

your guide to

Emitting, Manipulating & Detecting of light

laser • fiber optics • optical components • spectroscopy

imaging • interferometry • opto-electronic equipment • light metrology

Mercurion 26 • 6903 PZ Zevenaar • The Netherlands +31 316 340804 • contact@tlsbv.nl • www.tlsbv.nl









































































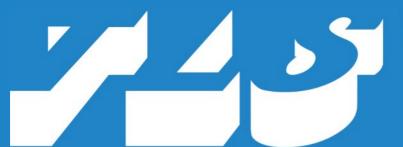


www.alliedphotonics.com

Te Lintelo Systems is a -founding- member of Allied Photonics, an association of independent European companies engaged in the photonics business.

All members operate according to the same entrepreneurial philosophy and ethical principles and, of course, we share our technical expertise.

The result is an international network with benefit to all participants of business: our customers, our suppliers and the members of Allied Photonics.



te lintelo systems bv photonics. our passion!





Te Lintelo Systems BV Mercurion 26 A 6903 PZ Zevenaar The Netherlands www.tlsbv.nl

Commercial register: 09163125 VAT no: NL818765707B01

For more than 38 years Te Lintelo Systems represent prominent suppliers from all over the world for the Benelux countries with well-educated engineers, experience and knowledge.

Over the years we developed the specialism in the field of:

- lasers
- fiber optics
- optical components
- spectroscopy
- imaging
- interferometry
- opto-electronic equipment
- light metrology
- And much more.....

Together with our high end suppliers we have the answer for you!

Te Lintelo Systems is your reliable source and long term partner. Service on all levels is for us our daily business.

Our experienced team is fully equipped to assist you with finding your best optical business solution.

Let's get in touch!













email: contact@tlsbv.nl www.tlsbv.nl call us: +31 316 340804











JENOPTIK

light & optics division

The Light & Optics division of Jenoptik is a supplier of solutions and products based on photonic technologies. Jenoptik provides a broad portfolio, combining outstanding knowledge from more than 25 years of experience in the fields of optics, laser technology, digital imaging, optoelectronics and sensors. We are the exclusive partner for JENOPTIK Laser beam expanders and F-Theta lenses & Fiber Lasers within the BeNelux region.

Jenoptik laser technology delivers impressive accuracy and performance and manufactures products and applications across the entire value chain for your laser material processing—from individual components to complex laser systems.

Lasers are ideal tools when it comes to processing materials quickly and efficiently — they can be used for cutting, marking, engraving, drilling and structuring purposes. Jenoptik's high-quality objective lenses and beam expanders meet the tough requirements of laser material processing. They will offer you the right objective lenses and beam expanders for your application and laser type.

To ease the selection process you can use our configurator:

www.tlsbv.nl/FT-BE.html

Quantum Light Instruments

QLI designs and produces compact, diode-pumped, air-cooled (and water-free!), passively or actively Q-switched, diode-pumped, solid-state lasers and accessories for them (harmonics generators, OPOs, Raman shifters, attenuators, energy monitors, fiber couplers etc.).

QLI focuses on bringing DPSS laser technology into types of applications that require pulse energy in the fundamental from 10mJ up to 200 mJ at relatively low pulse

repetition rates (typically in the range of 10-100 Hz). Available wavelengths are: 1064nm, 1053nm, 532nm, 527nm, 355nm, 351nm, 266nm, 263nm, 213nm, 211nm. Pulse widths are always < 80ns. Another huge advantage of QLI's DPSS lasers is the lifetime of the lasers which can be > 2 Gigashots.

QLI key innovation is water-free laser crystal cooling technology combined laser diode end-pumping.















Lasers

We offer a wide variety of lasers: from the deep UV to FIR wavelength ranges; from reasonable simple diode, to ultra-fast Femto second lasers.

