Continental
The Future in Motion

Smart Air Springs
The HPTA Sensor

Air Spring Systems

Smarten Up Your Air Spring

The Brains of the Air Spring

Continental HPTA sensors can digitalize and transform traditional air springs into smart ones by measuring Height, Pressure, Temperature, and Acceleration, providing valuable operating data. This digitalization unlocks new possibilities for enhanced performance and monitoring, optimizing equipment performance and enabling predictive maintenance to reduce downtime and costs. Smart air springs are essential for industrial applications such as in rail transport where precise control, reliable performance, and early fault detection are crucial.

Advantages:

Comprehensive Monitoring:
- Real-time data on height, pressure, temperature, and acceleration.
- Data collection to analyze, understand and improve system performance.

Enhanced Control:
- Active and load-independent level control.
- Optimization of equipment performance, such as height adjustment for trucks, buses, railway, and off-highway vehicles.

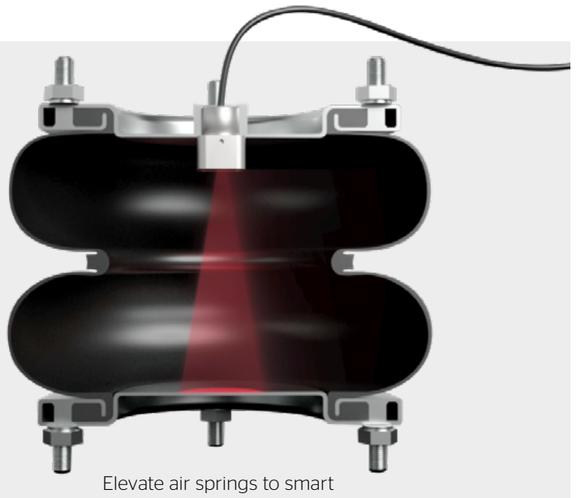
Preventive Maintenance:
- Early identification of potential issues to avoid unplanned downtimes.
- Reduction of maintenance costs through proactive problem-solving.

Energy Efficiency:
- Reduced energy consumption by detecting and addressing air leakages.
- Overall operational cost savings.

Continental's Comprehensive Solution for Smart Air Springs

Continental offers a starter kit to transform traditional air springs into smart ones with integrated HPTA sensors. The kit includes an air spring with the sensor, a USB adapter, and software with instructions, enabling users to test all sensor functions directly on their systems in their own environment, and experience the added value in practical operation.

To ensure a seamless transition to smart technology, Continental provides technical support for air spring design and sensor integration.



Elevate air springs to smart functionality with HPTA sensors.

HPTA Sensor Functions

Height
Crucial for active and load-independent level control, optimizing equipment performance such as the height adjustment for trucks, buses, railway, and off-highway vehicles.

Pressure
Helps detect leaks and ensures the system operates within optimal parameters, preventing unnecessary compressed air and energy consumption.

Temperature
Ensures the air spring operates within safe thermal limits, preventing overheating and potential failures.

Acceleration
Detects unusual vibrations or movements, allowing early identification of potential issues and ensuring smoother operations.

C+ Technology
Under the title of „C+ Technology", Continental focuses on developing new solutions for future air spring applications in the industrial sector. These solutions include reduced bellows volumes to increase energy efficiency and sustainability, special materials for greater safety, and smart Big Data applications for effective sensor-based data collection. Continental leverages corporate synergies, optimizing production materials, material development, and testing facilities. The integrated HPTA sensor technology is a key part of this technology offensive.

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