



Frauscher Sensor Technology India

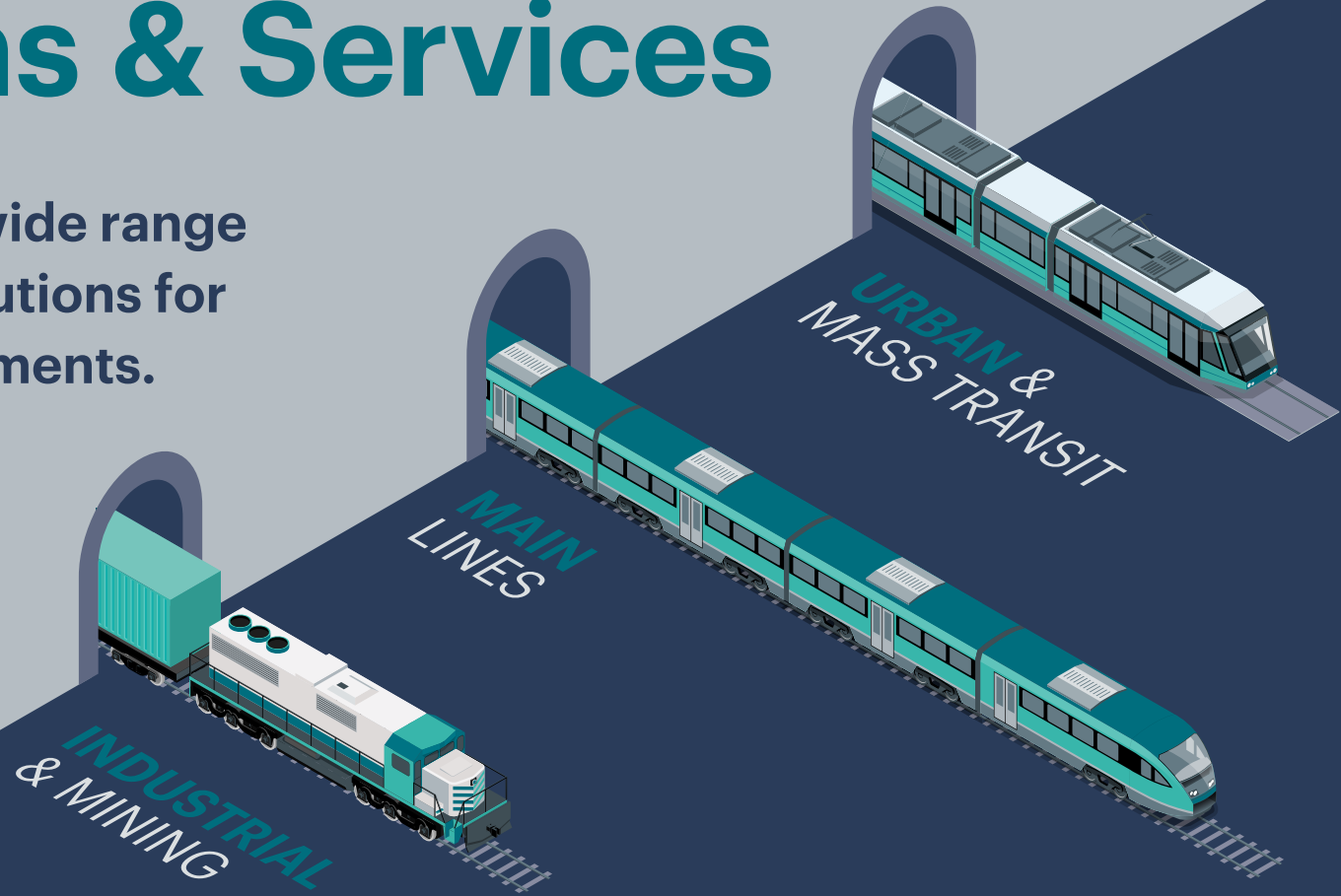
Pioneer in wheel sensors and axle counters