- Helium-Neon (He-Ne) lasers
- Argon-Ion (Ar-Ion) lasers
- Diode Pumped Solid State (DPSS) lasers
- Diode lasers
- Intercavity DPSS lasers
- Multi Colour Laser Systems
- Nano, Pico & Femto second intercavity laser
- Water free, diode pumped laser
- Free beam DPSS and fiber coupled DPSS

Laser safety



- Laser safety eyewear based on all available technologies
- Coatings on glass and plastic filters
- Absorbing glass and plastic filters
- Mineral glass laser safety windows
- Large area acrylic or plastic laser protection windows
- •Laser safety curtains, slats and barriers





High brightness Light sources UV-VIS-NIR

High brightness fiber couple / free beam lightsources, for LAB and OEM.

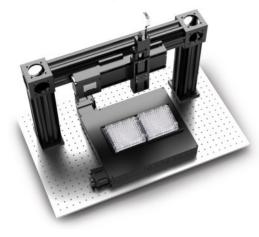


Precision Lighting Solutions

We offer a wide range of parabolic and elliptical reflectorized lamps.















OWIS

Highly precise positioning systems & optical beam handling

OWIS GmbH was founded in 1980 and is headquartered in Staufen near Freiburg, in South-Western Germany. Our employees ensure excellent products and consistent customer service. We are very proud to distribute this successful family-owned company.

The company develops, produces, distributes and services optical beam handling as well as highly precise positioning systems – still according to the maxim »Made in Germany«. Information technology, mechanical engineering, biotechnology, medicine, image processing and printing industry are some of our product application areas.

An own development and an ultramodern manufacturing make OWIS to your perfect system partner in connecting macro, micro and nano worlds. This ideal combination enables short-term adjustments to our catalogue products – up to customized solutions.

We dedicate all our activities to constantly developing the OWIS® products and improving internal processes and at the same time to continuously deepening our knowledge and experience.

Because we are sure: This is the only quarantee for steady customer satisfaction and future success.

Our strength is based on the innovation capacity and market orientation, which have tradition with OWIS from the very beginning. As a system partner to our customers we take special responsibility in continuously developing and improving our product portfolio to meet our customers' needs. You can find a detailed product catalog at: www.tlsbv.nl/suppliers/owis

Teledyne Princeton Instruments

Scientific Imaging, Spectroscopy, X-Ray Imaging

Princeton Instruments (PI) designs and manufactures high-performance CCD, sCMOS, ICCD, EMCCD, emICCD, and InGaAs cameras; spectrographs; and optics-based solutions for the scientific research, industrial imaging, and OEM communities. We take pride in partnering with our customers to solve their most challenging problems in unique, innovative ways.

Capabilities:

Scientific Imaging:

High-performance CCD, ICCD, EMCCD, emICCD, and InGaAs cameras for an expansive range of applications, including astronomy, BEC, combustion, PIV, single-molecule imaging, surface and materials analysis, PSP, and nanotechnology.

Spectroscopy:

A wide selection of state-of-the-art CCD cameras, spectrographs, monochromators, and integrated systems for Raman, LIBS, absorption, fluorescence, NIR/SWIR, and luminescence spectroscopy.

X-ray Imaging:

Advanced scientific-grade CCD cameras for x-ray applications such as EUV, lithography, XRS, plasma, diffraction, microscopy, and tomography.





Manipulating light

Optical components

Our assortment of optical-components enables you to find solutions for various (laser) applications, from a simple plano convex lens, to variable optical lenses, beam splitter prisms, to high power reflective mirrors, all from a view to OEM qty's.





Fiber optics

Fiber Optics, from single- & multimode fibers to cables and or fibers delivery systems dedicated designed and build to customer specification.





Opto-mechanical components

We offer a wide range of precision opto-mechanics: from optical tables and breadboards to smaller opto-mechanical components, like optical rails, translation stages, optical mounts or posts.

Manx Precision Optics

Opto-electronics

We offer a wide range of opto-electronical components, such as:



- Acousto-optic deflectors
- Pulse pickers
- O-switches
- Pockels Cells for applications in wavelengths from the UV to the IR and the drivers





CORNING
Varioptic® Lenses

Nonlinear and Laser Crystals

A complete line of nonlinear optical crystals for different frequency conversion applications.





piezosystemjena incredibly precise



Piezosystem Jena

Piezosystem jena is a world leading company in the development, design and engineering of piezo electric actuators with almost 30 years of experience. These positioning systems are ideal for micro - and nanopositioning.

