

# MAGNETACT

## Magnetic Track Brakes for LRV's: MagnetAct Rigid & MagnetAct Flex

Magnetic track brakes (MTBs) apply brake force directly to the rail. Track brakes from Knorr-Bremse offer performance and reliability. Extensive in-service operation around the world is proof of the technological leadership of Knorr-Bremse.

### Customer benefits

- Independent braking system
- Braking force applied directly to the track
- High braking performance even under poor track conditions
- Total deceleration can be increased safely
- Shorter braking distance due to rapid response behaviour
- Track cleaning effect: improvement for wheel-effective brake systems

### Applications

- Light rail vehicles
- Metros
- Urban solutions



**KNORR-BREMSE**

## MagnetAct Rigid

Example of MTB designs applied to conventional streetcars and metros



### Technical Data

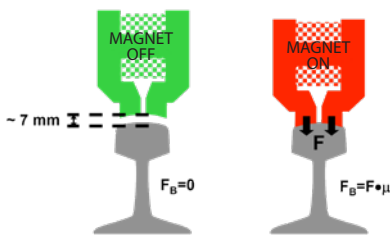
- Attractive force: 72 kN/m
- Effective braking length: up to 1200 mm
- Width / height of magnet: 115 mm / 106 mm

### Benefits

- Lower energy consumption (up to -15%)
- Lightweight design (up to -15%)
- Easier maintenance of pole shoes
- Customer friendly cable connection system

### Function

Magnetic track brakes are magnetically attracted to the rails. The brake force is built up by using the friction between the magnetic track brake and the rail. Rapid braking, automatic braking and also emergency braking are typical tasks for MTBs.



## MagnetAct Flex Compact

Example of MTB designs applied to streetcars and metros running up to high speeds



### Technical Data

- Attractive force: 65 kN/m
- Effective braking length: up to 1300 mm
- Width / height of magnet: 115 mm / 115 mm

### Benefits

- Higher performance at high speeds (up to +30% compared to similar rigid magnet)
- New compact design
- Easier maintenance of friction elements
- Customer friendly cable connection system

### Range of use

Magnetic track brakes are activated automatically in case of emergency braking and should also be activated under low adhesion conditions or on steep descents.

### Elastomer Spring Suspension

- Improved kinematics and dynamics (damping function)
- Reduces noise level significantly  
1 dB(A) quieter than steel spring suspension
- Fail-safe design



## Knorr-Bremse Systeme für Schienenfahrzeuge GmbH

Moosacher Straße 80  
80809 Munich  
Germany  
Phone: +49 89 3547-0  
rail.knorr-bremse.com

