

### **OnHand**™

## Electro-Pneumatic Handbrake

Advanced parking brake offers new levels of vehicle safety and driver comfort

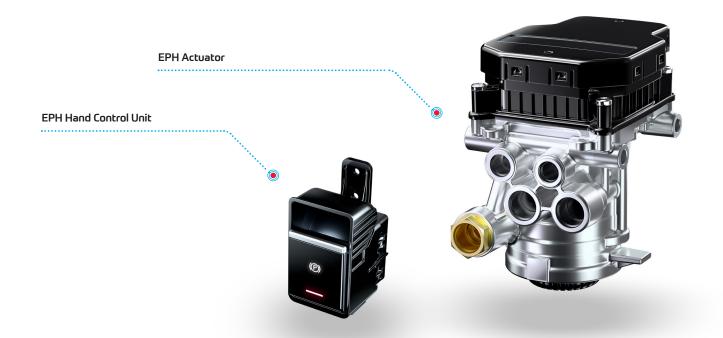


### **ZF's Advanced Parking Brake for Commercial** Vehicles

Building on decades of experience in engineering and manufacturing industry-leading mechatronic systems, OnHand™ replaces the conventional parking brake with an innovative, compact mechatronic device and an electronic hand control unit. With its variety of differentiating value-adding functionalities, the system does not only contribute to improved vehicle safety, but also comes as building block technology towards autonomous driving.

#### Value to Customers

- Helps improve vehicle safety and driver comfort
- Supports modern, aesthetic cockpit and dashboard designs
- Provides outstanding installation flexibility
- Reduces required pneumatic piping compared to a conventional parking brake
- Seamlessly complements a wide variety of braking systems



# Functional Advantages

#### OnHand enables a broad range of value-adding safety functionalities

Functions	Conventional Parking Brake	Electro-Pneumatic Handbrake
Auto actuation	×	<b>✓</b>
Manual actuation	✓	✓
Auto secondary braking	×	<b>✓</b>
Manual secondary braking	✓	✓
Anti-roll supervision	×	<b>✓</b>
ABS support	×	<b>✓</b>
CAN apply	×	<b>✓</b>
CAN pressure request	×	<b>✓</b>
Parking brake lock	×	<b>✓</b>
Emergency release	<b>✓</b>	✓
Towing mode	✓	<b>✓</b>
Maintenance mode	×	<b>✓</b>
Installation mode	×	✓

## Technical Features

- · Comes with automatic engage and release functionality
- · Electronic hand control unit allows for comfortable, manual actuation
- Provides premium automatic and manual gradual secondary braking functionalities
- Connects with braking and other system through smart CAN interface to ensure bi-directional communication
- Comes with a unique design concept based on bistable solenoid valve technology
- Developed according to latest functional safety standards in line with ISO 26262
- Relies on same hardware and software structure as mBSP™ to leverage synergies

## The ZF Difference

- Comes as stand-alone plug-in solution with unique design concept
- Offers integrated anti-lock braking support and anti-roll supervision
- Fulfills latest ECE R13 requirements concerning automatic actuation
- Leverages multiple synergies with ZF's Modular Braking System Platform mBSP™

For further product details contact your sales representative. For information about our product portfolio, visit: zf.com/cv To stay up to date, follow us on LinkedIn:



#### **About Us**

ZF is a global technology company supplying systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains of Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive product and software solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies a wide range of vehicle types. With its products, the company contributes to reducing emissions, protecting the climate and enhancing safe mobility. With some 157,500 employees worldwide, ZF reported sales of €38.3 billion in fiscal 2021. The company operates 188 production locations in 31 countries.

ZF's Commercial Vehicle Solutions (CVS) division is helping shape the future of commercial transportation ecosystems. Our mission is to be the preferred global technology partner to the commercial vehicle industry. Powerfully combining ZF's commercial vehicle systems expertise, extensive technology portfolio and global operations, the division serves the full commercial vehicle industry value chain. As the automotive industry progresses towards an increasingly autonomous, connected, and electrified (ACE) future, ZF's CVS division innovates, integrates, and supplies components and advanced control systems that help make commercial vehicles and fleets operate more safely and sustainably. CVS unites ZF's former Commercial Vehicle Technology and Commercial Vehicle Control Systems divisions, the latter being formed following ZF's acquisition of WABCO in Spring 2020.