They show outstanding precision in the sub-nanometer range and can generate forces of up to several thousands of Newtons while achieving precise positioning in microseconds. piezosystem jena offers grippers, mirror tilting systems, shutters, objective positioning systems, piezo stack type actuators, high load piezo actuators and piezo composites for material testing and shock generators. They have an extensive knowledge and in-depth technical expertise in the application of piezo technology to nano positioning tasks, and in the design of piezo flexure stages and development of piezomechanical systems.

Their systems can be easily integrated into many existing applications like optics, lithography, life science and highly precise/dynamic scanning applications so as for vibrational excitations and shakers.





SIOS Messtechnik

SIOS Messtechnik GmbH is a company for design and manufacturing of laser-interferometric precision instruments for nano-metrology.

The measurement of lengths, angles, vibrations and other measured categories is done with the highest resolution and precision in conjunction with beneficial properties for users in areas of engineering, optics and semiconductor industries, in the calibration and metrology field, in research and development and many other application areas.

Application areas such as: Length measurement systems, combined length- and angle measurement systems, vibration measurement systems and calibration rigs and nano-measuring machines.





Detecting light

Spectrometry

We offer a wide range of spectrometers for Scientific, Industrial & OEM, i.e.:

- FT-NIR, (handheld) Raman spectroscopy
- LIBS, absorption, fluorescence, NIR/SWIR, and luminescence spectroscopy





NIREOS Light metrology

A full range of light measurement tools, from relatively simple handmeters to in-line LED inspection systems, from DUV-IR.



Diagnostics

- Interferometry: The measurement of lengths, angles, vibrations and other measured categories with the highest resolution and precision.
- Our Shack-Hartmann Wavefront Sensors offers complete solutions for precise metrology of optical systems and lasers.





• We provide quality solutions for laser power and energy measurement applications.

Imaging

We offer solutions, i.e. for: EUV, X-ray and low-light level imaging.







Detectors

We can provide you with a large range of detectors, i.e. PSD, InGaAs, silicon, etc.



















OZ optics

Fiber Optic Components

Established in 1985, OZ Optics Limited is a leading worldwide supplier of fiber optic products for existing and next-generation optical networks. In addition to designing and manufacturing components and test equipment for fiber optics markets, the company offers award-winning fiber optic sensor systems for remote monitoring of oil and gas pipelines, wells, refineries, bridges, dams and other large structures, security fences and for fire detection .

OZ makes world famous:

- Laser to Fiber Delivery Systems
- High Power Fiber Optic Components
- Polarization Maintaining Components
- Attenuators
- CO2 Fiber Optics Cleaning Unit
- Benchtop & Handheld Polarization extinction ratio meter
- Benchtop & Handheld Backreflection meters
- Variable Bandwidth Tunable Filter

- Inline Optical Tap Monitors
- High Power Non-Contact Visible Fiber Optic Fault Locators
- Bare Fiber Adapters with Magnetic Clamps
- Compact High Power Isolators/Collimators
- High Power Shutters/Safety Interlocks
- V-Groove assemblies
- V-Groove chips
- Hermetically sealable patchcords with glass solder
- Collimators and focusers high power pigtail style

Gigahertz-Optik

Measurement of light—Measurement with light

Measurement equipment that is traceable to international standards allows comparison of data gathered anywhere in the world. Therefore, traceable data is one of the prerequisites for the globalization of measurement technology.

One of the most important elements in nature and technology is optical radiation.

Gigahertz-Optik develops and produces measurement devices for measuring optical radiation.

It is our aim to offer our customers latest and future-oriented measurement technology now and in the future. In this way we are contributing to the process of globalization.

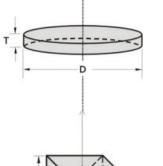
Our central themes are:

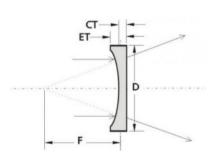
- Measurement of light and optical radiation
- Measurement with light and optical radiation
- Components of light measurement systems
- Laser power meters
- UV Spectral and Power meters
- Par meters

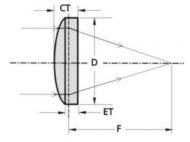












Custom Optical Components [OEM]

When building a lab experiment, the first prototypes or the final product, we are your source for optical components.

