

# EFFICIENT FUEL MANAGEMENT SOLUTIONS

## INTRO

Efficient fuel management is one of the key success factors for businesses in a wide range of industries. Whether you run a small delivery service or manage a large fleet, effective management of fuel consumption is essential to control costs, reduce environmental impact and remain competitive.

## CHALLENGE

As fuel costs rise, trucking companies find themselves at a crossroads, forced to either raise prices or accept financial losses. In navigating this challenging scenario, a logical starting point is to prioritise fuel monitoring and optimisation. There are several ways to reduce fuel-related costs and fleet fuel consumption.

High-risk driving behaviours pose a significant threat to fuel efficiency. Adhering to speed limits, as highlighted by the [U.S. Department](#), can lower your mileage by roughly 15% to 30% at highway speeds and 10% to 40% in stop-and-go traffic. Driver feedback devices can help you drive more efficiently, leading to behavioural changes that can improve fuel economy by [up to 10%](#).

Another of the most significant challenges is fuel theft, which can go unnoticed for a considerable time. Fuel prices continue to rise and its value contributes to theft, with the annual theft of diesel fuel exceeding [\\$13 billion](#). Fuel theft occurs everywhere from petrol stations and refineries to motorway service areas and truck depots. The majority of crimes take place on the road, with diesel being stolen on a small scale.

Also, diesel prices represent a 145% increase compared to the year 2021, which is one of the biggest issues for farmers and agriculture. Theft is a major concern for agriculture. It is also common knowledge in the transport industry that drivers, mechanics and other staff often work together to steal fuel to sell and make extra money. Companies that have suffered diesel theft incidents have had a total of [150,225 litres of fuel stolen](#). Fuel used daily requires constant monitoring of stock levels and consumption.

## SOLUTION



### “ AN APPROACH TO OPTIMISE FLEET OPERATIONS AND IMPROVE EFFICIENCY ”

To address these challenges, Teltonika Telematics offers several solutions to meet the different needs of the fleet telematics industry. For direct access to vehicle data, fuel monitoring can be achieved using CAN bus data. For the simplest installation, OBD devices can be a solution. For trucks, we recommend fuel monitoring with level sensors for an effective solution. According to the [2022 Fleet Technology Trends Report](#), companies using GPS tracking reported a 10% reduction in fuel costs.

**Fuel monitoring using CAN bus data** - one of the possible ways to monitor fuel levels is to read fuel levels from CAN, Controller Area Network. Fuel monitoring with this means tracking and analysing data from a vehicle's CAN bus to measure how much fuel it is using.

This solution is most often chosen by [car-sharing](#) providers. For example, Teltonika [FMx130](#) series vehicle GPS trackers and [CAN adapter](#) combination, where service users are charged based on distance or time of use. This approach also ensures that vehicles are refuelled promptly for the next user, minimising service disruption due to empty tanks.

Teltonika CAN adapter allows users to control a range of vehicle functions, including central locking, closing the windows, switching the indicators on and off and unlocking the boot. Fleet managers can also monitor the status of the doors, parking brakes, and car lights.

For those who do not require remote lock/unlock functionality, we recommend devices with an integrated CAN chipset, such as Teltonika [FMB140](#) (2G) or [FMx150](#) series (4G LTE). These devices are particularly useful in industries, such as [construction](#) or for [monitoring heavy-duty vehicles](#).

**Fuel monitoring with OBD trackers** - for those looking for an easy-to-use solution to fuel level monitoring, we recommend choosing the [OBD tracking devices](#), such as Teltonika [FMC003](#), which collects standard on-board diagnostics and OEM data. OBD-II devices can read various parameters from the vehicle internal network, including mileage, real-time fuel level, RPM, engine temperature, vehicle speed, engine load and more. These devices are ideal for cars and vans.

In addition to [electronic logbooks](#) or corporate car-sharing services, fuel level monitoring helps to optimise operational efficiency by providing real-time insight and ensuring proactive management of fuel resources.

