



AlphaSystem™ for railway

Keep trains moving and tracks clear with modern
maintenance planning

www.alphadiagnostics.ch



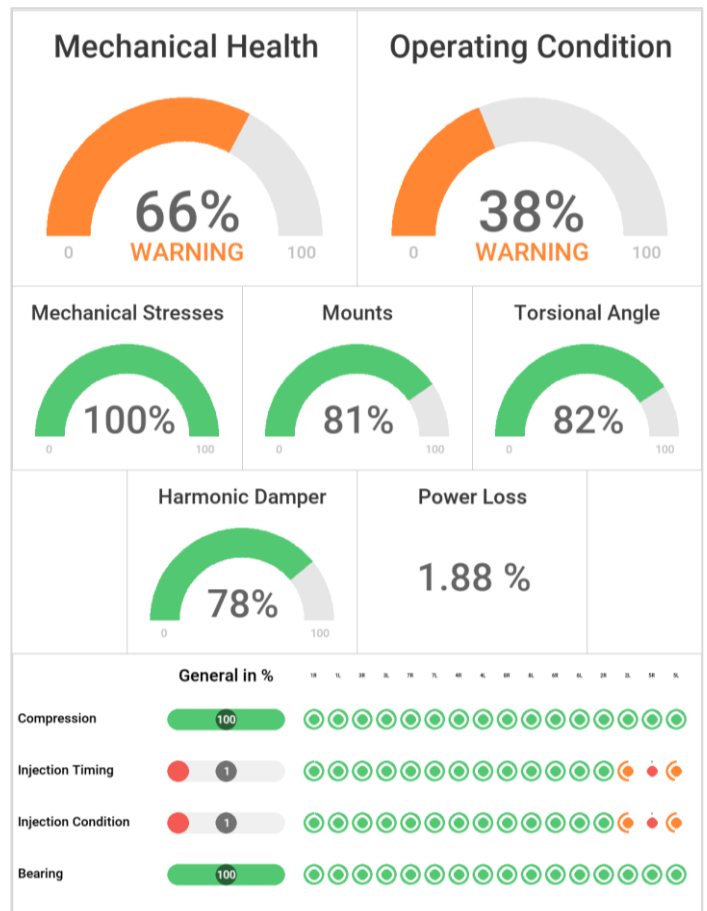
AlphaSystem™ for engines

Easily monitor the condition of several engines with accurate condition indicators.

Real time condition monitoring system for all types of combustion engines. Based on torsional vibration measured by speed sensor. Analyzes the thermal and mechanical operating condition of an engine.

Product features

- Two and four stroke engines
- Up to 24 cylinders
- Inline and V-type engines
- Cylinder-specific diagnosis requires only two speed sensors
- Existing speed sensor signals can be used if available
- Independent of manufacturer



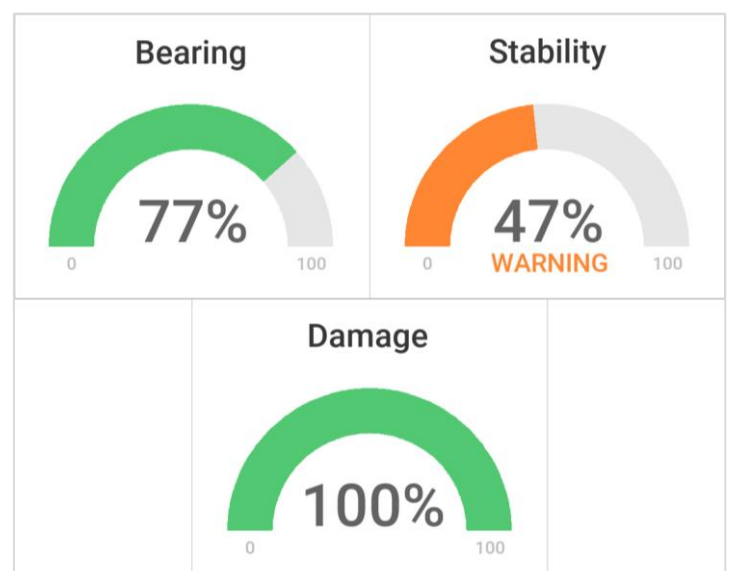
AlphaSystem™ for gearboxes

Protect your investment by maintaining your gearbox only when required.

AlphaSystem™ capabilities provide data that will allow you to analyze gearbox performance to ensure everything is working properly, and to predict failures which are typically not detected by routine maintenance.