Nothing is strange to us!

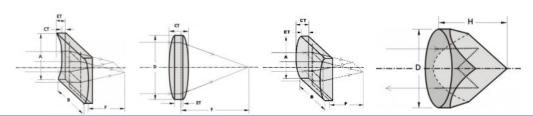
With our knowledge of the product, we can address all your needs. We will be able to advise you on your optical design, material selection, coatings, surface specifications, etc., to achieve together a better performing component and / or cost savings.

We work together with well-established European suppliers and are able to offer you compatible pricing and delivery time for singles pieces, small series and OEM volumes.

Te Lintelo Systems offers you optical components and assemblies build to your specifications.

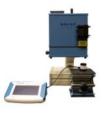
* We can offer the complete range of optical components

From	То
R&D	OEM
QTY 1	QTY ∞
Wollaston prism*	Cylindrical lenses [*]
Flat optics Ø 0,5 mm ② 0,5 mm	Flat optics Ø 1.700 mm 🛚 3.200 mm
Curved optics Ø 2 mm	Curved optics Ø 150 mm
HR / AR coatings	Laser coatings
Components	Assemblies
Stock	Build to print









Solar Light Company

Solar Light Simulators - a precision reasearch - grade instrument

Solar Light Company, Inc. has been providing research professionals with laboratory-grade solutions for the advancement of light sciences ever since we invented the world's first Solar Simulator in 1967.

Solar Light Simulators, or solar simulators, are precision research-grade instruments are specifically designed to comply with the latest laboratory standards from ASTM, IEC, ISO, and others.

A wide selection is offered, from the patented Model 601 Multiport® SPF Testing 6-output Simulator to the single output units, which are available in 150W / 0.4" (1 cm) output through 1000W / 6 "(15.25 cm) output, in UV, Air Mass, and Custom Spectra configurations.

OSI Optoelectronics

Light Sensing Ideas

Silicon Photodiodes

These are semiconductor light sensors that generate photocurrent when its active area is illuminated by light. Generally they are sensitive between 200 to 1100nm.

InGaAs detectors

These are InGaAs based semiconductor light sensors that generate photocurrent when its active area is illuminated by light. Generally they are sensitive between 800 to 1700nm.

GaAs Detectors

These are GaAs based semiconductor light sensors that generate photocurrent when its active area is illuminated by light. Generally they are sensitive between 400 to 850nm.

And more.....







Mountain Photonics GmbH



Mountain Photonics

Hyperchromator / high brightness tunable lightsource

The Hyperchromator is a high throughput monochromator originally designed for the Energetiq EQ-99X LDLS™. With fast optics, up to f/1.5, it efficiently collects the light directly from the small plasma spot of the light source without an entrance slit.

This monochromator is optimized for monochromatic illumination applications where a tunable output from a point source is required. Additionally, white light output is available (zero order reflection).

The output port has been designed with a very flexible opto-mechanical interface.

This allows for a multitude of illumination or light coupling options using standard catalog components, rendering the integration of the Hyperchromator into your setup hassle free and straight-forward.



laservision[®]







Laservision

Laser safety eyewear and laser safety products

Based on more than 35 years of history,

laservision has a long lasting experience on all relevant fields of laser safety.

Due to the unique characteristics of laser radiation (i.e. coherent, collimated and monochromatic) there is an increased danger to the eyes. Therefore special optical filters that transmit 'normal' light but block laser light must be used. Since laser light has a specific wavelength which is dependent on the laser active medium that emits light, protective filters that match the wavelength and power of the specific source of laser radiation are needed.

When wearing laser safety glasses some wavelengths of the spectrum that would normally reach our eyes are filtered out. This means, if light from the visible region is blocked, this will inevitably change the perception of the environment as well. First, by attenuation of the transmission the environment gets darker (similar to the effect of sun glasses). Second, blocking some wavelengths changes our perception of colour.

Therefore, a careful selection of the right filter resp. filter technology in accordance to the calculated and required protection levels and the requirements of the application pose an important challenge.

