## Ti Duallnventive Transforming Rail Safety

### **ZKL 3000 RC**

Remotely Operated Track Circuit Operating Device (T-COD)



#### **HOW IT WORKS**

The ZKL 3000 RC is a Track Circuit Operating Device designed to provide protection to track workers from trains. It has high safety reliability and maximises track access efficiency. When the device is activated, it simulates a train in a section of track, causing the track circuit to show 'occupied', holding the protecting signal to red.

The device is operated remotely by using the Dual Inventive App independent of the signalling system. The App provides the user with real-time information to help monitor and control the devices set within a project, giving reassurance that the protection remains in place.

Once the ZKL 3000 RC is installed, it can be operated remotely, eliminating the need to enter the track to install and remove protection in place.

#### WHAT ARE THE BENEFITS

#### The ZKL 3000 RC:

#### Improves safety

The device can be:

- · Pre-installed at an early stage, avoiding installation during busy periods.
- · Managed and monitored from a position of safety.

#### Improves efficiency

- · Production time can be increased by up to 20%.
- Using the App, protection can be activated and deactivated in less than 10 seconds, remotely and safely, without being on track.
- More work can be carried out between traffic, potentially decreasing overall project times significantly.

#### Increases capacity

 Reduces the time taken to implement safety systems, allowing the track to be put back into operation more quickly.

#### **IMPORTANT FACTS**

#### The ZKL 3000 RC:

- Can remain in track for up to 4 years, with proper power management.
- Can be operated via a smartphone or tablet app (iOS/Android) or computer.
- Has a battery life of up to 6-8 weeks (can be extended with a solar panel).
- Developed in accordance with Railway Safety Standards - EN50126, EN50128 and EN50129.
- · SIL 4 rated (Safety Integrity Level).
- Has a Certificate of Product Acceptance from Network Rail PA05 / 0543.

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#### **DUAL INVENTIVE APP**

#### The App:

- · Uses safe and cyber secure remote control technology.
- · Can be used through a smartphone, tablet or computer (iOS / Andriod).

#### The App enables the planner / user to:

- · Operate the ZKL 3000 RC remotely at a safe place of work.
- · Obtain data in real-time.
- · Monitor and control projects of work.
- Ensure the correct safety measures for track worker protection have been implemented correctly.