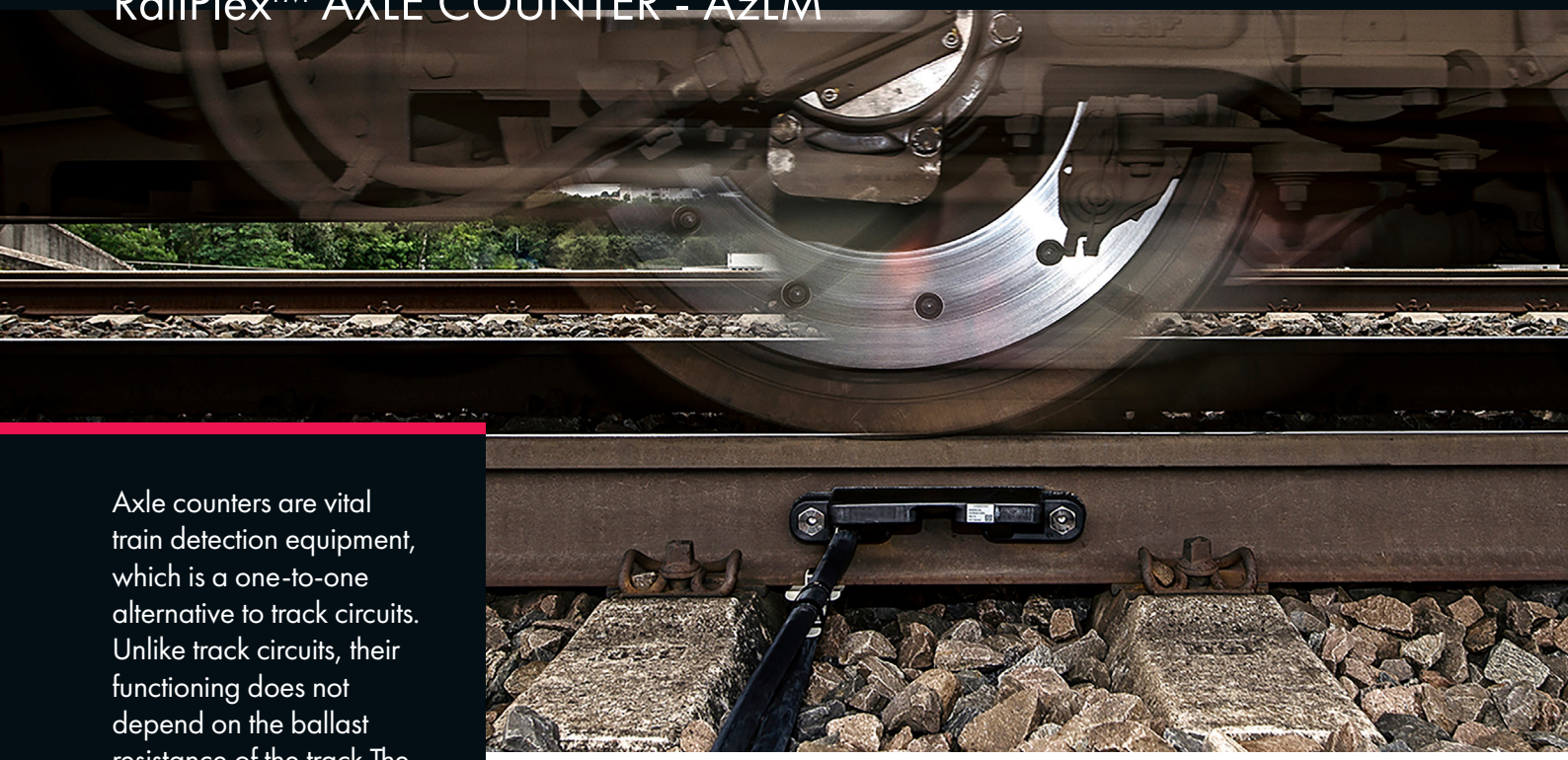
RailPlex™ AXLE COUNTER - AzLM



Axle counters are vital train detection equipment, which is a one-to-one alternative to track circuits. Unlike track circuits, their functioning does not depend on the ballast resistance of the track.The RailPlex™ Axle Counter is a 2-out-of-2 multiple section axle counter based on microprocessor configuration. A 2-out-of-3 version is also available. It simultaneously can evaluate up to 32 detection points and monitor up to 32 sections independently of the state of the track and of the section length. Detection points at the trackside can be connected by 2-wire-copper or any IP transmission network.

MAIN FUNCTIONS

RailPlex™ Axle Counters consist of an evaluator and the trackside equipment, the detection points. Two or more of these detection points border a track section. They count the individual axles of the rail vehicle as it passes. The detection point contains microcomputer, which immediately evaluate the signals from the rail contacts.

The microprocessor-based axle counter uses a high degree of coding to ensure the safety of data transmission.

Data transmission to the axle counter evaluator is realised via the physical and communication layers of ISDN. IP transmission is available to the detection points.

Various types of transmission systems can be used including copper cable and radio or fibre optic transmission systems.

The core element of the axle counter system is a vital computer module. The interface to the interlocking can be configured to be either IP (Ethernet) or parallel (relay/optocoupler) or both.

AXLE COUNTER EVALUATOR TASKS

- Evaluation of telegrams
- Calculation of the occupancy status of the track sections
- Compilation and transmission of track occupancy data to the interlocking
- Compilation and transmission of diagnosis reports to the interlocking and to the diagnostic equipment

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FEATURES

- Operation independent of track ballast and length of section
- System capacity: up to 32 detection points connected to an axle counter evaluator plus 16 detection points connected to an adjacent one
- Train speeds up to 440 km/h are supported
- Safety Integrity Level CENELEC SIL 4
- Parallel and IP interfaces to the interlocking
- Operation with different transmission systems
- Internationally standardised communication interfaces
- IP interfaces to local and remote diagnostic equipment

KEY BENEFITS

- Exceptionally high degree of reliability and safety
- Low life cycle costs (no regular trackside test and readjustment of detection points needed)
- Simultaneous monitoring of plain track and complex station layouts
- Fault tolerant transmission path between detection point and axle counter evaluator via IP network and ISDN
- Wheel sensors suitable for highly reliable and maintenance free mounting method with 2 bolts through the web of the rail (no influence on the mechanical properties of the rail)
- High signal/noise ratio regarding EMI from vehicles
- Extensive diagnostics