NIREOS — Inteferometers / Hyperspectral

Inteferometers / Hyperspectral Cameras

Hyperspectral Imaging is a new analytical technique based on spectroscopy. It collects hundreds of images at different wavelengths for the same spatial area. While the human eye has only three color receptors in the blue, green and red, hyperspectral imaging measures the continuous spectrum of the light for each pixel of the scene with fine wavelength resolution, not only in the visible but also in the near-infrared. The collected data form a so-called hyperspectral cube, in which two dimensions represent the spatial extent of the scene and the third its spectral content.

Each material possesses a specific spectral signature that can be employed as a 'fingerprint' for its unique identification. Therefore, hyperspectral imaging finds a wide range of applications in remote sensing, thanks to its standoff, label-free and non-destructive capability in recognizing the components of matter. Hyperspectral imaging is employed in different fields such as astronomy, agriculture, molecular biology, biomedical imaging, mineralogy, geology, physics, cultural heritage, food processing, environment and surveillance.

HERA is the innovative Hyperspectral camERA designed by NIREOS. Based on NIREOS' patented common-path interferometer, featuring intrinsic interferometric delay precision, long-term stability and insensitivity to vibrations, it provides superior sensitivity in a compact layout.







DLC diode laser concepts

Custom build diode assemblies

We leverage your engineering capabilities with our proven laser and optical design expertise. We solve manufacturing challenges by providing turnkey, high-quality optoelectronic and mechanical solutions. We deliver your production capacity needs from prototypes to full-scale OEM volume. Industrial Sensing and Measurement

- Biomedical
- Medical Imaging
- Healthcare
- Machine Vision

- Factory Automation
- Lidar
- 3D Scanning and Imaging
- Optical Design and Engineering
- Industrial Sensing and Measurement
- Defense/Security/Law
 Enforcement

o optical Design and E

Lasos

Helium Neon, diode & diode pumped solid -state lasers

LASOS designs, develops and manufactures high quality gas, diode and diode-pumped solid-state lasers from the ultraviolet to the near-infrared with special focus on OEM applications in Biophotonics, Microscopy, Raman Spectroscopy and Holography. Besides original equipment manufacturing LASOS is also a reliable partner and supplier for research and educational institutes.

- Microscopy
- Flow Cytometry
- Bionanalytical Research
- Industrial Measuremnt
- Holography
- Testing, Science and Education
- Multicolor Lasers
- Confocal Microscopy
- Interferometry







Gooch & Housego

Fiber Optic Components / Acousto-optics / Crystal Optics / Electro Optics





Acousto-optics — We offer a range of acousto-optic devices, i.e. Acousto-optic modulators, beam deflectors, Fiber-Q fiber coupled modulators, frequency shifters, mode lockers, multi-channel modulators, pulse pickers and cavity dumpers, q-switches, tunable filters and RF drivers.

Crystal optics — We offer a range of crystal optics, i.e. Lithium niobate wafers, nonlinear optics and periodically-poled lithium niobate (PPLN).

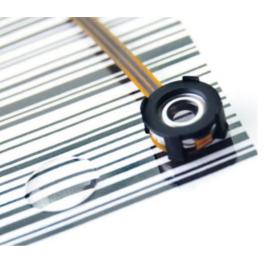
 ${\sf Electro-optics-Pockels\ cells,\ pockels\ cell\ drivers\ and\ lithium\ niobate\ Q-switches\ .}$

Fiber optics — Benchtop laser controllers, DFB lasers and modules, Fiber-Q RF drivers, Fiber optic components, High reliability Erbium-doped fiber amplifier, high speed detectors, pump lasers, OCT and fiber optic assemblies.



CORNING

Varioptic® Lenses



Varioptic

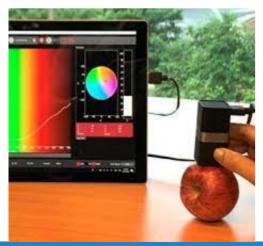
Liquid lenses

Varioptic Lenses Technology Advantages

The traditional way to perform the auto focus function is to mechanically move the lens module to adjust the back focal length (distance to the image sensor) depending on object distance. The unique characteristics of Corning Varioptic Lenses bring an ideal competitive advantage to the market that enables:

- No moving parts, significantly increasing the lens lifespan v.s. a mechanical actuator
- Hundreds of millions of cycles endurance
- Faster speed
- Robustness and unmatched vibration and mechanical shock resistance
- Close focus ability
- Low power consumption
- Silent operation





Attonics

FT-NIR spectral sensor — ready to go handscanner

Thanks to our multi-purpose spectrometer platform, we offer standalone spectrometer handhelds (such as our all new ATTO₃) for VIS-NIR and Fluorescence Spectroscopy as well as micro-spectrometer modules coupled with our SDK for integration into any system or application demanding spectral sensing capabilities.

