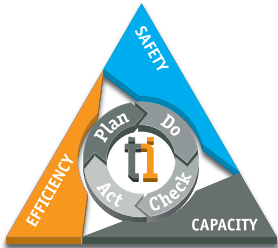


ti Dual Inventive

Ubiquitous Rail

Dual Inventive strongly believes in the further development and utilisation of the 'railway system' as a sustainable and attractive transportation mode in the future.

Dual Inventive develops and produces innovative technology systems that serve to make the railway infrastructure safer and more efficient, to maximise rail capacity, and to improve the reliability of the railway infrastructure.



Based in the Netherlands, the United Kingdom and Belgium, Dual Inventive collaborates actively in (inter)national partnership projects to develop innovative technology systems.

Please visit www.dualinventive.com for more information.

ZKL 3000

Line Blockage System



The ZKL 3000 is a Network Rail approved, SIL-4 rated, self-monitoring Track Circuit Operating Device. The ZKL 3000 protects a section of track efficiently by creating and monitoring a short circuit in the track. By simulating a train in the section, it causes the track circuit to show 'OCCUPIED' thus placing the protecting signals at danger. The section is immediately blocked, enabling rail workers to perform work on the track safely.



ZKL 3000

Self-Monitoring Track Circuit Operating Device

- Developed in accordance with EN50126, EN50128 and EN50129 at SIL-4
- Certificate of acceptance Network Rail PA05/03898
- 2G/3G/4G wireless connection to MTinfo 3000 through our RC technology
- Status transmission to user via GSM
- Unique wireless secure network connection to MTinfo 3000 through our RC technology

Added value

- Instant indication to operatives of short circuit
- Reduced deployment times
- Complete real-time and retrospective overview of line blockages
- The ZKL 3000 can be used in both DC (1500 and 3000 Volts) and AC (25 kV) electrical traction power supply areas (TEV)
- The ZKL 3000 features a 'black box': this stores data such as the times and quality of the short circuit, the GPS location of the unit and the status of the batteries. Data can be synchronised to the MTinfo 3000 Cloud platform
- The ZKL 3000 is safe, easy to use and reliable



MTinfo 3000 In Control

The MTinfo 3000 Cloud synchronizes data from ZKL 3000 using our RC technologies. This allows for real-time monitoring of the equipment (via smartphone, tablet or computer) to instantly check that safety measures for the line blocks have been implemented correctly. This data can also be downloaded retrospectively through the MTinfo 3000 Cloud.

