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Booth B5.113 • Hall B5

OPTO ENGINEERING

OPTO ENGINEERING®, OPTICAL IMAGING TECHNOLOGIES

Opto Engineering® **THE TELECENTRIC COMPANY**, has evolved through the years, releasing hundreds of new, diverse products and developing multiple areas of expertise. Today we can say that we specialize in **OPTICAL IMAGING TECHNOLOGIES**.
Our focus is to build and provide every component needed to solve imaging applications: starting from our know-how in optics and competence in lighting, we can supply the best combination of tools available on the machine vision market.
For all of 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 & AI vision units**.

AI VISION UNITS

Self-learning vision system based on artificial intelligence

ALBERT® is the first artificial intelligence system that solves quality assurance problems for the baking industry. Opto Engineering® presents ALBERT®, the innovative vision system for automatic inspection of food products, flexible and easy to use. Thanks to its advanced artificial intelligence ALBERT® self-learns the shape and color of products by observing a normal production batch that is immediately ready to be sorted. ALBERT® is distributed by Opto Engineering®, an Italian company specializing in industrial imaging technologies and has partnered with numerous automation integrators all over the globe. ALBERT® originates from a joint venture between Opto Engineering® and Sensure.

VisionSystems DESIGN
2017 Innovators Awards
BRONZE

Artificial Intelligence works where all the others fail: PENSO™, AI based vision unit • *NEW*

For some applications, the usual programming approach just doesn't work. Golden reference and perfectly repeatable conditions are necessary. Algorithms require intensive fine-tuning and lots of attempts. But thanks to Opto Engineering® PENSO™, the Artificial Intelligence based vision unit, the problem is solved! PENSO™ is designed to work on unpredictable variations and defects, as well as on objects difficult to model or without a golden reference.

As a human operator would do after observing some samples, PENSO™ understands what will be considered normal and acceptable. Since neither modeling nor programming is needed, with just some elementary configuration tools you can immediately understand if an application is feasible or not with just some elementary configuration tools and really save a lot of time.

Adaptive lens for fast focusing, AO series • *NEW*

Dynamic industrial inspections need advanced technology to maintain focus in challenging applications. Adjusting the focus of a camera on a robot arm, or tracking items across the field of view, are common examples where active focusing is required.

For this reason, Opto Engineering® has developed a small plug-and-play focusing lens with embedded optics and electronics. Adjusting focus on the fly has never been so easy.

Hole inspection optics for 360° inside view

PCHI optics have been developed by Opto Engineering® to enable the perfect viewing of holed objects, cavities and containers. Unlike common optics or so called "pinhole lenses" which can only image flat fields of view, hole inspection optics are designed to image both the bottom of a hole and its vertical walls.

Thanks to the large view angle (>82°) and innovative optical design, these lenses are compatible with a wide range of object diameters and thicknesses. Hole inspection optics are the solution of choice to inspect different object shapes such as cylinders, cones, holes, bottles or threaded objects.

Pericentric lenses: 360° top and lateral view

PC pericentric lenses are unique optical systems designed to perform a complete inspection of an object up to 60 mm diameter quickly and reliably: just one camera acquisition is enough to capture the top and lateral faces of an object. Thanks to this innovative design there is no need to over-complicate the inspection setup with the use of additional mirrors, while delivering the magnification and field depth required to acquire the entire object volume.

The term pericentric comes from the specific path of the light rays: the resulting image shows the lateral views wrapped around the top face, which makes PC series ideal for cylindrical objects, very common in the beverage and pharmaceutical industry. Classic application examples include bottleneck threads inspection and data matrix reading - the code will always be properly imaged, no matter the facing direction.

Contact us

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