

COMORAN – Condition Monitoring for Railway Applications



Applications

- High-Speed Trains
- Locomotives
- Metros
- Passenger Trains

COMORAN: Condition Monitoring for Railway Applications

Bogie monitoring and diagnostics

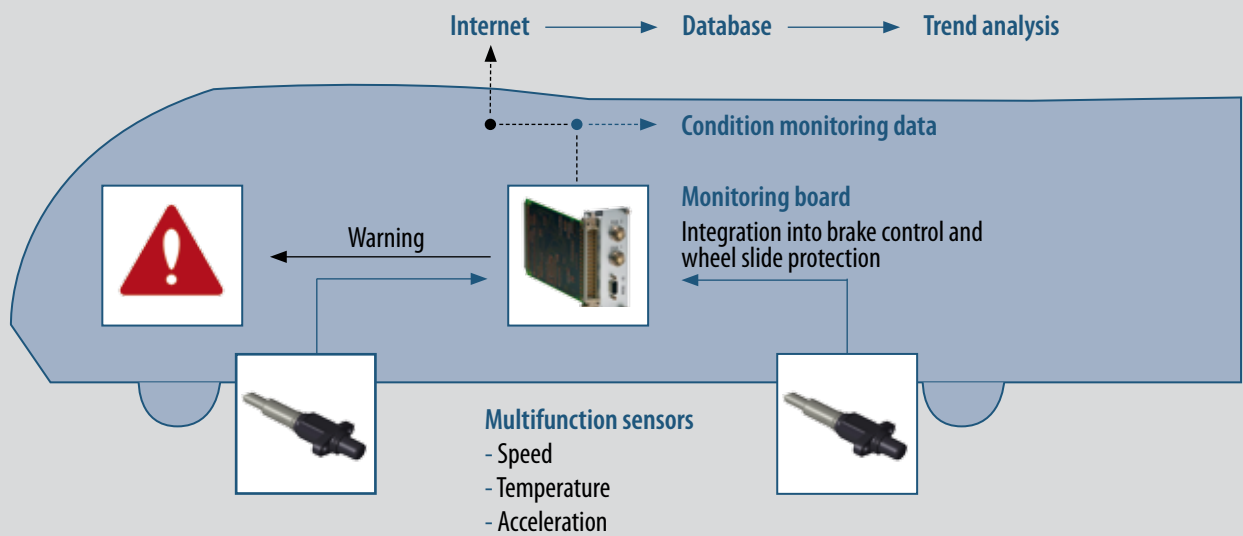
Knorr-Bremse has developed a monitoring and diagnostic system for powered and unpowered bogies and their components. Integrated into the braking system, it identifies critical and safety-relevant conditions such as damage to wheelset bearings, hot axle boxes, unstable running or derailment, according to TSI requirements. The system also provides comprehensive data that enables condition-based maintenance work to be carried out economically.

CUSTOMER BENEFITS

- Enhanced safety, through detection of critical conditions
- Meets statutory requirements and regulations
- Early identification of defects and wear
- Extended operating life for components
- On-board information
- Introduction of condition-based maintenance
- Reduction of life-cycle costs

FUNCTIONING

Ongoing monitoring and diagnosis is carried out by on-board technology. Sensors at various points on the bogie measure wheel speed, temperature, and acceleration. The signals are then processed in an electronic unit and analyzed in real time. Results are displayed on- and off-board. On-board for immediate driver or system interaction if required, and offboards for trend analysis and maintenance operation.



PERFORMANCE

Safety-critical monitoring functions acc. to TSI for:

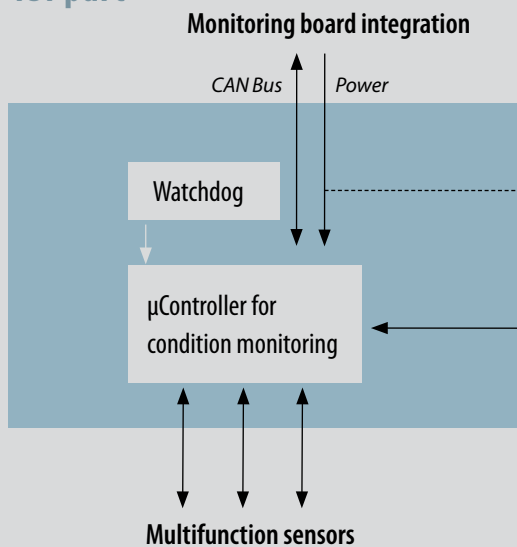
- Hot axle box detection
- Detection of non-rotating axles (DNRA)
- Derailment detection
- Bogie hunting

Diagnostics for:

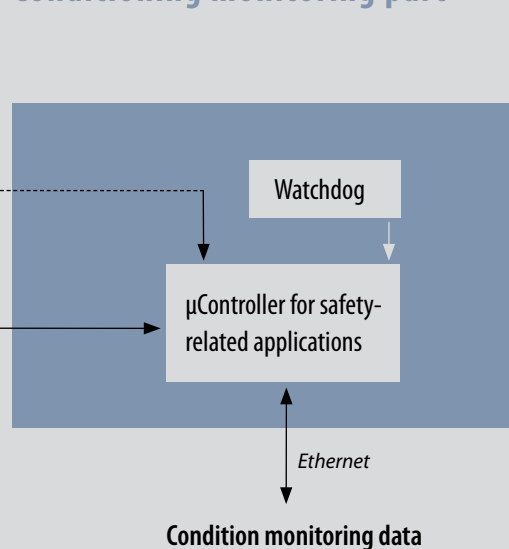
- Wheelset bearings
- Wheel treads and flats
- Wheelset guidance
- Stabilization
- Transmission

COMORAN MONITORING BOARD RB06A

TSI part



Conditioning monitoring part



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