

# New 3D optical sensor, *S mart*

Press release 05/05/15

By Sensofar Metrology, Barcelona (Spain)



## Sensofar releases *S mart*, a high-resolution 3D sensor for automated production systems



Caption: The *S mart*, a new 3D optical sensor designed for integration in production systems.

Sensofar Metrology has released a new high-resolution 3D optical sensor system, the *S mart*. The new system is ideally suited for integration into automated production systems, in particular for inline process measurement and process control tasks. At the same time, the *S mart* still manages to deliver both world-class performance and an intuitive user experience.

While the new *S mart* is compact, flexible and lightweight, it makes no compromises in terms of outright performance. As for Sensofar's flagship model, the *S neox*, the new *S mart* combines confocal, interferometry and focus variation techniques in the same sensor head. When combined with a single LED light source (red, green, blue or white) chosen precisely for the intended application, the *S mart* is ideal for obtaining a fast, non-invasive assessment of the 3D micro- and nanogeometry of technical surfaces – including surface resolution down to 0.1 nm, surface roughness, textures and structuring, and thin film thickness measurements.

Aside from a high-resolution motorized turret for interchangeable objectives, there are no moving parts that might complicate measurement repeatability. When fully integrated into a production system, the fixed (and automated) reference frame for measurement thus also provides a route to better process optimization. And a newly developed software interface, *SensoSCAN 6*, offers an even more intuitive interface and includes customizable tool features and new and powerful analysis algorithms that have been especially designed for automated inline process applications – all easily accessible system-wide using the provided SDK.

Drawing on over 14 years of experience in designing optical metrology systems for both R&D and industry, including supplying OEM metrology engines to leading systems integrators, Sensofar has been able to optimize the design of the *S mart* for easy integration into a wide range of inline applications. Closed-loop capability and orientation-independent mounting further underline the *S mart*'s design purpose – maximum performance and flexibility for automated production processes.

The *S mart*'s versatility makes it appropriate for a broad range of applications. Typical applications include all stages of micromanufacturing (EDM, milling or laser), automatic optical inspection (AOI), 2D and 3D

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measurements of semiconductors, and surface characterization (via a robot or portable stand) for automotive and CMP applications.

Further details can be found at [www.sensofar.com/smart](http://www.sensofar.com/smart)

## About Sensofar

**Sensofar** is a leading-edge technology company that has the highest quality standards within the field of surface metrology.

**Sensofar Metrology** provides high-accuracy optical profilers based on interferometry and confocal techniques, from standard setups for R&D and quality inspection laboratories to complete non-contact metrology solutions for online production processes. Sensofar Metrology offers technology that enables its customers to achieve real breakthroughs, particularly in the semiconductor, precision optics, micromanufacturing, thick and thin film and material testing technology fields.

The Sensofar Group headquarters is located in Barcelona, the technological heart of Spain. The Group is represented in over 20 countries through a global network partners and has its own offices in Asia, Japan and the United States.

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