available at the show (but if you cannot wait until then, [download a PDF version here](#)), plus a selection of the following products. Visit us on **stand B10**.



Flexure Stages & Slides from Elliot|Martock

Our **Gold Series Flexure Stages** are our best export. Scientists and engineers around the world recognise that these are the best performing and best value high-resolution XYZ positioners in the world. They feature:

- 20 nm resolution with 2 mm travel per axis
- Excellent operation and superb long term stability
- Great versatility from a petite package



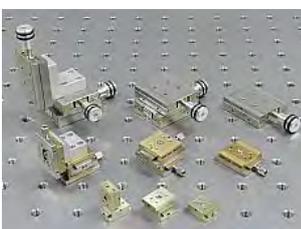
These precision engineered stages are highly adaptable for use in a multitude of situations. Choose from systems preconfigured for fibre launch, such as free space light into photonic crystal fibres, or for alignment of other types of optical device. Note that we offer a number of left and/or right-handed ready-built configurations at lower cost when compared to purchasing individual parts.



Once again, these positioners come with a choice of adjustment options. Simple thumbwheels, precision micrometers, and piezo driven adjusters are available for use in any combination. An extensive range of add-ons, accessories, and attachments ensure that most applications can be satisfied. If not, [contact us](#) for a custom solution.

Elliot Martock high-resolution ($< 0.5 \mu\text{m}$) **precision miniature slides** have been popular with scientists and OEMs for nearly 40 years.

With a useful selection of Small, Very Small and Ultra Small models (with travels of 10, 5 and 3 mm respectively), the range satisfies many requirements for a stable and compact precision stage in both research and industry.



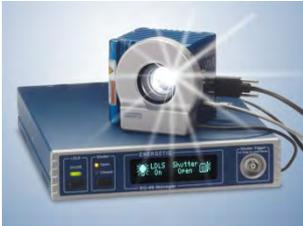
Our market-leading micro-positioners offer single, dual and three axis configurations with a variety of adjustment options such as simple screws to precision micrometers. A number of accessories - such as post adaptors - complement each range to further enhance their flexibility of use, and we also offer tilt and **rotation mechanisms**.



Plasma-based Light Sources from Energetiq

Scientists in many disciplines need broad spectrum bright light for various imaging and analytical applications. Traditional multi-lamp systems comprising tungsten/halogen, xenon-arc or deuterium bulbs are costly, optically inefficient, and have limited lifetimes. Consequently, the Energetiq® LDLS™, that utilises a Laser-Driven Light Source, has revolutionised research with its high brightness over a broad spectral range, from 170 nm through to the visible and beyond.

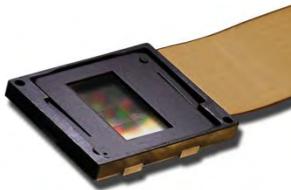
Energetiq® offers the compact EQ-99X as either a free-space or fibre-coupled unit, plus a calibrated model that covers the full UV-Visible range from 200 to 800 nm with output at comparable levels across that spectrum, and an even higher intensity EQ-1500 model for extreme high brightness.



The EQ-99 series can be enhanced by adding valuable functionality with the EQ-99 Manager. This provides a USB computer interface, real-time status monitoring, advanced control of an optional shutter assembly, and a universal power supply.

Spatial Light Modulators from HOLOEYE

The **PLUTO** range from HOLOEYE are just some of the Spatial Light Modulators the company offers. Different panel versions are optimised for use in different wavelength ranges, and all versions come with a compact driver unit to deliver reliable, fast, full digital addressing.



Alongside the standard PLUTO-VIS and PLUTO-NIR there are special high retardation (-HR) models available. These show a considerably higher phase retardation compared to the standard panels. The high retardation models can enable mod 4π or even mod 6π , which can be of benefit for applications such as wavefront generation.

Other applications may require a stable phase response, and this can be accomplished using the high retardation panels and driving the panels with lower voltage settings for 2π phase retardation. Response times in this instance are reduced, but phase stability is significantly enhanced.

HOLOEYE also offer the OptiXplorer, a kit for educational purposes that provides a variety of tutorials using an SLM for image projection, adaptive optics, optical metrology and diffractive optic experiments. OptiXplorer is a powerful product that allows the demonstration and active exploration of a wide range of optical phenomena for students at universities and university-level institutions.



Circuit/Material Characterisation Systems from Kryoz

Elliot Scientific is now distributing products from **Kryoz Technologies** in the UK and Ireland. The **CryoLab Series** is a range of fully integrated desktop systems designed for rapid circuit or material characterisation measurements from ambient down to cryogenic temperatures in a fully automated manner. Doing measurements doesn't require any experience or know-how of cryogenics, vacuum technology or thermodynamics from the user. Applications include:

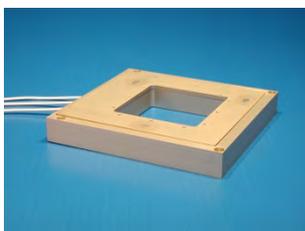
- High Temperature Superconductors (HTS)
- Thin Films
- Optical sensors
- Thermoelectrics - The Seebeck Effect
- Resistance & Hall coefficient measurements
by the van der Pauw Method



The test sample - maximum size 10 x 10 mm - is affixed to a guitar-shaped carrier with electrical connections made to it from integrated bonding/solder pads. These are routed through the CryoLab for connection to a DAQ interface or CryoLab Breakout Box. A two minute **demo video can be seen here**.

