Press release

No. 617e

**Precisely inspect and analyze painted car bodies**

**Micro-Epsilon has established itself as a leading supplier of automated paint defect inspection solutions for premium car manufacturers. In order to detect defects on painted car bodies, car manufacturers need measuring systems that are ultra-precise and detect the smallest anomalies in the surface structure. The reflectCONTROL Automotive systems detect the smallest surface defects on painted car bodies. They also provide important data for analyzing and optimizing the painting process and for downstream automatic error processing.**

With Micro-Epsilon reflectCONTROL, defects on glossy surfaces can be detected and classified at rates of almost 100 percent. The system is superior to conventional light tunnels, particularly in the area of paint defect inspection in automotive production. Thanks to the large database, the manufacturers of automatic processing systems are able to assign the correct processing strategies to the defects. This reduces unnecessary defect handling and thus saves the OEM resources and costs.

Micro-Epsilon uses reflectCONTROL sensors on robots to check for paint defects on finished car bodies. Two to four robots work at each inspection station and each have one sensor, allowing the entire car body to be measured. For very short cycle times, two stations with four robots each have proven effective. However, the company can offer solutions for all required cycle times.

Micro-Epsilon achieves its high coverage thanks to outstanding defect detection that uses AI algorithms. First, the vehicle is measured from one measuring position to the next. The defect can be located within +/- 3 mm on the vehicle surface by projecting the detected defects back onto the vehicle surface. 3D features such as height, depth and volume are added to each defect using 3D reconstruction, which is unique on the market. All collected data is saved in an XML file and is thus available to the vehicle manufacturer at any time.

approx. 2,000 characters



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