



Condition Monitoring Application Guide

Earth Leakage/Ground Fault

System Overview

TrackSense is designed with your organisation in mind. Unlike expensive, rigid systems, it offers an affordable and modular solution with ongoing support to future-proof your investment. With powerful analytics, an intuitive interface for streamlined task management and compatibility with off-the-shelf sensors, TrackSense adapts to deliver the ideal solution for your requirements. TrackSense can monitor key performance data for any rail asset, including:

 Point Machines	 Power Supplies	 Battery Banks	 Axle Counting	 Level Crossings	 Safety Signals	 Track	 Track Circuits
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Earth Leakage/Ground Fault Detection Monitoring

Earth leakage monitoring is best achieved by using the TrackSense Earth Leakage Detector Module, which detects abnormal currents flowing to the ground, typically from insulation failure. The waveform produced from monitoring provides a clear indication of leakage levels and insulation health.

User-set thresholds trigger alarms when waveform values exceed safe limits, indicating insulation breakdown, moisture ingress, or wear in the electrical system. Monitoring earth leakage ensures electrical safety and prevents hazardous conditions and costly downtime.

Minimum Requirements

- 1x TS Logger Module
 - Collects data for analysis
- 1x TS Earth Leakage Detector
 - 1 busbar input channel

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Wiring Block

Below is an example wiring block. Wiring in practice may vary depending on requirements.

