

Condition Monitoring Application Guide

Battery Banks



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:

















Minimum Requirements

1x TS Logger Module

- Collects data for analysis

1x Modbus Battery Cell Monitor

Battery Bank Monitoring

The most effective way to monitor battery banks is by using devices that integrate voltage, current, and temperature sensors to evaluate the charge and discharge cycles of each individual cell in a battery string.

Data from these measurements is processed through algorithms that calculate the health of the battery. These devices can detect potential issues, such as a decrease in capacity, abnormal discharge rates, or overcharging. Monitoring can also reveal early signs of battery degradation or failure, ensuring backup power remains reliable during critical operations.

Optional Additional Sensors

Monitoring can be further improved with the addition of any of the following sensors:

- Voltage Sensor (for measuring output of the entire battery bank)
- Current Sensor (for measuring output of the entire battery bank)

Contact Us

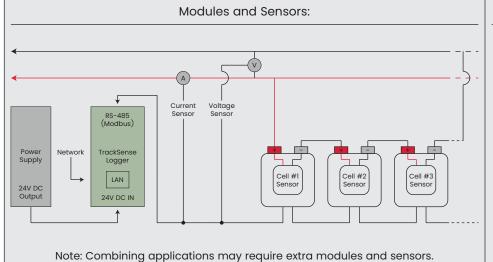
+61 7 3821 5151

support@mrd.com.au

235 South Street Cleveland, Queensland, 4163 Australia

Wiring Block

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



Notes:

Modules in green are required Modules in orange are optional

Some sensors (such as the current and voltage sensors) will be available with 4-20mA, Modbus, or digital outputs. You may select any option at your discretion.

TrackSense's Modbus is limited to a maximum of 31 devices per installation.