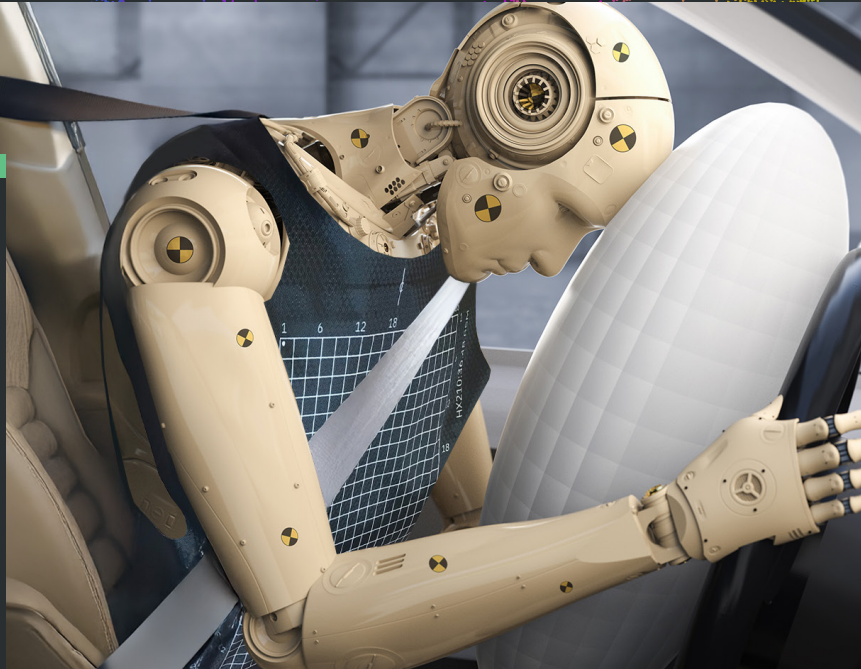


High-Speed (HS) Impact Vest

*Accurately Measure Seatbelt
Displacement on Hybrid III 5th
Female ATDs*

The High-Speed (HS) Impact Vest is a critical component of the Insurance Institute for Highway Safety's (IIHS) updated crash test protocol: the Moderate Overlap Frontal Crashworthiness Evaluation 2.0.

During crash tests, the vest enables safety engineers to record real-time belt position and movement on Hybrid III 5th Female ATDs in rear seats, while also providing detailed visualizations of impact pressures and precise quantitative measurements of applied forces.



KEY BENEFITS & FEATURES

Capture High-Speed Seatbelt Displacement & Impact Pressure Data

- The ultra-thin, flexible, and custom-fit sensor is engineered for the Hybrid III 5th Female ATD. A compatible version is also available for the THOR-50M ATD.
- With 1,700+ sensing points, the vest delivers consistent measurements, validated repeatability, and an unmatched level of detail for post-crash analysis.

Evaluate Vehicle Design & Improve Occupant Safety

- Obtain dynamic belt displacement and impact pressure measurements to assess vehicle performance and inform safer design decisions. The HS Impact software lets you easily review, analyze, and compare crash data.
- A range of sensors is available for testing across various crash scenarios—including whiplash, side impacts, airbag deployments, and emerging autonomous vehicle testing methods.

Improve Injury Prediction Through Reliable, Repeatable Testing

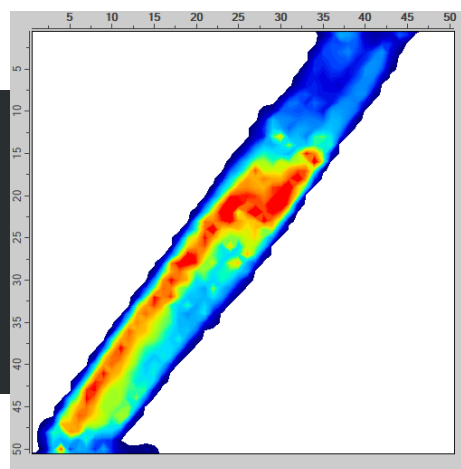
- With proven calibration stability, the system ensures consistent data across dozens of test cycles, reducing the need for frequent recalibration.
- The integrated data logger is optimized for both crash sled and in-vehicle testing. It can be triggered remotely, and its downloadable files allow straightforward viewing and analysis of impact pressures across recorded timeframes.

HS IMPACT VEST SPECIFICATIONS

HX210:36.48.05M	
Overall Dimensions	40 x 41.5 cm (15.7 x 16.3 in)
Sensing Area Dimensions	18 x 24 cm (7.1 x 9.4 in)
Sensor Cell Resolution	0.5 x 0.5 cm (0.2 x 0.2 in)
Sensing Area Thickness	<0.11 cm (<0.04 in)
Sensor Cover Material	HyperD 300 - PU Polyester
Cable Dimensions	200 x 5 x 0.4 cm (78.7 x 2 x 0.2 in)
Pressure Range	0.7 - 88.3 N/cm ² (1 - 128 psi)



Pressure applied to an ATD from the seatbelt captured with the HS Impact Vest.



OUR PLATFORM INTELLIGENT DYNAMIC SENSING

The platform behind our vehicle safety testing products, Intelligent Dynamic Sensing, enables precise measurements and features highly detailed visualizations and smart data with AI-powered analysis — resulting in optimized performance, comfort, and safety.



Maximum performance sensing



Real-time data measurement and
highest-quality visualizations



AI-powered data analysis and
optimization

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