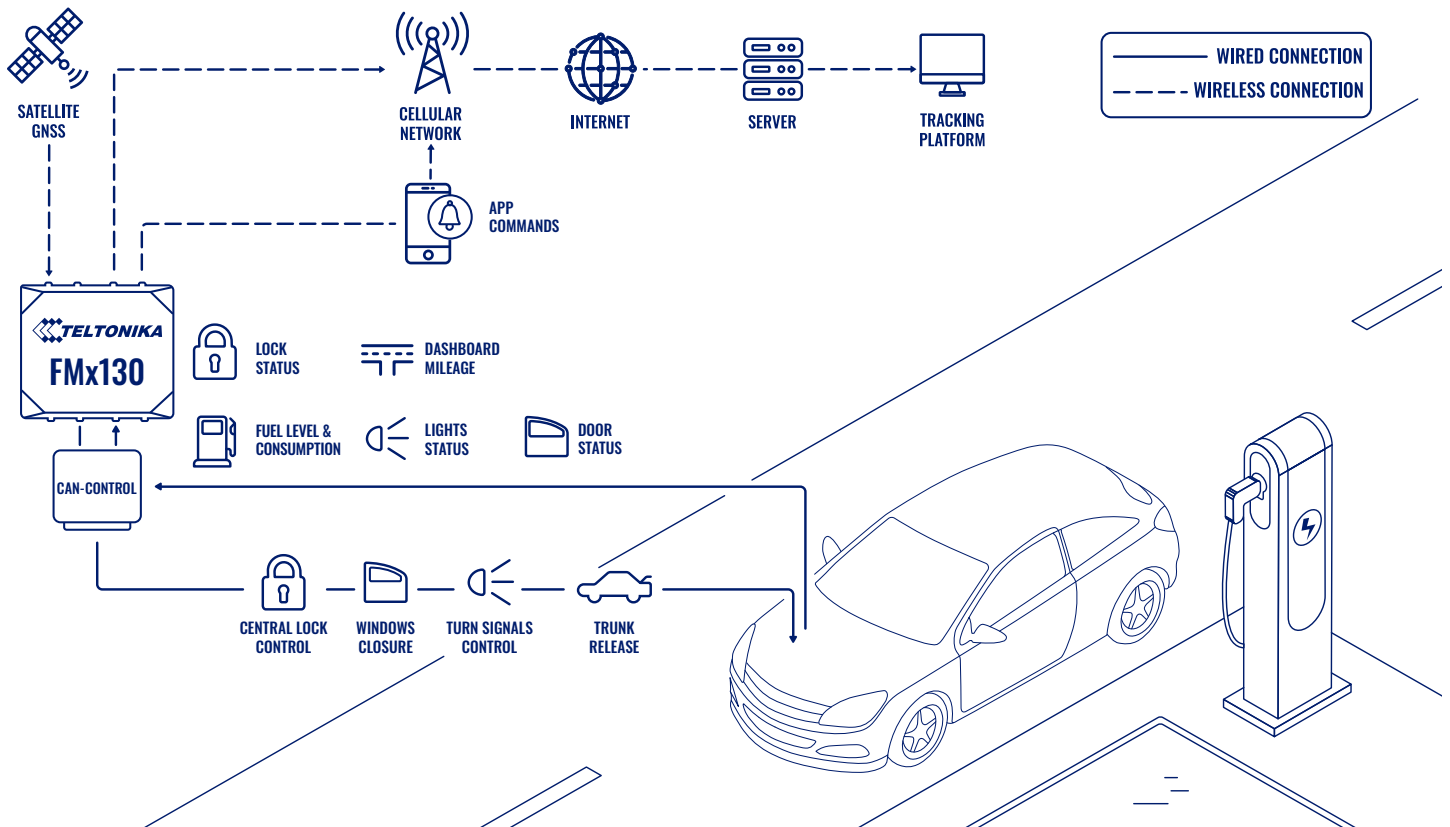
**Fuel monitoring with fuel level sensors** – for the most accurate fuel monitoring in light commercial vehicles, trucks, and lorries, the **FMx125** series of PROFESSIONAL category GPS trackers is highly recommended. They offer several ways to output fuel data from the fuel level sensor, including digital (via RS232 or RS485 ports) by connecting to external fuel level sensors that can track the amount of fuel in the vehicle tanks, analogue (0-5 V or 0-10 V) from a fuel level sensor installed in the vehicle fuel tank, and pulse counter (pulses per second). There is also the option to monitor fuel using the **J1939** data support feature.

For the most efficient fleet management, the solution could also be integrated with Teltonika **EYE Beacons** and **EYE Sensors**. This combination allows fleet managers to wirelessly identify drivers and monitor cargo parameters, such as temperature, humidity, and/or door status.

