



Fueling Your Business for Success



FUEL  **OMAT** GOLD

Automatic Refueling With FuelOpass & DataPass Vehicle Identification

Introducing FuelOmat Gold, Orpak's new, state-of-the-art, RFID based vehicle identification fuel payment system - an upgrade from the previous solution, that eliminates the need for wires at both the station and the vehicle. FuelOmat Gold simplifies installation and enables faster mass deployment.

Benefits at a Glance

For Oil Companies and Station Owners

- Increases market share through customer loyalty
- True self service and secured payment
- Robust and secure wireless link with multiple devices
- Offers a wide range of vehicle data services for effective fleet management
- Orpak's unique Fleet Head Office server

For Fleets

- Reduces ownership costs and expenses
- Reduces fraudulent activity
- Controls refueling with limits & restrictions
- Guarantees convenience and security
- Cuts vehicle installation costs (no wiring)
- Enables advanced fleet management using vehicle data

FuelOmat Gold

Scalable affordable solution:

FuelOpass – Passive entry level vehicle ID.

DataPass – Captures odometer and other vehicle information.

Like its predecessor, FuelOmat Gold increases revenues, strengthens brand loyalty, reduces maintenance costs, enhances security and can result in cost savings of up to 25%. Additional benefits of the new solution:

- Enables rapid mass deployment over large regions
- Reduces station installation and support costs
- Eliminates wires in fuel hoses forecourts and vehicles

Enhanced Profitability and Accountability

FuelOmat Gold offers a valuable tool for enhancing profitability. Orpak, a world leader in automated vehicle identification systems, has more than two decades of experience in increasing oil companies' market share, revenue as well as in reducing ownership and fuel expenses for fleets.

The elimination of wires on both the station and the vehicles simplifies installation and support, further reducing costs and enhancing profitability for station owners, oil companies and fleets.

Many oil companies are using this technology as a powerful marketing tool to build brand loyalty and to create added value for their customers.

Fleet owners enjoy greater fleet efficiency by reducing unnecessary fuel expenses and effectively preventing fuel fraud and theft. Identifying a vehicle for secure refueling has become the most effective way to control fuel expenses in fleets

Simplified Mass Deployment

Costly and lengthy installations can pose an obstacle for mass deployment of vehicle identification solutions, particularly for nation-wide retailers. FuelOmat Gold with its fully wireless components drastically reduces this deployment time - the system can be deployed within 1-2 hours at each station and within few minutes in each vehicle.

Multiple wireless terminals (WGT) are installed in the forecourt to ensure maximal coverage, redundancy and immunity to interference. The system is easily integrated with existing station automation of various vendors and can extend the retailers' current loyalty programs.

FuelOmat Gold can further reduce station setup costs for new and upgraded station by replacing the forecourt's wired data infrastructure with the FuelOmat Gold built-in wireless network to control the dispenser, OPTs and other forecourt devices.

Fast, Secure, Convenient

FuelOmat Gold offers true self-service fueling, the driver doesn't need to use a card or cash for payment. With FuelOmat Gold, drivers and fleet owners enjoy convenient and secure refueling.

FuelOmat Gold is highly secure and is theft and fraud protected. Authentication, strong data and communication encryption together with a sophisticated removal protection mechanism prevent any misuse of the system.

Scalable & Modular

FuelOmat Gold can be upgraded with additional modular components that can be added, on a "as-need basis." The solution has three different levels as shown in the table:

Solution Level	Vehicle Components	Usage
I	FuelOpass	Refueling via vehicle identification
II	FuelOpass & DataPass	Vehicle identification plus gathering odometer and engine hours data
III	FuelOpass & DataPass	Vehicle identification plus advance fleet management service based on additional vehicle information for safety, maintenance and fueling management

Backward Compatibility

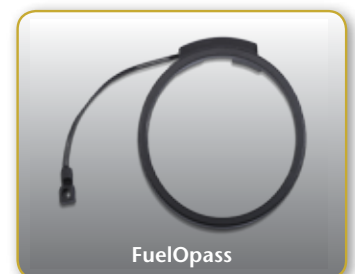
The system is backwardly compatible to support existing Orpak VIUs (Vehicle Identification Units) and station automation systems. FuelOmat Gold can be added to expand the existing FuelOmat stations to facilitate deployments in regions with an existing VIU install base.

FuelOmat Gold incorporates the VIT protocol to interface with the station's automation system, thereby allowing it to interface with existing forecourt controllers- both Orpak's and those of third party controllers.

System Components

Vehicle Components:

FuelOpass is a passive vehicle identification tag for refueling. FuelOpass has a patented removal protection mechanism to eliminate risk of theft. Enhanced protection is achieved by correlating the FuelOpass and the DataPass of the same vehicle.



DataPass is a miniature unit that connects to the vehicle bus and captures data from the vehicle CPU/BUS. It then transmits this data to the nearest Wireless Gateway Terminal (WGT) in the forecourt. There are two types of DataPass:



DataPass

1. μ DataPass that plugs into the vehicle diagnostic connector (OBD) and is intended for light and commercial vehicles.

2. DataPass that is connected directly to the vehicle bus and is used in heavy vehicles and trucks.

DataPass & μ DataPass provide accurate odometer and engine hour data and they already support the most popular vehicle bus protocols. In the future, DataPass will also capture additional vehicle information from the vehicle bus, including Idle Time, Speed, RPM, and Error codes. Such data can be utilized for advance fleet management services.