Our customers range from the Semiconductor industry to market leaders in personal care and home appliances. Our spectrometers are used in applications related to Colour Measurement and Colour Communication, Food Safety & Freshness Control, Counterfeit Detection, Haircare & Skincare, Plasma Process Monitoring, LED Manufacturing & Display Calibration, Inline Process & Quality Control, and many more.

- Ultracompact
- High-Performance
- Cost Effective









Photonics Industries

The Pioneer of intra-cavity solid state harmonic lasers, Nano, Pico, Femto s.

Photonics Industries International (PI) designs, develops and manufactures diode-pumped solid-state laser. Photonics Industries serves industrial, scientific and defense customers, providing a broad range of diode-pumped picosecond and nanosecond lasers as well as many tunable and customized laser solutions. Photonics Industries has a strong commitment to adapting and improving our products to keep up with today's high demanding technology markets.

Applications can be found in industrial, scientific, defense and medical market.

Nano, Pico, Sub Nano and Femto second lasers,

following wavelengths 211, 266, 351, 355, 527, 532, 1053 & 1064 nm.

Manx Precision Optics

High Precision optics and Coatings

Manx Precision Optics Ltd. a family-owned manufacturer of high precision optics. Founded in 2013, the company employs an experienced workforce with all senior employees having over 20 years experience in precision optics manufacture. Our Capabilities:

- Optical Windows
- Air-spaced Etalons
- Solid Etalons
- Protected Metal Mirrors
- Reference Flats

- High-LIDT Mirrors
- VIPA Ftalons
- Ultrafast Mirrors
- Ultrafast Polarisers
- Plate Polarisers
- Optically contacted Cube Polarisers
- Beamsplitters
- Beamsamplers



Manx Precision Optics







Jenoptik

Lasers for Precise and Efficient Material Processing

The JenLas® fiber ns 25-105 laser product family opens up a wealth of possibilities for laser material processing applications: the pulsed nanosecond fiber lasers are suitable for labeling, marking, and cutting different materials, as well as for structuring your surface exactly. They create laser marks on metals or plastics, for example, while extremely thin layers can be removed precisely.

The JenLas® fiber ns product family is available in 20, 30, 50, 100 & 500 wattpower categories, based on reliable, industry-tested fiber laser technology. The lasers are air-cooled, offer pulse duration settings ranging from 190 to 250 nanoseconds, and reach peak pulse powers of up to 8 kilowatts. The laser's immunity to back reflections has been significantly improved through optical isolators, which are built-in as standard.

















Gentec-eo

Partners for accuracy Laser beam measurement experts

Gentec-EO has a long history in the laser measurement field. With a 45 year track record of innovation and providing quality solutions for laser power and energy measurement applications from the factory to the hospital and laboratory, Gentec-EO stands ready to serve you now and in the future with products in the following categories:

- Laser power and energy monitors
- (High) power meters
- Energy meters

- Photo detectors & THz detectors
- Beam diagnostics

Get accurate measurements with fast response times with our power and energy meters. Available with various absorbers, with the highest damage thresholds. The power meters can be connected with a computer via USB or Bluetooth.

Last, but certainly, not least: we also provide calibration services for Gentec's monitors and power and energy meters.

Calibration service ensures traceability to the:

- National Institute of Standards and Technology (NIST) &
- Physikalische Technische Bundesanstalt (PTB).

Eksma Optics

Optical Components, Laser line components, Pockels cells, Crystals

Since 1983 EKSMA OPTICS is a manufacturer and global supplier of precision optical components, optical systems, laser & nonlinear frequency conversion crystals, opto-mechanics and electro-optical Pockels cells with drivers used in lasers and other optical instruments.