Although CryoLab can be fully operated as a stand-alone, the companion CryoVision software enables control of the system in more detail. All parameters can be seen at a glance, and switching between user-defined set-points and saved programs can be made. A smartphone app is also available.





Nanopositioners from Mad City Labs

Mad City Labs (Madison City, Wisconsin) is a leading US manufacturer of flexure based nanopositioning systems capable of sub-nanometre positioning resolution.

Elliot Scientific offers their nanopositioning equipment as single or multi-axis stages, rotation/tilt stages and focus mechanisms for numerous biophysics and life science applications. UHV versions are also available for nanotech researchers.



Systems from Mad City Labs combine long range motion with exceptional linearity, orthogonality, and stability with nanometre step-size and sub-nanometre resolution. These features provide innovative and practical control solutions for:

- Super resolution microscopy
- High speed confocal imaging
- AFM, NSOM and scanning probe microscopy
- Fibre positioning & high resolution optical alignment
- Single molecule spectroscopy & particle tracking
- Sub-diffraction limit microscopy, nanoscopy & lithography

The Mad City Labs range complements Elliot Scientific's portfolio of micro and nanopositioning systems, and makes us the logical choice of micropositioner supplier to the nanotech, biophysics and life science communities in academia and industry.

Powerful LEDs for Optogenetics from Prizmatix

Elliot Scientific is pleased to introduce an exciting new range of products from **Prizmatix** for microscopy, optogenetics (see below), and other scientific or industrial applications.

Prizmatix is a scientist-led designer and manufacturer that specialises in ultra high-power LED illumination systems with up to 4 Watts output. Their systems incorporate the latest technologies within modular components to offer maximum versatility in light delivery. The product range includes:

- **Ultra high-power LEDs for microscopy and imaging**
 - available in a range of power levels and wavelengths across the spectrum
- **Optogenetics**
 - single and dual wavelength systems for use **in-vivo** and **in-vitro**
- **Multi-wavelength LED systems**
 - modularity and versatility for custom setups
- **Fibre-coupled units**
 - up to 11 different wavelengths in one box

Experienced in the development of various photonics products for fluorescence and Raman spectroscopy, microscopy, and absorption measurements using fibre-optic techniques and related technologies in bioscience, Prizmatix have engineered a versatile and modular range of optical components.

From these, a comprehensive custom setup can be put together in a variety of configurations quickly and conveniently. Ideal for the neurosciences, biophysics, biochemistry et al. Typical experiments include:

- Multiwavelength detection & excitation
- Intensity monitoring
- In-line filtering, attenuation or polarisation
- Reflectance or fluorescence detection for in situ, in vivo, or in vitro applications

Prizmatix



Laser technologies from Vescent

Laser & Electro-Optic Electronics

• Power Supply, Controller, and Servos

Vescent laser and electro-optic control electronics provide the lowest noise, highest bandwidth, and greatest flexibility of any commercially available products. From laser current drivers with a noise density of less than 100 pA/√Hz, to laser servos with full PI²D loop filter reconfigurability, Vescent's unmatched performance is designed for the most demanding AMO research.

Ultrastable Narrow Linewidth Lasers

• Ultrastable, large mode-hop-free tuning

Vescent narrow linewidth CW lasers are constructed with very short laser cavities and no moving parts or piezos. This unique combination provides a large mode-hop-free tuning range and immunity to vibration.

Accessory Modules

• Electro-optic and Optical Ancillaries

Vescent optical and electro-optical modules deliver rugged, vibration immune operation, and are designed to be mutually compatible. This allows the user to take advantage of Vescent's non-mechanical approach to design sophisticated AMO experiments within uniquely small footprints on optical tables.

Contact us for further information or visit our [Vescent pages](#)

Plus...

- Rugged polarisers from [CODIXX](#)
- Cryorefrigerators & Cold Heads from [CryoSpectra](#)
- Ultra-fine adjuster-screw sets from [Kozak Micro](#)
- Laser safety spectacles from [NoIR Lasershields](#)
- Monochromators and light sources from [Spectral Products](#)
- OEM laser modules and optics from [Micro Laser Systems](#)



Next month, meet Elliot Scientific at...



Institute of Photonics

Institute of Photonics 20th Anniversary

November 4th: Technology and Innovation Centre, Glasgow



Website



Product Overview 2016



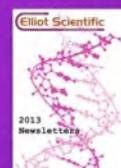
Optical Tweezers 2015



Components Catalogue 2013



2014 Newsletters



2013 Newsletters



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