

Wire Geometry and Wear Measurement System

Continuous Contact Wire Geometry and Wear Monitoring

The availability and performance of electrified railway lines depend heavily on the condition of the overhead line infrastructure. To detect changes in contact wire geometry and wear at an early stage, precise and continuously available condition data is essential.

With our **Wire Geometry and Wear Measurement System (WGW)**, contact wire geometry and wear are continuously recorded during dedicated measurement runs and regular railway operations. The resulting data provides a reliable basis for acceptance testing, quality assurance, condition assessment, and condition-based maintenance planning. This enables the early identification of critical changes, helps prevent operational disruptions, and extends the service life of the infrastructure.



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Our services

- Continuous measurement of contact wire height, stagger, and wear during dedicated measurement runs and regular railway operations
- Documentation and assessment of contact wire geometry for acceptance testing and quality assurance
- Analysis of wear conditions and infrastructure changes
- Delivery, installation, and commissioning of hardware and software
- Integration on existing rolling stock
- Customization and system extensions tailored to customer requirements
- Training, support, and calibration concepts to ensure reliable system operation

Your advantages

- Early detection of contact wire wear and critical geometry changes
- Optimized maintenance planning based on real condition data
- Prevention of operational disruptions through the timely identification of critical developments
- Support for acceptance testing and quality assurance towards clients and regulatory authorities
- Improved cost efficiency through extended contact wire service life and targeted maintenance measures
- Proven measurement technology for operating speeds of up to 400 km/h

Your contact

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