Product features

- Easy retrofit on any gearbox
- Only two speed sensors required
- Cracked tooth and eccentric gear detection
- Fatigue detection in bearings and gears



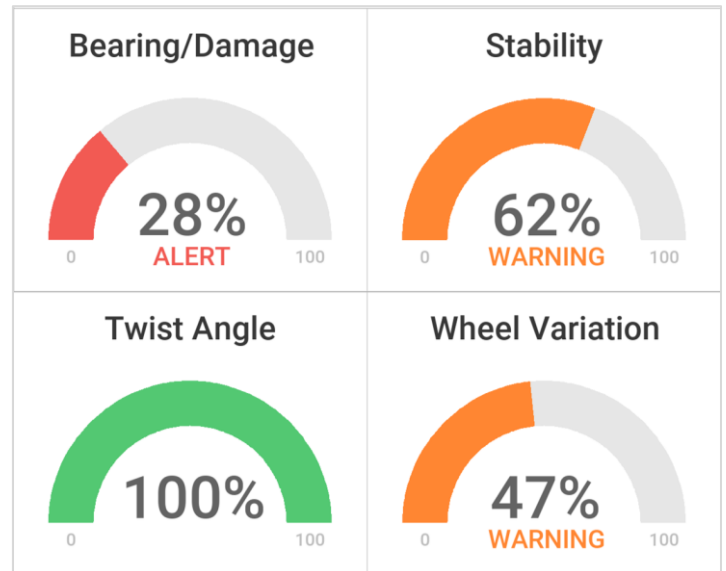
AlphaSystem™ for axle bearings

Detect the earliest symptoms of operational anomalies in bearings with real time condition monitoring.

AlphaSystem™ can easily monitor the condition of axle bearings. If the signals of existing speed sensors can be used, no sensors or other add-ons need to be installed on the bogie.

Product features

- Four health indicators
- All types and sizes of bearings
- Only one speed sensor required
- Existing speed sensor can be used if available



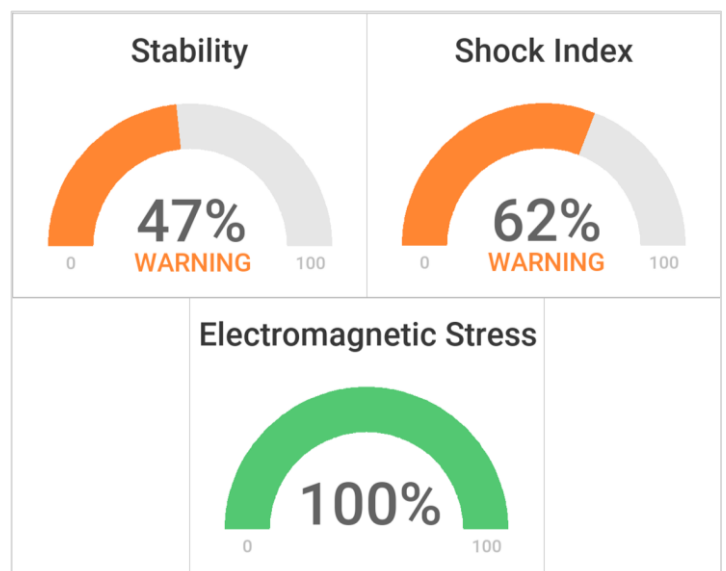
AlphaSystem™ for traction motors

Accurately monitor all critical health indicators of a traction motor with a single speed sensor.

AlphaSystem™ is suitable for use on electric motors. It monitors the condition of several motor parts and detects electric issues as well as rotor shaft misalignment.

Product features

- Three indicators for mechanical and electrical health
- For use on AC & DC motors and alternators
- Only one speed sensor required



The newest technology in railway infrastructure condition monitoring

Monitoring the condition of rotating devices is not the only function AlphaSystem™ provides - it also supports a more proactive approach to improve track availability and promote more efficient maintenance planning.

Infrastructure managers, maintenance teams and contractors work more efficiently with a continuous analysis of track condition. This is possible by using the wheelset speed sensors that are already installed on railway vehicles to gain real-time and continuous measurements on track condition rather than only occasionally getting data from measurement trains.

Product features

- Identify degradation trends and rapid deterioration immediately
- Optimize track maintenance programs by enabling early intervention and prioritization
- Reduce the required frequency of measurement train missions and hence reduce cost
- System can be implemented on any railway vehicle worldwide, with no interoperability issues

Benefits of AlphaSystem™

- Early detection of impending failures
- Avoidance of unnecessary shutdowns
- Quick ROI and reduced energy cost
- Easy retrofit on all railway vehicles
- Significant savings due to targeted maintenance
- Extended and optimized rolling stock lifetime
- Support for predictive and condition-based maintenance strategies



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