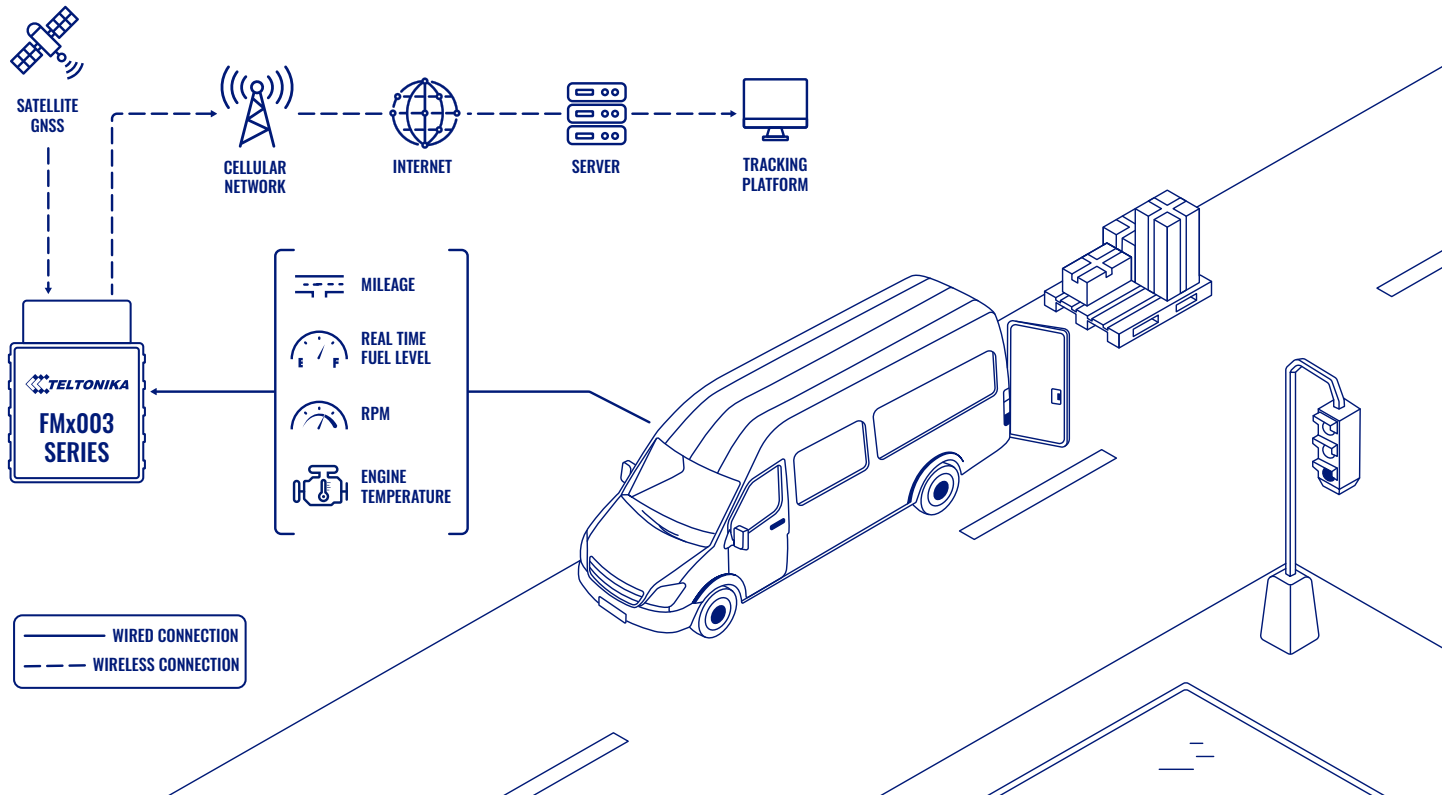
These Teltonika GPS tracking devices provide comprehensive support for fuel-efficient driving habits. By providing real-time feedback on fuel consumption, idling, acceleration and braking, these devices empower drivers to develop responsible driving practices.

This not only improves fuel efficiency but also contributes to cost savings, reduces environmental impact and enhances the overall competitiveness of the business. In today's business environment, effective fuel management is critical to success and Teltonika Telematics solutions provide an approach to optimising fleet operations and improving efficiency. We also offer other products specifically designed for fuel monitoring.

