



HEXAGON

NEXTSENSE

Highly Precise Profile Measurement for Predictive Maintenance



With its unique CALIPRI® technology from NEXTSENSE, Hexagon is one of the world leaders in mobile profile measurement systems for wear measurement of wheels, rails and tracks.

With its latest product developments Hexagon allows rail operators to safely run their trains with longer, more predictable maintenance intervals, less downtime and reduced life-cycle costs.

The multifunctional and market-proven CALIPRI C4X series enables the combination of several inspection tasks in one measurement device. For example, if

you combine the modules for wheel profile, brake disk, wheel diameter and wheel clearance, you have a measurement device for evaluating a complete wheelset. The non-contact measurement devices are based on laser light section technology, thus ensuring highly accurate and reproducible measured data. In a matter of seconds, the most important measured variables appear on the sensor and are automatically compared to individual limit values. Due to the various export and report functions it guarantees an improvement and simplification of the whole workflow.

The latest development from NEXTSENSE, part of Hexagon's Manufacturing Intelligence division, CALIPRI X is a fully automated on-track wheelset measurement

system that delivers significant productivity gains and operational cost savings to the rail sector. With CALIPRI X, the measurement process couldn't be simpler: a train drives slowly over a sensor unit where laser and camera modules automatically measure and record the profile of the wheels. The system measures all wheelset parameters according to the European standard EN 15313 – including wheel profile, diameter, back-to-back distance, equivalent conicity, camber and wheel toe. The most important parameters and variables are known in seconds, and out-of-tolerance areas immediately identified.

CALIPRI X is easily installed on existing tracks and is designed for 24/7 all-season operation. A rugged sensor unit with no moving parts ensures the system withstands the harsh railroad environment and requires minimal maintenance. Temperature compensation allows operation in any weather to ensure reliable results year-round. For the best productivity, the system is designed for installation on tracks where trains frequently run – in front of depots, workshops, washing facilities or in sidings. This allows frequent measurements to be made without extra effort or costs. With no start-up delay, it is always ready to go. The solution ensures full traceability and allows secure 24/7 access to results and analytics for fleet technicians, workshop owners, maintenance workers and other company personnel, wherever they are located worldwide.

Combined with the analytical capabilities of the easy-to-use cloud storage and analysis tool CALIPRI Predictor, all measurements with CALIPRI devices are automatically and instantly stored in the cloud. The CALIPRI Predictor optimises life-cycle costs by ideal asset utilisation and presents the as-is condition of the whole fleet in a fast and easy way to the fleet technician, workshop owner, railway maintenance worker or non-technical personnel.

The solution offers data access from all over the world through cloud-based technology. It means you can work at any time and from any end device. It also provides direct leads for a plannable maintenance task and procurement management. Through profile comparison the technician can analyse the wheel wear evolution of each wheel in your fleet and the maintenance schedule can be adjusted to the condition of the vehicles. This enables predictable and safe operation of the fleet.

Together with the measurement data from the CALIPRI measurement systems, actionable information is generated and the feedback loop in railway maintenance can be transformed to be more productive and cost-efficient. Filtered notifications for personnel free up the information channels and an easy share mechanism can be used to connect to 3rd parties.

With these latest product developments from Hexagon, predictive maintenance comes to life in the railway industry. Customers including all big European railway companies like DB, ÖBB, SNCF, Trenitalia and numerous major railways worldwide have trusted the CALIPRI technology for many years already.

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PRODUCT INNOVATION CALIPRI X: FULLY AUTOMATED ON-TRACK WHEELSET MEASUREMENT SYSTEM

CALIPRI X is a fully automated on-track wheelset measurement system that delivers significant productivity gains and operational cost savings to the rail sector.

Combined with CALIPRI Predictor - an easy-to-use cloud storage and analysis tool for all CALIPRI devices – all measurements are automatically, instantly and securely stored in the cloud and wear evolution is evaluated to enable planned downtime based on the as-is and forecasted condition of wheels. This enables predictable and safe operation of the fleet and unplanned downtime caused by wheel condition is eliminated.

To get in touch with us: nextsense-worldwide.com | hexagon.com