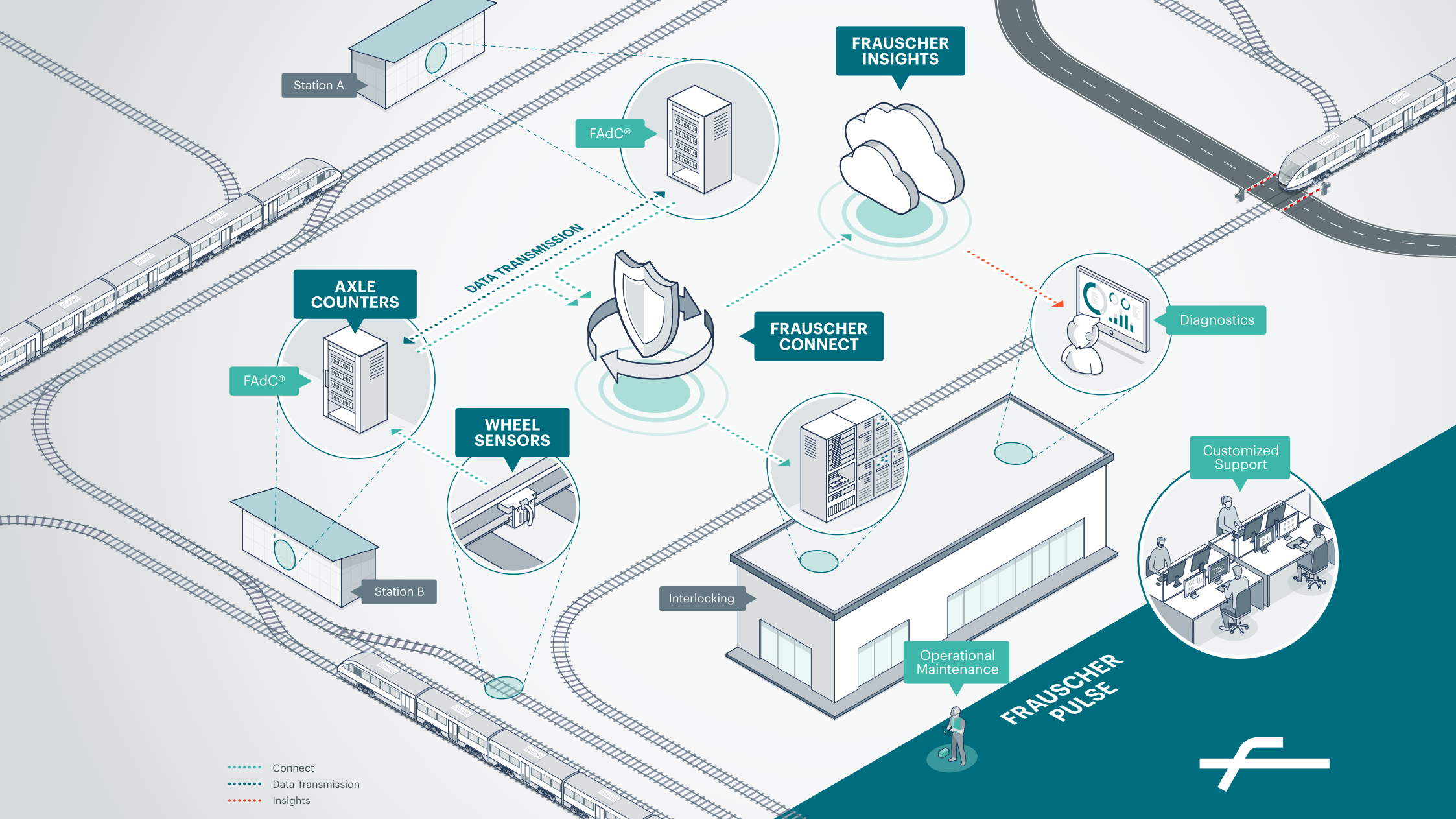
Track more with less.

Solutions & Services

Frauscher offers a wide range of products and solutions for various railway segments.