Our laser components are used across different laser and photonics applications in scientific, industry, medical and aesthetic, military and aerospace markets.

The applications of the laser components offered by our company cover a wavelength spectrum from the UV (193 nm) through VIS to IR (20 μ m) and at Terahertz (1-20 THz) ranges.

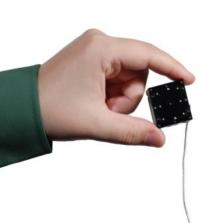
EKSMA Optics polishing facility specializes in the processing and final polishing of flat optics made of BK7, UVFS, Infrasil, CaF2 and also BBO, DKDP, LBO, ZnGeP2 and AGS crystals whereas high quality precision polished faces are required for high power laser applications.







New Scale Technologies



SALVO Technologies

Since 2006, Salvo Technologies and their various divisions have provided an integrated suite of technologies to serve the security and defense, medical, industrial, semiconductor, commercial, science and technology markets.

Salvo Electro-Optics, specializes in the fabrication of optical and electro-optical components and assemblies. Their products range from zoom and objective assemblies, to the full range of optical components including beamsplitters, filters, output couplers, and etalons, as well as laser gain media and nonlinear crystals. Salvo EO can access the engineering capabilities of Salvo Defense and Salvo Coatings to customize systems to achieve design goals.

Salvo Coatings combines the microlithographic processes of the semiconductor industry with precision optical thin film coatings to create a wide range of multispectral and hyperspectral sensing and imaging products. Their products enable key technologies in the dynamic industries ranging from Industrial to Agriculture industries.

Another division, EOITech, provides sensing and imaging products and services by combining unique processes to solve complex problems in the medical, consumer, and industrial markets. EOITech has a goal to bridge a gap between scientific research and commercialization of products by creating cutting edge technology.

Salvo Technologies is a vertically integrated manufacturing company based in Seminole, Florida since 2006. With more than 10 divisions, Salvo caters to every industry as the go-to supplier in sensing and imaging, optical components and assembly, photonics, and more.

NewScale Technologies

M₃ Micro Motion Modules for Product Developers

Since 2002, New Scale has been awarded numerous patents in the development of piezoelectric motors and motion systems. These patents, combined with our proprietary know-how, enable us to create products with unmatched miniaturization, micrometer-scale resolution, fully-integrated micro-electronics and intelligent firmware.

M₃ Smart Modules

Our M₃ Smart Modules are "all-in-one" motion systems, with built-in electronics, that deliver sub-micrometer precision in the smallest smaller possible space. Each M₃ Smart Module is a fully engineered solution that integrates our patented and propriety piezoelectric motor, drive, sensing, guide and control technologies.

Our standard M₃ Smart Modules include M₃-LS linear stages, M₃-RS rotary stages, M₃-FS focus modules and M₃-L linear actuators. These positioning modules and micro stages deliver ten times better movement precision and ten times the force and range of motion of VCM, stepper motor or galvo solutions.

Besides standard products NewScale can also do custom products.





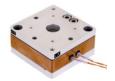
Vacuum

To manage your photonics vacuum application, together with our partners Te Lintelo Systems has a wide variety of products. For instance, to deliver your light into the vacuum chamber the best way and once in vacuum to highly and accurately manipulate photons using specialized equipment up to V-11.

Think of vacuum multi axis positioning systems, fiber optic vacuum feedthrough solutions, optical beam handling and manipulation systems, photonic vacuum chamber windows and vacuum optical fibers and components.

Please contact us to discuss your (photonics) vacuum application.







EUV

Specific for the EUV region we provide camera's which are designed for direct detection in EUV, VUV and X-ray imaging. For example the PI-MTE3 in-vacuum CCD cameras from Princeton Instruments are engineered to encompass the energy range ~10 eV to 30 keV.

Besides camera's Owis has the V⁻¹¹ product line consisting out of :

- Optical Beam Handling Systems
- Optical Components
- Manual Positioning Systems
- Motorized Positioning Systems





te lintelo systems bv photonics. our passion!





Let us know your application!









you take care of the coffee, we take care of the coffee mug & cookies!









