

Pressure Based Side Impact Satellite



AK pSAT wet-zone



AK pSAT dry-zone



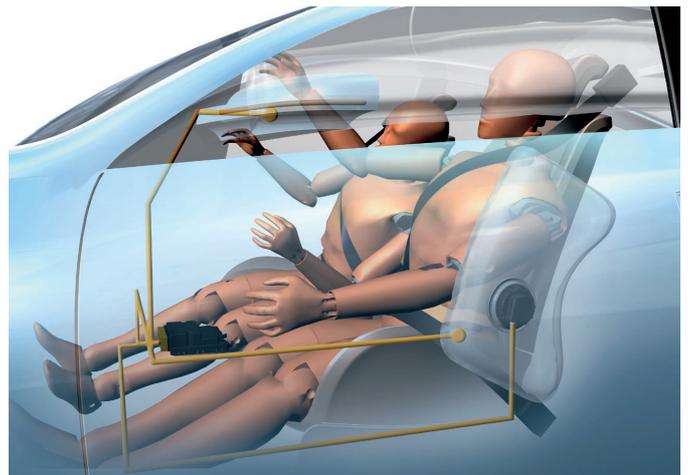
clipSAT

Fast reactions in side impacts – the pressure satellite

In a frontal collision, the safety systems have a little more time to react because there is a crumple zone at the front end of the vehicle. By contrast, in a side impact, just a few centimeters separate the vehicle's occupants from the oncoming object – which means that the available reaction time is much shorter. Side airbags, therefore, have to be activated far more quickly. And that is a function our pressure satellite – installed in the cavity of the door – fulfills admirably.

It rapidly detects the change of pressure within the door, thereby reacting extremely quickly. Because the sensor uses the entire side door as sensing area and does not rely on acceleration values of rigid vehicle structures in a crash, it also delivers excellent results in a pole crash. It does so both when the vehicle suffers a side impact from a narrow obstacle and in collisions with SUVs, in which the vehicle hit at a higher position than by conventional vehicles.

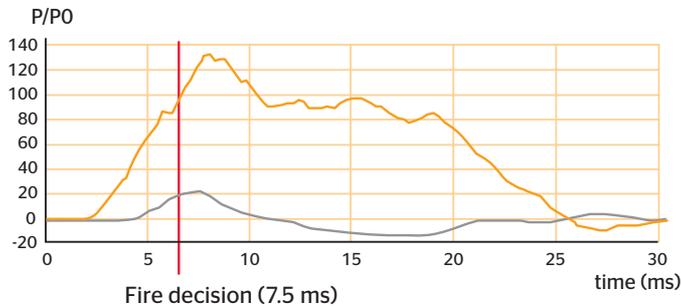
The latest generation of the pressure satellite moreover offers time and cost advantages in terms of installation: Without any need for tools or additional fasteners, the clipSAT can be pressed into place in the counter-part on the door with just a single motion.



Sensing Principle

- › Any deformation of the door leads to a pressure increase in the door cavity
- › Whole door is used as sensing area
- › Direct measurement of door deformation and intrusion
- › Physical principle directly linked to injury risk
- › No deployment without severe door damage

Pressure Sensing - fast firing decision
- easy discrimination from misuse

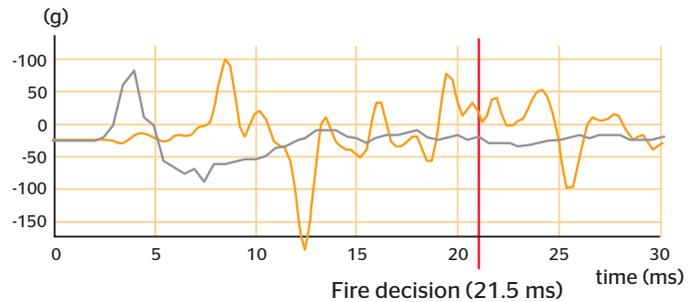


■ FMVSS 214: Oblique pole impact 32 kph ■ Misuse: Ball impact

Technical Features

- › Fully integrated solution: signal conditioning, sensor self diagnosis
- › Protocol handling
- › Synchronous data transfer with 10 Bit (PSI5)
- › Temperature range: -40 to +85 °C

Acceleration Sensing



Key Benefits

- › High system flexibility: solutions for wet and dry zone mounting available
- › Technology and standard of a key player in the market
- › Uncomplicated, fast installation - no tools needed
- › Maximum protection for side impacts in all vehicle classes
- › Standardized mechanical and electrical interface
- › Fast and reliable crash discrimination
- › Excellent misuse immunity
- › Extensive worldwide field experience
- › Excellent product quality (close to 0 ppm)

Field experience since 1996

millionfold sold, more than 25 applications with pressure satellites

Clear market trend

more than 10 OEM applying pressure satellites

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