

MESSRING provides Child Presence Detection Dummy

The innovative child dummy enables the functional testing of child presence detection systems in the passenger cabin according to the Euro NCAP protocol / The MESSRING CPD dummy replicates the breathing impulse and presence of a sleeping newborn child in a realistic and reproducible way

Ingolstadt, March 22, 2022 - Every year, children are left unattended in parked cars and lose their lives due to heat stroke. Child Presence Detection (CPD) systems are designed to prevent just that. The CPD systems use various sensors to detect the presence of a child in the vehicle and to inform and warn the driver whenever a child is left in the vehicle. The newly developed MESSRING CPD dummy, which replicates a newborn in shape and size, enables reliable and standardized verification of presence, including respiratory movement, in vehicles.

The procedure ensures efficient testing and development

In functional tests, no real persons can be used to evaluate such systems. On the one hand, the requirements of standardization make the use of dummies unavoidable; on the other hand, the safety-relevant area of application of such systems in vehicles is primarily children aged 0 to 6 years.

Various systems can be used for occupant detection, including sensors that detect any movements of a child. The less an object moves, the more difficult it is to detect. The most difficult scenario to assume is a sleeping newborn with just the movement of the upper body caused by breathing.

This exact scenario can easily be implemented with the MESSRING CPD. The dummy meets the breathing rate of 30 bpm required by the Euro NCAP protocol and has a realistic amplitude of movement in the chest and abdomen. The breathing rate as well as the ratio of chest and abdominal breathing can be controlled and adjusted by a well-engineered pneumatic system. The battery-powered compressor can be easily stored in the trunk and connected to the dummy. The child dummy was deliberately manufactured without electric drives to prevent sensor irritation.

"With the inclusion in the NCAP rating from 2023 onwards, Child Presence Detection is getting the attention it certainly deserves. With comparatively simple means, human lives are saved in this way," says Dr. Igor Doric, Executive Director of MESSRING Active Safety, and adds "the CPD dummy should support all manufacturers and engineers to reproducibly test their CPD systems under realistic conditions and thus achieve the best possible detection for the protection of passengers."



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About MESSRING:

MESSRING GmbH is the world market leader for crash test technology. Based in the southwest of Munich, the mid-sized company's product offerings range from the realization of large, turnkey and multifunctional crash test facilities to the delivery of compact crash simulation test systems. In close cooperation with automotive engineers and manufacturers, MESSRING develops application specific solutions that enable the automotive industry to test their active and passive vehicle safety systems. With more than 130 employees and over 140 crash and sled test facilities installed worldwide, MESSRING has been contributing to making traffic and transportation safer for over 50 years.

As a pioneer in the field of passive safety, MESSRING has set itself the goal of also playing a leading role in active safety. For this reason, MESSRING Active Safety GmbH was founded in 2018, whose core competence is in the development of test systems for driver assistance systems and autonomous vehicles.

Further information can be found at www.messring.de.

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