HBK
HOTTINGER BRÜEL & KJÆR

EN 45545
EN 50317
CERTIFIED

PANTOGRAPH MONITORING SOLUTION

Overhead line monitoring and dynamic catenary force control

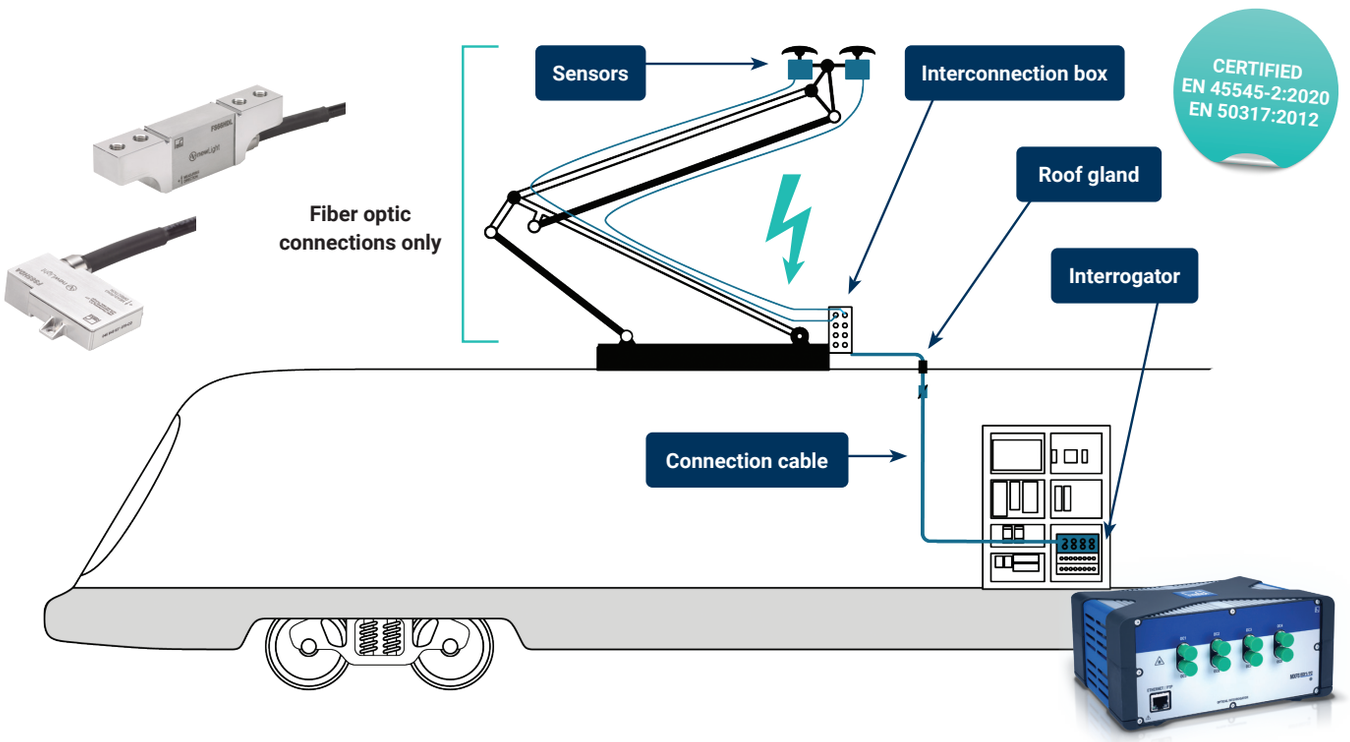
Reduce track interruption by continuously assessing the overhead power line condition through the direct installation of a fully optical measurement solution on the pantograph of regular operating trains.

Reliable measurements under extreme conditions

The correct contact between the pantograph and the catenary is mandatory for efficient train operation. This can be ensured by monitoring forces and accelerations through optical sensors integrated in the pantograph structure. HBK's fiber optical measurement solution can be used to characterize, homologate and test pantographs. It can also evaluate overhead power line condition and control the line contact force as part of the complete setup with map-based position analysis in a scalable overall solution.

SYSTEM ARCHITECTURE

This setup is based on force and acceleration optical sensors that are passive and safe for accurate measurements in the surroundings of the high-voltage overhead power line. Additionally, it can be easily integrated, via the QuantumX platform, with the information from vehicle bus signals and train position to build a graphical map of the infrastructure and its maintenance plan.



BENEFITS

Complete Solution

A single source supplier for all your needs, from sensor to software

Safe Usage

Completely passive solution that safely operates in a high voltage environment

Cost Reduction

Prevent unnecessary maintenance and track interruption for inspection

Vehicle Integration

Identify damage extension, location, and frequency by synchro-nizing with vehicle bus signals and GPS

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