**LASER World of Photonics, Munich 24–27 June 2025 | Hall 3, Booth B313**

**Laser Welding Without a Laser Protection Cell**

***Scansonic unveils a new laser welding optic at the LASER World of Photonics that meets Class 1 laser requirements, eliminating the need for an elaborate and costly laser protection cell.***

Berlin, June 2025 – Scansonic's new SCW (Safe Component Welding) laser welding optic enables laser welding without a protective cell. The compact processing unit meets Class 1 laser requirements, saving significant investment costs and offering new flexibility for production use.

The focus is on a specially developed protective attachment mounted on the optic. A form nozzle encloses the welding area, preventing the escape of dangerous laser radiation. It is customized to the geometry of each workpiece, ensuring reliable protection for operators without additional housing. Only a simple robot protection cell is needed, significantly reducing overall costs compared to traditional laser welding systems.

**Proven Technology – Now Even Safer**

The new welding optic is based on Scansonic's proven FCW system, which uses high-precision 3D scanner technology for accurate welding processes. An integrated image recognition system covers a working area of 5 x 25 mm, allowing users to securely determine the welding position using a teach-in procedure.

A promising application is the fixation of the inner door part to the outer part after folding in body construction. The adhesive in the folded connection cures only during painting. Until then, additional fixation points are necessary, which can be welded with the SCW system.

**Double Security: Integrated Safety Technology**

A key element is the comprehensive safety system: redundant sensors continuously measure the distance between the workpiece and the form nozzle. If the limit of 0.2 mm is exceeded, the beam source is not released. The solution meets all requirements for industrial series production.

The new SCW optic is available as a fully integrated solution – including control (with safety components), laser source from Brightlight Laser, cooling, and extraction. Customers benefit from a coordinated system that significantly reduces engineering effort.

Scansonic will showcase the innovation for the first time at the LASER World of Photonics in Munich (Hall 3, Stand B313).

*2.013 characters (Text without headline and intro)*

**25 Years of Scansonic MI GmbH**Scansonic offers systems and solutions in the fields of laser welding, laser brazing, laser cutting, laser hardening, as well as optical sensing and process monitoring systems. With innovative solutions and one of the world’s most modern laser application centers, the company supports customers in the automotive, rail vehicle, and energy technology industries in realizing highly precise and reliable processes. Scansonic MI is a world market leader in laser-based, tactile joining systems for body manufacturing.

The company is part of the Berlin.Industrial.Group (B.I.G.), headquartered in Berlin, with around 360 employees.

[**www.scansonic.de**](http://www.scansonic.de) **/** [**www.berlin.industrial.group**](http://www.berlin.industrial.group)

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**Picture**

The new SCW laser welding optic can be operated in a production environment without a laser protection cell.

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