μ DataPass

Station Components

The Nozzle Reader (NR) reads the FuelOpass and sends the data to the nearest WGT using spread spectrum wireless communication.

The Nozzle Reader fits onto existing fueling nozzles and requires no wiring or external power source. NR has several mounting options that fit nozzles of various models, sizes and vapor recovery types.

Its robust plastic structure enables it to survive both the harsh fuel environment and the mechanical impacts, while maintains an appealing design.



Nozzle Reader

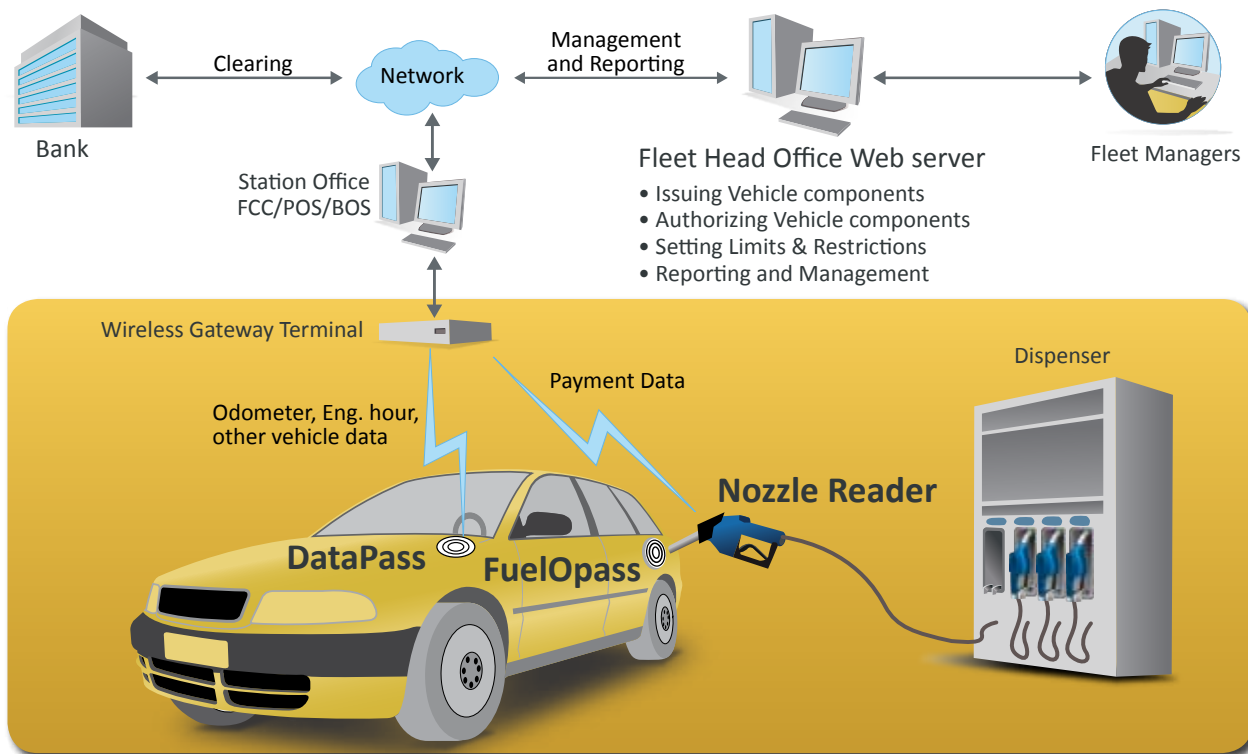
The Wireless Gateway Terminal (WGT) creates the wireless network that covers the entire forecourt. The WGT forwards the FuelOpass and DataPass data to the forecourt controller (FCC) for approval. During the refueling process, the WGT continues to monitor the Nozzle Reader signal to detect any attempt to remove the nozzle and refuel another vehicle on the same fleet account.



Wireless Gateway Terminal

The Fleet Head Office (FHO) receives full transaction information, including: number of liters, the total amount and the odometer reading. Remote access capabilities enable fleet managers to securely login, generate customized and exception reports, as well as set refueling limits and restrictions on every vehicle or group of vehicles in the fleet.

FuelOmat Gold: Architecture and Components



- Fleet Head Office Web server**
- Issuing Vehicle components
 - Authorizing Vehicle components
 - Setting Limits & Restrictions
 - Reporting and Management



ORPAK

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About Orpak

Orpak (LSE:ORPK) has been a market leader in Vehicle Identification Systems for over a decade, and its products are deployed in more than 10,000 fuel stations and 2.2 million vehicles in 30 countries across the globe. These products are distributed through an international network of subsidiaries and partners.

Orpak also provides complete station automation and convenience store management solutions (FCC, POS, BOS and HOS) and secure, PCI and EMV approved outdoor payment terminals.

With a solid reputation for offering high-quality, reliable product design, Orpak has subsidiaries in USA, Spain, Netherlands, Turkey, Romania, India and a worldwide distributor network.

Orpak has been ISO-9001 certified since 1995, and its products meet appropriate local safety standards and regulations in the markets it operates in. Orpak's global customer base includes global oil companies such as Shell, BP, Total, Lukoil, Repsol and regional oil companies such as POAS, Engen, Rompetrol, IOCL, HPCL and large fleets such as municipalities (Philadelphia, Colorado Springs), airports, mines, bus companies other corporations and the State of New Hampshire.