

HS Impact Vest

Measure Seatbelt Displacement on Hybrid III 5th Female ATDs

The High-Speed (HS) Impact Vest is part of the Insurance Institute for Highway Safety's (IIHS) updated crash test protocol, the Moderate Overlap Frontal Crashworthiness Evaluation 2.0. During crash simulations, it allows safety engineers to record dynamic belt position and movement on Hybrid III 5th Female ATDs in rear seats.

Additionally, it provides users with visualizations of impact pressures and quantitative measurements of applied forces.

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KEY BENEFITS

Capture Dynamic Seatbelt Displacement and Impact Pressure Data at High Speeds

- The thin, conformable, custom-fitting sensor is designed to fit the Hybrid III 5th Female ATD. A similar sensor is available for a THOR-50M ATD.
- The vest contains 1,700+ sensing points and offers consistent measurements, proven repeatability, and unprecedented detail for analysis.

Assess Vehicle Performance and Increase Occupant Safety

- Get dynamic belt displacement and impact pressure measurements to evaluate vehicle design for improved occupant safety. The HS Impact software enables you to review, analyze, and compare crash data.
- A variety of sensors are available to test in various crash scenarios such as whiplash, side impact, airbag, and new methods for autonomous vehicles.

Enhance Injury Prediction Simulations

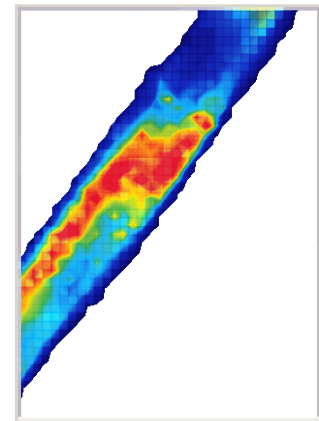
- Proven calibration stability leads to consistent data over dozens of cycles and results in reduced re-calibration frequency.
- The data logger is designed for crash sled and in-vehicle testing. It can be triggered remotely and the downloadable files allow viewing of impact pressures for recorded durations.



HS IMPACT VEST SPECIFICATIONS

HX210:36.48.05M

Overall Dimensions	400 x 415 mm
Sensing Area Dimensions	180 x 240 mm
Sensor Cell Resolution	5 x 5 mm
Sensing Area Thickness	<1.1 mm
Sensor Cover Material	HyperD 300 - PU Polyester
Cable Dimensions	2000 x 50 x 4 mm
Pressure Range	0.7 - 88.3 N/cm ² 1 - 300 psi
Calibration Accuracy	±10% Full-Scale
Cable Length	2 m



OUR PLATFORM

INTELLIGENT DYNAMIC SENSING

The platform behind our vehicle safety testing products, Intelligent Dynamic Sensing (IDS), 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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