- Wheel Sensors
- Axle Counters
- Data Transmission
- Frauscher Insights
- Frauscher Connect
- Frauscher Pulse





Station A

**AXLE
COUNTERS**

FAdC®

FAdC®

DATA TRANSMISSION

**FRAUSCHER
INSIGHTS**

**FRAUSCHER
CONNECT**

Diagnostics

**WHEEL
SENSORS**

Station B

Interlocking

Operational
Maintenance

Customized
Support

**FRAUSCHER
PULSE**

- Connect
- - - - - Data Transmission
- Insights





Frauscher Connect

A common communication interface for all Frauscher products:

- Meets requirements in terms of safety and security
- Provides all known safety protocols (EULYNX, FSE and customised protocols)
- Offers dedicated security module for flexible updates without affecting safety
- Open interface for diagnostics via OPC-UA
- Enables distributed architecture with central interlockings

 **MORE INFORMATION:** www.frauscher.com/en/solutions/frauscher-connect

Data Transmission

Enables the exchange of digital Input-Output data between various stations:

- With FAdC® for Data Transmission, both vital and non-vital information can be exchanged
- Simple and flexible configuration (no programming)
- SIL1-SIL4 applicable
- Extensive diagnostic and visualisation options via open interface

 **MORE INFORMATION:** www.frauscher.com/en/solutions/data-transmission



Frauscher Insights

An intelligent data platform enabling various applications:

- Optimises ongoing railway operations
- Central data storage and secure processing of data
- Data accessibility from anywhere
- Smart and economical maintenance

Frauscher Pulse

Lifecycle solutions tailor-made for the customer:

- A comprehensive service solution that covers the entire lifecycle of our products with an array of package options to choose from
- Covers the four pillars of operational maintenance, data-driven services, competence management, and customised support
- Bespoke customer support and quick assistance

Wheel Sensors



Key benefits of the RSR180:

- Maximum ingress protection IP68
- No trackside electronics
- Low life-cycle costs
- No drilling of rail
- Reliable performance in all environmental conditions
- No dependence on ballast conditions

Axle Counters



Key benefits of Key benefits of FadC®:

- Vital and fail-safe
- Highly available, robust and flexible
- Remote diagnostics
- Easy setup and commissioning
- Supervisor track sections for the auto correction of track sections against temporary faults
- Counting Head Control CHC makes the system immune to temporary influences (e.g. maintenance crews)
- Maintenance friendly
- Extensive diagnostic options