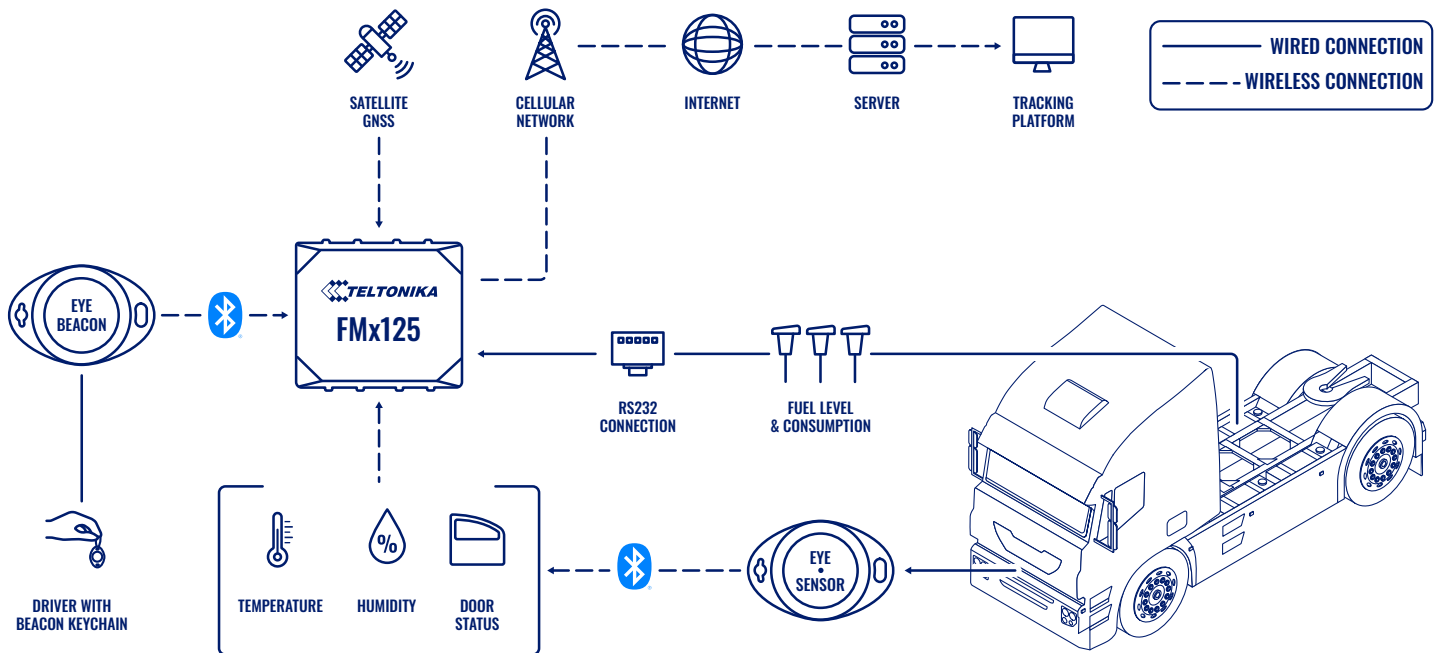
## TOPOLOGY #1 | CAN BUS DATA



## TOPOLOGY #2 | OBD DATA



## TOPOLOGY #3 | FUEL LEVEL SENSORS



## BENEFITS

- **Accurate fuel level monitoring** - optimised fuel usage, reduced costs, and improved overall efficiency with fuel monitoring solutions.
- **Preventing high-risk driver behaviour** - Teltonika Telematics GPS devices constantly monitor driver behaviour, reducing the risk of harsh acceleration and braking, and ensuring optimum fuel consumption.
- **Customisable solutions for every business need** - we offer a variety of solutions, allowing customers to choose the option that best suits their needs. Multiple usage scenarios provide customisable options for optimal functionality.
- **Avoidance of unnecessary costs** - continuous monitoring of vehicle data ensures timely detection of breakdowns.
- **Detailed reporting** - access comprehensive reports on fuel usage and efficiency, enabling data-driven decisions to optimise fleet management strategies.
- **Eco-friendly operations** - help reduce the carbon footprint of the fleet by monitoring and optimising fuel consumption, in line with sustainability goals.

## WHY TELTONIKA?

Teltonika Telematics is at the forefront of innovating which is critical to industries where fuel efficiency is paramount. Renowned for their accuracy and reliability, our solutions are designed to address the complex challenges of fuel consumption and theft. By integrating advanced GPS tracking technology, we enable companies to optimise fuel usage, reduce costs, and improve overall efficiency, positioning us as one of the industry leaders in telematics.

Our commitment to innovation is built on understanding the specific needs of different sectors. Choosing Teltonika Telematics means gaining access to a range of bespoke solutions designed to meet the unique needs of businesses, from small fleets to large operations. We do not just offer products, we offer a business partnership to drive operational excellence.

## FEATURED PRODUCT

FMC003

## RELATED PRODUCTS

FMC130, FMB130, FMM130, FMB003, FMB125, FMM003, FMC125, FMM125, FMB150, FMC150, FMM150

## RELATED ACCESSORIES

LV-CAN200, ALL-CAN300, CAN-CONTROL, ECAN02, EYE BEACON, EYE SENSOR

