Introducing...

# The Future of Condition Monitoring

# TrackSense

Powered by MRD Rail Technologies

**mrd**
RAIL TECHNOLOGIES
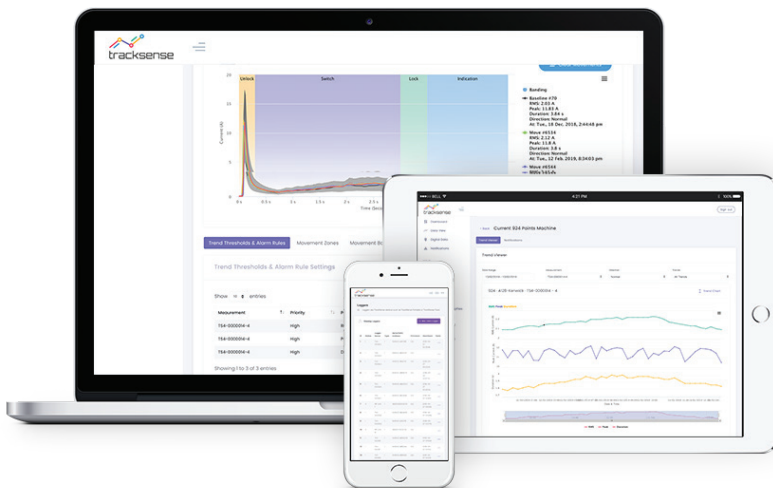MANUFACTURE | RESEARCH | DESIGN

# tracksense

The TrackSense System is the future of Remote Condition Monitoring; using modular expansion units with industry standard sensors along with a powerful cloud server to store and analyse your data makes TrackSense a cost effective solution to asset maintenance management that you can really rely on.

## TrackSense Modular Hardware

TrackSense was designed with you and your organisation in mind. The DIN mounted backbone design allows you to expand, upgrade and replace modules cheaply, quickly and easily; usually even without any system downtime.
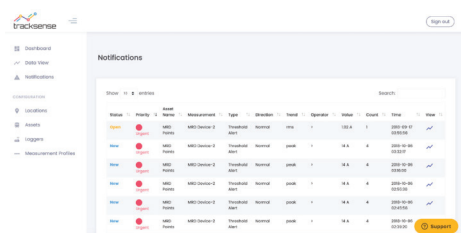
Using industry standard 4-20mA sensors, TrackSense can monitor key performance data for any Rail Asset, including:

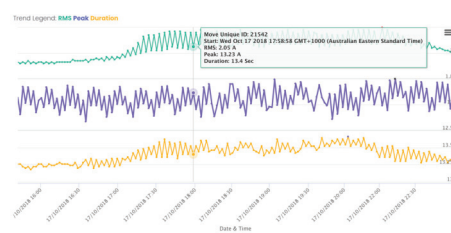| Point Machines | Power Supplies | Battery Banks | Axle Counting | Level Crossings | Safety Signals | Track | Track Circuits |

## TrackSense Cloud Platform

The TrackSense Cloud enables you to oversee the real-time health and predicted degradation of all the assets in your network from anywhere.
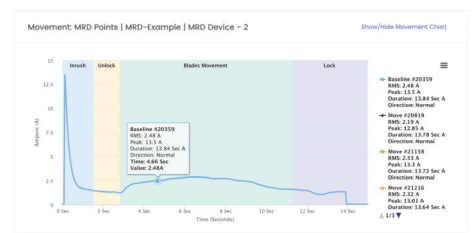
Using industry leading data analysis, TrackSense gives you deep insights, instant alerts and advanced predictions, allowing you to improve the efficiency of your railway network's maintenance.

TrackSense Cloud gives you oversight of your system's health/performance from anywhere

Asset trend view for predictive alerts and monitoring gradual performance degradation

View and compare individual movement's signatures for analytics, alerts and fault finding

The TrackSense Cloud Server is now available on Android platform for all customers

GET IT ON
Google Play

# TrackSense
## Condition Monitoring

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## The Future of Condition Monitoring

## Logger Module

The TrackSense Logger Module is the core of the TrackSense system. It collects data from all of the connected expansion modules, stores it on an on-board buffer to protect your data from power/network outages and securely uploads it all to the TrackSense Cloud server when possible.

### General Data

| | |
|---|---|
| Dimensions (W × H × D) | 22.5 x 107 x 95mm |
| Weight | 0.25kg |
| Operating Temperature | -25 to 70°C |
| IP rating | IP40 |
| Supply Voltage | 24V DC |
| Supply Current | 80mA |
| Storage | 16GB SD Card |
| Ethernet | RJ-45, 10 Mbit/s or 100 Mbit/s |
| RS-485 | MODBUS RTU |

TS-LOG

## Analog Module

The TrackSense Analog Module expands the TrackSense system, allowing for up to 6 additional 4-20mA analog sensor inputs per module.

### General Data

| | |
|---|---|
| Dimensions (W × H × D) | 22.5 x 107 x 95mm |
| Weight | 0.25kg |
| Operating Temperature | -25 to 70°C |
| IP rating | IP40 |
| Supply Voltage | 24V DC |
| Supply Current | 40mA + 50mA per Channel |

TS-ANA

## Digital Module

The TrackSense Digital Module expands the TrackSense system, allowing for up to 12 additional digital sensor inputs per module.

### General Data

| | |
|---|---|
| Dimensions (W × H × D) | 22.5 x 107 x 95mm |
| Weight | 0.25kg |
| Operating Temperature | -25 to 70°C |
| IP rating | IP40 |
| Supply Voltage | 24V DC |
| Supply Current | 100mA |

TS-DIG

# TrackSense
## Condition Monitoring

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## The Future of Condition Monitoring

## Earth Leakage Detector Module

The TrackSense Earth Insulation Monitor Module expands the TrackSense system, allowing it to monitor the insulation between your floating IT system and earth.

### General Data

| | |
|---|---|
| Dimensions (W × H × D) | 22.5 x 107 x 95mm |
| Weight | 0.25kg |
| Operating Temperature | -25 to 70°C |
| IP rating | IP40 |
| Earth Leakage Detection | 0-999KΩ |
| Busbar Isolation | 2kV |
| Busbar Rated Voltage | 650V |

TS-ELD

## Modem Module

The TrackSense Modem provides your Condition Monitoring installation with a secure connection to the TrackSense Cloud Server, allowing for easy data collection, analysis and reporting from remote locations which don't have pre-existing internet infrastructure.

### General Data

| | |
|---|---|
| Dimensions (W × H × D) | 22.5 x 107 x 95mm |
| Weight | 0.25kg |
| Operating Temperature | -25 to 70°C |
| IP rating | IP40 |
| Supply Voltage | 24V DC |
| Supply Current | 275mA |
| 4G Bands | FDD: B1 (2100), B3 (1800), B5 (850), B7 (2600), B8 (900), B20 (800) TDD: B38 (2600), B40 (2300), B41 (2500) |
| Category | LTE Cat.4 |

TS-MOD

## Power Supply Module

The TrackSense Power Supply Unit provides a compact step down from 110VAC to 24VDC for your TrackSense installation.

### General Data

| | |
|---|---|
| Dimensions (W × H × D) | 45 x 107 x 95mm |
| Weight | 0.25kg |
| Operating Temperature | -25 to 70°C |
| IP rating | IP40 |
| Supply Voltage | 85-264V AC |
| Frequency | 50-60Hz |
| Output Voltage | 24V DC |
| Output Current | 5A DC |
| Electrical Isolation | 3kV |

TS-PSU