GLOBAL PRESENCE IN

15+

LOCATIONS

SENSORS INSTALLED IN

100+

COUNTRIES



NETWORK COVERAGE

OF FRAUSCHER INDIA

- GURGAON
- KOLKATA
- MUMBAI
- BENGALURU
- MYSURU

EMPLOYEES



YEARS OF SUCCESSFUL SENSOR DEVELOPMENT

30+ 10+

YEARS GLOBALLY

YEARS IN INDIA

LOCAL PRODUCTION FACILITY IN



MYSURU

UNDER MAKE IN INDIA POLICY

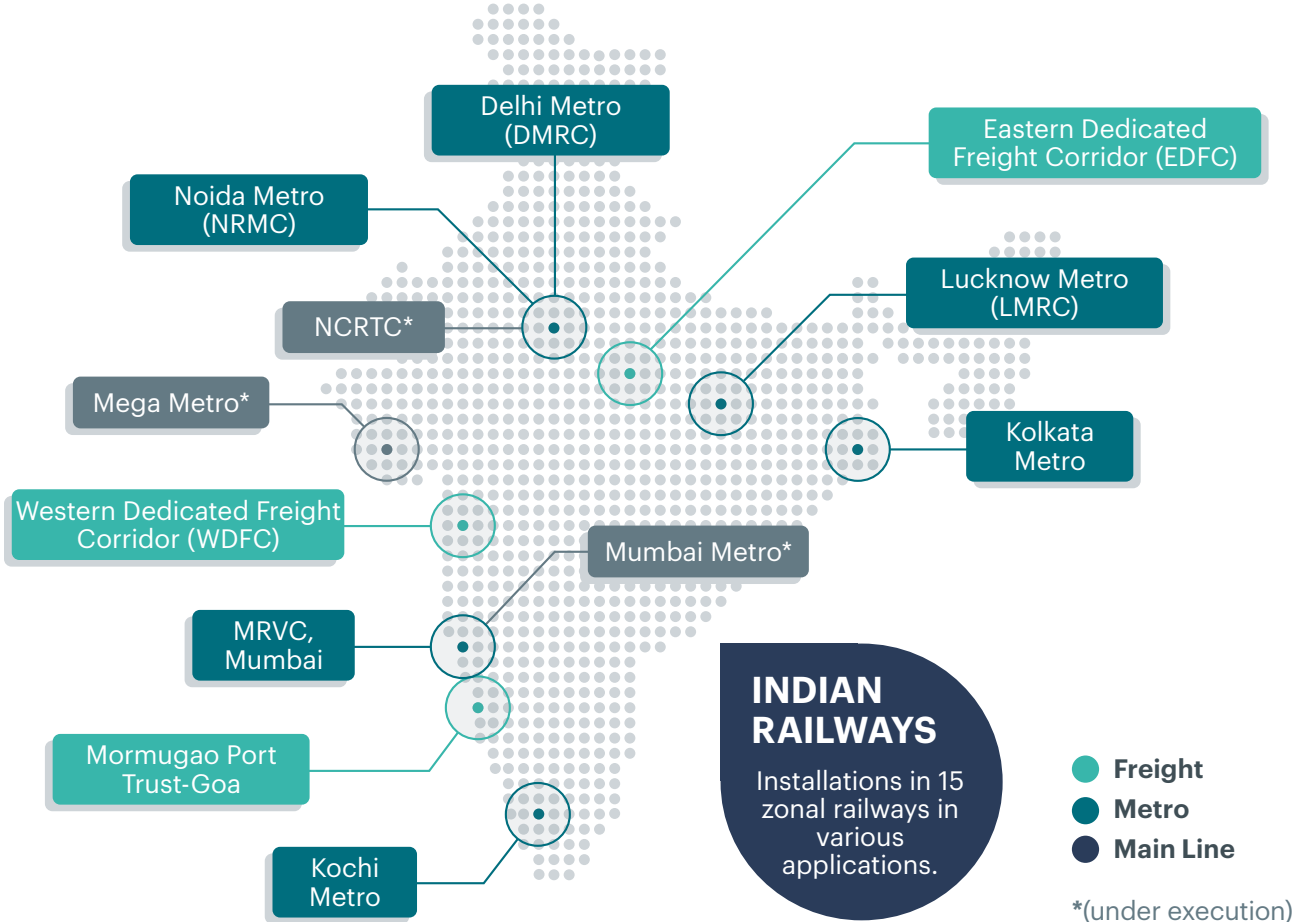
INSTALLED SENSORS

VOLUME

INDIA more than:



Frauscher is proud of being part in each of these projects!



References of Frauscher India

Successfully Implemented Projects

Frauscher India has executed some of the most significant railway projects in the country, including dedicated freight corridors, Indian railways and metro corporations.

We have also been extensively involved in various capacity and safety enhancement projects throughout India and we have seen a steady growth in the Indian and South East Asian Market.

The modern railway industry needs innovative and reliable solutions and Frauscher is always on the cutting edge of the latest developments to cater to the demands of customers.

*(under execution)

Solutions for market specific applications



Railway Yards

Railway yards have a complex system of multiple railway tracks with switches and crossings. There is a need to control the movement of the rolling stock on these yards in a safe and efficient manner.

The Frauscher Axle Counters FAdC® help to achieve this purpose and are being used in railway yards with centralised and decentralised architectures. They also provide additional benefits like no trackside electronics, fast implementation and installation without

the drilling of holes in the rail, as well as ease of maintenance with low life-cycle costs.

To ensure high availability of the FAdC® systems in different locations, a redundant ethernet network can be established by connecting them in any combination with quad cable or optical fibre cable, thus ensuring that the train operations are not affected at any point in time. Moreover, compact sensors also fit in tight spaces between rails in case of complex track layouts.

Automatic Block Signalling

In the automatic block signalling, a railway line is divided into a succession of track sections or blocks. Axle counters are installed at the ends of these track sections or blocks to enable continuous train detection along the rail line. Consequently, this controls the stop signals and governs train entry into an automatic block section.

The Frauscher Advanced Counter FAdC® is robust and flexible in its design/architecture and can be configured for automatic block signalling train detection. This modular and

scalable structure encapsulates the benefit of no trackside electronics.

Automatic block signalling system is very cost-effective and leads to an increase in capacity as it becomes possible for trains travelling in the same direction to safely follow each other without the risk of rear-end collisions.

Communication media can be controlled either via quad, fibre or both without requiring a media switchover.



CONTACT

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MYSURU (Production Facility)

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GURGAON

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Kurla West, Mumbai – 400070
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Kolkata – 700091
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Frauscher can work with you to customise a safe and efficient system for your unique requirements and applications with our state-of-the-art wheel sensors and axle counting systems.

