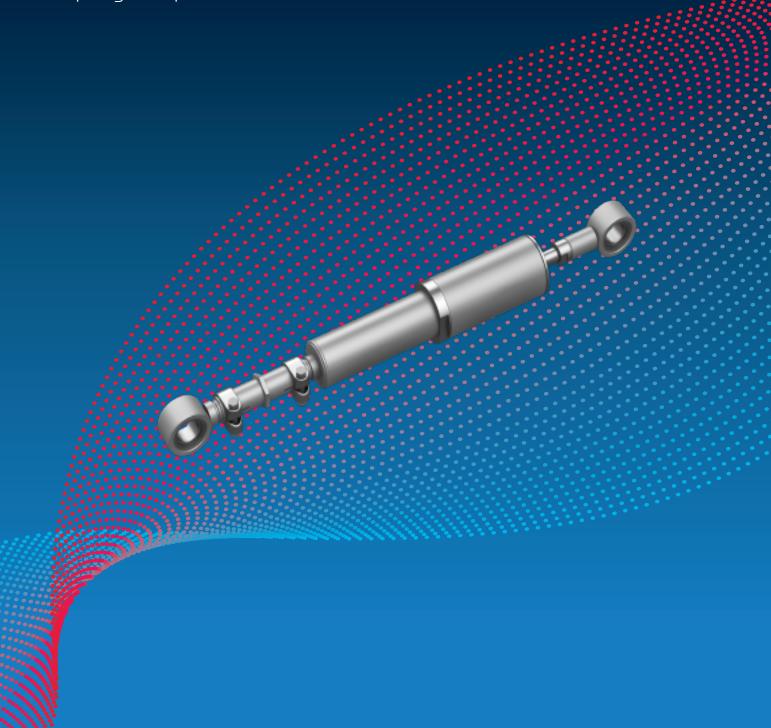


## Increases comfort and safety

Inter car damper ZF Spring Damper Element





# Innovative damper technology with integrated rebound and compression spring

The compact Spring Damper Element with an integrated tension and compression spring eliminates unwanted jolts effectively and is perfectly suitable for vehicles with little installation space.

Rail vehicles nowadays are subject to a constant optimization process to increase driving comfort and operating safety. ZF has developed a spring damper element especially for the corridor connection that controls or dampens relative movements. It is mounted between the bodies of the rail cars which helps the movements of the cars compensate for one another. In other words, the movements are harmonized because the cars are decoupled from one another. The ZF Spring Damper Element can be adapted flexibly and according to the individual customer's respective requirements. Both, the requested damping and the suitable spring characteristics, can be defined within a rather wide range. The adjustable invehicle length allows for the compensation of tolerances.

### **Technical data**

Length setting

Size T50/28
Stroke free selectable

Tube  $\emptyset$  110 mm (variable depending on the design)

+/- 15 mm (or acc. to customer spec.)

Damping force max. 10,000 N / 0.1 m/s

Spring force max. 50 kN (or according to customer spec.)
Weight approx. 21 kg (depending on the design)

## Highlights

- Cost-efficient thanks to its modular design
- Absolutely maintenance-free and therefore low LCC
- Elastomer spring element in the rebound / compression direction
- Broad range of damping and spring characteristic curves is possible
- Tolerance compensation thanks to the adjustable length in the vehicle

### ZF Friedrichshafen AG

Rail Vehicle Dampers Bogestraße 50 53783 Eitorf / Germany Phone +49 2243 12-383 rail@zf.com

For more information:



www.zf.com/rail