Press Release

Symeo at TOC Europe 2025

Functional safety through radar distance measurement

17–19 June 2025

Booth E62

Neubiberg, Germany, 6 May 2025 – Symeo will present radar sensor innovations at TOC Europe from 17 to 19 June 2025. LPR®-SAFE will be the highlight at booth E62 at the Ahoy Rotterdam event center. This industrial radar solution is the only one that measures distances to implement functional safety compliant with EN ISO 13849 PLd.

At TOC, Symeo will be showcasing its LPR-1DHP-291 and LPR-1D24 sensor systems, which are already widely used for collision avoidance and reliable positioning in seaports and container terminals. Applications of these two sensors can now be upgraded to LPR-SAFE installations. LPR-SAFE, which is certified according to EN ISO 13849 PLd, enables reliable distance measurement based on redundant radar sensors. LPR-SAFE provides manufacturers with a certified solution for developing functionally safe lifting equipment installations. The Symeo solution is based on an EN-ISO-13849-PLd-certified function block on a fail-safe Siemens S7 PLC and the redundant measurement of distances using radar sensors. The function block checks the plausibility of the distance measurements and confirms them as functionally safe if they match.

HD Imaging Radar

Another main theme of the TOC presentation is HD Imaging Radar, a technology in which the radar experts from Symeo combine the reliability of radar sensors with a high resolution comparable to a laser scanner. HD Imaging Radar is based on SAR (Synthetic Aperture Radar) and makes it possible to generate detailed images of objects and environments.

**Bidirectional Secondary Radar**

In addition, Symeo is presenting a new standard feature of its radar sensors: bidirectionality. Previously, in secondary radar mode the measurement data was only available on the master side. With bidirectionality the measured values are available on both sides of the measurement path. This opens up a convenient option for implementing simple anti-collision solutions between two crane bridges on the same level, for example.

**Available image material**

The following printable images are available for download on the Internet:
<https://kk.htcm.de/press-releases/symeo/>

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| Image source: Symeo**LPR-SAFE, which is compliant with EN ISO 13849 PLd, enables safe distance measurement based on redundant radar sensors.**  | Image source: Symeo**HD Imaging Radar is based on SAR (Synthetic Aperture Radar) and makes it possible to generate detailed images of objects and environments.** |
| Image source: Symeo**Bidirectionality enables simple anti-collision solutions between two crane bridges on the same level.** |

**Symeo**

Symeo develops and markets products and solutions for precise, non-contact, maintenance-free position detection, distance measurement, and collision avoidance. Symeo’s products feature extremely robust designs to make them suitable for applications in harsh industrial environments.

Symeo’s LPR® locating technology offers a wireless and real-time-capable measuring system that is ideally suited for industrial applications. Symeo has many years of experience in the development of cost-efficient and customer-specific industrial solutions on the basis of LPR® technology.

The company delivers standardized products and complete solutions to system integrators, original equipment manufacturers (OEMs), and end customers worldwide.

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