



OPTO ENGINEERING



AUTOMATE

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PRESS RELEASE

Opto Engineering® **THE TELECENTRIC COMPANY** has evolved over the years, releasing hundreds of new, diverse products and developing multiple areas of expertise.

We can say that we specialize in **OPTICAL IMAGING TECHNOLOGIES**.

OPTO ENGINEERING® is one of the world leaders in telecentric technology as well as the creator of many other optical products which have helped our customers solve machine vision applications once considered impossible. Over the years, our expertise has expanded to other technologies: today we are also a primary supplier of advanced **LED illuminators, cameras, and imaging software.**

For all these reasons Opto Engineering® has become the partner of choice in high-end optical applications for many of the major machine vision companies worldwide.

**Opto Engineering®,
OPTICAL IMAGING TECHNOLOGIES.**



OPTICS



LIGHTING



CAMERAS



SOFTWARE



ACCESSORIES



KITS



CAMERAS

ITALA G series

Industrial GigE Vision PoE cameras made in Italy

ITALA G is a series of GigE Vision industrial area scan cameras designed and manufactured in Italy by Opto Engineering®. With resolutions ranging from 0.4 MP to 31 MP, the ITALA G series features robust and reliable cameras with excellent quality-to-price ratio and suitable for any imaging application.

ITALA G.EL series

Industrial GigE Vision PoE cameras with liquid lens control

ITALA G.EL is a series of GigE Vision industrial area scan cameras with integrated liquid lens control designed and built in Italy by Opto Engineering®. With resolutions ranging from 1.6 MP to 12 MP, the ITALA G.EL cameras allow to simplify the integration of Optotune® liquid lenses thanks to a built-in driver to avoid an external dedicated hardware.



ITALA®



IT'S TIME TO GO ITALIAN!



EL5MP series

NEW 5 MP fixed focal length lenses for sensors up to 2/3" with liquid lens technology

The **EL5MP series** features 5 MP fixed focal length optics for sensors up to 2/3" with integrated liquid lens technology. The high-resolution optical design combined with the liquid lens allows autofocus within milliseconds and acquisition of high-quality images.

These optics are ideal for high-speed inspections and at different working distances, for example, those typical of the food and beverage sector as well as the pharmaceutical and cosmetic industries. Moreover, EL5MP optics are ideal for guiding robotic arms used for applications such as pick-and-place and bin picking.



TCZEL series

NEW Telecentric zoom lens with dual liquid lens technology

The **TCZEL** telecentric zoom lenses feature a revolutionary design that integrates two liquid lenses. This allows you to precisely adjust both the magnification and the working distance of the optics without any moving parts, thus reducing the risk of wear. In addition, the liquid lens technology allows you to change optical parameters faster than any traditional zoom and to control everything via PC.



TC10M series

NEW Telecentric lenses for sensors up to APS-C and 4k line scan cameras

The **TC10M series** features high-resolution telecentric optics with an image circle of 28 mm that perfectly fit cameras with large sensors, up to APS-C format. These lenses also feature a compact and robust design that is suitable for industrial environments.



TC4MHR and TC4MHR CORE series

NEW MODELS TC4MHRP and TC4MHRP CORE:
High-resolution classic and CORE telecentric lenses for sensors up to 4/3"

The **TC4MHR and TC4MHR CORE series** feature high-resolution telecentric lenses designed for sensors up to 4/3" and represent the perfect choice for advanced metrology applications.

Our TC4MHR and TC4MHR CORE lenses ensure unmatched resolution, low distortion and homogeneous image quality while offering the best performance to price ratio.



TCLWD3M series

NEW Fixed working distance telecentric lens for up to 1.1" sensor

The **TCLWD3M series** is a range of telecentric lenses specifically designed for electronic, semiconductor and fasteners applications. The long working distance allows for extra space, which is essential if you need to install illumination, pick-up tools or provide the necessary separation from hazardous production processes.

These lenses have been optimised to match up to the new 1.1" Sony sensor in order to deliver high-resolution and excellent image quality.





PCHI series

NEW MODELS PCHI3M:

Hole inspection optics for 1.1" sensors

The **PCHI optics** have been developed by Opto Engineering® to easily inspect holes, cavities and containers. Unlike common optics or so called "pinhole lenses" which can only image flat fields of view, hole inspection optics are specifically designed to image both the bottom of a hole and its vertical walls.

The new **PCHI3M** models have been optimised to match up to the new 1.1" Sony sensor in order to deliver high-resolution and excellent image quality. PCHI3M is available also with a manual focusing mechanism (**PCHI3M-MF**) and with integrated liquid lens technology (**PCHI3M-AF**).



PCBP series

NEW MODELS PCBP-AF: boroscopic probes with liquid lenses

PCBP probes are used to inspect holed objects such as engine parts, containers and tubes whose hidden features can only be controlled by introducing a probe into the cavity.

The new **PCBPxx-AF models** feature integrated liquid lenses for fast and precise focusing of different diameters. Optimized for sensors up to 2/3", these lenses further enhance the extreme versatility of the probes.



PCCD series

NEW PCCD2M: high-resolution catadioptric lenses for 360° top and lateral view for sensors up to 1"

PCCD2M is the latest addition to our series of catadioptric lenses for 360° top and lateral view with just one camera positioned above the object.

This allows you to avoid part rotation or multiple cameras keeping the overall footprint of the vision system extremely compact.

PCCD2M is designed to be used with high-resolution sensors up to 1", making it ideal to inspect components like pharmaceutical containers, plastic caps, pre-forms, bottlenecks, screws and other threaded objects.



MC3M series

Nearly zero distortion macro lenses for sensors up to 1.1"

The **MC3M series** is a new family of macro lenses designed to acquire images of small objects with high-resolution and virtually no distortion.

Optimized for 1.1" sensors, these compact and cost-effective optics are ideal for very accurate measurement and inspection applications.



MC series

NEW MODELS Nearly zero distortion macro lenses for sensors up to 2/3"

The **MC series** macro lenses are designed to acquire images of small objects when both very good resolution and nearly zero distortion are needed.

The recently launched models 0.10x, 0.20x, 0.40x, 4.00x, 5.00x and 6.00x increase the product range of the series allowing to expand the number of tasks that can be solved.





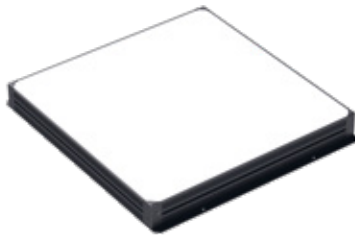
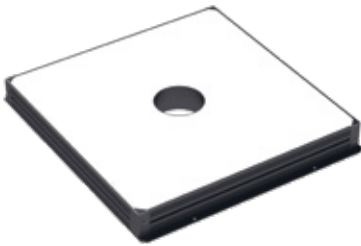
High-performance LED illuminators

Opto Engineering® offers a wide range of innovative and robust LED illuminators to solve simple to complex machine vision applications.



To meet increasingly challenging illumination requirements, Opto Engineering® expanded its lighting product portfolio introducing new models and series of LED illuminators suitable for various industries and inspections, including:

- RGBW ring, dome and coaxial lights and RGB bar lights
- Segmented ring and dome light with 4 independently and simultaneously controllable channels
- **LTPH series** of diffused continuous LED flat dome lights
- **LTBCL series** of large continuous LED backlights
- **LTBRLS series** of compact LED barlights



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